

**Department of Health, Social Services  
and Public Safety**



**Comprehensive Review of the  
Pharmacy Workforce  
Final Report**

Consulting  
*May 2001*

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## **Executive Summary**

### **1. Introduction**

1. Following work carried out and commissioned by the Department of Health and Social Services and Public Safety, Northern Ireland ( DHSSPSNI ) over the course of the last 2 years KPMG Consulting was commissioned to carry out a comprehensive review of the Pharmacy Workforce in Northern Ireland. The need arose from the outcomes of the above work which highlighted issues with regard to the recruitment and retention of pharmacists and the demands being placed on pharmacists within the context of changing needs and requirements. The principal focus of our study has been to identify a picture of the current pharmacy workforce in Northern Ireland and investigate in more detail, within the context of workforce planning and deployment, current and future supply and demand factors that will have an impact on the pharmacy population's ability to deliver services.

2. This is the first time such an extensive study has been undertaken and it is unique in its desire to look forward and plan for those skills which will be required, and in what format, if the Government's agenda for the future, the profession's objectives and the needs of society and service users are to be taken into account.

3. The study took into account the views of a representative sample of the entire pharmacy workforce in Northern Ireland, using the Pharmaceutical Society Northern Ireland's ( PSNI ) database and information/contacts supplied by the DHSSPSNI. The study comprised a three part approach which consisted of telephone interviews, detailed semi-structured interviews and focus groups across Northern Ireland, all conducted during the period of February to April 2001. In all, five hundred pharmacists views' were gathered via a structured telephone interview, twenty face-to-face interviews conducted and forty-five participants attended focus groups.

4. The main objectives of this report are to provide baseline information on the current pharmacist workforce in Northern Ireland, provide an analysis of the current and future recruitment and retention issues, a prediction of future demand and possible future models of deployment.

#### **1.1. Profile of the current pharmacist workforce in Northern Ireland**

5. The main source of information used to provide a current profile of the pharmacy workforce was the telephone survey and the key pieces of information gathered are highlighted below:

- there are currently 1699 pharmacists on the PSNI register. Of those on the register 50% are female and 50% are male. Approximately 12% of those on the register have been identified as being eligible for work but are not contributing at this time.
- 81% of respondents reported working in a community pharmacy, 15% in a hospital setting and 4% other (administrative/prescribing advisor).
- the majority of respondents who confirmed working in a community pharmacy described it as being independent [ 58% ]. A further 20% reported working for a small multiple with more than 4 pharmacies and 22% stated that they worked for a large multiple with more than 10 pharmacies.
- some 40% of pharmacists interviewed in the community setting identified themselves as being a pharmacy owner and another 44% as a pharmacy manager.
- the majority of hospital respondents interviewed in our survey are currently at the level of grade D [ 55%].
- 79% of pharmacists who are currently working are working on a full time basis, 18% on a part-time basis.
- significantly more of those who identified themselves as part-time workers were females
- [ 25% ], in comparison to [12%] males.
- almost 40% of community sector respondents stated that the total number of hours worked was between 41-60 hours, followed by 20% whose total averaged between 61-80 hours.
- some 96% of community pharmacists stated that they had no intentions at the moment of extending their opening hours.
- a quarter of respondents were offered flexible working hours and 22% were offered job share with significantly fewer community pharmacists being offered flexible hours or the chance to avail of term-time working, creche facilities or job share.
- results also indicated that 50% of respondents wanted flexible hours to be made available.
- 80% of respondents confirmed that they regularly took part in continuing professional education/development. Of this group 59% stated they undertook between 0-25 hours of continuing professional development/education over the course of the last 12 months with a higher percentage of hours undertaken by pharmacists in the hospital sector.
- almost a fifth of pharmacists stated that they plan on leaving pharmacy in the next 5 years either for a career break, to retire or to pursue other interests.

## **1.2 Recruitment and Retention**

Below we have highlighted the key findings and conclusions with regard to the supply factors identified by respondents during this review:

6. There is clear evidence to show that the pharmacy labour market in Northern Ireland is tight and that the shortage is increasing with 21% of respondents confirming that they currently had vacancies for pharmacist positions at their place of work, especially in the hospital sector where 81% of respondents stated that the current staffing level with regard to pharmacists was under staffed. The reasons provided were a lack of funding/adequate remuneration for new posts, a migration of individuals to working elsewhere and a desire to avail of more flexible working practices. It was also identified that this shortage is beginning to extend to pharmacy technician roles with 76% of hospital respondents stating that they felt they were currently under staffed in this area.

It was felt by a large number of respondents that the role of the Prescribing Advisors encouraged in some cases a duplication of effort and that this role needed to be reviewed in line with the plans for delivery of pharmacy services in the future.

7. There is an issue across the sector with regard to effective career planning or career progression opportunities with the many of the 30-35 age group stating they felt they could not progress further. Younger ( 20-25 years ) pharmacists were significantly more satisfied with promotion opportunities and career and personal development, supporting the general feedback that there is a lack of career planning and progression opportunities once you have been in position for a number of years. This area of dissatisfaction, affecting recruitment and retention, also extended to the view that progression along a clinical route was not rewarded.

8. Job satisfaction was raised as a continuing issue with the highest level of dissatisfaction being noted amongst those who spent time carrying out the less skilled and more repetitive areas of the pharmacist role and this was felt to be further compounded by the legislation in place, requiring the pharmacist to be present at the point of dispensation. Inadequate remuneration was also identified as an issue affecting recruitment and retention and this was especially prevalent in the hospital sector where the salaries and opportunities for advancement were reported as being much less than their community counterparts.

9. With regard to their current work situation the main sources of dissatisfaction stemmed from the perceived lack of prospects for professional advancement, working within multi-disciplinary healthcare teams and promotion opportunities.

10. We were also able to conclude from the review that the increasingly higher percentage of females predicted to graduate over the course of the next 5 years could

put a greater strain on the workforce due to the fact that there is currently a higher percentage of females than males reported to take career breaks or requiring flexible working hours, term time working, workplace creches and job share. Out of the group of respondents who reported having taken a career break, the mean was 3.5 years with the mean break for community pharmacists being of a longer duration than hospital pharmacists. Again the mean length of break for females was considerably longer than for males.

11. From the review we can see that 26% of respondents stated that they had worked outside of Northern Ireland. The majority of these had worked in the Republic of Ireland and had done so for a period of less than a year when compared to those who had worked in Great Britain for a mean of 2.9 years. This supports wider evidence of leakage of pharmacists and this was reported to be most likely at the point of graduation or qualification.

12. Factors identified as most likely to help motivate respondents to remain in their current area of work were identified as being an increase in salary and benefits, closer working relationships with other healthcare professionals, more opportunity to use and develop clinical skills and more flexible working practices.

### **1.3 Demand**

Below we have highlighted the key findings and conclusions with regard to the demand factors identified by respondents during this review:

13. There is a clear increase in demand across the pharmacy population due to the changing nature of services that are being provided and a focus on multi-disciplinary working. This adaptation of roles is especially prevalent in the primary care setting where a number of new initiatives are underway. All of this means that more pharmacists are being required and in a different way to before.

14. In the hospital sector the key areas identified as requiring integrated medicines management resource in the future are an increased focus on clinical work, clinical governance, integrated medicines management and CPD. The main type of impact which hospital respondents felt would result from these changes involved an increase in demand ( 65%) and more specialisation ( 2%). Other factors identified as affecting the demand ratio within the hospital sector were the Agenda for Change initiative and its requirement to reduce contractual hours from 39 to 37.5 per week, the expanded use of technology and the re-allocation of aspects of their role. Based on the demands highlighted above it has been estimated that a minimum of 46 additional FTE pharmacists would need to be recruited across Northern Ireland within the hospital sector to meet the current demands.

15. In the community sector the key areas identified as requiring resource in the future are an increased focus on the provision of a range of extended services in the key areas of integrated medicines management, repeat dispensing, GP prescribing advice, management of minor ailments, dependant prescribing and the general provision of more customer interaction and counselling; clinical governance, extended opening hours and CPD requirements. The main type of impact which community respondents felt would result from these changes involved an increase in demand ( 53%), a reduction in pharmacists ( 8%) and elimination of smaller pharmacies ( 1%). Other factors identified as affecting the demand ratio within the community sector were the use of technology and the re-allocation of aspects of their role. Based on the above it has been estimated that a minimum of 169 additional FTE pharmacists would be required across the Northern Ireland community sector to meet the existing and projected demands to 2006.

16. In both sectors the majority of respondents stated that they would welcome the more repetitive, lower skilled aspects of their role being re-allocated to trained pharmacy technicians. This was supported by 84% of hospital pharmacists and the main areas included dispensary duties, stock control and administration. The review also showed that there are currently varying degrees of usage of trained pharmacy technicians within the sector and that this usage was most prevalent in the hospital sector. The majority of community sector respondents reported that they did not employ qualified technicians.

17. It is important to note that the issues of remuneration was highlighted as a key factor in achieving the delivery of the range of extended services required within primary care and the development of key clinical pharmacy services in secondary care. It was felt by the participants in the community setting that the current remuneration package should be focused on the payment of a package of care and not on a prescription volume basis. In the secondary sector there was a need to address the current grading structure as well as providing the opportunity for career progression within a clinical pharmacy speciality.

18. Given all of the above it became clear that in order to deal with the recruitment shortage in a time of increasing demand it would become necessary to adopt one of three approaches; increase supply, decrease demand or devise new models of deployment for the current workforce or utilise a combination of all three factors.

19. With regard to the above, it was estimated that the supply would stay relatively static with a growth per annum of between 1-2%. Therefore it is obvious that given the background of outstanding vacancies, extended service provision and the increasing

expectations of patients/customers demand far outweighs supply and it is anticipated that it will continue to do so.

20. In order to arrive at some sort of estimated prediction of the numbers of additional pharmacists required in the system over the course of the next three to five years we have profiled the summary demand and supply information ( utilising a standard 5% vacancy rate and an inflated and deflated supply percentage to the sum of 10%), culminating in projected net provision figures. These quite clearly show that demand outweighs supply.

#### **1.4 Practice Scenarios**

21. Given the above situation it became obvious that if demand was to be met alternative models of deployment for the pharmacy workforce would need to be considered. Eleven scenarios were put forward by survey participants relative to the future deployment of pharmacists and provision of pharmaceutical services ie. changes to the tendering process for the provision of service level agreements; remote dispensing; peripatetic pharmacists; extended usage of support staff; extended hospital pharmacist roles; provision of associated primary care services on community pharmacy premises; a “Superpharmacy”; pharmacy direct services; mail order repeat prescriptions; physical adaptation of community pharmacy premises; government salaried pharmacists.

#### **1.5 Recommendations**

Below we have highlighted the key recommendations put forward as a result of the above findings and conclusions:

22. The DHSSPS should put in place arrangements to review supply and demand on a regular basis and the PSNI should take an active role in planning and monitoring this activity.

23. The profession should put in place sector retention strategies to minimise leakage of pharmacists and utilise a mix of tools considered to be most suitable to the

situation in hand. Key areas of focus could be graduate and post-graduate sponsorship programmes; career management schemes and family friendly and work life balance policies.

24. The number of pre-registration places made available in hospitals should be increased, with an appropriate infrastructure to support their recruitment and retention.

25. The role of the Prescribing Advisor should be reviewed to avoid duplication in the future delivery of services and to ensure the most effective use of skilled personnel already in place.

26. A review of the current grading structure in hospitals should be put in place including an assessment with other comparable roles in the hospital and benchmarks established with best practice standards and guidelines. It is our understanding that this is currently taking place as part of the Agenda for Change initiative and any decisions in this area should await the results of this initiative.

27. An increased focus should be placed on CPD requirements perhaps on the basis of protected time. Post graduate training on offer should be expanded and become more specialist in nature to accommodate the need for a significant and continued upgrade of skills.

28. Training should be offered to all line managers within the pharmacy profession to ensure they have the skills to provide coaching and mentoring support to less experienced members of the team.

29. Increased activity at under graduate level throughout the hospital sector including the incorporation of Practising Clinical Pharmacy Tutors, should be implemented.

30. A Working Group should be set up to look at the possibility of implementing the practise of qualified pharmacy technicians taking on more responsibility, in both the primary and secondary sectors. This should involve setting the pharmacy technicians up as a registered body, measured against national standards and benchmarks. All individuals employing pharmacy technicians must go through a suitably registered training course to enable them to supervise and manage these individuals through to successful accreditation.

31. Consideration should be given to making available the necessary additional resources to address the respective projected pharmacist workforce requirements in both primary and secondary care.

32. Further evaluative work should be carried out into new service initiatives implemented and pilots put in place based on previous experiences.

33. The DHSSPS discuss with Department of Higher and Further Education, Training and Employment the potential for increasing and appropriately funding additional pharmacy student places at Queens University, Belfast to meet anticipated supply demands.

34. Best Practice/Centres of Excellence should be set up on a regional basis in the hospital and community sectors and on a collaborative basis across sectors.

35. The following models of deployment should be considered for pilots to facilitate different models of working and service provision given the current and predicted supply/demand ratios. The extension and registration of pharmacy technician roles; the operation of a “Pharmacy Direct” service from community pharmacy premises; centralised dispensing activity; consolidation activity in relation to the physical environment and/or the contracting process; the advancement of service provision at the interface and the provision of a pharmaceutical dispensing service from new GP premises.

36. Varying remuneration packages should be piloted within the community sector, based around a greater focus on rewarding the provision of a package of care and associated services rather than volume of prescriptions.

# **1 Introduction**

This is a report to the Department of Health, Social Services and Public Safety of KPMG Consulting's comprehensive review of the Pharmacy Workforce in Northern Ireland undertaken between February and April 2001. In it we outline our methodology, discuss the results obtained, with regard to the areas of recruitment and retention, demand and models of deployment.

## **1.1 Background**

The principal focus of our study has been to identify a picture of the current pharmacy workforce in Northern Ireland and investigate through a range of survey tools possible key issues and factors regarding supply and demand in the current situation and projected for the future. This culminates in the highlighting of key conclusions and recommendations incorporating the projection of possible models of deployment of the workforce to allow effective and efficient commissioning and provision of services. These models should address the Government's agenda for the future, the profession's objectives and the needs of society and the individual. Thus it has been necessary to examine how "Pharmacy" might integrate with relevant aspects of Northern Ireland policy and national policy, for instance, improving medicines management and health education in both the hospital and community setting, providing seamless care between the hospital and the community setting, being an integral part of the primary healthcare team and facilitating the implementation of health promotion advice to both well and ill people (e.g. involvement in Healthy Living Centres). Our approach has been to review significant generic issues and not to critically review each model or compare each model against others. We were not required to examine economic issues or carry out detailed feasibility studies based on the evidence we have gathered.

Our review takes account of a customer activity survey recently carried out by PWC and builds on some initial work in the area of workforce planning carried out by the Department of Health, Social Services and Public Safety. Indeed the terms of reference for this review were set against a background of findings put forward by the aforementioned work, namely, "Pharmacy Workforce Planning - Into the Millennium, 1998" (1), "Managing the Pharmacy Workforce Crisis in the Public Sector - A report by the NI Pharmacy Workforce Planning Group, 1999" (2) and "The Future of Public Sector Pharmacy, 1998" (3). The key purpose of these reviews was to examine the supply and demand issues present and they brought out key findings as highlighted below:

- Recruitment and retention problems across the UK, accentuated by the inconsistency in the application of the public sector pharmacist grading system between Boards, Primary Care and Trusts.
- Increasing leakage of graduating and employed pharmacists from Northern Ireland to the Republic of Ireland and Great Britain.
- Implications of the Fallow Year (2000/2001) where there have been no new pharmacy graduates available for pre-registration places in the UK, apart from in Scotland.
- Higher salaries in the private sector.
- Greater demand for pharmacists in the public and private sector because of increased demand for pharmacy services, longer hours of service in the private community sector and wider application of pharmacists skills in all areas of practice.
- A higher incidence of career breaks (particularly for family reasons) in a profession that is increasingly more female in its composition.

Our review complements the Department's work through the development of strategies to aid the process of ensuring that the correct number of pharmacists are in place, working on an integrated basis and in the most effective way that offers maximum benefit to the health care team and optimal patient outcomes. This is in line with the fact that the election of a Legislative Assembly and the establishment of the Executive means that it is now an ideal time to further the process of developing a clear agenda for restructuring healthcare provision particularly within primary care.

## 1.2 Health policy context

In order to set an appropriate focus for the review and this subsequent report it was necessary to review the current situation with regard to the wider Health Policy context and the pharmacist's role within this. The Programme for Government placed an emphasis on working for a healthier people. This was supported further in the draft Public Health Strategy "Investing for Health", Nov 2000 (4), which focused on encouraging professionals to work with the community to promote health and well-being rather than focusing on the *treatment* of ill-health.

Government plans for NHS modernisation are intended to ensure a high quality, national service that is clinically sound, cost-effective and equitable. This was emphasised by Alan Milburn, speaking at Farnborough Hospital on 13 October 1999,

saying that “By the time we finish our 10-year programme of modernisation, the NHS of 1948 will be unrecognisable. It will remain true to its values but they will be delivered in new and modern ways”. The NHS white paper (5) and subsequent quality consultation document (6) identified requirements for consistent, high quality care throughout the health service and all health organisations, including primary care. Care providers will be statutorily required to seek quality improvements through clinical governance (7). The principles outlined above have recently been reinforced in the context of Northern Ireland in the recent Consultation Paper, “Best Practice - Best Care”(8). This paper, published in April 2001, focuses on the three interlocking strands of setting standards (improving services and practice), delivering services (ensuring local accountability) and improving monitoring and regulation of the services. In addition, identifying new ways for pharmacists to be involved in the delivery of NHS services has been a key principle identified in the Consultation Paper “Building the way forward in Primary Care”(9), where it clearly sets out a number of priority areas for development in primary care which are relevant to this review. These include:

- Investment in the infrastructure of primary care, including levels and quality of staff who work in primary care, out of hours services and information and communications technology.
- Promoting service development in primary care including the exploration of new models to improve access to services in primary care and examining the scope for new strategies in particular sectors of primary care, such as community pharmacy and placing more emphasis on patient self-help as appropriate.
- Promoting quality by examining opportunities for changing contracts to pay in relation to quality of services provided rather than the quantity. Promoting practice, which is based on evidence of what is effective and supporting training and continual development.
- Value for money, including the building on recent successes in promoting more rational and cost effective prescribing of drugs.
- Equality, by looking at equality implications of any policies or recommendations put forward.

The above consultation paper reinforces the clear requirement within the profession of pharmacy to work in an integrated way (e.g. an integrated public sector pharmaceutical service at Board level linking between hospitals and community pharmacies for patients who are likely to have medication related problems) as

highlighted by Barbaire de Brun when she states “Our vision is to see primary care working in close partnership with all other parts of the health and social services in a seamless system of care. It should provide convenient, accessible and high quality care to people in their own communities. Primary care professionals should work in teams to meet the needs of service users. Regardless of which organisation employs them they should work closely together, deploying their skills to the full”. Naturally, based on the above, there is a need to focus on empowering local communities and enabling those responsible for commissioning and delivering services in that community to be able to respond to these needs. Therefore the Minister’s report puts forward a number of models for consultation. These build on the abolishment of fund-holding in United Kingdom and the experience of the existing Primary Care Commissioning Group Pilots in Northern Ireland. Built around the concept of groups of primary care professionals (including pharmacists) working in multi-professional teams, based in local communities, these teams will be given the remit of improving the delivery of primary care services to the populations they serve and contributing to the commissioning of health and social care services by Health and Social Services Boards. The groups of primary care professionals would be known as “Local Health and Social Care Groups” (LHSCG’s) and may cover populations in the region of 50,000 - 150,000. These models of working are at consultative stage at present and therefore must not be assumed to be final. If they were to be officially adopted it is initially perceived that they would receive budgets for some aspects of primary care such as prescribing, practice staff, premises and information technology and eventually operate under devolved budgets for commissioning services provided.

It is envisaged that each LHSCG would be run by a Management Board, whose membership would be drawn from representatives of local GPs, nurses, social workers, pharmacists, professionals allied to medicine and community and service user representatives. A key responsibility of these commissioning bodies will be to ensure that all policy and decisions taken will effectively target health and social need through the promotion of social inclusion and the minimisation of inequality. The Government’s White Paper “Partnership for Equality” (10) also made it clear that targeting social need should be applied with renewed vigour and effectiveness.

The overall aim of the DHSSPSNI is to improve the health and well-being of the people of Northern Ireland within the resources available. It therefore must seek to increase the effectiveness of clinical interventions. As reinforced in earlier strategic documents “Well into 2000” (11) and “Health and Wellbeing: Into the Next Millennium” (12), pharmacy services are obviously part of this overall clinical effectiveness.

The White Paper and quality consultation document (6) in England and the recent “Best Practice - Best Care” consultation paper published in Northern Ireland, (8)

identify requirements for consistent, high quality care adopting the principle of Clinical Governance. Indeed one key proposal put forward for consultation in this latter document was the introduction of a system of clinical and social care governance, underpinned by a statutory duty of quality. In England this aspect of Clinical Governance is linked to the NHS Executive Controls Assurance standard “Safe and Secure Handling of Medicines” (13), which clearly identifies the role of the pharmacist in this process. The NHS Executive is also expecting that all Health Authorities will demonstrate that local frameworks for clinical governance include both community pharmacy services and the contribution that pharmacists can make to the clinical governance of other services. Therefore all health organisations, including primary care, will be statutorily required to seek quality improvements through clinical governance (7). The importance of this is further reinforced by the document “Building a Safer NHS for Patients” (14) which sets out the Government’s plans for promoting patient safety following the publication of the report “An Organisation with a Memory” (15). It discusses the new mandatory national reporting scheme for adverse health care events which will include a new independent body, the National Patient Safety Agency, established to implement and operate the above system. Pharmacists will obviously have a key role to play as outlined by the required action to reduce by 40% the number of serious errors in the use of prescribed drugs.

Whilst the extension of pharmacist roles is very relevant to both primary and secondary care there is a natural focus on the primary care sector as they are often perceived as the first port of entry into NHS based care and have an ideal positioning within the community. Community pharmacists are the most accessible primary health care professionals and are recognised by other healthcare professionals and consumers as the “medicines experts”. These factors position them for potentially greater involvement in the management of disease, especially involving treatment (16) and health education (17). The focus placed on Health Promotion and Education in government policy documents is supported by the strategic plan for pharmacy developed by The Pharmaceutical Society of Northern Ireland “Vision 2020” (18) and the subsequent publication “Vision 2020, The Next Steps” (19) and recognises the role of local community pharmacies in the evolving primary care environment.

The Commissioning Boards in Northern Ireland have been set targets, which will make a significant contribution to health promotion and social well being. There is a role for pharmacists in helping to achieve these targets e.g. via work on smoking cessation. Also Healthy Living Centres, a new Government initiative, is being established under the National Lottery Bill. Thirteen million pounds from lottery funds has been allocated to Northern Ireland to set these up in the province and pharmacist input will be a crucial part of the successful operation of these centres.

The NHS document entitled “Pharmacy in the future - Implementing the NHS plan”, published in September 2000 (20), although relating to only England and Wales, draws up a comprehensive list of changes that are envisaged in pharmacy services within the NHS. Many of these changes are pertinent to planned developments in Northern Ireland. As with the policy documents already discussed, it is based on the premise that the NHS will provide a universal service for all, based on clinical need and not on ability to pay. It addresses many aspects of future pharmacy service provision including repeat dispensing, electronic transmission of prescriptions, securing better use of medicines through medicines management programmes, partnerships with patients in the prescribing and taking of medicines, hospital pharmacists working to ensure patients’ medicines are got right early on in their stay and that they have the medicines they need as soon as they are ready to be discharged, dependent and independent prescribing by pharmacists and better use of pharmacy technicians and other support staff in both the community and hospital settings. In achieving these aims it is suggested that pharmacists will work more flexibly alongside other professionals and support staff, spending more time focusing on individual patient’s clinical needs, and in particular, helping them get the most out of their medicines. Working in a system that promotes life-long learning and their continuing professional development, and that offers patients certainty that services are quality assured.

To allow further exploration of the specific roles for pharmacists, the evidence base within the research literature has been explored. In the following sections the development and impact of pharmacy services in the hospital setting, the interface between secondary and primary care and within the primary care setting are reviewed. Central to many of the developments is the concept of “pharmaceutical care” which refers to the process through which the pharmacist takes greater responsibility for patient outcomes, the overarching issue of which is their health related quality of life. In patients receiving drug treatment, such care involves making sure that the patient is receiving the most appropriate medication, making sure that the patient fully understands the reasons for taking the medication and how to administer the medication, monitoring compliance and patient monitoring to ensure that the outcomes of the treatment are optimal (desired therapeutic effects with minimal side-effects). Greater emphasis has been given to the community pharmacy sector, simply because this is where the majority of pharmacists are currently employed. This should not be seen as detracting in any way from the excellent services provided in the hospital setting and at the interface. The numbers of pharmacists employed in other branches of pharmacy, i.e. administrative pharmacy, industrial pharmacy and academic pharmacy, is very low within the general context of pharmacist employment. The value of their work is recognised, but is not further explored within the text.

### **1.3 Pharmacist activities within the hospital service**

The role of the hospital pharmacist within the UK has changed very dramatically over the past 20 years. This evolution began in the USA in the 1970s, with the development of clinical pharmacy services in major teaching hospitals. These services were much more focused on direct patient care activities rather than the traditional distribution role and were fuelled in particular by the developments in the subject area of pharmacokinetics and by the availability of increasing numbers of potent drug substances with which to treat patients. This development of clinical pharmacy within hospital practice, led to changes in the pharmacy curriculum within Universities at both the undergraduate and postgraduate levels. While retaining a basic science foundation, courses became more clinical in nature. The situation in the USA was mirrored by the development of ward pharmacy in the UK, where pharmacists increasingly became more active at ward level. Whereas this was initially related to the ensuring that sufficient stocks of medicines were available on hospital wards and to the provision of information and advice on drug therapy to hospital doctors, as in the USA, the practice has now evolved into a truly clinical service in which clinical pharmacists play active roles in, for example, therapeutic decision making (including the development of evidence based prescribing protocols), patient education and counselling, therapeutic outcome monitoring, patient monitoring for drug related problems (e.g. drug interactions, adverse drug reactions) and discharge planning. As well as these more general activities, a number of hospital pharmacists are running specialist outpatient clinic services e.g. anticoagulant clinics. These new roles are again being supported by changes to the undergraduate curriculum in the UK (in particular within the new MPharm programmes) and via postgraduate training. Although all these services are provided within hospitals in Northern Ireland, due to low staffing levels the practice is at present not universal in all hospitals.

A large number of research studies have demonstrated the value of clinical pharmacy services both from a patient care perspective and from an economic point of view. Although much of the early research work was performed in the USA, for example, an early review by Gibson et al, 1982 (21) identified 16 studies which demonstrated probable or definite positive impact of clinical pharmacy activities including patient education and counselling, pharmacokinetic monitoring and provision of drug information. A more recent review of 104 articles, reporting on the economic advantages of clinical pharmacy services, indicated that 89% described positive financial benefits (22). It is also important, however, to note that clinical pharmacist activities do not just cut costs. One important aspect is the detection and correction of medication errors, which can be surprisingly common. For example, a study in the USA identified that serious or potentially serious medication errors occurred in the care of 10.9% of all patients in two tertiary care hospitals over a six-month period of which 28% were considered preventable (23). In a separate study, the cost of

preventable adverse drug events in one of these 700-bedded hospitals was estimated to be about \$2.8m annually (24). It has also been estimated that between 3% and 5% of all UK hospital beds are occupied by people wholly or largely suffering from adverse drug reactions (25), and recent work in N.Ireland has shown that up to 16% of elderly patients being admitted to hospital had suffered an adverse drug related event prior to admission (26). A significant number of these adverse events were associated with poor compliance with prescribed therapy (27). The role of the clinical pharmacist in helping to reduce this level of drug induced morbidity is clear.

A further literature review by Plumridge and Wojnar-Horton, 1998 (28) documented the most commonly cited pharmacist activities within the published research literature on clinical pharmacy as follows: adverse drug reaction reporting and documentation, drug information, drug interaction detection, drug therapy management, drug therapy monitoring, drug use review, educational services to health providers/patients/carers, formulary review and control, intravenous therapy (including total parenteral nutrition), medication administration and control, medication counselling, medication error detection and reporting, medication history documentation, medical team rounding, pharmacokinetic monitoring, prescribing guidelines, therapeutic drug monitoring, therapeutic interchange, therapeutic intervention and therapeutic monitoring (including target drug programmes). These authors quoted a mean positive benefit to cost ratio for clinical pharmacy services of 16.7 : 1.

Research work in Northern Ireland has also clearly demonstrated the value of clinical pharmacist involvement in patient care. This is exemplified in five recent studies. The first two studies, carried out in the inpatient setting, examined the impact of prescribing algorithms developed and tested by a research clinical pharmacist in collaboration with other pharmacy staff and medical consultants (including a microbiologist). Two separate algorithms were developed for the treatment of community acquired lower respiratory tract infections, one for children and one for adult patients. In the paediatric patients use of the algorithm halved the mean length of hospital stay (4.0 days versus 8.3 days) and the overall mean cost of the treatment for individual patients (£2463 vs £1167) (29). This was achieved through the development of clear guidelines for the switching of therapy from intravenous antibiotics to oral antibiotics when the patient's condition had stabilised and was improving. This allowed the patient to be discharged earlier for care at home. The data presented only takes account of healthcare costs and does not account for the increased suffering that being in hospital can inflict on a child (and on parents), travel costs associated with hospital visiting etc. Comparable positive results were obtained for the adult patients with the length of hospital stay being reduced from 9.2 days to 4.5 days and the total mean healthcare costs per patient being reduced from £2024 to £1020 (30). Further work in the area of infection has included the

involvement of a clinical pharmacist at an outpatient clinic providing counselling to patients who had an *H. pylori* infection (31). In this randomised, controlled clinical trial it was clearly demonstrated that the counselling input by the hospital pharmacist led to improved compliance with medication i.e. in the group of intervention patients, 92.1% took the complete course of medication prescribed whereas this level of compliance was achieved in only 23.7% of control patients. This increased compliance resulted in an increased cure rate in the patients who received the counselling from the clinical pharmacist (increase from 74% to 95%). Again pharmaco-economic analysis indicated that the management plan was cost-effective. A further study in Northern Ireland has examined the value of a hospital based community services liaison pharmacist in relation to drug related issues in elderly patients (32). It was clearly demonstrated that the liaison pharmacist produced patient benefits in terms of patient medication management, reduced hospital readmission rates and reduced wastage of patients' drugs. This latter study has been extended through funding by the Northern Ireland Primary Care Development Fund with such findings as an 80% error rate in hospital drug prescriptions, improved management of patients' own drugs which were brought into hospital, improved patient medicine knowledge at the time of discharge from hospital and better communication between hospital and primary care practitioners. It is clear therefore that all aspects of patient care during hospitalisation, at the time of discharge from hospital and at hospital clinics can benefit from pharmacy services and that increasing these types of activities should be considered by policy makers responsible for NHS reforms. There has been an increasing usage of pharmacy technicians in the distribution of medicines within the hospital setting in Northern Ireland to free up pharmacist time for these more cognitive activities.

## 1.4 Continuity of care

Continuity of care between the hospital and community environment and vice versa is an important aspect of health care. There is clear evidence that if measures are taken to improve continuity of care, this leads to more accurate prescribing, better compliance with treatment, the requirement of fewer tests and hospital referrals, greater patient and provider satisfaction and lower overall care costs (33-42). This can be achieved through the establishment of improved communication which could incorporate electronic links in line with the NHS moving to electronic health records and prescribing (43). In the study involving the hospital based community liaison pharmacist described in the previous section, the communication was achieved via fax and telephone, but clearly with the increasing development of electronic links, they will be used in preference. Community pharmacists need to consider how they could further facilitate continuity of care. For instance, many people with chronic

disease need to have aspects of their condition or medication checked regularly after discharge from hospital. Such checks are currently performed on GP or hospital premises. Providing these services in a more accessible way as part of the primary care team, and in which the NHS is provided value for money, could be a possibility for some community pharmacies. One such activity which is currently under discussion is the involvement of community pharmacists in anticoagulant monitoring.

## **1.5 Pharmacist activity within primary care**

Customers value the service that the community pharmacist provides within primary care. This was clearly shown in the recent survey carried out by PWC in May 2000 (1), which stated that on average 244 customers visit a community pharmacy every day and if extrapolated to all community pharmacies in Northern Ireland we would expect 123,000 daily visits to Northern Ireland community pharmacies. This survey also indicated that society was now looking to their community pharmacist to extend the range of services that they offered, with the main extensions of service requested including the ability to get repeat prescriptions direct from the pharmacy (41%); the home delivery of medicines (34%); the provision of a private area for discussion of health related matters (28%); the provision of extended opening hours (25%); the monitoring of drug treatments (23%) and elements of the prescribing of medication by pharmacists (22%). It is likely that this latter role of prescribing will take the form, at least initially, of dependent prescribing defined as, “the person responsible for the continuing care of patients who have been clinically assessed by an independent prescriber” (25). The various areas of activity of pharmacists within the primary care setting are summarised in the following paragraphs.

### **1.5.1 General health advice / health promotion**

Literature reviews have shown that the use of community pharmacy is high with people visiting pharmacies more often than their GP surgery. Increasingly community pharmacists are considered as a “first port of call” for health advice and are often considered to be the “open door” of the Health Service (44). This has again been highlighted in the “Best Practice - Best Care”, consultation paper (8) and positions pharmacists for potentially greater involvement in the health education, health promotion and disease prevention. Such activities are required by both well (no chronic illness) and ill patients since in well patients chronic disease can be

avoided, e.g. via lifestyle changes, and in patients with chronic illness the prognosis can be favourably modified through lifestyle modification. Community pharmacists are the only healthcare professionals who have regular contact with both well and ill patients; in addition their ease of access without an appointment and their physical situation within communities places them in an ideal position for such activities.

One of the most topical areas within this domain of activity is the provision of smoking cessation advice. This is complemented by the availability of a wide variety of smoking cessation aids in community pharmacies. Smoking remains the largest preventable cause of ill health and premature deaths and smoking cessation is an example of where community pharmacist input is currently seen as key. The results of a Medical Research Council sponsored randomised controlled trial, performed in Northern Ireland, on the impact of a community pharmacist smoking cessation programme, have recently been published (45). The results indicate clearly that the use of a structured smoking cessation programme within the community pharmacy setting can increase the chances of an individual stopping smoking by over fivefold. In a separate economic analysis, the programme used (PAS - Pharmacists' Action on Smoking) (46) has been shown to be very cost-effective when compared with other health promotion activities. This type of programme, either alone or coupled with, for example, screening of blood sugar, blood pressure and cholesterol could help provide major improvements in population health at relatively low cost.

### **1.5.2 Managing minor ailments**

A recent survey in Northern Ireland, involving a sample of 1000 members of the public, has indicated that the most common minor ailments for which the advice of a pharmacist is sought are cough/phlegm, indigestion, constipation, colds/flu, foot problems and skin conditions (47). Advice on minor ailments was the most popular choice by respondents in this survey when asked which services they would most like to see extended within community pharmacists. Pertinent to the previous section, screening tests were suggested by over 20% of respondents. It is recognised that a large number of people present to community pharmacists with minor ailments and whilst many receive OTC treatment and advice there is still a large proportion who go on to a GP to receive medication within the NHS. Yet of these individuals there is evidence to show that there is a high incidence of them receiving prescriptions for medicines which are available over the counter (48). Thus there is the potential for pharmacists to play a greater role in the management of minor ailments than at present and to prescribe OTCs within the NHS. Work in Liverpool has indicated that this approach is both effective and cost-effective. Issues around this would be that GPs would need to feel confident that the treatments and advice being provided is appropriate. The ongoing training of all grades of non-pharmacist staff within community pharmacies, together with the introduction of protocols for

the use of non-prescription drugs (which clearly state when the personal intervention by a pharmacist is required), will help enhance and standardise this service. Pharmaceutical care applies to both non-prescription medicines as well as to prescription medicines, and is especially important as more potent OTC medicines become available (49).

An increasing number of medicines in recent years have indeed been deregulated from “Prescription Only” status to “Pharmacy Medicine” status. This provides the pharmacist with a wider range of effective medicines and access of the public, through pharmacies, to a greater opportunity for self-medication. This obviously brings about a real need for effective pharmaceutical care and medicines management to achieve rational, safe and effective therapy.

### **1.5.3 Dispensing prescriptions and assistance with prescribing**

It is estimated that primary care accounts for 90% of all the care and treatment provided to patients and that over 22 million prescriptions are dispensed every year in pharmacies in Northern Ireland. All of this places a major responsibility on the community pharmacist to help manage the efficiency and effectiveness of this activity. The cost of medicines forms a large part of primary care costs (50). These costs are increasing in all developed countries, partly because of ageing populations, disease screening and better drugs, and partly because of a failure to prescribe cost-effectively (51). Appropriateness, in the context of prescribing, has been defined as the outcome of a decision-making process that maximises net individual health gains within the resources available (52), minimises risks and costs and respects patients choices (53). The Audit Commission in its report identified that if all practices adopted high quality prescribing patterns then (at prices then) £425m could be saved (54).

It is clear from our high-level literature review that community pharmacists can make valuable interventions during the dispensing of prescriptions. In Australia, for example, community pharmacists frequently make both reactive and proactive interventions to improve the effectiveness of patients drug regimens (55). Such action is also necessary in the UK since, in a study of 57 practices in Leeds, it was found that in 56% of the repeat prescriptions reviewed there was no evidence of the doctor taking a clear decision that the drug should be continued long-term and in 72% of cases there was no evidence of a periodic review in the preceding 15 months (56).

Many studies have shown that, from the perspectives of quality assurance and cost containment, in both industrialised and in developing countries, inappropriate and suboptimal prescribing is common (57). Prescribing behaviour varies widely

between doctors (58). For example, a study of prescribing of psychotropics and antidepressants in 61 practices in the Cambridge and Huntingdon area identified 8-fold differences in the prescribing of antidepressants, 11 fold differences for hypnotics and 15- fold differences for anxiolytics (59). This variation in prescribing behaviour suggests uneven care and opportunities for efficiency savings (60). Pharmacists in Northern Ireland are currently, through the use of local pilot groups and Board Prescribing Advisors, using their skills and expertise to enable GPs to prescribe in a more evidence-based and cost effective manner, through feedback on prescribing activity and through the development of practice formularies. This can lead to substantial NHS savings being made. This type of joint working builds on the well-recognised expertise of pharmacists on medicines and is likely to be an appropriate launch pad for expanding the role of the community pharmacist in a modernising NHS. Audit, especially where practitioners are actively involved in setting standards, has also been shown to have an impact on prescribing costs (61). For example, a study in Derbyshire showed joint GP-community pharmacist working identified prescribing problems in 48% of the medical records reviewed (62) and a twelve-month controlled study in eight GP practices in Doncaster showed statistically significant savings in prescribing costs attributed to “intensive input” from pharmacists, with savings being twice that of the cost of employing them (63).

Pharmacists are uniquely skilled in ensuring the safe and effective use of medicines (64) and therefore have much to offer to facilitate more appropriate prescribing. Indeed the wider role of community pharmacists in a modernising NHS has been highlighted by the fact that they are now involved in the Medicines Control Agency’s adverse drug reaction reporting scheme (65, 66).

In primary care, repeat prescribing is the most common way by which GPs issue prescriptions to patients requiring chronic treatment. However, repeat dispensing, whereby a prescription is dispensed in parts rather than in total, has the potential to decrease drug wastage, reduce NHS costs, improve medicines management and promote interprofessional liaison between GPs and community pharmacists (55, 67). A major study on repeat dispensing has been carried out recently in Northern Ireland. In this project GPs wrote prescriptions covering six months which were dispensed to patients in six instalments by their community pharmacists. The pharmacists monitored patient progress on a monthly basis during the dispensing of each instalment of medicines. The study, which involved 10 GP practices, 43 community pharmacies and 1,607 patients, led to cost savings and was well accepted by patients and practitioners alike (68). It is envisaged that repeat dispensing, currently routine practice in the South of Ireland, will become a feature of routine practice in Northern Ireland. The NHS document entitled “Pharmacy in the Future - Implementing the NHS Plan, published in September 2000 (20), clearly signals that repeat dispensing will be introduced in England and Wales by 2004.

#### **1.5.4 Provision of comprehensive pharmaceutical care / medicines management**

In Australia, a voluntary, anonymous study of incidents which could have harmed or did do harm to patients in general practice identified that about 50% involved adverse drug events (69). This study identified that errors occurred more commonly in general practice than in hospitals. Importantly, The Chief Medical Officer's expert report "An Organisation with a Memory" (15) stressed the need for the NHS to learn from its mistakes and this places an onus on all healthcare professionals to audit and review their services and put improvements in place. Clearly close monitoring of patient outcomes within community pharmacy, using a pharmaceutical care model, has much to offer in relation to reducing drug related problems.

A study carried out in 1998 (70) in Northern Ireland investigated the provision of pharmaceutical care by community pharmacists using an international scaling system. The mean total score for pharmacists in Northern Ireland was comparable to a similar study carried out in Florida, a state in which the concept of pharmaceutical care is well developed. Further qualitative work in Northern Ireland (71) has indicated that pharmacists were eager to develop their professional role in line with the Government's desire to extend pharmacist activities.

In the South of Ireland community pharmacists are becoming more involved in health care through patient education and monitoring activities in conditions such as asthma (72), with surveys suggesting pharmacy customers would welcome having diagnostic and screening services provided there too (73). In the USA there are disease management pharmacies which employ pharmacists to conduct comprehensive patient education programmes, drug-use review and compliance monitoring with information being sent to the patient's prescribing doctors (74). US community pharmacist interventions in patients drug therapies have been reported as saving up to \$20 for each generic substitution, \$35 for each therapeutic substitution and \$29 for each drug discontinuance and \$46 for drugs deemed not necessary to dispense (75).

The largest community based study to be carried out to date on the provision of pharmaceutical care within Europe was co-ordinated from Northern Ireland and involved a total of 7 European countries (76). The study (controlled clinical trial) examined the impact of pharmaceutical care provision to elderly patients who were receiving four or more prescribed medications. Intervention patients reported better control of their medical conditions as a result of the study, and cost savings associated with pharmaceutical care provision were observed in most countries, including Northern Ireland. An extensive medicines management project is currently underway in community pharmacy in Northern Ireland. The outcome of this, and similar work soon to start in England, will provide further data on the impact of an increased involvement of community pharmacists in patient care.

### **1.5.5 Dependent and independent prescribing**

The Crown Report, published in March 1999 (25) formed a comprehensive review of prescribing, supply and administration of medicines. It recommended introducing a distinction between two new categories of prescribers i.e. “independent prescribers - professionals who are responsible for the initial assessment of the patient and for devising the broad treatment plan, with the authority to prescribe the medicines required as part of that plan, and dependent prescribers - professionals who are authorised to prescribe certain medicines for patients whose condition has been diagnosed or assessed by an independent prescriber, within an agreed assessment and treatment plan”. It is envisaged that pharmacists will receive prescribing rights in the future (a consultation on nurse prescribing is currently well progressed). This may begin with dependent prescribing rights for pharmacists, however, there is the expectation that independent prescribing rights will follow soon thereafter, if not concurrently.

### **1.6 Local committee support for extended pharmacy services**

The Central Pharmaceutical Advisory Committee (CPAC), in supporting the policy and strategy laid down by government and indeed by the Pharmaceutical Society of Northern Ireland (Vision 2020) (18), have identified ways in which all pharmacists can make a positive contribution to health care generally and achieve the regional strategic objectives. Their proposals for the development of the current provision of services by pharmacists, pertinent to the discussion of workforce planning in Northern Ireland, include a focus on five key areas:

- Working with General Practitioners to further implement the development of multi-disciplinary collaboration on a general level.
- Disease/Medicine Management Strategies.
- Continuity of Care.
- Health Promotion /Public Education.
- Professional Development, Research and Information.

As highlighted above, this extension of the pharmacist’s role is seen as an area, which can add great value to the overall package of care provided to patients in terms of efficiency and effectiveness. Particular focus is also being placed on the delivery of evidence-based care and the management of quality and any associated risk through the process of continuous quality improvement.

## 1.7 Making better use of resources

This focus by the Government on making better use of all resources available for healthcare provision will obviously extend to how much use is being made of the individual practitioners' skills and expertise in carrying out the healthcare role as part of the wider multi-disciplinary team. It is clearly recognised that the comprehensive training that is undertaken by pharmacists in the fields of pharmacology, therapeutics and disease management is being under-utilised within healthcare systems in both primary and secondary care. Primary care practitioners, of whom pharmacists are an integral part, are ideally placed to deliver extended services utilising their skills both individually and in the appropriate multi-disciplinary setting as highlighted by the consultation paper "Building the Way Forward in Primary Care" - December 2000 (9). Hospital based pharmacists are also ideally placed to make increasing cost-effective contributions to the safe and effective usage of drugs within hospital, at the time of discharge and at outpatient clinics.

This expansion of role and greater use of pharmacist skills will obviously be set within a context of the advancement of technology. It is inevitable that there will be a shift to "*electronic health*" in the next few years, as identified in the Consultation Document "Building the Way Forward in Primary Care" (9), including areas such as:

- electronic repeat prescribing.
- sharing electronic health records e.g. between GP practices and other health care providers.
- electronic communications (including e-mail and closed user-group web-site).
- consumers increasingly accessing health information on the Internet.

A consultative document on an Information and Communications Strategy for the HPSS is soon to be published in Northern Ireland. The effective use of IT in the pharmacy sector in the future is a key factor when looking at future working practices and the allocation of resource.

All of the above places a greater importance on the pharmacist's skills and their development and it is of paramount importance that the manpower situation is regularly reviewed to ensure that there are sufficiently qualified and skilled pharmacists ready to meet the necessary demands placed upon them.

## **1.8 The Bacon Report and IPMI survey**

The present review is set against a supply and demand scenario that recognises that there are severe shortages of qualified pharmacists within the British Isles at present, with the largest source of employment for existing pharmacists being community. The most relevant comprehensive survey of manpower issues conducted to date has been the Bacon report to the Higher Education Authority in Ireland (77). This report concluded that an increased number of graduates, in the order of 50 per annum, would be required to meet increasing demands in Eire (Trinity College Dublin, the only School of Pharmacy in Eire at present, has an intake of 75 students per year). The Bacon Report, highlighted latent demand as an important issue to take into consideration. In a recent issue of the Pharmaceutical Journal (April 14th 2001) a summary of the results of the IPMI (Institute of Pharmacy Management International) annual salary and recruitment survey in GB was published (78). This survey received responses from companies which between them owned 4,900 pharmacies and employed 8,500 pharmacies. The respondents indicated that most vacant posts took 12 weeks to fill (range 5-30 weeks). Coastal and rural areas were cited as giving particular difficulties. The number of female pharmacists and the number of pharmacists working part time had increased from the previous year's survey. An increased number of locum pharmacists were reported to be from overseas, especially from Australia, New Zealand, India and South Africa.

## **1.9 The Future**

There is scope for community pharmacists to use their facilities and skills to extend their role in health care through collaboration with doctors and other healthcare personnel, with pharmacists having a critical role, for example, in the development of care (clinical management) pathways and individualised treatment plans (79, 80, 81, 82). The longer opening hours within community practice, provision of extended services and the increasing part-time working of females is exerting greater pressure on the Northern Ireland pharmacy workforce as a whole. This workforce issue is also emphasised by the growing number of pharmacists who choose to leave to work in other countries, especially in the South of Ireland and Great Britain and the increase in part-time working and use of career breaks. All these issues are recognised as placing a strain on an already tight market.

## **2 Methodology**

Our methodology for the review contained the following research components:

- Literature Review and Desk Research.
- Key Informant Interviews.
- Focus Groups.
- Pharmacist Workforce Telephone Survey.

### **2.1 Terms of Reference**

The terms of reference invited KPMG Consulting to work with the Department of Health, Social Services and Public Safety to:

- provide a profile of the current pharmacist workforce in Northern Ireland, including:
  - size, composition, sectoral distribution, age and gender.
  - working conditions and patterns.
  - postgraduate qualifications/continuing professional development commitments.
  - specific service commitment such as specialist hospital pharmacy services, residential homes, medicines management programmes.
- provide an analysis of the current and future recruitment and retention issues, including:
  - pay.
  - career development and specialisation.
  - practice motivation.
  - career breaks/ leaving the profession.

- working arrangements.
  
- provide a prediction of future demand, including:
  - number of pharmacists.
  - sectoral distribution including specialisation.
  - services demanding pharmacist skills and the context in which these services are delivered.
  - skill mix options.
  
- provide models whereby services could be commissioned and delivered optimally:
  - in secondary care.
  - in primary care.
  - across primary and secondary sectors.
  - multidisciplinary working.

## **2.2 Literature Review and Desk Research**

In this stage of the review we engaged the assistance of Professor James McElnay, Head of School, Pharmacy, Queens University, Belfast and Dr. Andrew Burnett, Principal Consultant, Health Economics Team, KPMG Consulting, London to pull together a contextual background of key policy decisions and influences affecting the workforce planning issues regarding the pharmacy workforce in Northern Ireland.

## **2.3 Key Informant Interviews**

We undertook semi-structured face to face interviews with a number of representatives relevant to this review. The representatives interviewed are outlined

below. Areas covered included the current and future recruitment and retention issues, current and future demand issues including the required skill base and models of deployment for the effective commissioning and delivery of services.

| <b>Representative</b> | <b>Role/Organisation</b>                             |
|-----------------------|--|
| Roberta Tasker        | Boots  |
| Mike Scott            | HSS Trusts   |
| Professor Gorman      | School of Pharmacy, QUB                              |
| Terry Maguire         | NI Centre for PG Pharmacy, Education and Training    |
| Ian Carson            | HSS Trusts   |
| Norman Morrow         | DHSSPSNI   |
| Shiela Maltby         | Pharmaceutical Society of NI                         |
| Terry Hannawin        | Pharmaceutical Contractors Committee                 |
| Brenda Bradley        | Pharmaceutical Prescribing Advisor                   |
| Aileen Crossin        | Ulster Chemist Association & Employer                |
| Brian Gafney          | Health Promotion Agency                              |
| Anne Marie Telford    | HSS Boards, Public Health                            |
| Stanley Millar        | HSS Council (Western)                                |
| Hilary Herron         | Royal College of Nursing                             |
| Pauline Hunter        | Royal College of Nursing                             |
| Martin Kerr           | Community Pharmacists (Employer)                     |
| Joe Brogan            | Guild of Healthcare Pharmacists/ Prescribing Advisor |
| Mark Timony           | Pharmaceutical Services of HSS Boards                |
| Bernard Mitchell      | Health Service Trust – CEO                           |

Our analysis will draw on specific qualitative patterns, which emerged from this exercise throughout the body of this report.

## 2.4 Focus Groups

We held eight focus groups, in the following locations, with a representative mix of hospital, community, employer and employee pharmacists across Northern Ireland.

| <b>Group</b> | <b>Location</b> | <b>Address</b>        |
|--------------|-----------------|-----------------------|
| 1            | Belfast         | Wellington Park Hotel |
| 2            | Lurgan          | Silverwood Hotel      |

|   |             |                       |
|---|-------------|-----------------------|
| 3 | Coleraine   | Lodge Hotel           |
| 4 | Newry       | Mourne Country Hotel  |
| 5 | Derry       | Everglades Hotel      |
| 6 | Enniskillen | Killyhevlin Hotel     |
| 7 | Omagh       | Silver Birches Hotel  |
| 8 | Belfast     | Wellington Park Hotel |

This was in order to gain mainly qualitative information on the key current and future recruitment, retention and demand indicators and what/how should services be delivered in the future given the current manpower situation. In all, forty-five pharmacists were canvassed through the focus groups. Originally the intention was to obtain a minimum of 8-10 pharmacists at each focus group but there was difficulty, in spite of confirmations on the afternoon of the focus group, in getting people to attend. It must be stressed at this point that given the rationale for the review, the focus groups were seen as key in proposing models of deployment for the current workforce. However we feel that a lot of valuable, relevant information was still able to be gathered from these small numbers, across a wide range of issues. We have wherever relevant augmented our findings with information from that of the key informant interviews which were very useful in providing a contextual background to any recommendations that might be made later in this report.

## 2.5 Pharmacist Telephone Interviews

In order to be able to provide an accurate profile of the current pharmacist workforce in Northern Ireland and gather representative employees views about supply and demand issues, we carried out telephone interviews with a cross-section of 500 pharmacists. Interviews took the form of a structured questionnaire which typically took fifteen minutes to complete and was made up of questions that required both quantitative and qualitative responses.

### 3 Findings

This section reports our findings from the telephone survey, informant interviews, focus groups which feed into our subsequent conclusions and recommendations which can be found in section 4.

#### 3.1 Telephone Interview Survey

We carried out telephone interviews with a representative sample of the pharmacy workforce using information taken from the PSNI, Ulster Chemists' Association and PPET databases as our baseline information. It became apparent after a while that the databases were not up-to-date and not everyone registered was actually working in or residing in Northern Ireland. The PSNI do not keep a running track of people and information regarding their current working status or conditions. Nor do they accurately track the number of pharmacists joining or leaving the register each year or the reason why.

##### 3.1.1 Profile of Survey Participants

Table 1 shows the break down of the Survey participants by gender, age group and length of time registered.

**Table 1**

| <b>Profile of Survey Participants <sup>1</sup></b> |                                   | <b>%</b>  |
|--|-----------------------------------|-----------|
| <i>Gender (N=474)</i>                              | <i>Male (N=222)</i>               | <i>47</i> |
|  | <i>Female (N=252)</i>             | <i>53</i> |
| <i>Age-group (N=485)</i>                           | <i>20-25 years (N=56)</i>         | <i>11</i> |
|  | <i>26-30 years (N=103)</i>        | <i>21</i> |
|  | <i>31-35 years (N=90)</i>         | <i>19</i> |
|  | <i>36-45 years (N=122)</i>        | <i>25</i> |
|  | <i>45+ years (N=114)</i>          | <i>24</i> |
| <i>Length of time registered (N=486)</i>           | <i>Less than 10 years (N=185)</i> | <i>41</i> |
|  | <i>10-20 years (N=164)</i>        | <i>31</i> |
|  | <i>21-30 years (N=74)</i>         | <i>15</i> |
|  | <i>31-40 years (N=31)</i>         | <i>6</i>  |

<sup>1</sup> It should be noted that the N value refers to the total number of valid cases i.e. the total number of respondents who answered the question.

|  |                    |   |
|--|--------------------|---|
|  | 41-50 years (N=27) | 6 |
|  | 50+ years (N=5)    | 1 |

### 3.1.2 Current Profile of the Pharmacy Workforce from Telephone Interview Survey

There are currently 1699 pharmacists on the PSNI register. Of those, 1167 [69%] are currently practising pharmacists. Of those on the register [50%] are females and [50%] male. Of those practising pharmacists [56%] are female and [44%] male.

In the last 12 months there have been 109 joiners to the PSNI and 105 leavers.

### 3.1.3 Employment Status

Seventy-nine per cent [387] of respondents confirmed that they were currently working as a pharmacist on a full-time basis. A further [18%] stated that they were working as a pharmacist on a part-time basis and [3%] reported that they were not currently working as a pharmacist. Six of the latter confirmed that they were fully retired and one was on a career break.

Further analysis showed that significantly more males [85%] [N = 222] than females [73%] [N = 252] were engaged in full-time employment as pharmacists. However, proportionately more females [25%] than males [12%] were employed on a part-time basis. Almost equal numbers of males [3%] and females [2%] reported that they were not currently working as a pharmacist.

Table 2 shows the current work status by age.

**Table 2**

| Age By Current Work Status<br>(N=485) | Full-time | Part-time | Not Employed as<br>Pharmacist |
|---------------------------------------|-----------|-----------|-------------------------------|
|                                       | %         | %         | %                             |
| 20-25 years                           | 95        | 3         | 2                             |
| 26-30 years                           | 87        | 12        | 1                             |
| 31-35 years                           | 81        | 17        | 2                             |
| 36-45 years                           | 71        | 28        | 1                             |
| 45+ years                             | 71        | 22        | 7                             |

Some [9%] [42] of those who reported currently working as a pharmacist [N = 463] were employed as a locum. A slightly higher proportion of females [11%] (N = 241) than males [8%][N = 209] were employed as locums.

The breakdown of respondents [N= 42] who confirmed working as a locum by age category is shown as table 3 below.

**Table 3**

| <b>Age By Locum Status</b> | <b>(N=42)</b> | <b>%</b> |
|----------------------------|---------------|----------|
| 20-25 years                | 21            |          |
| 26-30 years                | 12            |          |
| 31-35 years                | 10            |          |
| 36-45 years                | 26            |          |
| 45+ years                  | 31            |          |

### 3.1.4 3.1.4 Sector Breakdown

Eighty-one per cent [350] of respondents reported working in a community pharmacy, [15%] in a hospital setting, [2%] in the administrative sector [1%] as prescribing advisors within health boards and [1%] in other settings (Table 4). Only one respondent was employed in an academic institution.<sup>2</sup>

**Table 4**

| <b>Sector of Employment</b> | <b>(N=432)</b> | <b>%</b> |
|-----------------------------|----------------|----------|
| Community Pharmacy          |                | 81       |

<sup>2</sup> It should be noted that due to the routing of the questionnaire, those respondents who reported being locums were not asked to comment on their sector of employment and therefore contribute to the number of missing values.

|  |    |
|--|----|
| <i>Hospital</i>                                  | 15 |
| <i>Other: Administrative/Prescribing Adviser</i> | 4  |

Significantly more males [91%] [ N = 197] compared to females [75%][ N = 221] were employed in a community setting. However, the results also showed that more females [20%] than males [5%] were employed in a hospital setting. Approximately equal numbers of males [4%] and females [5%] were employed in the remaining sectors.

### 3.1.5 Community Pharmacists

The majority of respondents [205] who confirmed working in a community pharmacy [N = 351] described it as being independent [58%] (Table 5). A further 20% [70 respondents] reported working for a small multiple with more than 4 pharmacies and [22%] [76 respondents] stated that they worked for a large multiple with more than 10 pharmacies.

**Table 5**

| <b>Type of Community Pharmacy</b>        | <b>(N=351)</b> | <b>%</b> |
|--|----------------|----------|
| <i>Independent</i>                       |                | 58       |
| <i>Small Multiple &gt; 4 pharmacies</i>  |                | 20       |
| <i>Large Multiple &gt; 10 pharmacies</i> |                | 22       |

The breakdown of community pharmacy positions is shown as table 6 below.

**Table 6**

| <b>Community Pharmacy Position</b> | <b>(N=351)</b> | <b>%</b> |
|------------------------------------|----------------|----------|
| <i>Pharmacy Owner</i>              |                | 40       |
| <i>Pharmacy Manager</i>            |                | 44       |
| <i>Relief Pharmacist</i>           |                | 5        |
| <i>Second Pharmacist</i>           |                | 11       |

### 3.1.6 Hospital Pharmacists

Respondents from the hospital sector [N=60] are graded as shown in table 7 below.

**Table 7**

| <b>Formal Grade (N=60)</b> | <b>%</b> |
|----------------------------|----------|
| <i>Grade C</i>             | 15       |
| <i>Grade D</i>             | 55       |
| <i>Grade E</i>             | 13       |
| <i>Grade F</i>             | 5        |
| <i>Grade G</i>             | 3        |
| <i>Senior Manager</i>      | 5        |
| <i>Miscellaneous</i>       | 4        |

### 3.1.7 Administrative Pharmacists

Only 8 respondents described themselves as administrative pharmacists.

### 3.1.8 Working Hours

Sixty-five per cent of respondents [N = 467] confirmed that their work hours involved working outside the hours of 08:00 and 18:00 Monday to Friday. The remaining [35%] did not work outside these hours. Further analysis showed that there was some degree of statistical significance with males tending to work more outside the hours of 08:00 and 18:00 Monday to Friday [70%] [N = 211] than females [59%] [N = 241]. No statistical correlation appeared to exist in relation to age.

Some [64%] [N = 287] stated that they worked on a Saturday either very frequently or fairly frequently.<sup>3</sup> Twenty per cent confirmed that they only worked occasionally on a Saturday, whilst [16%] stated that they never did. Only [21%] [N = 260] confirmed working either very frequently or fairly frequently on a Sunday. Thirty-

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<sup>3</sup> It should be noted that, due to the routing of the questionnaire, only those respondents who confirmed working outside the hours of 8 am – 6 pm Monday to Friday were asked to comment on the frequency of which they worked after 6 pm on a weekday or on a Saturday/Sunday.

one per cent confirmed that they only worked occasionally on a Sunday, whilst [48%] stated that they never did.

### 3.1.9 Flexible Benefits

A quarter of respondents were offered flexible working hours and [22%] were offered job share. Further analysis showed that significantly fewer community pharmacists [22%] [ N = 341] compared to hospital [30%] [N = 56] or other sectors [53%] [ N = 19] were offered flexible hours. Some degree of correlation was also apparent with significantly more pharmacists in the hospital sector [20%] being offered the opportunity to avail of term-time working compared to their counterparts in either the community [5%] or other sectors [11%]. Workplace crèches were made available to significantly fewer community pharmacists [0.3%] compared to those in the remaining sectors. Similarly, the findings also showed that job share was made available to significantly fewer community pharmacists, [16%] compared with other sectors. Similarly, significantly more females [33%] ( N = 233] compared with males [11%] [N = 204] were utilising job share opportunities.

Table 8 shows the usage of working conditions made available.

**Table 8**

| <b>Working Conditions Used</b>  | <b>%</b> |
|---------------------------------|----------|
| <i>Flexible hours (N=111)</i>   | 81       |
| <i>Term time working (N=38)</i> | 37       |
| <i>Workplace crèche (N=12)</i>  | 33       |
| <i>Job share (N=95)</i>         | 39       |

The results also indicated that a large proportion of respondents [N = 321] wanted flexible hours to be made available [50%] together with term time working [26%] workplace crèches [23%] and job share [28%].

### 3.1.10 Current Remuneration Packages

Table 9 shows the current remuneration profile of the sample. Further analysis showed that hospital pharmacists [5%] [N = 60] were considerably less likely than their counterparts in the community [18%] [N = 296] to earn in excess of £40,000.

**Table 9**

| Remuneration (N=407) | %  |
|----------------------|----|
| £18000 - £22000      | 18 |
| £23000 - £27000      | 32 |
| £28000 - £32000      | 26 |
| £32000 - £40000      | 9  |
| £40000+              | 15 |

Thirty-eight per cent of respondents [N = 471] confirmed that they received additional benefits such as a company car, pension contribution, private health insurance or profit share. The remaining 62% [294] stated that they did not receive additional benefits.

Some [82%] of respondents [ N = 173] confirmed having a pension plan [35%] [N = 173] a company car [25%] [ N = 175] a profit share or bonus [21%] [ N = 173 ] private health insurance and [7%] [ N = 172] time off in lieu. Community pharmacists were significantly more likely to have a company car and a profit share bonus than those in either the hospital or other sectors (Table 10). However, hospital pharmacists were considerably more likely to have a pension plan.

**Table 10**

| Additional Benefits By Sector (%)         | Community | Hospital |
|---|-----------|----------|
| <i>Company car (N=166)</i>                | 43        | -        |
| <i>Pension (N=166)</i>                    | 78        | 100      |
| <i>Private Health Insurance (N=166)</i>   | 24        | 4        |
| <i>Profit Share / Bonus (N=168)</i>       | 30        | 4        |
| <i>Time off in lieu provision (N=165)</i> | 9         | -        |
| <i>Other(N=164)</i>                       | 2         | 4        |

### 3.1.11 Key Survey Findings

### 3.1.12 Current Recruitment Issues

Twenty-one per cent of respondents confirmed that they currently had vacancies for pharmacist positions at their place of work. The remaining [79%] did not. The results indicated that significantly more vacancies existed for hospital pharmacists

compared to other sectors. The majority of vacancies [71%] [N = 90] were for 1 pharmacist. A further 17% reported having vacancies for 2 pharmacists. The mean number of vacancies reported was 1.5.

Twenty-seven per cent of respondents [N = 426] confirmed that they found it easy to attract a suitable pharmacist (s) to fill a vacant position at their place of work. The remaining 73% described attracting a suitable pharmacist as difficult. Further analysis showed that community pharmacists found it significantly easier to attract a suitable pharmacist particularly compared to the 'other' category. Some 50% of respondents [N = 290] who confirmed having difficulty in attracting a suitable pharmacist also reported that this had affected their ability to develop the service they provided. The findings also indicated that inability to develop services had been most significant amongst hospital pharmacists.

Two thirds [66%] of respondents [N = 405] who used locums stated that they found it difficult to get cover for holiday periods and staff sickness. Hospital pharmacists experienced significantly greater difficulty in obtaining locum services compared to other sectors.

### 3.1.13 Current Motivational Issues

With regard to their current work situation the main sources of dissatisfaction stemmed from the perceived lack of prospects for professional advancement [30%] [N = 470], working with multi-disciplinary healthcare teams [29%] [N = 468] and promotion opportunities [27%] [N = 470] (Table 11).

**Table 11**

| Levels of Satisfaction   | Satisfied | Neither | Dissatisfied | Don't Know |
|--|-----------|---------|--------------|------------|
| <i>Pay (N=471)</i>   | 48        | 30      | 21           | 2          |
| <i>Promotion opportunities (N=470)</i>                                     | 32        | 32      | 27           | 9          |
| <i>Career development (N=470)</i>  | 36        | 33      | 23           | 7          |
| <i>Personal development (N=468)</i>  | 43        | 30      | 22           | 5          |
| <i>Providing flexible working arrangements to suit your needs (N=469)</i>  | 42        | 31      | 25           | 2          |
| <i>Offering prospects for professional advancement (N=470)</i>             | 39        | 28      | 30           | 3          |
| <i>Feeling professional skills and training are utilised fully (N=468)</i> | 33        | 34      | 26           | 7          |
| <i>Working within multi-disciplinary healthcare teams (N=468)</i>          | 40        | 30      | 29           | 2          |

The findings also showed that community pharmacists were much more satisfied with their current pay levels and personal development compared to other sectors (Table 12). Hospital pharmacists, on the other hand, were much more dissatisfied with prospects for professional advancement, pay and promotion opportunities. It is also worth noting that hospital pharmacists were much more satisfied with the provision of flexible working arrangements to suit their needs compared to community pharmacists. Males tended to be significantly more satisfied with promotion opportunities and career development than females.

**Table 12**

| Levels of Satisfaction<br>Sector Level                                     | At | Satisfied                            | Neither    | Dissatisfied | Don't Know |
|--|----|--------------------------------------|------------|--------------|------------|
| <i>Pay (N=428)</i>   |    | 51 <sup>4</sup><br>[25] <sup>5</sup> | 29<br>[35] | 18<br>[38]   | 2<br>[2]   |
| <i>Promotion opportunities (N=427)</i>                                     |    | 34<br>[29]                           | 31<br>[37] | 25<br>[34]   | 10<br>[-]  |
| <i>Career development (N=427)</i>  |    | 37<br>[35]                           | 33<br>[40] | 23<br>[25]   | 7<br>[-]   |
| <i>Personal development (N=425)</i>  |    | 46<br>[35]                           | 30<br>[42] | 21<br>[21]   | 4<br>[2]   |
| <i>Providing flexible working arrangements to suit your needs (N=426)</i>  |    | 40<br>[51]                           | 32<br>[24] | 26<br>[25]   | 2<br>[-]   |
| <i>Offering prospects for professional advancement (N=427)</i>             |    | 40<br>[30]                           | 28<br>[24] | 30<br>[41]   | 3<br>[5]   |
| <i>Feeling professional skills and training are utilised fully (N=426)</i> |    | 33<br>[37]                           | 35<br>[29] | 25<br>[32]   | 7<br>[2]   |
| <i>Working within multi-disciplinary healthcare teams (N=426)</i>          |    | 38<br>[35]                           | 30<br>[40] | 31<br>[24]   | 1<br>[1]   |

Respondents in the younger age groups 20-25 years and 26-30 years were significantly more satisfied with their current pay level than those in older age categories. Younger respondents in the 20-25 years category were also significantly more satisfied with their promotion opportunities, career and personal development than their older counterparts.

Significantly more of those in the 31-35 years of age category were dissatisfied with their current prospects for professional advancement. However, significantly more of those in the 20-25 years category were satisfied that their professional skills and training were being utilised.

<sup>4</sup>First figure relates to the percentage of community pharmacists

<sup>5</sup>Second figure denotes percentage of hospital pharmacists.

### 3.1.14 Continuing Professional Development

Table 13 shows the percentage of respondents who had taken part in CPD by number of hours.

**Table 13**

| <b>Hours of Continuing Professional Education/Development Undertaken During Previous 12 Months (N=387)</b> | <b>%</b>  |
|--|-----------|
| <i>0-25 hours</i>  | <i>59</i> |
| <i>26-50 hours</i>   | <i>31</i> |
| <i>51-75 hours</i>   | <i>2</i>  |
| <i>76-100 hours</i>  | <i>3</i>  |
| <i>100+ hours</i>  | <i>5</i>  |

### 3.1.15 Reallocation of workload

Some [88%] [N = 329] of community pharmacists stated that they believed that some of their work could be reallocated to non-pharmacists. The areas which they felt could be *most readily* reallocated are outlined in Table 14.

**Table 14**

| <b>Community Pharmacy: Areas to be Reallocated (N=276)</b> | <b>%</b>  |
|--|-----------|
| <i>Dispensary</i>  | <i>51</i> |
| <i>Administration</i>                                      | <i>8</i>  |
| <i>Customer service/counter staff</i>                      | <i>8</i>  |
| <i>Stock control</i>                                       | <i>4</i>  |
| <i>Preparing medicines</i>                                 | <i>4</i>  |

Some [27%] [N = 275] of community pharmacists stated that up to 20% of their day-to-day work could be reallocated to non-pharmacists. A further [34%] estimated that between 21 and 40% of their day-to-day work could be reallocated.

Some [84%] [N = 55] of hospital pharmacists stated that they believed that some of their work could be reallocated to non-pharmacists. The areas which they felt could be most readily reallocated are outlined in Table 15.

**Table 15**

| <b>Hospital Pharmacy: Areas to be Reallocated (N=41)</b> | <b>%</b> |
|--|----------|
| <i>Dispensary</i>  | 32       |
| <i>Stock control</i>                                     | 17       |
| <i>Administration</i>                                    | 12       |
| <i>Preparing medicines</i>                               | 7        |
| <i>Business management</i>                               | 5        |

Some [39%] [N = 44] of hospital pharmacists stated that up to 20% of their day-to-day work could be reallocated to non-pharmacists. A further [27%] estimated that between 21 and 40% of their day-to-day work could be reallocated.

### 3.1.16 Future Intentions of the workforce

The findings indicated that whilst [62%] [N = 479] of those surveyed confirmed that they planned to continue working in a pharmacy on a full-time basis and [20%] on a part-time basis, it was apparent that almost a fifth [18%] planned leaving pharmacy either for a career break, to retire or to pursue other interests.

Significantly more males than females planned to work in a pharmacy on a full-time basis during the next 5 years. Proportionately more females than males planned to work part-time and to take a career break. Significantly more males than females planned to retire within the next 5 years.

The majority of respondents reported that they envisaged spending the next five years working in a community pharmacy [78%] [N = 473]. This was followed by hospital pharmacies [13%], academic settings [6%] and administrative environments [2%].

### 3.1.17 Retention Issues

The factors most likely to help motivate respondents to remain within their current area of work are outlined in Table 16.

**Table 16**

| <b>Factors Likely to Motivate Pharmacists to Remain in Current Area of Work (N=480)</b> | <b>%</b> |
|---|----------|
| <i>Increase in salary and benefits</i>  | 84       |
| <i>Better career development opportunities</i>  | 69       |
| <i>Closer working relationships with other healthcare professionals</i>                 | 72       |
| <i>Improved CPD opportunities</i>   | 60       |
| <i>More flexible working practices</i>  | 70       |
| <i>Better working conditions</i>  | 59       |
| <i>Better family friendly policies</i>  | 57       |
| <i>Opportunities for movement within overall pharmacy profession</i>                    | 49       |
| <i>More variety in job</i>  | 55       |
| <i>More opportunity to use and develop clinical skills</i>                              | 73       |
| <i>Flexible benefits package</i>  | 69       |

A range of other suggestions [13%] [N = 368] were made by respondents in relation to other factors which would help motivate them to remain within their current area of work. These focused mainly on the following areas: having more time; more relevant training; having appropriate pharmacists available; providing assistance for locum help; and extending profit sharing.

Respondents from the hospital sector were significantly more likely to remain within their current area if they were given better career development and CPD opportunities, as well as improved opportunities for movement within the overall pharmacy profession.

Females were significantly more likely than males to be motivated to remain in their current area by an increase in salary and benefits, better career development opportunities, improved CPD opportunities, better family friendly policies, better opportunities for movement within the overall pharmacy profession and a flexible benefits package.

Respondents in the age range 45+ were significantly less likely to be motivated to remain in their current area of work by an increase in salary and benefits. Those in the younger age groups 20-35 years were significantly more likely to be motivated by better career development opportunities and closer working relationships with other healthcare professionals.

The most important factors which motivated respondents to remain in their current area of work were: increase in salary and benefits [26%] [N = 465]; more variety in job [24%] and more flexible working practices [11%].

### 3.1.18 Demand in Community

Over 20 suggestions were made by respondents in relation to what they perceived would be the most significant change in community pharmacy during the course of the next 5 years. The most common responses are shown in Table 17

**Table 17**

| <b>Perception of Changes in Community Pharmacy Practice in Next 5 Years: Change 1 (N=290)</b> | <b>%</b> |
|---|----------|
| Electronic Prescription Transfer  | 36       |
| Increase on advice given to customers   | 6        |
| Pharmacy Prescribing  | 5        |
| More Clinical Responsibility  | 3        |

The second most likely changes included people consulting pharmacists for advice and information [12%], electronic transfer/prescriptions [9%], pharmacist right to prescribe [7%], repeat prescribing [ 5%] and closer co-operation with GP's [5%].

The main type of impact which respondents felt would result from these changes involved an increase in demand [53%] [ N = 272], reduction in pharmacists [8%] and drive out smaller pharmacists [1%] . Thirty-eight per cent stated that no impact would result.

The results showed that pharmacists tended to be closed mostly on Sundays [91%] [N = 351], Saturdays [25%] [N = 176] and Wednesdays [3.5%] [N = 142 (Table 18). The majority of respondents [76%] [N =131] stated that their pharmacy stayed open for 9 hours on a Monday and Tuesday, [68%] [N = 142] on a Wednesday, [65%] [N = 142] on a Thursday, [69%] [N = 140] on a Friday and [39%] [N = 176] on a Saturday. Only [1%] of respondents reported staying open for 13 hours, this occurred on a Thursday and Friday.

**Table 18**

| <b>Community Pharmacy Number of Hours Open (%)</b> |                      |                       |                      |                        |                      |                      |                      |
|--|----------------------|-----------------------|----------------------|------------------------|----------------------|----------------------|----------------------|
| <b>Hours</b>                                       | <b>Mon<br/>N=131</b> | <b>Tues<br/>N=130</b> | <b>Wed<br/>N=142</b> | <b>Thurs<br/>N=142</b> | <b>Fri<br/>N=140</b> | <b>Sat<br/>N=176</b> | <b>Sun<br/>N=351</b> |
| <i>0 hours</i>                                     | 2                    | 2                     | 3.5                  | 1                      | 1                    | 25                   | 91                   |
| <i>1-7 hours</i>                                   | 3                    | 3                     | 7                    | 9                      | 6                    | 28                   | 7                    |
| <i>9 hours</i>                                     | 76                   | 76                    | 68                   | 65                     | 69                   | 39                   | 2                    |
| <i>10 hours</i>                                    | 12                   | 11                    | 10.5                 | 11                     | 11                   | 5                    | -                    |
| <i>11 hours</i>                                    | 1                    | 1                     | 1                    | 1                      | 1                    | 2                    | -                    |
| <i>12 hours</i>                                    | 7                    | 7                     | 10                   | 12                     | 11                   | 1                    | -                    |
| <i>13 hours</i>                                    | -                    | -                     | -                    | 1                      | 1                    | -                    | -                    |

Some [96%] of respondents [N = 355] from the community pharmacy sector stated that they had no plans to increase opening hours.

Almost [40%] [N = 312] of community sector respondents stated that the total number of hours worked by pharmacists in the community was between 41-60 hours. This was followed by [20%] whose total number of hours worked averaged between 61-80. Eighteen per cent of respondents [N = 309] stated that the total number of hours worked by pharmacy assistants in the community was between 61-80 and [15%] contributed between 21-40 hours. Over [58%] [N = 67] of respondents stated that the total number of hours contributed by qualified technicians was between 21-40. This was followed by [16%] who contributed between 61-80 hours. Fifty-seven per cent of respondents who confirmed having pre-registered students stated that they contributed between 21-40 hours.

### 3.1.19 Demand in Hospitals

Over 20 suggestions were made by respondents in relation to what they perceived would be the most significant change in hospital pharmacy during the course of the next 5 years. The most common responses are shown in Table 19.

**Table 19**

| <b>Perception of Changes in Hospital Pharmacy Over the Next 5 Years: Change 1 (N=60)</b> | <b>%</b> |
|--|----------|
| <i>Increase roles for technicians</i>  | 32       |
| <i>More technical involvement</i>  | 8        |
| <i>Increase in clinical pharmacy</i>   | 8        |
| <i>Pharmacists Prescribing</i>   | 7        |

A total of 19 suggestions were made by respondents in relation to what they perceived would be the second most significant change in hospital pharmacy during the course of the next 5 years. The most common change was perceived to involve more clinical responsibility for pharmacists [23%] [ N = 52]. This was followed by more responsibility for pharmacy technicians [8%], more specialised services [6%], extra time spent on the wards for pharmacists [4%] and shortage of pharmacists [4%].

The main type of impact which respondents felt would result from these changes involved an increase in demand [65%] [ N = 52] and more specialisation [2%]. However, some [19%] hospital sector respondents also stated that no impact would emerge and [14%] felt that there would be a reduction in demand.

The second main type of impact which respondents felt would result from these changes involved an increase in demand [62%] [N = 26] and a reduction in pharmacists [8%]. Thirty-one per cent stated that no impact would result.

Seventy-five per cent [ N = 63] of hospital pharmacists confirmed that they did provide emergency duty cover. The remaining [25%] [16] did not. The results also revealed that [77%] [23] of those who provided emergency cover worked on a 1 in

10 rota basis [N = 30].<sup>6</sup> The remaining [23%] [7] worked 1 in 4. None of the respondents reported working a 1 in 3 rota.

### 3.1.20 Support Staffing

Analysis of respondents' perceptions of staffing levels showed that [81%] [N = 62] felt that the service was under-staffed (Table 20). The remaining [19%] stated that pharmacist staffing was adequate.

**Table 20**

| Perception of Pharmacist Staffing Levels (N=62) | %  |
|---|----|
| <i>Adequate</i>                                 | 19 |
| <i>Under-staffed</i>                            | 81 |
| <i>Over-staffed</i>                             | -  |

Similar findings were evident in relation to the perception of pharmacy technician staffing levels (Table 21). It is interesting to note that none of the respondents from the hospital sector felt that they were over-staffed with either pharmacists or pharmacy technicians.

**Table 21**

| Perception of Pharmacy Technician Staffing Levels (N=62) | %  |
|--|----|
| <i>Adequate</i>  | 24 |
| <i>Under-staffed</i>                                     | 76 |
| <i>Over-staffed</i>                                      | -  |

<sup>6</sup> It should be noted that a number [17] of respondents did not answer this question.

Four per cent of respondents from the community sector [N = 351] reported that they did not employ any pharmacy assistants (this included counter staff). Over [82%] [N = 348] confirmed that they employed between 1 and 5 pharmacy assistants and [12%] stated that they employed between 6 and 10. The majority of community sector respondents [79%] [N = 349] reported that they did not employ qualified technicians. Just over [20%] confirmed that they employed between 1 and 5 qualified technicians. Ninety-six per cent of community sector respondents [N = 349] stated that they did not have any pre-registered students. Just over [4%] reported that they had between 1 and 5 pre-registered students.

## **3.2 Key Findings in Interviews and Focus Groups**

This section collates the various views expressed to us. Many of the same issues were raised by different people, and several issues overlapped in their origin and/or in their implications. We discuss the implications and conclusions of these various issues and draw recommendations in section 5.

Everyone we spoke to put considerable time aside to talk with us and many subsequently provided us with more information. We are grateful for the willingness of people to participate in this review and the openness that they all showed.

### **3.2.1 Recruitment and Retention**

All respondents in the focus groups and key informant interviews stated that they had been experiencing increasing difficulties with regard to the attraction, recruitment and retention of staff. This was particularly strong in the hospital sector where they gave examples of it taking up to three successive advertisements to even get a response let alone an appointment. A number of the hospital pharmacists stated that they had unfilled vacancies at present. They felt that this was largely attributable to the differentials in pay between the hospital and community sector and the lack of flexibility around remuneration packages.

As many as 50% of hospital pharmacists interviewed stated that this was in fact limiting the development of the pharmacy service in key areas, such as Clinical Governance, Procurement and the provision of Clinical Ward Level services. Some quoted that they were not meeting the national standards set regarding the provision of clinical services, although it must be noted that there appeared to be pockets where advanced systems and processes had been put in place to a greater degree than others.

The majority of hospital representatives in our survey also described how, in an attempt to attract and retain staff, they now very rarely recruit at the levels of A- C and many stated the A and B grades were obsolete. They advertise at post D level in order to increase the likelihood of attracting applicants. A minority agreed that this has inevitably meant a shift to a lower calibre and quality of staff presenting for interview.

A number of the community sector, whilst experiencing recruitment difficulties, attributed some of this to the effects of the fallow year but they did feel that the shortage of pharmacists was increasing and that there was an increasing difficulty in obtaining locum cover, which was de-motivating as it is putting pressure on the “one pharmacist” pharmacies.

This recruitment difficulty also appeared to extend to the recruitment of prescribing advisors. Although a large number of individuals interviewed, both from the community and hospital sectors, felt the role of the current Prescribing Advisors encouraged duplication of work which was not effective and could not be sustained given the current manpower situation. They felt that a review of these roles and the numbers involved should be carried out.

All participants stated that the problems regarding retention were increasing and a number identified the fact that this has been exaggerated by smaller Trusts (with fewer numbers of pharmacists) increasing the salaries attached to their posts to attract individuals, creating a competitive environment between Trusts. It was felt strongly by key informants that they should be working together and not in a divisive way. A small number stated that they were now considering moving out of the profession into other related areas of work where they felt that the remuneration and prospects were more attractive, such as Pharmaceutical Sales Representatives roles.

It was stated that the reason retention was continuing to be, and becoming more of an issue, was in the main attributable to the following:

- **Lack of career progression.**

On the community side many stated that they had joined the profession with the aim of setting up their own business but that this was becoming more and more of an improbability as the local and national multiples were moving into Northern Ireland and making this economically non viable. The economic issue was felt to be reinforced by the concerns around resale price maintenance and decreasing payment per prescription.

On the hospital side many stated that, whilst they enjoyed the clinical aspects of their job, they were becoming increasingly frustrated by the fact that the grading structure in place did not allow/encourage progression past a D/E grade. They felt that they were then either stuck at that level (and associated remuneration package) or had to progress into a more management based role reinforcing the fact that further clinical progression would not be rewarded. A number of hospital pharmacists felt that more resources should be provided to the acute hospitals to fund the provision of extra pharmacist roles and an extended career structure.

#### ■ Job Satisfaction

Both groups of pharmacists noted a low level of job satisfaction with aspects of their current role, although it was noted that hospital pharmacists were less categorical about this. In fact in those hospitals where pharmacy technicians appeared to be used extensively in the dispensary the pharmacists rated themselves as having a much higher level of job satisfaction. The main reason provided as contributing to low levels of job satisfaction was spending a limited amount of time providing advice/counselling to patients and much more in administration/management and repetitive dispensing work. They felt that this reinforced the fact that there were limited opportunities for growth or development.

Other reasons which were seen to contribute to this low level of job satisfaction included poor utilisation and acknowledgement of their skills by other professionals within the healthcare setting and limited opportunities for multi-disciplinary working.

Those in the community sector also stated that they were at times de-motivated by the amount of hours that they had to work and the lack of flexibility regarding working hours. This was particularly felt by employer pharmacists who, if they could not get locum cover due to workforce shortages in the province, had to work in excess of 50 hours a week.

#### ■ Current remuneration package

This was perceived to be considerably less than those offered in United Kingdom and Republic of Ireland and they felt that this encouraged a leakage of pharmacists. Although it was important to note that many of the interviewees felt that this leakage was mainly at the point of graduating or on the successful completion of pre-registration. Up to 50% of the hospital sector representatives also stated that they currently found it very de-motivating that they were not paid on a par with other professions in the hospital setting. A number provided practical examples of where this was happening. For instance speech therapists working a 33 hour week and getting paid on the same scales as pharmacists working a 39 hour week. Also with the advent of a change in nurse pay and nurse consultants ( of which provision has been made for 8 in Northern Ireland) now having the possibility of earning up to 45K, they felt that their package did not reflect the accountability and responsibility pharmacists currently had or would increasingly have.

#### ■ Dissatisfaction with hours

A number raised the issue of flexibility offered regarding hours and the ability to balance home and work life as key factors affecting their satisfaction with their role. This was felt to be more prevalent in the community sector rather than hospitals due to the retail type hours and working patterns. Although in the hospital sector the implementation of relevant policies and opportunities regarding flexible working conditions on offer were seen to be very much attributable to the local manager present. A number felt that the availability of the policies and flexible working opportunities should be communicated in a more effective manner and encouraged. Positive examples of where flexible hours/work-life balance systems were in place tended to be in the larger/multiple operations whereby they operated on a shift and extended hours basis enabling cover to be found as required. At least 30% of the key informant interviewees stated examples where they had had to initiate specific working arrangements to accommodate individuals' needs regarding working hours and family commitments.

#### ■ Provision of extended services

The majority of respondents expressed concern about growing expectations to deliver more without the proper remuneration or increase in resources, which they found de-motivating. The general view expressed was that whilst they recognised that aspects of technology and the use of support staff to a greater degree could alleviate some of the pressures, it was only putting off the inevitable.

#### ■ Interest in travelling and using their skills in another country and setting

Many survey participants provided examples of where either they had travelled or where they had lost pharmacist employees who wanted to take a career break for travel reasons. They also stated that they felt this practice was on the increase with the majority either leaving at the point of graduation or upon completing their pre-registration year. Anecdotal evidence suggests that there will be at least 12 leaving at the time of graduation in the year 2001/02. It was also felt by a number of informants that Queens University, Belfast pharmacy graduates have built up a good reputation in the wider marketplace (indeed historically multiples like Boots in NI have been used to locate graduates for other parts of the UK and RoI) and therefore are a valuable commodity. There is no effective monitoring of pharmacists on or off the register so it is difficult to form conclusions.

#### ■ Regulations currently in operation

A number of community pharmacists stated that they found the current legislation requiring them to be present at the time of dispensation very frustrating and limiting and it appeared that the hospital sector were much more advanced in their

management of this area. Community pharmacists saw this as a factor influencing their ability to develop and extend their range of services, especially where there was only one pharmacist employed. Whilst around 50% felt that this legislation needed to be changed the other 50% expressed reservation and concerns with regard to patient safety implications.

### **3.2.2 Future Demand**

The majority of respondents expressed general concern about meeting the expanded service requirements of the role (as outlined earlier in this report) with little or no increase in resources.

The community sector also felt strongly that the way the Government currently paid on a script basis encouraged a focus on volume and not value and this went against what was being discussed and offered as the way forward for the pharmacy profession. All community pharmacists interviewed felt that the current remuneration structure needed to be reviewed and different models investigated which rewarded the provision of care in the community and not just the dispensing service if development of the service in the community was to be leveraged effectively.

The key factors affecting demand in the near future and beyond were identified within the hospital and community sectors as follows:

#### **Hospital Sector**

- **Use of technology**

This, the majority felt, would be a positive factor and they stated that it could help reduce time spent chasing up patient records etc and felt this could help save up to 5-10% of their time. Another aspect they felt would be advantageous would be the implementation of expanded electronic procurement responsibilities within the pharmacy department. They felt that this type of technology could be used to achieve economies of scale, based in acute hospitals and providing a service to others within the region. Again as outlined earlier there was evidence of varying degrees of advancement in this area. A final area where it was felt technology could be used to help release pharmacist time was through the use of an electronic prescribing/dispensing system. It is necessary to point out that respondents felt that whilst the technology would in the long-term free up valuable resource, it would necessitate initial resource to set it up and for the on-going management of the system. Obviously the above would necessitate substantial investment but the majority felt that it was necessary to improve the service provided in the ways

required and would help free up pharmacist time in an under resourced area to focus on clinical work.

- **Change to a clinical specialist focus**

A number of hospital pharmacists have moved towards this model already and some surveyed are currently spending up to 60% of their time focusing on clinical aspects. They were also those who rated themselves as having the highest level of job satisfaction. In contrast others are spending as little as 15/20% of their time in this area and are still focused on dispensing and administrative tasks. All respondents felt that this was an inevitable way forward but its advancement was being severely limited by resource issues. This specialist focus is also in line with other professions such as Consultants.

- **Pharmacist Free Dispensary.**

All respondents in hospitals supported this and it was evident that certain hospitals had progressed down this route to the limits of the legislation, but others had not. To progress to the final destination there would need to be a change in the legislation and it is also important to note a shortage of pharmacy technicians was reported.

- **Involvement in clinics**

These are currently often run by consultants or practice nurses eg. warfarin, asthma, arthritis clinics. Again a number of pharmacists have taken over responsibility for these but this practice is limited due to resources and the development of specialist expertise.

- **Pre-admission clinics**

Hospital pharmacists felt very strongly that there should be a pharmacist present at the point of every admission to take patient records and implement systems that utilise the patient's drugs more effectively. This is generally considered to be labour intensive. They felt this intervention at point of admission and discharge was vital to improving communication and the package of care provided. A number suggested that new roles be put in place at the Interface such as Community Liaison Pharmacists or Bridging Pharmacists. Some pilots are currently underway with one operating from a hospital setting and one from a community setting. Again respondents felt that this would be an inevitable demand on resources.

- **Increased emergency duty cover**

The majority of hospital pharmacists felt that a 24 hour 7 day a week coverage was going to become the norm with the advent of a more clinically focused role. They felt that if they were going to be provided with more responsibility and remunerated appropriately then there would be an onus on them to provide this aspect of a professional service. The majority of hospitals represented in the survey run Emergency Duty Cover (EDC) currently but only one reported a 24 hour service provision. It is important to note that some respondents did feel that this would reduce the motivation to work in hospitals as it could cause issues with regard to work/life balance.

#### ■ Clinical Governance

All hospital respondents felt that this was a vital area to focus on and few stated that they had adequate resource in this area. It was felt that time lost now could not only take an in-proportionate amount of time to deal with later but would mean that not all hospitals were successfully addressing any errors in prescribing and administration that could possibly be avoided.

#### ■ Research and Development

A number of respondents highlighted this as a key area that would take up additional resource quoting complex cancer drug treatments (and the subsequent vital interface involvement) and renal developments as priorities. At least two hospitals spoken to stated that whilst they had managed to source additional funding in these areas, this resource had been exhausted already.

#### ■ Agenda for Change

Some respondents mentioned the importance of taking into consideration the impact of the Agenda for Change initiative, which is planned to come into effect with regard to pharmacists in the hospital sector in 2003. This states that their contracts of employment with regard to working hours would be reduced from the current status of 39 to 37.5 per week.

### **Community Sector**

#### ■ Extended Opening Hours

This was felt to be an inevitable move by some community pharmacists interviewed but not necessarily a welcome one. Those from smaller pharmacies felt that it would

mean added pressure to work even longer hours and some expressed a concern over the number of hours worked in relation to aspects of patient care. There was a strong feeling from at least half of this group that if extended hours was going to become the norm that there would be a necessity to employ a 2<sup>nd</sup> pharmacist in all pharmacies and that the DHSSPSNI would need to facilitate a remuneration package that facilitated this.

#### ■ Extended Services

All pharmacists stated that they felt the need to provide extended services would mean an increase in demand for their skills and that these would be in the area of the provision of more clinical, counselling and motivational services. Examples they felt would be most likely in the near future were medicines management, repeat dispensing and dependant prescribing, outpatient clinics, smoking cessation, general health promotion activities and partnership with GP's to provide prescribing advice. A number of these initiatives are underway already but are funded by Boards. Evaluations would need to be carried out before any real estimation of actual demand could be calculated. Some examples provided include anecdotal evidence that the most successful and well developed trials in community pharmacies in the above areas were where the operation employed two pharmacists.

#### ■ Clinical Governance

All felt that this would be an area that would take up more time in the future but could not allocate a percentage to it. They felt that with the advancement of extended roles and possible extension of technicians roles, that this area would be crucial. They also felt that CPD was an area that needed to be expanded and more tailored to suit the individual rather than adopting a generic approach.

#### ■ Expand the role of pharmacy technicians

The majority felt that this was a positive factor and would free up their time to get involved in the advice or more clinical aspects of the role, which the majority stated that they would enjoy. Some expressed concern over technicians taking on clinical responsibility and patient representative groups felt that it was important that the patient received advice from the pharmacist at the time of dispensation. The multiples seemed to be the only community pharmacies whom we interviewed as part of our survey with clear career structures for support staff (attributable to cost by some other pharmacists) and this could be an area for development across the board. Again some respondents felt strongly that it was better financially, and with regard to patient care, to employ a 2<sup>nd</sup> pharmacist rather than technicians.

#### ■ Legislation

The majority, as detailed above, felt that this was restricting but necessary in some cases. Many could not conceive how, unless this legislation was changed, “one man” pharmacies could be released from their premises to carry out other duties.

#### ■ General Sales

Around half of pharmacists interviewed expressed the view that the general sales aspect of their role took up to around 10% of their time and that this could be removed to free up time. There was concern expressed from Health Promotion and Customer Groups that this could lessen the unique opportunity that community pharmacists had to interact with the public and be involved in key aspects of health promotion and prevention. They felt that it was important to understand that the concept of Healthy Living Centres was both physical and holistic, focusing on the interaction and involvement with the local community. A variation on the above was that the pharmacy should become an “ethical” pharmacy and carry out dispensing and a range of extended services, but only sell products related to health. Perhaps focusing on vulnerable group related products, such as those for mothers and babies, products for the disabled and elderly and safety around the house etc.

#### ■ Reduce time spent on buying drugs.

A number felt that they spent up to as much as 10-15% on procuring drugs and that it was getting more and more difficult to obtain value for money prices. A suggestion was that local contractors should get together to form consortiums to increase buying power and that this should be done using technology. It is important to note though that with regard to the formation of consortiums that a proportion of contractors did express concern over facilitating individual businesses to work together as it had not been the norm in the past.

#### ■ General technological advancements

The majority felt that advancements in this area, for example, the electronic transfer of prescriptions, would help improve the overall service and free up time spent chasing badly written prescriptions, incomplete prescriptions and necessary paperwork. Again the majority indicated that this could save up to 5-10% of their time on a daily basis. They also felt that a patient registration system would be necessary if certain community based programmes such as medicines management, would work effectively.

Again as mentioned in the section of recruitment and retention a general comment by all community pharmacists was that the current remuneration policy would need to

be reviewed before a number of extended service options would be viable. They also felt that there would need to be money and time spent on CPD and refresher courses if they were going to get involved in more clinical aspects of work.

### **3.2.3 Practice Scenarios**

The interviews and focus groups highlighted a number of key issues and factors that constitute a range of possible scenarios for the future deployment of pharmacists and provision of pharmaceutical services.

#### **Scenario 1: Tendering for the Provision of Service Level Agreements**

Over 50% of pharmacists suggested that this model could operate on the basis of both community and hospital pharmacists having the opportunity to tender for running advice/living well centres to provide a range of specialist service in relation to the extended roles discussed earlier in this report. Pharmacists would organise themselves into what they thought was the best structure to present a proposal to the Government as to how they could best run the service in the designated area, the costs involved and the results expected.

This approach would allow pharmacists to take responsibility for how much additional work they wanted to deliver and the extent to which they wanted to grow the business.

This was in general considered to be a possible model to pilot but remuneration and available resources were highlighted as being key to the success of the implementation and refinement of the above.

#### **Scenario 2: Remote Dispensing**

This was mentioned by a small percentage of key informant interviewees who felt that a system could be put in place to take away the repetitive aspect of dispensing so that time could be freed up for the provision of extended services.

#### **Scenario 3: Peripatetic Pharmacists**

An idea put forward by a large number of participant groups involved was that of a peripatetic pharmacist. This would involve community pharmacist contractors in a given locality getting together to form a consortium and fund the recruitment and

payment of one (or required number) peripatetic pharmacist/s. These individuals could then be used to provide added value services, in line with the requirements of the commissioning body tender specification or be utilised as best fit by the consortium.

Some pharmacists, whilst agreeing that this would address some of the issues around workforce shortage and provision of extended services, felt that they would have concerns over using this model unless it could be assured that the current community pharmacist in place also had a role to play in the provision of these extended services and that they were not just forced to occupy a purely dispensing role.

#### **Scenario 4: Extended Usage of Support Staff**

As indicated earlier the majority of our respondents in the survey highlighted the value extending the role of support staff could bring, freeing up pharmacists time. This is currently used particularly well within a number of hospitals involved in the survey, whereby they have freed up pharmacists to carry out vital clinical work on wards in conjunction with Consultants by using highly trained and experienced pharmacy technicians to manage a large percentage of the day to day running of the dispensary.

#### **Scenario 5: Extended Hospital Pharmacist roles**

It was generally felt in this area that it was more difficult to source possible models of deployment that do not require additional resource due to the extreme shortage they have been experiencing. We have therefore listed below key roles for hospital pharmacists that need to be taken into consideration when projecting future models of deployment:

**Procurement** - they feel that due to their current set up that there should be a dedicated procurement pharmacist specialist appointed at each hospital as part of the overall clinical team.

**Clinical Governance** - again all respondents highlighted this as a key area where developments were being delayed because of a shortage of resources. A number felt that there was a need to have a dedicated pharmacist managing this area for each acute hospital and ensuring that best practice were shared. They felt this could be managed more effectively if relevant technology was introduced.

**Clinical Lead Pharmacist/Consultant Pharmacist** - a number felt that there had to be a focus on the specialisation of clinical work and that all grade D pharmacists and above should be on wards providing patient counselling and clinical care to a greater degree (upwards of 60% and in line with the National Benchmarks). Also Government is expressing the view that in order to secure optimum levels of clinical effectiveness, quality of care and value for money, specialised services must be concentrated on fewer sites with locally accessible services being provided for more routine procedures.

**Liaison Pharmacist** - this was thought to be a role in hospitals where the pharmacist in question is responsible for the management of complex drug regimens at the interface between the hospital and the community to ensure continuity of care and share best practice as applicable.

**Admissions** - They felt that pharmacists should focus more on admissions to ensure patient medication is appropriate early on in their stay and where feasible the medicines the patient brings to the hospital utilised. They also expressed a view that the discharge process must be managed more efficiently and effectively and that this would require extra resource.

**Scenario 6: Provide other primary care services on community pharmacy premises**

Some respondents felt that an area worthy of further examination was that of pharmacists working with other primary care providers. Already for example a number of NHS GP's provide facilities for private practitioners (e.g physiotherapists, complementary medicine practitioners) to practise on their premises, on the condition that a proportion of their NHS patients receive treatment free of charge. They felt that the high street location of most community pharmacists makes them literally well placed to become involved in such initiatives.

Working in collaboration with the LHSCG ( if this is the model chosen for implementation following the on-going consultation period), community pharmacists could establish wider primary care facilities (and/or walk-in centres) on their premises to manage a substantial number of minor ailments which pharmacists currently refer to GP's .

**Scenario 7: Superpharmacy**

This model was put forward by a small percentage of community pharmacist employees but was supported by a number of other respondents. Community pharmacists obvious concern was that there would be an affect regarding the sale of their premises.

This model would be based around the consolidation of community pharmacist outlets to enable lower overhead costs through an economy of scale. This would ultimately mean smaller community pharmacies closing and the consequences of this would have to be considered to ensure that there would be adequate service provision in all areas within Northern Ireland. However the Essential Small Pharmacies Scheme could facilitate continuity of service provision. Also the criteria used to base the decision upon whether amalgamation would be suitable should be considered and could include possible criteria such as the scope of other health service facilities, the availability of public transport, the age and distribution of the population being served etc.

#### **Scenario 8: NHS Direct**

NHS Direct was mentioned by some respondents, but in general was not thought of as an ideal model due to the lack of face to face interaction. Although some groups felt it could be used by the community and could improve the accessibility of services and meet currently unmet consumer needs. Aspects of a Pharmacy Direct service were also mentioned by a small number of pharmacists involved in the survey, focusing on the provision of a wider range of services/care and as a result possibly taking people out of doctors surgeries.

This model could allow the development of agreed protocols between GP's, nurses and pharmacists which could result in a consistent approach in supporting patients who require help and advice on the self-management of minor ailments.

#### **Scenario 9: Mail Order Repeat Prescriptions**

This model was not supported by the majority of individuals involved in the survey, with the only benefit being stated as accessibility. Most felt that the delivery of medicines to the home should be carried out as part of an overall service provision. Some felt that perhaps highly trained pharmacy technicians could help in this area of work.

Most were cautious of it as they felt that there were great health risks associated with medication being delivered by the ordinary postal system. Also if you used the

method of “ Special Delivery” packages then there would be a greater expense and also an onus on the addressee to sign for it and be present.

Other pharmacists in our survey strongly felt that this type of method would not allow for the effective intervention or medicine management regarding that patient and would negate the ability for individuals to ask questions or receive advice from the pharmacist.

#### **Scenario 10: Physical Adaptation**

In this model the participants suggested that the community pharmacist would be re-orientated to the supply or sale of ethical only products, encompassing prescription products, OTC sales, complementary alternative health care products and appliances for safety around the house and a focus on supplying products that may be necessary by the more vulnerable groups such as, the elderly, disabled, children and young mothers. In this model the pharmacist would discontinue the sale of general commercial merchandise. This model could also be extended to aspects of the other models mentioned. For example the pharmacy premises could house other healthcare professionals relevant to the needs of the local community e.g. women’s health clinics, pain management etc.

#### **Scenario 11: Directly Employed Pharmacist**

A small number of pharmacists suggested that some pharmacies could be run on a salaried basis and that for those who were in agreement their current contracts could be bought out by the DHSSPS for a negotiated and agreed sum.

### **3.2.4 Remuneration associated with models**

A key factor identified by nearly all participants in relation to the success of the implementation of the above models was the remuneration package associated with the models. The survey findings highlighted the fact that for the hospital sectors there is a desire to address the current pharmacist grading structure in line with consultants basic pay based on a top-down approach, culminating in new salary scales and grades as required.

A large number of community pharmacists stated that they would be keen to get involved in the provision of extended services (if not in all areas then as part of a consortium delivering a range of services across an area) but felt that they should be

paid for the value of services offered and not on the volume of prescriptions put through the system. A number of possible suggestions included:

- patient registration system and services to be paid for on the basis of the provision of a package of care especially for key interventions around health promotion and prevention. Either on a per head or retainer basis.
- re-allocation of some of the current script fee to fund the above.
- reward pharmacists for successful interventions which contribute to more effective health promotion/medicine management process. For example in Antrim they currently run a scheme which pays pharmacists to facilitate the collection of old medicines or in the South of Ireland they reward pharmacists who, after intervention, have clearly demonstrated that the patient would not benefit from having the medicine provided.
- operate Government owned pharmacies whereby the pharmacist is paid a salary. As the number of opportunities to own a Health Service contract decrease then this could be a possibility for many pharmacists.
- cap/ reduce the payment for scripts based on the throughput of the pharmacy or the number of pharmacists employed. This was with the intention of encouraging pharmacists to employ a 2<sup>nd</sup> pharmacist to enable the improvement of services through flexibility and skill mix.
- Partnerships where a number of pharmacists are paid a salary to provide services that are deemed important in the area that they are in.

## **4 Conclusions**

In this section we will consider the supply issues with regard to the pharmacy workforce and review these in light of the initial survey findings we have with regard to the predicted demand over the next 5 years. Following on from this we look at the key implications falling out of the above and suggest some recommendations as highlighted in section 5 of this report.

### **4.1 Supply of Pharmacists**

Before we look at the key inflows of the supply equation with regard to the pharmacy workforce it is important to note that it was difficult to gather accurate, conclusive figures due to a lack of profiling and monitoring of movement into, within and out of the pharmacy workforce. Therefore we have utilised the best evidence available including anecdotal evidence from interviews and focus groups along with Pharmaceutical Society Northern Ireland (PSNI) data and information from the previous Pharmacy Workforce Planning document completed in 1998.

The supply of pharmacists in the Northern Ireland workforce, is in the main determined by:

- Students graduating from The Queen's University, Belfast. Based on figures supplied by the School of Pharmacy at Queens there is a projected increase in the number of students graduating from an average of 67 over the past three years (not taking account of the fallow year) to 105 from 2003 onwards. It is also projected from The Queen's University, Belfast that this supply stream is projected to stay steady at 105 until 2005 and beyond.
- Pharmacists joining the register from outside of Northern Ireland.
- Pharmacists returning to work after a career break.
- Pharmacists re-joining the register after employment elsewhere.
- The existing stock of pharmacists already available in the workforce (including both part-time and full-time).
- Pharmacists leaving the register for a variety of reasons as highlighted above

We will now look at the above in terms of the current and predicted numbers over the next 5 years. Table 4.1 below is based on the assumption that, when reviewing the previous DHSS Workforce Planning exercise carried out in 1998, the majority of assumptions utilised are still applicable to the current situation and that the figures provided from the Pharmaceutical Society Northern Ireland are reflective of the actual situation. We have assumed that there has been a slight increase in the numbers leaving Northern Ireland (ie. not available for work) at the point of graduation and therefore at subsequent registration. This is based on best evidence from all sources and the fact that the average leavers over the past 10 years, as dictated by PSNI, has been 33. We have assumed a cumulative increase of 3% with reference to the numbers leaving year on year. We have also assumed that the numbers identified as joining the register will increase on a cumulative basis of 1% per year, based on the fact that this has been the historical average over the past 10 years.

Obviously there is some element of wastage concerned, but we do not feel based on our survey that there is any reason to expect that the percentages will change substantially over the next few year with regard to this area.

**Table 4.1 Projected Supply of Pharmacists in NI ( 2001 - 2006 ).**

| <b>Supply</b>   | <b>2001<br/>(current<br/>position) (July)</b> | <b>2002</b> | <b>2003</b> | <b>2004</b> | <b>2005</b> | <b>2006</b> |
|---|---|-------------|-------------|-------------|-------------|-------------|
| Queens University Graduates                                     | 67  | 84          | 105         | 105         | 105         | 105         |
| Those entering the register<br>(outside of Queens<br>graduates) | 42  | 43          | 44          | 45          | 46          | 47          |
| Those leaving the register                                      | 105   | 108         | 111         | 114         | 117         | 118         |
| Those currently registered <sup>1</sup>                         | 1699  | 1703        | 1722        | 1758        | 1794        | 1828        |

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<sup>1</sup> Denotes the number on the pharmaceutical register prior to July 2001

|                              |      |      |      |      |       |      |
|------------------------------|------|------|------|------|-------|------|
| Projected number on register | 1703 | 1722 | 1758 | 1794 | 1828  | 1862 |
| Net Increase                 | 0.2% | 1.1% | 2.2% | 2.0% | 1.9 % | 1.8% |

Whilst for the above we have assumed that all key factors stay the same we have highlighted below areas that could have an effect on the supply equation. They include:

- **Punt/Pound Equilibrium.** If achieved this could have the effect of decreasing the supply of pharmacists in the Northern Ireland marketplace.
- **More effective utilisation of the available workforce.** As the statistics show there is some potential for encouraging skilled, qualified pharmacists back into the workplace. Evidence supplied by the PSNI and DHSSPSNI suggests that this figure is at present close to 200. This represents a substantial percentage (12%) of available pharmacists to engage in dialogue with. It is important to bear in mind that when the last Return to Practice Course was communicated only 12 out of a possible 233 attended.
- **The Queen’s University of Belfast** increasing their intake and subsequent output of pharmacy graduates. Professor Gorman has indicated that the intake will stay static at around the 105 unless otherwise agreed.

In conclusion, based on the above analysis and assumptions we are predicting that the supply of pharmacists over the course of the next 5 years will increase, on average between 1-2% p.a.

## 4.2 Demand for Pharmacists

In line with the above discussion around supply it was difficult to obtain accurate data on future demand. This is in the main due to the fact that there is a lack of published data with regard to the time involved in delivering extended services and indeed what new services are to be delivered and how.

Therefore we have developed a number of predicted demand scenarios and conclusions around the most likely assumptions that were brought out in our survey.

The demand for pharmacists can be seen to be a factor of:

- type/range of services that are to offered to patients/customers.
- how these services are delivered, including a focus on organisational form and allocation of roles and responsibilities.

Based on our survey findings we have been able to identify a number of key factors which would affect the numbers of pharmacists required and these are highlighted below:

## Secondary Services

- **Agenda for change.** This is an initiative which is ongoing at the moment and which incorporates a proposal to reduce the contractual hours pharmacists would have to work by 1.5 hours per week.
- **Procurement.** Respondents felt this would be a key area of focus that requires a link into clinical governance and management across regions.
- **Focus on Clinical Work.** In general the majority of participants felt that there needed to be a greater focus on providing clinical expertise and the more effective usage of their recognised roles as medicines experts and that this would require extra resource.
- **Clinical Governance.** This was seen to be a major factor in the hospital sector as a number of respondents did not feel they were spending enough time on it and that this could greatly hinder the team's ability in future years to provide the quality of care required and the adherence to standards.
- **Interface management.** Again the majority felt that this was a key area for focus and that there should be a lead pharmacist to the equivalent of 1FTE per major hospital.
- **Involvement in Clinics.** This covered specialist clinics where the key focus was on the use and monitoring of medicines in therapy and in the provision of individualised patient education.
- **Pre-admission clinics.** Hospital pharmacists felt that it was vital that they were present at the point of admission to manage the process effectively and encourage the economic usage of the patient's own medication. This is seen to be a very labour intensive role and again they felt that there was a need for more resource in this area with a number quoting a minimum of the equivalent of 1 FTE .
- **Increased hours of service provision.** The majority of participants felt that if they were to gain the appropriate clinical focus in their roles and extend their responsibilities that they should operate on a 24hour basis. At the moment the survey showed approximately 75% operate an EDC cover.
- **Research and Development.** Again a number felt very strongly that this would be key in ensuring that they added value to patients and brought about the required benefits. Again felt that they needed in major hospitals a minimum of 1 FTE dedicated to this.

- **Use of technology** . The majority felt that this would be a positive factor if utilised effectively and that it could help reduce time spent chasing patient records and contribute to the maintenance of high standards and adherence to Clinical Governance standards. A number of respondents felt that up to 10% of their time could be saved.
- **Re-allocation of roles**. The key areas where respondents in our telephone survey felt that aspects of their current role could be most easily and effectively re-allocated was in the dispensary (32%), stock control (17%), administration (12%), preparing medicines (7%) and business management (5%). The key person in the team that they thought could take on board a lot of this work was that of a qualified Pharmacy Technician.
- **CPD Requirements**. In general the hospital sector felt that the time spent in this area would and should increase.

#### **Primary Care Services**

- **More clinical responsibility/ extended services**. Key areas identified earlier as being the most likely “initial” extended services were medicines management, repeat dispensing, GP prescribing advice and domiciliary care.
- **Use of technology**. In the main this referred to the electronic transfer of prescriptions and prescribing through email/internet with [37%] stating that they felt this would be a main change in community pharmacy in the future.
- **Increase on advice given to customers**. Based on our evidence this was considered to be in the general sense of being able to take more time to counsel and interact with customers/patients whether that was face to face or over the phone/internet.
- **Clinical Governance**. As highlighted in the section above with regard to hospitals this was seen as a key factor in the community sector. In fact many felt that this would be an even greater challenge in the community sector.
- **Re-allocation of some responsibilities**. As stated earlier, some [88%] of community pharmacists surveyed felt that some of their work could be re-allocated to non-pharmacists. The areas which the community sector felt could be most readily allocated were in dispensary duties with [51%] supporting this, administration [8%] and customer service [8%].

- **Extended Opening Hours.** Extended opening hours was not necessarily seen as a desired factor by our survey participants ( with 96% stating that they had no plans to extend opening hours), although many assumed it would be inevitable.
- **CPD Requirements.** In our survey over 88% stated that they had taken part in CPD up to a maximum of 25 hours in the last 12 months and it is likely that this will have to increase, affecting the demand equation.

As indicated earlier we can only give a flavour of what the likely demand numbers are to be, as there is not enough factual evidence to make our recommendations in this area conclusive. We have chosen to look at a few examples based on the most likely assumptions highlighted earlier in this report. These are outlined in tables 4.2, 4.3 and 4.4 below.

**Table 4.2 Projected Demand Figures - Secondary Care Services**

| <b>Demand</b>   | <b>Assumption Used</b>                                     | <b>Extrapolated to pharmacy population</b>             |
|---|--|--|
| Meeting the standards for the delivery of clinical pharmacy services including those at admissions, discharge and across the Primary and Secondary care interface | Requires 4-5 FTE per major hospital                        | 30 FTE   |
| CPD   | Based on a minimum of 40 hours a year per pharmacist       | 3 FTE  |
| Clinical Governance   | Requires 1 FTE per major hospital                          | 6 FTE  |
| Agenda for Change   | Requires a reduction from 39 hour weeks to 37.5 hour weeks | 7 FTE <sup>( based on 165 WTE established posts)</sup> |

In total this means that based on the above assumptions and calculations it would be necessary to increase supply by a total of 46 FTE pharmacists across the hospitals in

Northern Ireland. We propose that such an increase be handled in a phased approach, for example:

**Table 4.3 Phased Resource Increase over a 3 year period - Secondary Care Services**

| <b>Demand</b>                               | <b>Year 1</b> | <b>Year 2</b> | <b>Year 3</b> |
|---|---------------|---------------|---------------|
| Meeting Clinical Pharmacy Service Standards | 10            | 10            | 10            |
| Clinical Governance                         | 2             | 4             | -             |
| Agenda for Change                           | -             | 7             | -             |
| Continuing Professional Development         | 1             | 1             | 1             |
| <b>Totals</b>                               | <b>13</b>     | <b>22</b>     | <b>11</b>     |

**Table 4.4 Projected Demand Figures - Primary Care Services**

| <b>Demand</b>             | <b>Assumption Used</b>  | <b>Extrapolated to pharmacy population</b> |
|---------------------------|-------------------------|--|
| Meeting the standards for | Based on allowing 1 day | 101 FTE's in addition to                   |

|   |   |                              |
|---|---|------------------------------|
| the delivery of extended services including, integrated medicines management smoking cessation, palliative care, residential care, needle exchange, domiciliary care and extended opening hours | extra per week per pharmacy to allow their time to be freed up to provide a range of services | services currently provided. |
| CPD   | Based on a minimum of 40 hours a year per pharmacist  | 18 FTE's                     |
| GP Prescribing Advice   | Based on leaving the premises for 0.5 days a week per pharmacy                                | 50 FTE's                     |

For the above predicted demand figures in primary care services we estimated that there are currently 900 FTE working in the community sector, 504 pharmacies operating under an independent contract and a standard working week of 40 hours per pharmacist.

In summary, for primary care services, we have estimated the anticipated needs to be of the order of 169; for secondary care 46 making a total of 215 across the Northern Ireland pharmacy population.

In order to offer a reasoned estimate of the numbers of additional pharmacists required in the system over the course of the next 5 years we have profiled the above summary demand figures (as identified in table 4.2,4.3 and 4.4) against the anticipated supply ( as identified in table 4.1 ) over a 3-5 year period, culminating in the totals outlined below in table 4.5.

This is using information supplied by the DHSSPSNI stating that currently there are some 12 vacancies in the secondary care sector plus 8 further appointments to be made for cancer services, representing a current shortfall of approximately 12%. Assuming the vacancy rate in the primary care sector is 5% ie. the normal business rate, then if we allow for an on-going overall vacancy rate of 5% there is an additional 10 WTE needed making a total 225.

If, on the other hand we were to inflate the supply side by 10% to give added capacity and competition, or deflate it by 10% to allow for margins of error then the requirement would range from 203-248 .

**Table 4.5 Profile of projected supply against projected demand over a 5 year period.**

| Key Factors  | 2001<br>Current<br>position | 2002 | 2003 | 2004 | 2005 | 2006 |
|--|-----------------------------|------|------|------|------|------|
| Projected Supply from Table 4.1                        | 1703                        | 1722 | 1758 | 1794 | 1828 | 1862 |
| Secondary care needs from Table 4.2                    |                             | 13   | 22   | 11   | -    | -    |
| Current vacancies                                      |                             | 10   | -    | -    | -    | -    |
| Primary care need from Table 4.4 profiled over 5 years |                             | 34   | 34   | 34   | 34   | 33   |
| Net provision /under provision                         |                             | -38  | -58  | -67  | -67  | -66  |
| At the 203 level                                       |                             | -32  | -47  | -51  | -48  | -44  |
| At the 248 level                                       |                             | -44  | -69  | -83  | -84  | -87  |

From this we can quite clearly conclude that in both the primary and secondary services demand outweighs supply. From this conclusion we can look at a number of options identified below, which feed into associated recommendations in section 5 of this report:

**(a) Look at ways of increasing the supply of pharmacists**

The two key areas identified in our survey as having the potential to achieve the above are the increased retention of pharmacists within Northern Ireland and the attraction of pharmacists back into the workplace. This is based on the fact that Queens University, Belfast, at the moment have no plans to increase their supply of graduates after the initial increase to 105.

This avenue of encouraging qualified pharmacists back into the profession is something that has been addressed previously by the Return to Practice Course.

During the planning stage 233 individuals were identified as potentially being eligible but only 12 availed of the opportunity. Of these 12 at least half are now participating in the workforce. This was a good start but should be built upon for the future. Of this current group of non working pharmacists it has been estimated that more are female. As the information from Queens University, Belfast suggests that over the course of the next five years there is an increasing percentage of females to males graduating then this compounds, the issue. All of this reinforces the need to look at ways of introducing more flexibility into the working practices and to readdress the need to pull more of these people back into the workforce. This is also reinforced by the fact that the community sector views the extent of working hours as a major de-motivator and a number identified that they would like an increased opportunity to avail of work/life balance policies and practices.

The survey also highlighted that the profession must become better at holding on to its pre-and post registration students. One hundred and twenty three of the survey respondents stated that they had worked outside of Northern Ireland, with the majority being in the Republic of Ireland and that significant reasons for this were the remuneration and opportunities available. The number leaving has been steadily increasing over the last 5 years and all evidence points to this increasing unless action is taken. Key factors influencing individuals decisions to leave, or identified as being a de-motivator with their current role, varied between the primary and secondary care sectors. In the hospital sector salary was key, in the community flexibility of hours was highlighted and career progression, CPD opportunities and the opportunity to work within multi-disciplinary teams was identified in both sectors. A number of key informants interviewees suggested that the hospital sector should not try and compete with the community in terms of remuneration but focus on making sure that the pharmacists were paid appropriately, relative to other professions within the hospital sector. It is also interesting to note that younger (20-25 years) pharmacists were significantly more satisfied with promotion opportunities and career and personal development when compared to their older counterparts. This would support the feedback from our focus groups and interviews that there is a lack of career planning and progression once you had been in position after 3-5 years. Also that there is no structure in place for progression along a more clinical route.

Finally, we note that in total a fifth of pharmacists interviewed indicated that they were considering in the next five years either leaving the profession altogether or taking a career break or retiring. Of those who planned on leaving the profession the majority fell within the 31-35 age group, again indicating an expression of dissatisfaction within those who have reached a static level within their career. This must all be addressed if the current workforce issues are not to continue into the future.

**(b) Look at ways of re-allocating some current pharmacist responsibilities**

The survey quite clearly shows that there is an opportunity to re-allocate some of the repetitive, lower skill aspects of a pharmacist's job to other roles within the pharmacy team. Based on our survey this would appear to be welcomed by all involved.

This would in turn free up pharmacist time to focus on other identified service extensions. The key role identified as being applicable to move some of their responsibilities to was that of a qualified pharmacy technician. It is important to note though that there is at present a very varied usage and employment of technicians with currently less than 10% of community pharmacists utilising their skills. The hospital sector has developed further in this area but again there are differences between hospitals with regard to how effective they are in managing this.

Finally another issue to take into consideration is the current legislation which dictates that a pharmacist be present at the point of dispensing. This ties a pharmacist to being on-site all day and narrows the scope of activities they can carry out. The survey participants were split in their views on this area with a number feeling that a change in legislation would be worthwhile but others feeling that they should still take responsibility for this aspect of the dispensing activity due to concern over liability and patient safety.

In conclusion we can see from our survey and subsequent discussion that there is a great opportunity to expand the usage of pharmacy technicians to further free up pharmacist time to focus on the more skilled areas of their role.

**(c) Look at alternative ways of organising the current structures in both sectors.**

As outlined previously there is increasing demand from Government, patients and staff to widen the range of services being delivered by pharmacists. We have highlighted a number of areas which could be examined in order to fund additional resources to make these changes feasible. However, the opportunity exists to consider alternative models of deployment to those used at present in order to maximise resources.

A key objective of the focus groups and interviews was to suggest ways in which this could happen and based on these findings we now highlight some possible models to be considered for piloting in Northern Ireland. We will take each deployment model in turn and provide a brief description of what it would look like, identify benefits and possible limitations in comparison to the current situation and in light of what needs to be achieved.

## **4.3 Models of Deployment**

### **Model 1**

#### **Extension and registration of Pharmacy Technician roles**

This model of deployment is relevant to both the primary and secondary care sectors. It is based around the re-allocation of the lower skilled areas of work to other members of the pharmacy team and would work most effectively where there is a large volume of dispensing activity in a central location.

We feel that a relatively simple way of freeing up some pharmacist time would be through the employment of trained and skilled pharmacy technicians taking on board added responsibility. This would necessitate proper training and accreditation and while not negating the current legislative barrier could free up pharmacist time for the provision of added consultation and advice.

Some pharmacists are clearly further advanced in this area (especially in the hospital sector) and as indicated some felt up to 40% of their time could be freed up if this methodology was employed. We feel that this is an ideal opportunity for best practice to be shared and built upon, adding value to the profession as a whole on a team basis without requiring any additional pharmacists in the short term.

However careful thought should be given as to how these pharmacy technicians are recruited and retained as the vast majority within the community sector do not

employ these individuals at the moment. There is the possibility of training staff they currently employ, but the inevitable time lag involved should be taken into consideration. Further work should be carried out, adopting the recommendations highlighted earlier in this report, as to the available pool of people to adopt this role and what recruitment strategy and subsequent training and development plan would be put in place.

This organisational model should also be considered for all hospitals and adopted where possible to ensure the same standards are employed (and benefits gathered) and applied to free up pharmacist time in a particularly under resourced area.

In order for this deployment model to operate to its full potential the current legislation requiring the pharmacist to be present at the point of dispensing would need to be addressed.

## **Model 2**

### **Pharmacy Direct**

This model is based on the idea where pharmacists, identified as being one of the most accessible professional primary care service providers within the Health Service and medicines experts, could develop the service they offer further. This could include the areas outlined earlier in the literature review of the treatment of minor illnesses, the provision of repeat prescribing/dispensing and implementation of diagnostic procedures, managed within agreed protocols. This would have the benefit of the more effective utilisation of pharmacists' skills and of potentially reducing work in GP surgeries and providing a more accessible service to customers/patients.

We should recognise that there is currently a form of a Pharmacy Direct service in operation in as much as they are easily accessible and used extensively by the public across the province on a daily basis. Indeed another facet of this "direct" service is that pharmacists in the community currently take on board patient management issues through telephone contact on an ad hoc basis. This facet of the service provided could also be developed further through the more effective management and even encouragement of these calls akin to the system that is currently set up under NHS Direct type services in England.

Advice could be offered on an extended hours service through the telephone or through extended opening hours. This would not only offer an enhanced, more accessible service but would offer the scope with regard to the workforce in

attracting individuals who are currently not working and want more flexible hours. This model should facilitate the pharmacist working on a multi-disciplinary basis, using their skills as a medicine expert and building on the principle of self-care.

In general the respondents in our surveys felt that the ability to extend their roles in some of the areas mentioned above would be of value but were concerned about some aspects of the perceived lack of face to face contact and the resourcing issues associated with extended opening hours.

### **Model 3**

#### **Centralised Dispensing**

This model is based on the idea that would allow small pharmacies the opportunity to off load part of their dispensing duties to a centralised unit. This would release the pharmacist's time for providing other value added services. The centralised unit, either a separate unit or a Superpharmacy would make up and package the drugs to order in line with the prescriptions and then send these to the pharmacies for collection by the customers. Clearly there are issues around the time it would take to make this happen and the impact that this would have on customer satisfaction against the potential costs that could be saved through bulk purchasing.

### **Model 4**

#### **Consolidation of service provision**

The idea of the consolidation of service provision can be thought as falling into two main areas. That of the consolidation of physical elements/environment of the service provision and that of the consolidation of the contracting process.

##### **■ Consolidation of physical elements/environment**

The most obvious model within this category could be seen to be that of a *Superpharmacy*. Small independents would amalgamate their services to one site to provide a wider range of services to meet patients needs. A small number of these "superpharmacy" units could be run more efficiently allowing savings to benefit the NHS and contractors. Also possible local service agreements with the LHSCG's (if brought into play), could enable reduced drug costs and a closer matching of pharmacy stocked drugs with LHSCG formularies. It would be likely that the pharmacy left would be stronger economically and thus in a better position to offer a service of higher quality and be better placed to bid for contracts to provide one or more additional pharmaceutical services.

This type of set up could be advantageously combined with other developments highlighted earlier in this report, such as freed up pharmacist time for formal collaboration with GP's, dispensing computerised repeat prescriptions at distribution centres for collection at local stores and the establishment of pharmacist and nurse-run centres for minor ailments and/or chronic disease management. This model is in line with currently developing practice by way of local contracts for additional services from community pharmacies, above and beyond those required by the national contractual framework. Pharmaceutical services could be provided under

locally tailored arrangements free from national remuneration system and terms of service. These contracts should focus on the outcomes wanted for the local population and quality of services provided. Other primary care services could also be provided on these community pharmacy premises increasing patient convenience through co-location

A variation on the above would be for some independent pharmacies to contract out aspects of their service provision to one or more of the larger units as identified above. For example dispensing activities for a given area (usually located near to a surgery or hospital ) could be provided by one pharmacy based on the payment of a fee by the other independents in the area.

The resource implications would be that there would be a requirement for less pharmacists as the services would be consolidated in one area. This would then free up pharmacists who operate within the current system and could free up pharmacist time due to the economies of scale achieved and the maximisation of the use of pharmacy technicians as indicated earlier in this report. Also these establishments could offer more flexible working practices to employees and better career structures and opportunities due to the volume of work and breadth of services on offer. New service developments and initiatives could be taken on board more quickly and efficiently and would facilitate multi-disciplinary working.

There would obviously be some resistance from contractors as some of their operations would no longer be viable. This, if managed in a positive way and perhaps even on a voluntary basis, could enable current contractors to work as independent pharmacists contractors and tender their services to the LHSCG, or SuperPharmacies, to work in a specialist area. This process could also be aided by the provision of financial incentives from the DHSSPSNI to encourage those in concentrated areas to consider merging.

All of the above would also require re-education of the public and consideration of the spread of services to ensure equality. It is also important to note that this consolidation activity, as identified above, would be likely to have major capital implications that would need to be discussed and considered at length before any changes were made.

#### ■ **Consolidation of contracting process**

This model is based upon the idea that current pharmacies in the community would be asked to tender for the provision of work as identified by the Commissioning Bodies in operation. It would then be the responsibility of these establishments to

organise themselves so that they can deliver, and be paid to deliver, the package of care that is required.

This could be structured by independent contractors coming together in one consolidated grouping or equally another option would be for them to operate as a loose consortium for the purpose of tendering for and providing the service. The concept of the peripatetic pharmacist would align with this model.

Again the above could offer the benefits of career progression and flexibility whilst providing quality service in line with future plans.

All of the consolidation models would require extensive consultation with current contractors and also with the public to ensure that a quality service was being delivered in an equitable and fair way to all.

## **Model 5**

### **Interface Model**

This model involves the use of specialist pharmacy expertise and intervention at the point of admissions, discharge and at the interface.

Using specialist roles at the point of admissions will allow early intervention by the pharmacist to possibly identify issues and help ensure that the context of care is managed well from the start and that opportunities are maximised to utilise all drugs effectively. At the point of discharge and beyond specialist pharmacist skills could be utilised to set up shared care management arrangements, utilising agreed protocols as necessary.

This could involve the use of bridging teams, involving a pharmacist, set up to ensure that the patient receives seamless care wherever they are treated and that they are wherever possible, offered the opportunity of being treated from home. This would have the advantage of freeing up beds, accommodating the wishes and needs of the patient and encouraging multi-disciplinary working

The lead pharmacists involved in the above could be based either in hospital or in the community.

## **Model 6**

## **Provision of a Pharmaceutical Dispensing Service from new GP Premises**

In this model a consortium of current contractors could operate a pharmacy within new or existing GP surgery premises. Its main purpose would be to provide an acute dispensing service dealing with patients receiving prescriptions on surgery visits. Routine repeat prescriptions could be dealt with by the patient's choice of community pharmacy allowing the relationship to still develop and electronic links could be set up between this GP Pharmacy and the satellite offices.

This model would have the benefit of working closely with the GP's, utilising the skill base currently in the consortium, achieving economies of scale and possibly freeing up resources to aid the overall manpower shortage. Joint working will lead to better skill mix and use of resources.

Possible limitations could involve confusion with regard to patient expectations as to where they can obtain different prescriptions dispensed and a loss of income to other closely located independent contractors due to the loss of acute prescriptions.

## **4.4 Organisation of Services**

The importance of a pharmacist's availability to deliver extended services and packages of care, outlined in the above models, cannot be underestimated. There will be an on-going need to develop different remuneration packages.

However these services will require organisation and must be supported in a cohesive, co-ordinated fashion if they are to continue to develop and establish themselves.

It is important to emphasise the requirement for a pharmacy link between Commissioning Bodies and primary and secondary care services. This link is currently being provided by Directors of Pharmaceutical Services who are currently administering a number of these recent services, with the support of dedicated project co-ordinator pharmacists. There will be a need for suitably skilled pharmacists for equivalent roles in support of current and developing pharmacy initiatives in future healthcare organisations.

## **4.5 Remuneration**

A final factor to take into consideration as highlighted earlier, is that the majority of respondents indicated that whilst the desire was there to extend services, the current remuneration contracts do not necessarily facilitate the change.

## **5 Recommendations**

Based on the conclusions outlined in section 4 of this report please find below our key recommendations falling under the key areas of recruitment and selection, demand, models of deployment and remuneration as outlined in the original terms of reference.

### **5.1 Recruitment and Selection**

Our recommendations in this area are as follows:

- The DHSSPS should put in place arrangements to review supply and demand on a regular basis. Also as was previously suggested the PSNI should take more of a role in pro-actively planning and monitoring this activity including the movement of pharmacists.
- The profession in general should put in place sector retention strategies to ensure that leakage is not increased and if possible minimised, over the course of the next five years. Some useful tools could include performance related pay, bonuses, activity development programmes and graduate and post-graduate sponsorship programmes and career management schemes. A big area for focus will be in the area of family friendly and work life trends and we feel that all employers/managers should set about drawing up and incorporating suitable policies in the future wherever possible. It is important though that the fundamental issues of pay, structure, CPD etc are dealt with in line with this recommendation as it will not stand alone effectively.
- The above actions should also be supported by an increase in the number of pre-registration places made available in hospitals in NI. This would be for the purpose of ensuring that graduates are provided with the opportunity to get first hand knowledge of what it is like to work in a hospital and see it as a viable career. This must be done in conjunction with a review of salary and benefit packages available.
- It appears that there is a collective view amongst our survey sample that the role of the Prescribing Advisor should be reviewed to avoid what is felt to be a current duplication of effort in a severely under resourced area. Further work should be carried out to establish what the best way forward would be with regard to allocation of responsibilities in this area. A possible structure would be to operate more from a regional level and encourage the provision of prescribing advice to GP's by community pharmacists.

- We feel that a thorough review of the current grading structure within hospitals should be put in place and benchmarks established with UK Best Practice standards and guidelines. This must include an assessment against other comparable roles within the organisation, on a top-down basis. The job analysis involved as part of this process, should form the basis of addressing aspects of the salary differential between the hospital and community sector.
- There should be an increased focus on CPD requirements. The post-graduate training on offer should be expanded to offer more specialist courses to accommodate the need for a significant and continued upgrade of skills, in line with Government objectives and patients needs. A set amount of mandatory hours study per pharmacist per year should be considered and perhaps incorporated as part of the hospital contract on a protected time principle basis. It should be noted, however, that this will place a further drain on resources in a workforce that is already experiencing severe shortages.
- Training should be offered to all line managers within both sectors to ensure they have the skills to provide coaching and mentoring support to less experienced members of the team and to put in place a career planning structure with clear job responsibilities and future roles identified.
- Encourage increased activity at under graduate level throughout the hospital sector, including the incorporation of Practising Clinical Pharmacy Tutors as part of the degree and the employment of students during the degree i.e: summer vacation. These actions should increase the numbers exposed to the hospital sector hence helping increase the numbers likely to consider it as a career option.

## **5.2 Demand Factors**

Our recommendations in this area are as follows:

- A Working Group should be set up to look at implementing the deployment model of pharmacy technicians taking on more responsibilities across the province as a whole. Part of this review should look at the current availability of technicians in the community, as there may be a need to set up a separate recruitment strategy for this

group alone. This should be supported by development of revised policies and procedures, which establish the role of the technicians and the pharmacists alongside suitable training provisions. Thereby ensuring that the technicians are moving through the development process. The pharmacy technicians should be set up as a registered body and be measured against national standards and go through a process of accreditation to be achieved over a formal time period. All individuals employing technicians must go through a suitably registered training course to enable them to supervise and manage these individuals through to successful accreditation.

- Consideration should be given to making available the necessary additional resources to increase the pharmacist establishment in secondary care as set out in section 4, and for increasing the pharmacist pool to fulfil the projected demands for pharmacists in both primary and secondary care.
  
- Further evaluative work also needs to be carried out in terms of the time involved in carrying out extended or altered services in both sectors to increase the accuracy of the demand figures. What we can say, as outlined earlier, is that it has been indicated in a recent study carried out by Queens University, Belfast, that the level of pharmaceutical care (as defined earlier in this report) tends to be of a higher quality and more consistent when there are two pharmacists present in a unit or involved in managing the initiative.
  
- The DHSSPS discuss with Department of Higher and Further Education, Training and Employment the potential for increasing and appropriately funding additional pharmacy student places at Queens University, Belfast to meet the anticipated supply demands.
  
- Centres of Excellence should be set up at a regional level in the hospital and community sectors and on a collaborative basis across sectors, to ensure best practice is shared.

### **5.3 Models of Deployment**

Our recommendation with regard to this area is that:

- the models identified in section 4 of this report should be considered as possible pilots for implementation enabling alternative workforce deployment. Any models selected for pilots should take account of previous evaluations carried out with regard to the five Primary Care Commissioning Group Pilots set up in April 1999, building on what worked well. It is also important that the above suggested

models of deployment should not necessarily be viewed as independent options or suitable for every situation. These models should be reviewed as best fits the differing factors at play in the given situation.

## **5.4 Associated Remuneration**

Our recommendation with regard to this area is that:

- different remuneration packages should be piloted within the community sector, based around a greater focus on rewarding the provision of a package of care and associated services rather than volume of prescriptions and on a more flexible basis. It is also important to note that if any of the models/changes adopted put an onus on pharmacies to employ an increased number of pharmacists per outlet or on a shared basis, then this will bring with it remuneration implications that should be considered.
- within the hospital sector we have already highlighted earlier in the report the need to review pharmacist salaries in line with other healthcare professionals. We understand that the Agenda for Change initiative is currently addressing this need and therefore would recommend waiting to see the outcomes of this initiative before any other salary recommendations are put in place.

## **Appendix I**

### **RES Report**

## **Appendix II**

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