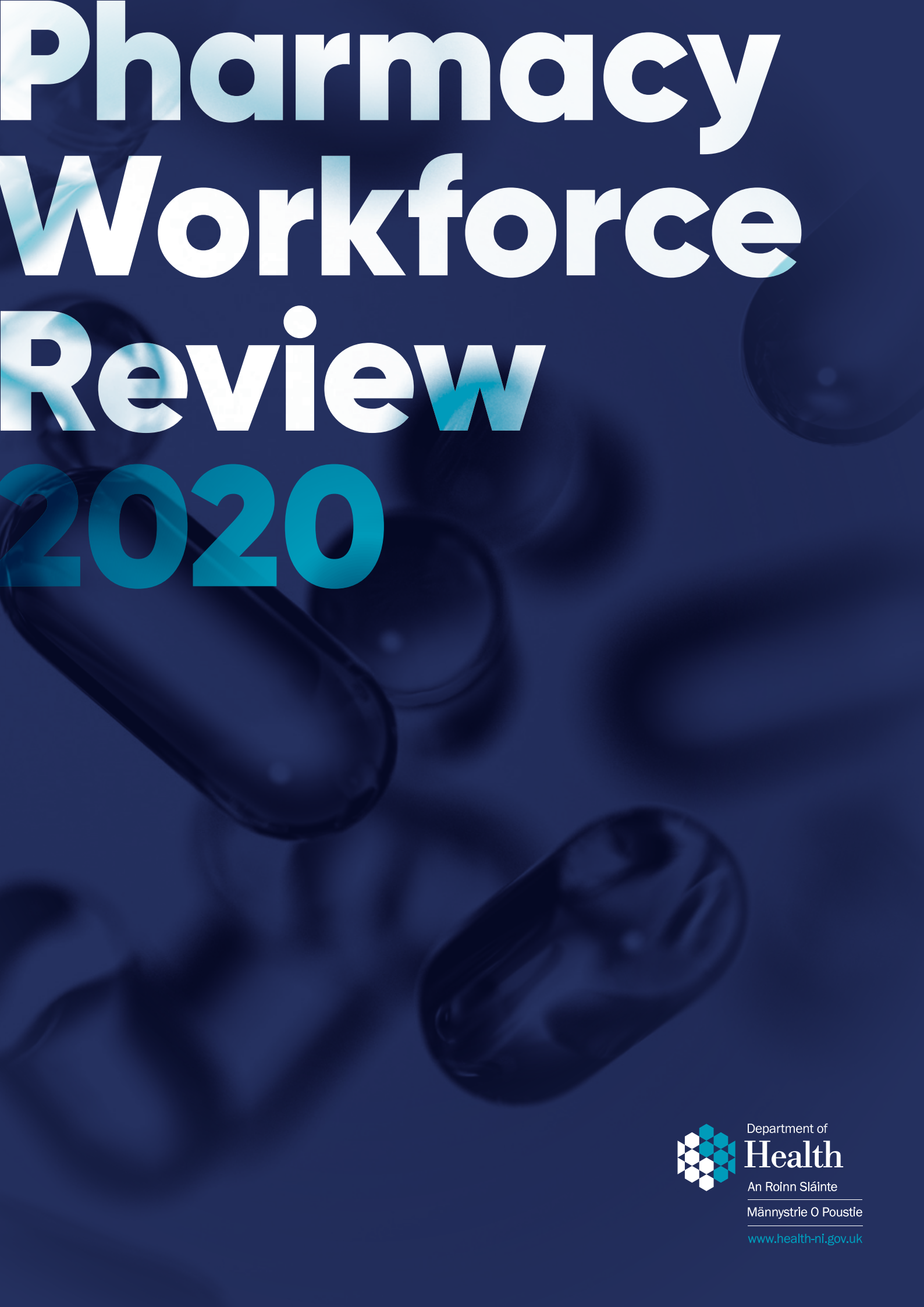
Pharmacy Workforce Review 2020



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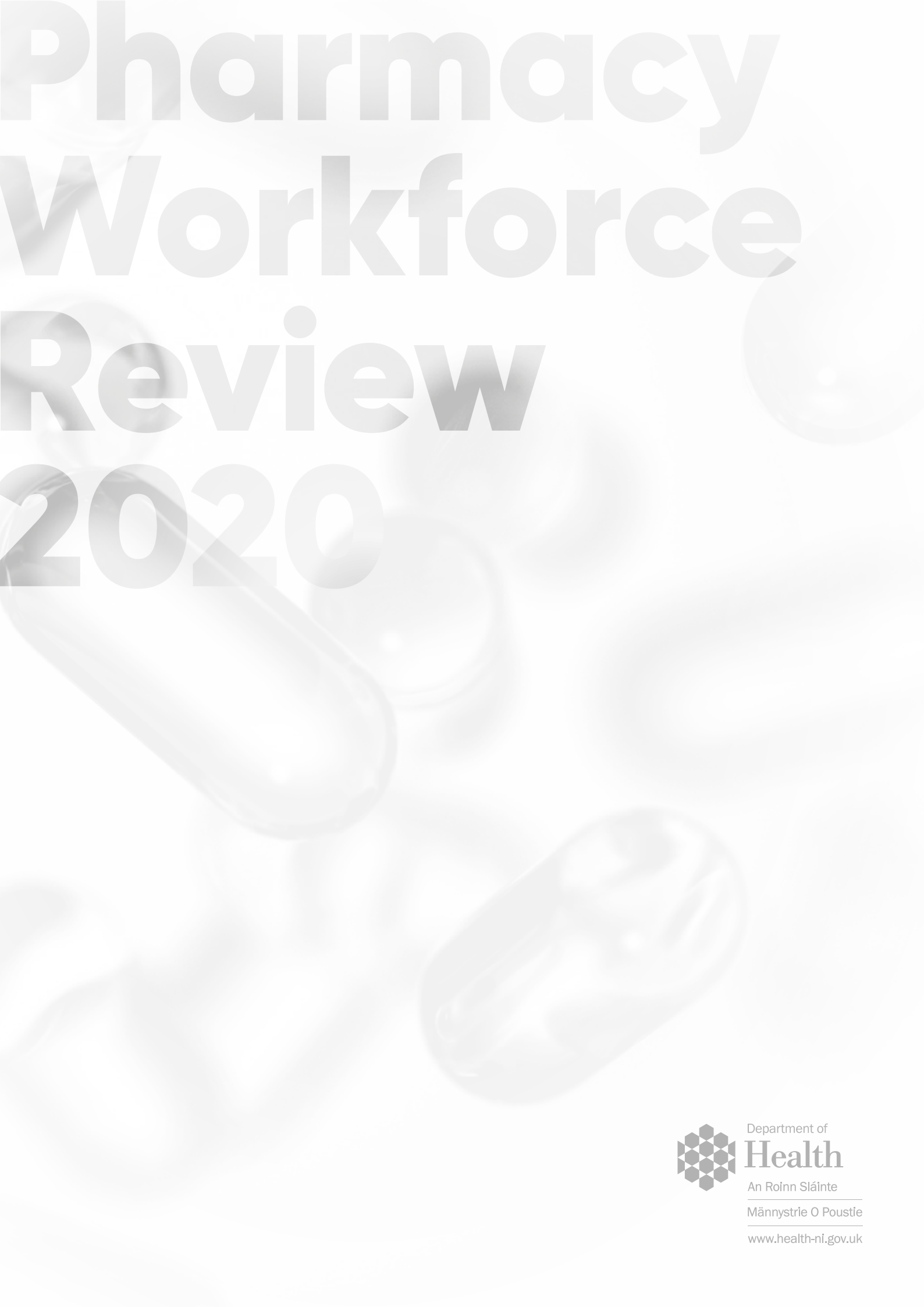

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Foreword

I welcome the publication of the Pharmacy Workforce Review, which comes at a critically important time for both the pharmacy profession and Health and Social Care Service (HSC) in Northern Ireland.

Pharmacists, pharmacy technicians and their teams have had a vital role in caring for patients and protecting public health throughout the COVID-19 pandemic. Across all HSC sectors they have risen to the challenges posed by the emergency to ensure the optimal and safe use of medicines. They have adapted and maintained services and provided essential support, underpinning the effective rollout of the COVID-19 vaccination programme.

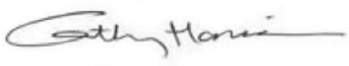
As we rebuild the HSC after the pandemic, the skills of pharmacy teams will be in high demand. With a large number of people waiting to access treatment and an aging population, the HSC will be caring for increasing numbers of people with complex medical needs, taking multiple medicines. To make real progress, the unique skills and knowledge of the pharmacy team as medicines experts will need to be developed and deployed effectively across all sectors.

This Review considered the full scope of pharmacy practice in Northern Ireland and there was wide engagement with the workforce during its development, including in community pharmacy, general practice and hospitals. This enabled people to share their views and experiences and I acknowledge the very real concerns raised around capacity, career development and a sense of professional isolation in some areas.

The Review dovetails with UK-wide reforms for the initial education and training of pharmacists which aim to prepare young pharmacists to take on increasingly clinical roles across all sectors. It also commits to a clear career pathway that will enable individuals to develop their knowledge and skills throughout their professional lives. A central theme of the Review is the need to develop the role of pharmacy technicians in Northern Ireland as registered professionals in their own right.

The recommendations contained within the report are ambitious and have the potential to be transformational for the pharmacy profession in Northern Ireland. There is much to be done, but by working together we can achieve sustainable change.

I would like to thank Professor Colin Adair and Ms Jill McIntyre for their leadership in completing this Review, and to all of those who contributed to its development. The Department has committed to implementing the recommendations of the Review and has developed an Action Plan to take this forward over the coming months and years.



Cathy Harrison
Chief Pharmaceutical Officer,
Department of Health

Defining the plan

Step 1

Step 1 – Defining the plan

1.1 Purpose of this review

Pharmacists and pharmacy technicians are pivotal in ensuring the safe and effective use of medicines. As Health and Social Care (HSC) in Northern Ireland (NI) continues to evolve, new services and models of working, together with a multi-professional approach to providing care is needed to meet the health needs of the population. Accordingly, the widening clinical role of pharmacists, supported by pharmacy technicians and adoption of automation, has resulted in greater effectiveness. Consequently, these professional groups are in high demand.

Health and Social Care Workforce Strategy 2026: Delivering for Our People[1], described the importance of workforce planning in enabling HSC to monitor workforce trends and address issues proactively. Subsequently, the DoH Chief Pharmaceutical Officer commissioned the Northern Ireland Centre for Learning and Development (NICPLD) to undertake a review of the pharmacy workforce to inform their pharmacy workforce development plan for the period 2019-29.

1.2 Need for this review

Population estimates for NI show that by 2026, the number of older adults (those aged ≥65 years) will exceed that, of children (those aged <16 years). Moreover, by 2039, one in four people will be aged over 65 years[2]. Whilst this demographic change is a medical, economic and public health success story, one consequence is an ageing population with complex health needs. Ageing is typically associated with an increased prevalence of multimorbidity (the presence of two or more long-term conditions) and polypharmacy (the prescribing of multiple medicines), which increases the demand for the health and social care services and practitioners generally. The ten-year vision for healthcare in NI describes a model of healthcare based on multidisciplinary teams working across the primary-secondary care interface[3]. Importantly, pharmacists and pharmacy technicians were seen to play a central role in this model, highlighting the need for a skilled pharmacy workforce across all settings.

The Medicines Optimisation Quality Framework[4], a roadmap for improving the use of medicines across the HSC, advocates the optimisation of medicines by a multidisciplinary workforce that includes pharmacists at each stage. This emphasises the need to advance the role of pharmacists through wider adoption of prescribing rights, development of clinical leadership and expansion of consultant roles in primary and secondary care.

[1] https://www.health-ni.gov.uk/publications/health-and-social-care-workforce-strategy-2026
[2] https://www.health-ni.gov.uk/sites/default/files/publications/health/health-and-wellbeing-2026-delivering-together.pdf
[3] https://www.health-ni.gov.uk/publications/health-and-wellbeing-2026-delivering-together
[4] https://www.health-ni.gov.uk/sites/default/files/consultations/dhssps/medicines-optimisation-quality-framework.pdf

1.3 Aim of this review

The aim is to undertake a review of the pharmacy workforce, specifically pharmacists and pharmacy technicians, to inform HSC workforce development needs for the period 2019-2029. The scope focuses on the three main employed sectors; community, hospital and general practice pharmacy.

The review considered:

- Characteristics of the current pharmacy workforce
- Factors that will influence workforce development over the next 10 years
- Current recruitment and retention challenges
- Future requirements related to workforce numbers and development needs.

1.4 Approach used in this review

This review was planned and reported in accordance with the Regional HSC Workforce Planning Framework[5], which is a practical approach to ensuring a workforce of the right size and with the right skills. Figure 1.1 provides an overview of the six steps to integrated workforce planning. As with other professional groups, this review focuses on steps one to five; step six occurring at a later time following adoption of the review and implementation of its recommendation by the DoH.

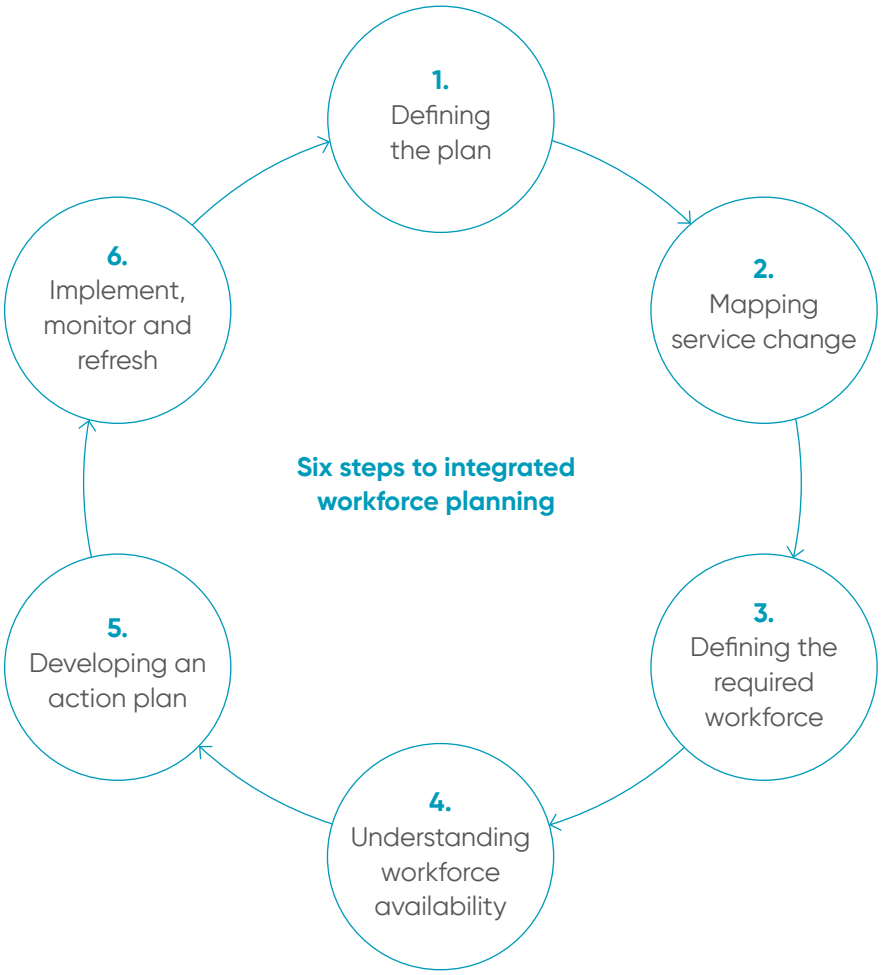


Figure 1.1 Six steps to integrated workforce planning.

[5] https://www.health-ni.gov.uk/publications/regional-hsc-workforce-planning-framework

This review was authorised by the DoH through the Medicines Optimisation Steering Group. A Project Board, consisting of key stakeholders, was formed to oversee the review and ensure input from their respective organisations and sectors. Members of the Project Board are listed in Appendix 1.

The recommendations made in this review were informed by qualitative research undertaken with key stakeholder organisations (see Appendix 2) and data collection from an anonymous questionnaire, circulated to all pharmacists and pharmacy technicians registered with the NICPLD. Data collection tools are shown in Appendix 3 (focus group topic guides) and Appendix 4 (questionnaire). Overall 690 questionnaires were completed, with 55% of responses from community pharmacists, 29% from hospital pharmacists, 18% from general practice pharmacists and 10% from pharmacists working in other sectors. These responses are in-line with the composition of the pharmacy profession by sector. A small number of responses were received from pharmacy technicians and these will be addressed in a separate report.

Mapping service change

Step 2

Step 2 – Mapping service change

2.1 Expansion of pharmacy services

Over the last 30 years the profession of pharmacy has been on a transition from the compounding of medicines to a more central, patient facing clinical role. Changes to professional practice have been driven by policy which have had implications for workforce development. Such policy has consistently sought to engage pharmacy in a more clinical role. For example, the 1999 Crown Report on the Review of Prescribing, Supply and Administration of Medicines[6] recommended the extension of prescribing rights to nurses and pharmacists. This was followed by the 2001 Audit Commission report, A Spoonful of Sugar[7], which described best practice for contemporary medicines management services in the hospital sector. This report envisaged pharmacists devoting less time to the medicines supply function and more time on clinical services.

Specifically, the report highlighted that pharmacists should:

- undertake medicines reconciliation on admission (particularly on older patients)
- provide medication review clinics
- develop their unique role contributing to medicines safety
- pro-actively implement clinical pharmacy services
- undertake a prescribing role.

Whilst this report focused on hospital pharmacy, the principles are generalisable to the wider pharmacy workforce.

Transforming Your Care (2011)[8] set out a broad new model of care tailored to today's needs that would better support patient-centered care. Its most substantial proposal was to develop quality alternatives to hospital care, focusing on primary, community and social care services.

These themes, and in particular a greater clinical role for community pharmacy, have been reinforced by Making it Better Through Pharmacy in the Community 2014[9], Making Life Better: Strategic Framework for Public Health 2013-2023[10] and the Northern Ireland Medicines Optimisation Quality Framework 2016[11]. Most recently, the need to continue with transformational change was emphasized in Health and Wellbeing 2026: Delivering Together[12]. While this document highlighted the progress already made with general practice pharmacists, it advocated more needed to be done to support and expand the role of community pharmacy.

[6] https://webarchive.nationalarchives.gov.uk/20130105143320/http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_4077153.pdf
[7] http://www.eprescribingtoolkit.com/wp-content/uploads/2013/11/nrspoonfulsugar1.pdf
[8] http://www.northerntrust.hscni.net/pdf/Transforming_Your_Care_Report.pdf
[9] https://www.health-ni.gov.uk/publications/making-it-better-through-pharmacy-community
[10] https://www.health-ni.gov.uk/articles/making-life-better-strategic-framework-public-health
[11] https://www.health-ni.gov.uk/consultations/medicines-optimisation-quality-framework
[12] https://www.health-ni.gov.uk/publications/health-and-wellbeing-2026-delivering-together

2.1.1 Community pharmacy services

Community pharmacists are the most accessible healthcare professional to patients. There are currently 531 community pharmacies in NI and it has been reported that, on average, 45% of the population used a pharmacy 10 times or more within a year[13]. Overwhelmingly, patients report a high level of satisfaction with the pharmacy service. Over the last decade, the average monthly dispensing volume per pharmacy has increased by 22%[14]. This underestimates actual workload, given the increase in multiple dispensing that has occurred over this time.

Following the publication of Making it Better Through Pharmacy in the Community – five-year strategy 2014[15], the services provided by community pharmacy were extended to enhance the role of the pharmacist in managing medicines and contributing to health and wellbeing in the community. Despite the expansion in services, dispensing still remains the core function of community pharmacy. Agreed expansion in community pharmacy services are outlined in the following framework:

1. Practice quality system • Clinical governance • IT infrastructure • Access/opening hours • Practice-level services (Pharmaceutical waste, sign posting, advised self-care, Living well, emergency supply service)	**2. Core services** • Dispensing (including repeat and instalment dispensing) • Medicines adherence
3. Additional services • Medicines use review • Pharmacy first • Smoking cessation • Pre-registration pharmacist training	**4. Locally required services** • Palliative care • Opiate substitute dispensing • Needle/syringe exchange • Oxygen

Figure 2.1 Draft community pharmacy framework.

Whilst the policy-driven enhanced clinical role for community pharmacy is a positive step, successful implementation will be dependent upon appropriate funding and optimising pharmacist capacity through, for example, improved service design, better skill-mix and wider adoption of automation.

[13] http://www.hscboard.hscni.net/download/PUBLICATIONS/pharmacy_and_medicines_management/reports-and-publications/Survey-of-Community-Pharmacies-December-2016.pdf
[14] http://www.hscbusiness.hscni.net/services/2980.htm
[15] https://www.health-ni.gov.uk/publications/making-it-better-through-pharmacy-community

2.1.2 Hospital pharmacy services

Each hospital pharmacy department provides key pharmacy services[16]. Hospital pharmacists progress through their career following the Royal Pharmaceutical Society (RPS) roadmap from Foundation to Advanced practice. Aligned to this, National Health Service (NHS) Employers National Profiles for Pharmacy[17] describes the roles and responsibilities associated with each NHS pharmacy staff profile title. Figure 2.2 provides an overview of the Agenda for Change (AfC) banding within the NI hospital pharmacy sector.

Figure 2.2 Overview of the Agenda for Change banding for pharmacy.

2.1.3 General practice pharmacy services

Making it Better through Pharmacy in the Community also recommended the development of pharmacists in primary care. The general practice pharmacist initiative was announced in December 2015 and supported a five-year programme that aimed to embed approximately 300 whole time equivalent (WTE) pharmacists within general practices in NI by 2020. The effectiveness of this role has been investigated extensively[18] and, consequently, general practice pharmacists are being incorporated into general practice teams in countries such as America, Australia, Canada and Great Britain (GB)[19]. Their core roles and responsibilities are focused on improving safety, quality, efficiency and cost-effectiveness, as well as governance and record keeping. Pharmacists in general practice manage caseloads of patients, review medications, audit prescribing and build effective working relationships to contribute to optimisation of medicines across HSC.

The integration of pharmacists into general practice teams is one component of a bigger programme aimed at transforming general practice into multidisciplinary teams. These teams will include physiotherapists, mental health specialists and social workers, the intention being to identify opportunities for early intervention and support patients in managing their long-term conditions thereby reducing overdependence on secondary care. This ethos aligns with the objectives set out in Health and Wellbeing 2026: Delivering Together[20].

[16] Other key pharmacy services in this context include aseptic, patient services, procurement, medicines governance and patient safety, quality assurance, radiopharmacy, interface and medicines information.
[17] https://www.nhsemployers.org/~/media/Employers/Documents/Pay%20and%20reward/Pharmacy.pdf
[18] Hazen ACM, de Bont AA, Boelman L, Zwart DLM, de Gier JJ, de Wit NJ, et al. The degree of integration of non-dispensing pharmacists in primary care practice and the impact on health outcomes: A systematic review. Res Social Adm Pharm. 2018;14:228-40.
[19] Tan ECK, Stewart K, Elliott RA, George J. Pharmacist services provided in general practice clinics: A systematic review and meta-analysis. Res Soc Adm Pharm. 2014;10:608-622.

2.2 Constraints to provision of pharmacy services

The qualitative research undertaken as part of this review has identified a number of themes relating to constraints impeding the delivery of current and future pharmacy services. These issues are discussed below.

2.2.1 Recruitment challenges

In keeping with other healthcare professions, pharmacy is experiencing challenges in recruitment, putting increased demands on an already pressurised workforce. This makes delivery of existing services more challenging and limits the development of new pharmacy services and access to those services. The need to attract, recruit and retain staff was a key theme to emerge from the Health and Social Care Workforce Strategy 2026[21] prompting a recommendation to establish an HSC careers service by December 2020. Similarly, resources should be allocated to support a similar workstream for pharmacy, which depends heavily on the independent sector.

Data provided by the Pharmaceutical Society of Northern Ireland (PSNI) show that, over the last ten years, there has been a steady increase in the number of registered pharmacists (Figure 2.3). Nonetheless, over this period demand for pharmacists has increased as hospitals introduced seven day working and new roles have been created in the hospital and general practice sectors, many of which have been filled by experienced community pharmacists. Moreover, an increasing number of pharmacists are registering with the Pharmaceutical Society of Ireland to work in community pharmacy in the Republic of Ireland.

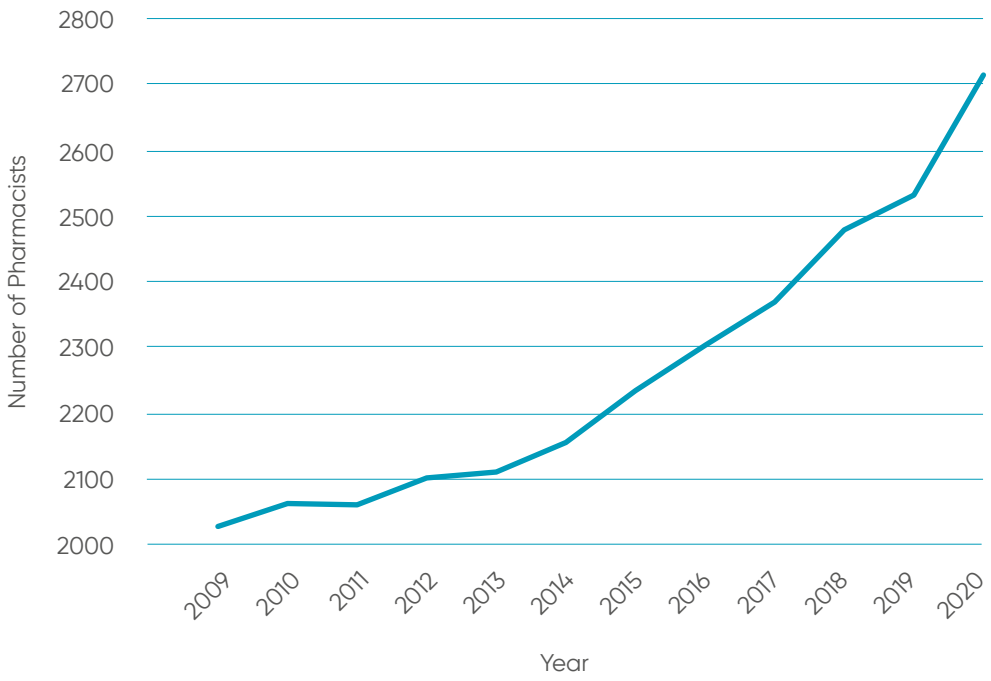


Figure 2.3 The increase in number of registered pharmacists in Northern Ireland since 2009.

There are a number of issues inherent to the ongoing recruitment of pharmacists that must be addressed. More needs to be done generally to promote pharmacy as a career choice, attract people to job vacancies in Northern Ireland and retain people in their posts. In the hospital sector there have been some delays in the recruitment process now that Regional Support Services (RSS) are managing the recruitment process.

[20] https://www.health-ni.gov.uk/publications/health-and-wellbeing-2026-delivering-together
[21] https://www.health-ni.gov.uk/publications/health-and-social-care-workforce-strategy-2026

2.2.2 Capacity

In-line with the increasing concerns for safe staffing across the health professions, safe staffing standards for pharmacy staff must be developed to ensure patient safety.

Community pharmacist dissatisfaction with their role has been increasing over the last 10 years[22]. This has arisen, in part, because of increased dispensing pressures, limiting the time available for patient engagement and opportunities for a greater clinical role. Unsustainable workloads also fuel the fear of errors in which the pharmacist rather than the employer is generally held to account.

Other sources of dissatisfaction include:

- anti-social and inflexible working hours
- increasing difficulty in securing annual leave
- legislation requiring pharmacists to be present in the pharmacy at all times
- lack of appropriate breaks.

These issues are considered, by this survey, to increase work-related stress, decrease staff morale and cause pharmacist burnout which, in turn, can compromise patient safety. Whilst all sectors of pharmacy reported issues around balancing workload, feeling overwhelmed by patients' expectations and difficulty in balancing new roles with existing responsibilities, these were more pronounced amongst community pharmacists, resulting in low morale across the sector and a feeling that they are not valued by HSC (Figure 2.4a, 2.4b, 2.4c, 2.4d and 2.4e). Both employees and employers in the community sector had the perception that they are not valued by HSC, views which were not mirrored by the other sectors (see Figure 2.4e). This disparity, undoubtedly, has contributed to large numbers of community pharmacists seeking to practice in other areas. Thus, these issues must be addressed to ensure a viable community pharmacy network that is able to contribute to the transformation agenda.

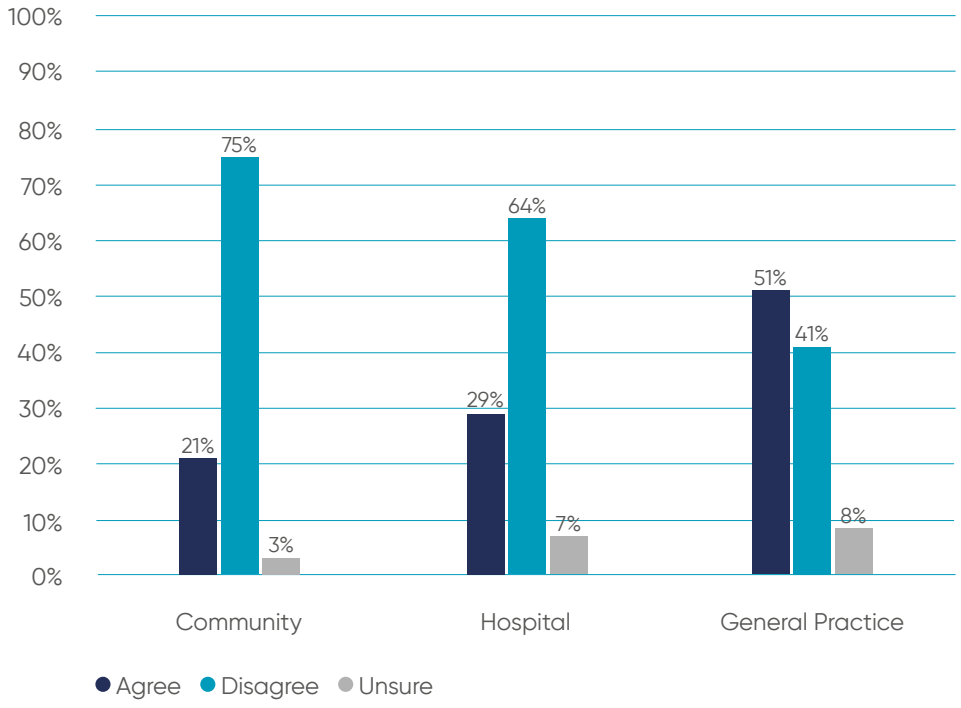


Figure 2.4.a Able to control workload.

[22] Lea VM, Corlett SA, Rodgers RM. Workload and its impact on community pharmacists' job satisfaction and stress: a review of the literature. Int J Pharm Pract. 2012;20:259-271.

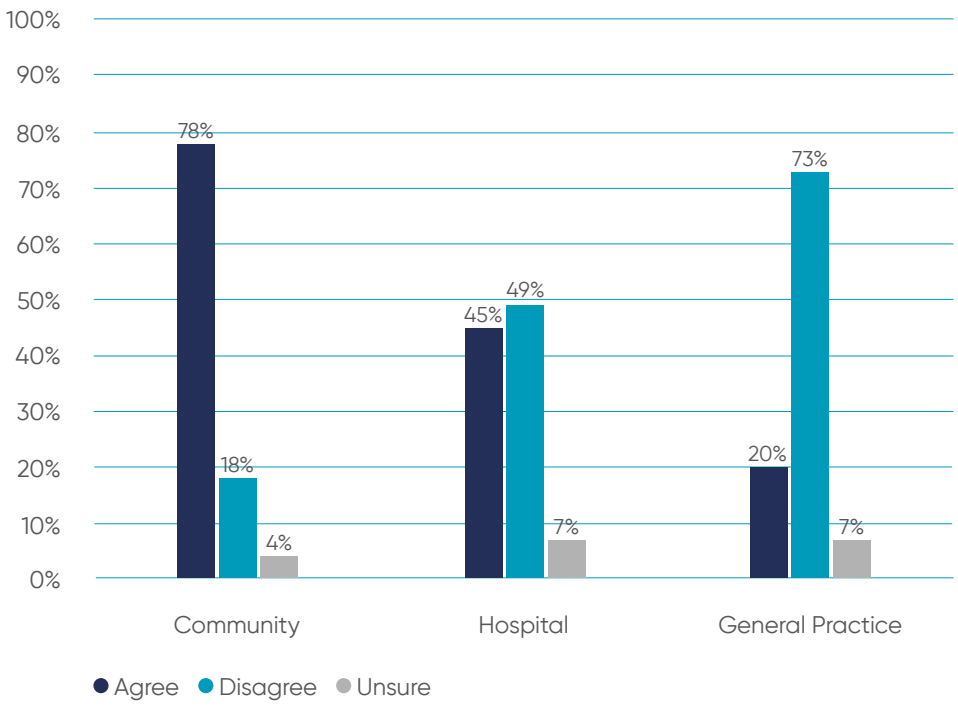


Figure 2.4.b Overwhelmed by patients' expectations.

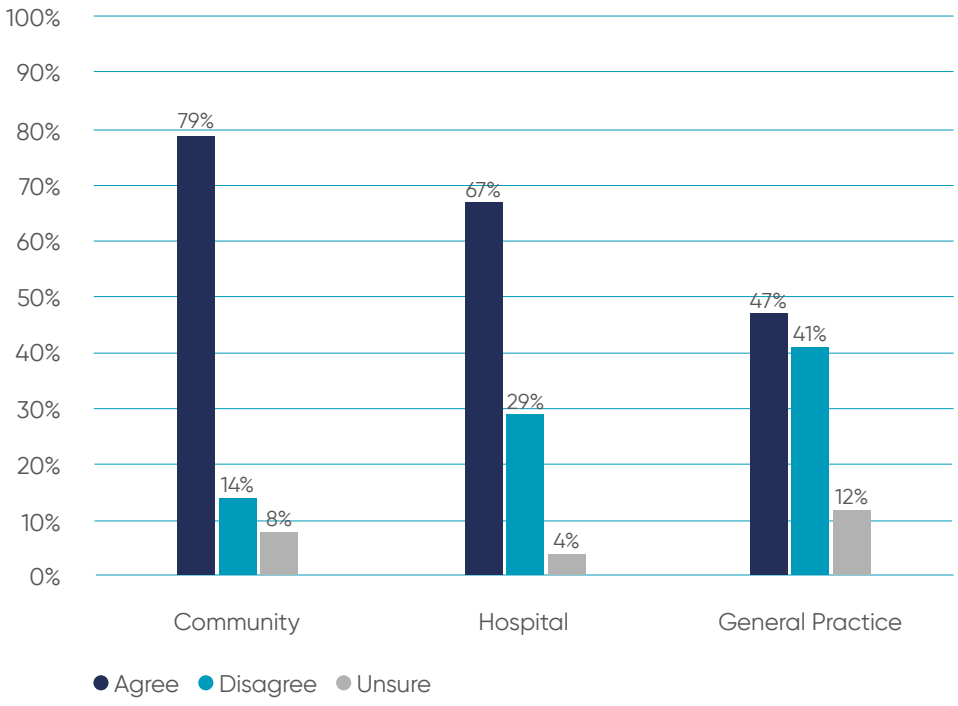


Figure 2.4.c Unable to balance new roles with existing responsibilities.

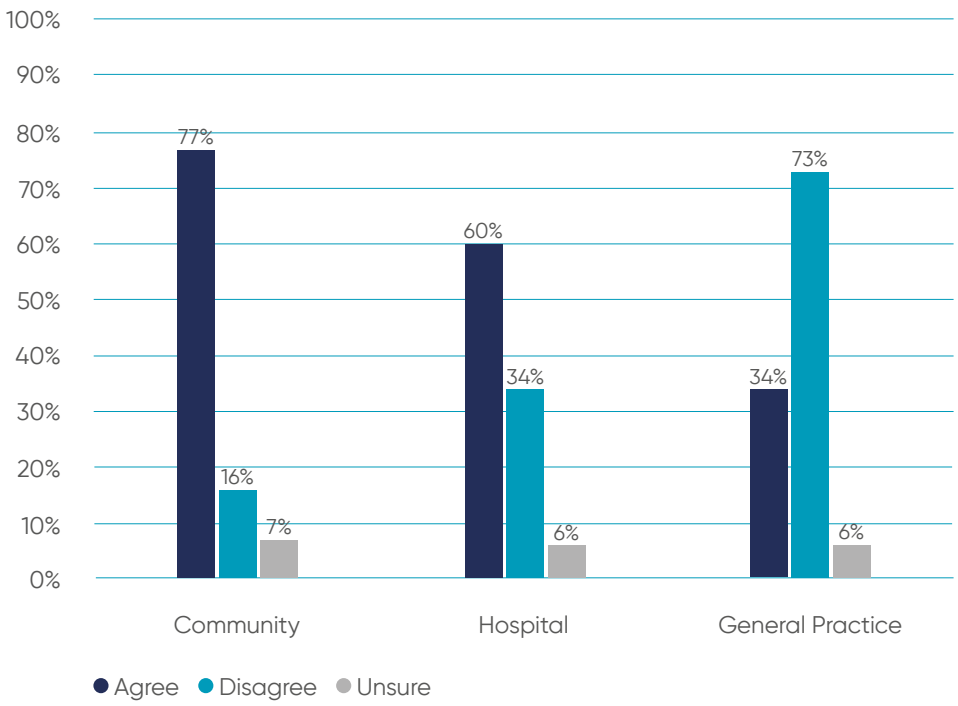


Figure 2.4.d Feel stressed they will make a mistake.

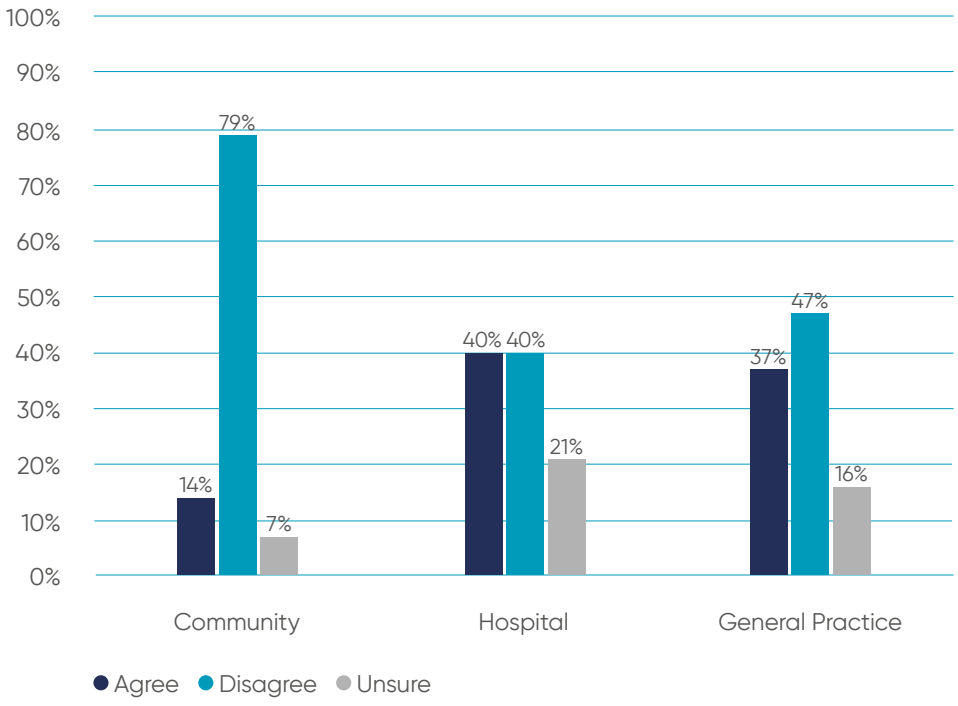


Figure 2.4.e Feel valued by Health and Social Care.

The Carter Report (2016)[23] recommended that 'NHS Trusts should use at least 80% of their pharmacist resource for direct medicines optimisation activities, medicines governance and safety'. Furthermore, the report advocated increasing the number of pharmacist prescribers and urged Trusts to ensure pharmacists and clinical pharmacy technicians spend a greater proportion of their time on patient-facing roles.

The National Institute for Health and Care Excellence (NICE) guidance on Medicines Optimisation[24] advocates that all patients (target 95% of patients) should have their medicines reconciled within 24 hours of an acute admission to hospital. This role is typically completed by pharmacists as they are regarded as the experts in medicines use. Admission and discharge ('book-ending' the patient) accounts for around 70% of the current clinical pharmacy workforce, which limits pharmacist availability throughout patients' in-hospital stay, thereby increasing the likelihood of medication problems. Thus, to manage increasing workloads, experienced pharmacists are having to undertake medicines reconciliation at admission, a task better suited to lower banded pharmacists. This represents an inefficient use of resources and impedes the provision of clinical pharmacy services. It is therefore imperative that appropriate numbers of pharmacy staff are recruited to allow stratification of the workforce, enabling staff to undertake the roles and responsibilities appropriate to their band and experience.

Additionally, when a new medical service is set up, it does not always include the cost of pharmacy services, even though pharmacy staff and resources are needed for the service to operate. Furthermore, the funding for other key pharmacy services[25] required to support these new clinicals services, has not kept pace with the expansion and subsequent increased funding of clinical pharmacy services. This has increased work-related pressures on staff. Issues around balancing workload, feeling overwhelmed by patients' expectations and difficulty in balancing new roles with existing responsibilities (Figure 2.4a, 2.4b and 2.4c) were reported more frequently by pharmacists at Band 6 and 7 rather than those at Band 8a and above.

As the role of general practice pharmacists becomes an established part of general practice in NI, the workload associated continues to increase. Overall, general practice pharmacists were the most positive of the three sectors (Figure 2.4a, 2.4b and 2.4c). They recognised at this formative stage not all aspects of their role would have been fully embedded. Nevertheless, there was an expectation that issues relating to career development, AfC banding and scope of practice would be addressed in a timely manner.

[23] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/499229/Operational_productivity_A.pdf
[24] https://www.nice.org.uk/guidance/ng5
[25] Other key pharmacy services in this context include aseptic, patient services, procurement, medicines governance and patient safety, quality assurance, radiopharmacy, interface and medicines information

2.2.3 Professional isolation

Professional isolation has been a long-standing issue within community pharmacy[26]. Following analysis of data collected for this review, almost 60% of community pharmacists stated that they feel professionally isolated, compared to just 21% and 14% of hospital and general practice pharmacists, respectively (Figure 2.5).

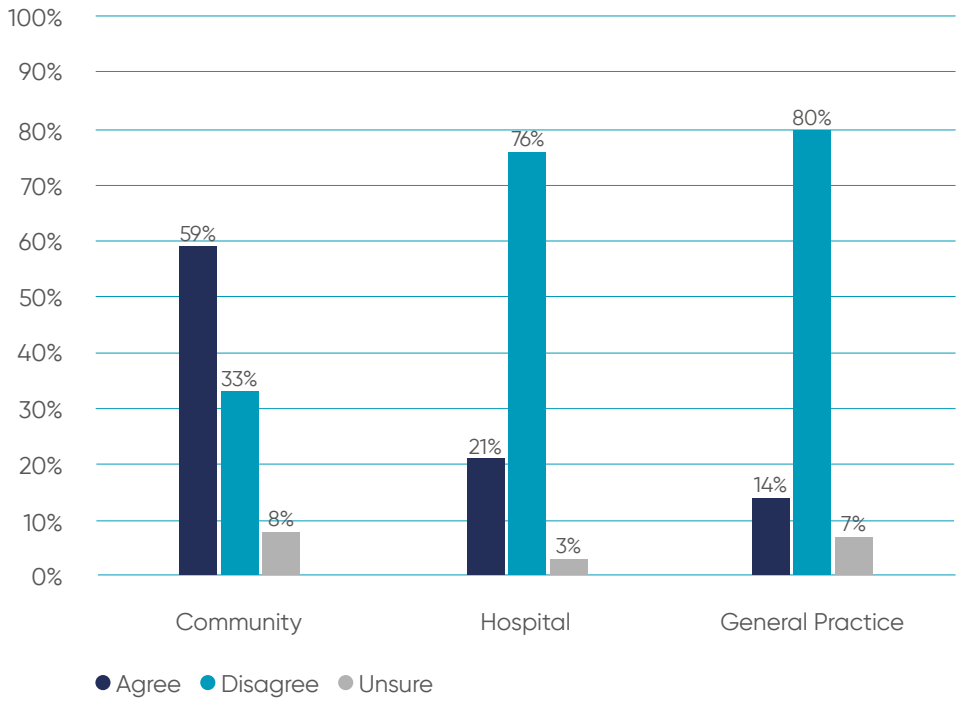


Figure 2.5 Perceived professional isolation.

There are a number of reasons for this perceived professional isolation in community pharmacy. Firstly, in many cases, a single pharmacist bears sole responsibility for all daily dispensary activities, staff management and answering medicines-related queries. Without adequate skilled support staff this can be particularly challenging for young, inexperienced staff. Secondly, poor communication and collaboration between community pharmacy and GPs further augments community pharmacists perceived isolation. Thirdly, pharmacists in this sector do not have the level of career development opportunities of counterparts in hospital and general practice.

Fourthly, lack of access to patient information systems, e.g. the electronic care record (ECR), isolates community pharmacists from other healthcare professionals and is a barrier to their professional involvement in patient management, limiting utilisation of their clinical skills. Research has shown that shared access to ECRs has benefits for healthcare organisations, patients, healthcare professionals and third parties. Such benefits include, improved patient safety, reduced errors, facilitation of integrated care pathways, better transition of care and more effective multidisciplinary team working[27]. Arrangements to enable community pharmacy access to the ECR are being progressed as a matter of urgency and are expected to be in place by 2020.

[27] http://www.ehr-impact.eu/

2.2.4 Skill-mix

The predominance of tasks related to supply in the community sector limits the pharmacist's capacity to utilise their clinical skills to their fullest extent (Figure 2.6). This is compounded by the inability to control the workload reported earlier (Figure 2.4a).

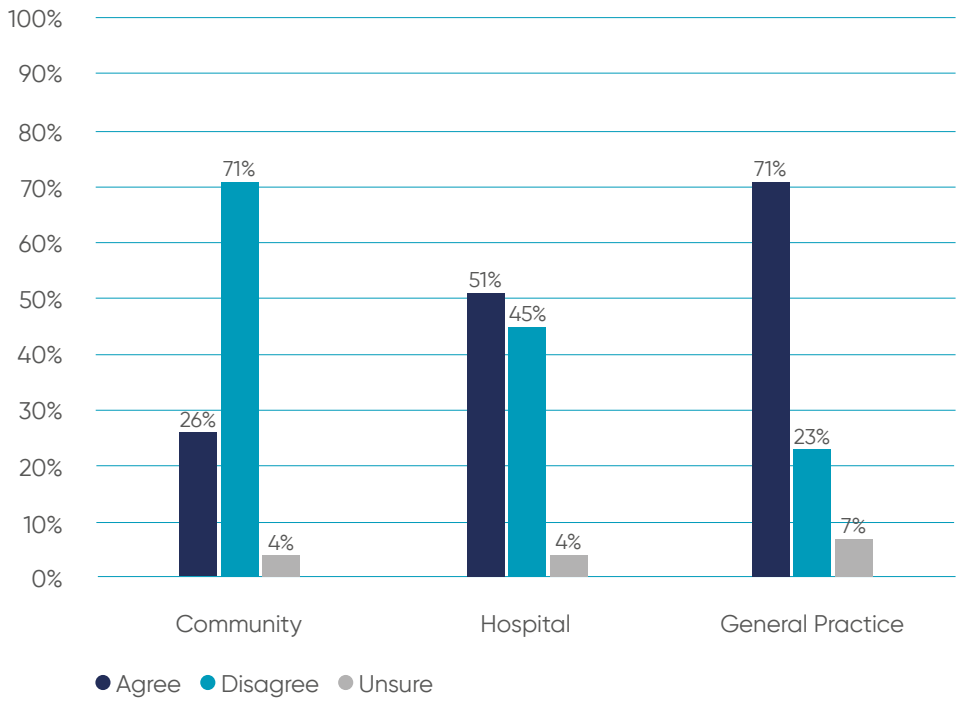


Figure 2.6 Utilise skills to the fullest extent.

Community pharmacists have a key role to play in educating patients about their medicines and engaging with the public to improve public health, thereby reducing pressure on other parts of HSC. If the full potential of this is to be realised, there is a need to address access to ECRs, better utilisation of pharmacy technicians and support staff as well as wider adoption of automation. Better use of the pharmacy technicians already employed within the community sector, underpinned by regulation, is central to affording community pharmacists confidence in support staff and the time needed to undertake enhanced clinical roles.

Likewise, there is also a need to diversify the skill-mix within hospital and general practice through expansion of the role of pharmacy technicians, pharmacy support staff and non-pharmacy staff. For example, pharmacy technicians could support pharmacists managing patients in care homes. These roles should be explored and defined.

2.2.5 Career development and succession planning

Unlike the hospital sector, a defined career pathway for community pharmacy is lacking and 66% of community pharmacists report they have no opportunities for advancement in their career; Figure 2.7.

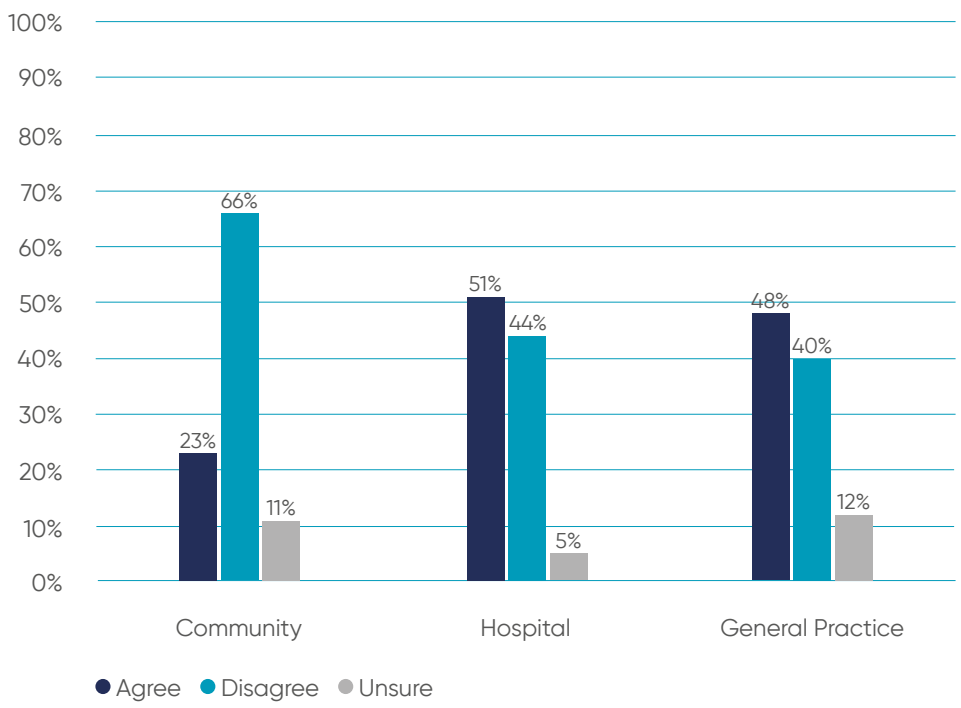


Figure 2.7 Opportunities for advancement in career.

In relation to opportunities for career advancement, there were differing views within the hospital sector (Figure 2.7). For example, those at Band 6 and 7 were more likely to agree with the statement, 'I have good opportunities for advancement in my career', whilst those at Band 8a and 8b (i.e. more experienced pharmacists) were more likely to disagree with this statement, reporting that they found it difficult to have time to develop themselves and support pharmacists undertaking Foundation training. Training to support career development was more limited in areas other than clinical pharmacy, this was viewed as a disincentive to practice in these areas. There needs to be greater equity in funding arrangements for career development across hospital pharmacy services.

There is a need to expand the scope of practice for both lead and general practice pharmacists, yet the absence of a career development pathway does not reflect this. Foundation training for general practice pharmacists was introduced in 2019, after which pharmacists may train as independent prescribers. Whilst most pharmacists in this sector report that they enjoy their role, opportunities for grade progression and advanced clinical practice, central to a career in hospital pharmacy, are absent in general practice pharmacy.

Postgraduate training and development of pharmacists should be harmonised across all sectors, allowing progression from foundation training (including independent prescribing where appropriate) to advanced practice. This will require additional investment to move from a continuing education (CE) model to a workforce development model. Moreover, it is anticipated that a large number of senior and experienced pharmacists will retire in the coming years and the mechanisms for succession planning need to be established now to ensure business continuity in an expanding environment.

2.3 Pharmacy technicians

2.3.1 Service provision

Research published by the University of East Anglia, in collaboration with the Association of Pharmacy Technicians United Kingdom (APTUK), identified the roles of pharmacy technicians in the United Kingdom (UK)[28]. This work showed considerable overlap in practice between hospital and community pharmacy. Tasks undertaken by pharmacy technicians include:

- dispensing prescribed medicines
- calculating quantities and doses
- providing information to patients on using their medicine
- providing advice on over the counter (OTC) medicines
- accuracy checking of dispensed medicines
- assessing patients own drugs
- undertaking medicines reconciliation
- manufacturing ointments and mixtures
- stock procurement and control
- maintaining electronic patient medication records.

Currently, some of these tasks may only be undertaken after appropriate training programmes e.g. Medicines management accredited programme (MMAP) and Accuracy checking pharmacy technician (ACPT). A recent pilot has explored the potential for pharmacy technicians to take on medicines administration roles within Trusts in the view of the shortages of the nursing workforce. Given the limited number of pharmacy technicians this may simply displace shortages in one sector to another.

Experience in secondary care has shown that less than 60% of patients are seen by a member of the pharmacy team. Thus, opportunities for pharmacy intervention are missed in around 40% of cases. Better use of pharmacy technicians leads to a more appropriate skill-mix, allowing pharmacists more time to focus on patients with multiple and complex needs. In community pharmacy, technicians are ideally placed to manage and oversee the running of the dispensary, thereby creating capacity to allow the pharmacist time to focus on the delivery of enhanced services.

2.3.2 Constraints

Following the analysis of focus group and questionnaire data, a number of themes emerged relating to constraints faced by the pharmacy technician workforce. These constraints are discussed below.

Registration and regulation: Pharmacy technicians in NI are not regulated healthcare professionals, unlike their counterparts in GB who have been a regulated profession since 2011. One consequence of this is that pharmacists are still professionally accountable for all regulated activity in the pharmacy, including that which they may not ordinarily be directly involved in. Therefore, they tend to be reluctant to delegate some of their dispensing and management responsibilities in the absence of another registered professional, which limits the potential for service development. Full benefit of any alternative regulatory model designed to support maximum utilisation of skill-mix may only be realised with registration of pharmacy technicians, ensuring the full capability of the workforce is optimally utilised, whilst maintaining patient safety and public confidence.

[28] https://www.uea.ac.uk/documents/899297/15294873/Identifying+The+Role+Of+Pharmacy+Technicians+In+The+UK/d6d60e7b-f527-481a-8f16-9f3f04037b6c

Recruitment: Better terms and conditions and a defined career pathway in the hospital sector have been cited by community pharmacy employers and pharmacy technicians as factors leading to a change in employment sector. Nevertheless, a consistent approach is needed across the hospital sector in respect of post-qualification training and AfC Band. Expansion of pharmacy technicians to general practice is likely to place further recruitment pressures on the community sector. Thus, more needs to be done to make the community pharmacy sector more attractive as a career option.

A standardised approach to the recruitment and utilisation of pharmacy support staff (pharmacy technicians and pharmacy assistants) throughout HSC Trusts is lacking and contributes to difficulty in filling vacancies. This limits optimal skill-mix and leads to individuals undertaking tasks for which they may be over- or under-qualified. The introduction of seven-day working has compounded this problem. Furthermore, workforce supply issues negatively impact on staff morale, increase the potential for errors and compromise patient safety.

Defining the required workforce

Step 3

Step 3 – Defining the required workforce

3.1 Undergraduate pharmacist requirements

Like the rest of the UK, NI is experiencing a decline in number of applications to study pharmacy (Figure 3.1). Pharmacy has seen significant fluctuations in undergraduate numbers in the last ten years, with periods of shortage and over supply. The opening of a second School of Pharmacy at Ulster University in 2009 resulted in an overall increase in the number of pharmacy training places and thus pharmacy graduates. The number of Schools/Departments of Pharmacy has rapidly increased in GB over the last 10 years as these universities are not restricted by the maximum student number mechanism experienced by universities in NI. This resulted in large numbers of qualified pharmacists flooding the market in GB between 2007 and 2011, leading to an overall under employment of the workforce in NI. This created a negative perception of the opportunities of a career in pharmacy. Simultaneously, market forces, funding for community pharmacy and over supply of pharmacists across NI forced employers to reduce salaries, particularly in community pharmacies. This may help explain why the number of students enrolling for the Master of Pharmacy (MPharm) has declined each year since 2011.

While the number of undergraduates from NI studying pharmacy is declining, the Schools of Pharmacy have maintained their overall student numbers by recruiting overseas students (this includes the Republic of Ireland) and expanding the number of undergraduate pharmaceutical science degree programmes offered. Estimates indicate that approximately 20% of pre-registration trainees are from outside NI and choose to practice in their home country following registration. In addition to changing employment opportunities, evidence suggests low morale across community pharmacy, together with its perceived limited career prospects is putting-off prospective students (and their parents) from applying to study pharmacy.

Figure 3.1 Trend in MPharm level 1 undergraduate numbers in Northern Ireland (2000–2019).

To ensure availability of the necessary pharmacy workforce, there is a need to better engage with post-primary schools, prospective students and their parents to promote pharmacy as a career and market NI as an attractive place to live and work.

The public generally associate a career in pharmacy with dispensing and they have limited awareness of wider roles such as, clinical pharmacist, consultant pharmacist, aseptic pharmacist, medicines information pharmacist and general practice pharmacist. Consequently, there is a need for the strategic leadership within pharmacy to broaden the public's understanding of pharmacy.

When presented with the statement, 'I would choose pharmacy again if I could start my career over', only ~23% of the current pharmacy workforce agreed (Figure 3.2). This does not create a positive view of pharmacy likely to attract more students into the profession. Thus, promotion of pharmacy as a career by current pharmacists, needs to occur in conjunction with addressing the issues with each sector.

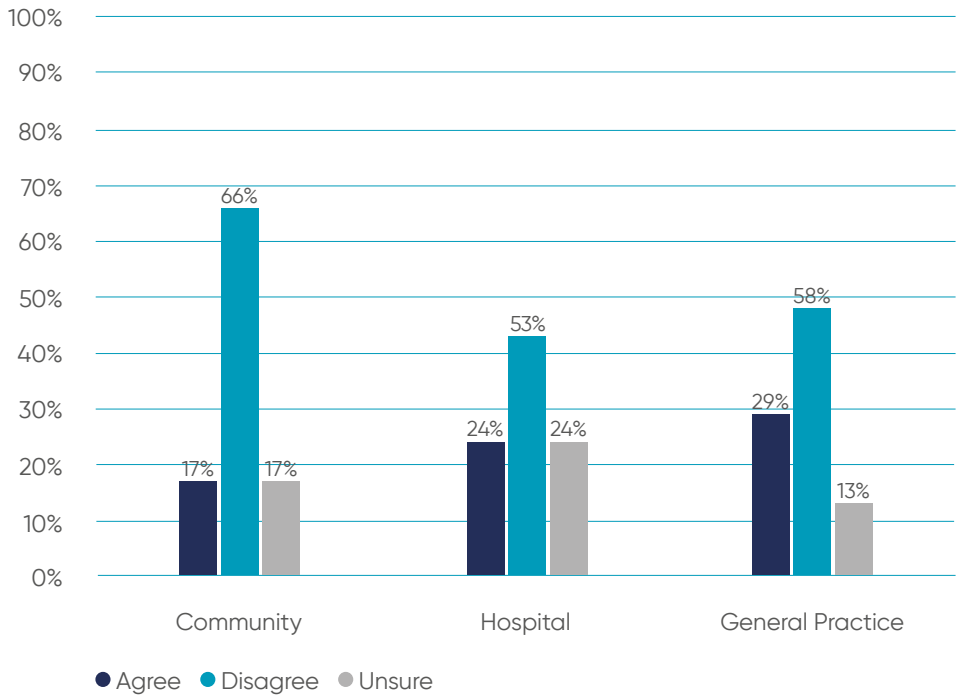


Figure 3.2 Percentage of pharmacists that would choose pharmacy again as a career.

3.2 Pre-registration requirements

Currently, pharmacy pre-registration training occurs after graduation from the four year MPharm course. In January 2019, the General Pharmaceutical Council (GPhC) consulted on new standards for the initial education and training (IE&T) of pharmacists, in collaboration with the Pharmaceutical Society of Northern Ireland, ensuring a UK wide perspective. The consultation highlighted the need to prepare pharmacists for increasing clinical roles in a multi-sector health environment with closer integration of academic study and learning in practice. It sets out learning outcomes and revised draft standards for education providers aimed at ensuring students benefit from a coherent and connected five years of education and training with greater application of science in practice and development of skills in decision-making, risk management and consultation.

In addition, the UK-wide Education Governance Oversight Board (EGOB) has been developing views on post-registration foundation training for pharmacists. These two important areas of work are expected to inform changes in pre-registration training across the UK, starting during 2021. This work will require Higher Education Institutions, Deaneries and employers to work together in new ways, with a clear set of accountabilities and with oversight on outcomes from the regulators.

Whilst most pre-registration trainees spend 12 months in community pharmacy, a small number (n=23) undertake their training across two sectors (community and hospital), spending six months in each. The provision of multi-sectoral experience for all pre-registration trainees is increasingly being regarded as a better approach to current practice[29]. Given the establishment of general practice pharmacists, it has been proposed that multi-sectoral training should embrace three sectors and that all trainees are appointed at AfC Band 5. Multi-sectoral pre-registration training is being implemented in Scotland and Wales and in parts of England. Evaluation of this training pathway has demonstrated benefits in preparing trainees for practice and therefore implementing this approach should be taken forward in Northern Ireland. It should be noted that legislative change would be required to allow implementation.

3.3 Post-registration requirements

This review has highlighted that there is no single system to monitor vacancies in community and general practice. The data presented in this review are self-reported, thus, there is a need to develop a more robust model to track vacancies in these sectors.

3.4 Community pharmacy requirements

Currently, 1522 pharmacists are employed in the community pharmacy sector, equating to around 900 WTEs. It has been reported that almost 400 pharmacists have left community pharmacy since 2016 to take up posts in hospital trusts (18%), general practice (44%), the Republic of Ireland or GB (17%). Only 69 pharmacists on the pharmaceutical register are designated as locum and a high proportion of pharmacy contractors report difficulty in sourcing locum cover. These staff movements together with a reduction in new pharmacy graduates have resulted in community pharmacies reporting difficulty in filling vacant posts. Moreover, some community pharmacies have been unable to open due to lack of pharmacist availability. This movement has been evidenced by recruitment data from hospital and general practice and has created workforce pressures that are under active consideration by the DoH and HSCB in conjunction with CPNI. It is more appropriate to consider those pressures separately from longer-term strategic recruitment requirements because mitigating action is needed in the short-term. Should these mitigating actions not be achieved a revision of the figures in Table 3.3 would be required.

Estimates of the number of additional pharmacists needed in the community pharmacy network is given in Table 3.3. Employers anticipate that the introduction of new pharmacy services, over and above those outlined in the draft framework, could require an additional 0.5 pharmacist per pharmacy. However, some of this additionality could be

[29] http://www.nwssp.wales.nhs.uk/sitesplus/documents/1178/abstract_for_integrated_pre-reg_pharmacists_posts_final1.pdf

provided by pharmacy technicians, but would be contingent on their professional regulation. While relatively few community pharmacists are qualified independent prescribers, employers estimate that, depending on the type of new services introduced, each community pharmacy would require one pharmacists to be trained as a prescriber. At the time of publication of this report there are no models of practice that would warrant large scale training of community pharmacists as prescribers. Such training may be confined to local need for locally commissioned services. Nonetheless, as pressure continues to increase in primary care, it is possible to envisage a scenario in which repeat prescribing and medication review are managed by pharmacist prescribers for patients registered with their community pharmacy, dispensing services being supported by better skill-mix and automation.

3.5 Hospital pharmacy requirements

Heads of Pharmacy and Medicines Management for all five HSC Trusts have projected pharmacist, pharmacy technician and pharmacy support workforce requirements over the next three and five years (see Table 3.1 and Table 3.2). These estimates are based on the NHS benchmarking exercise which all Trusts undertook in 2017. Trust are working with commissioners to address gaps in the service compared to other comparable Trusts in the UK (see also section 2.2.2).

Pharmacist agenda for change band	In post (WTEs*)	Projected requirements in three years (WTEs)	Projected requirements in five years (WTEs)
Band 9	5	5	5
Band 8d	1	4	4
Band 8c	25	36	42
Band 8b	38	51	64
Band 8a	126	176	207
Band 7	200	264	308
Band 6	119	174	216
Total	514	710	846

Table 3.1 The number of pharmacist WTEs needed over the next three and five years.

*WTE, Whole time equivalent.
Data to the nearest whole number.

These data include pharmacists employed to provide pharmacy services to prisons but do not take into account the additional number of pharmacists that will be needed as a result of ongoing workstreams linked to oncology, Inquiry into Hyponatraemia-related Deaths and wider adoption of consultant posts. Moreover, these data are estimates based on admission figures and could change depending on future service development.

Pharmacy support title	In post (WTEs*)	Projected requirements in three years (WTEs)	Projected requirements in five years (WTEs)
Pharmacy Technicians Band 8b	0	1	2
Pharmacy Technicians Band 8a	0	2	5
Pharmacy Technicians Band 7	4	10	13
Pharmacy Technicians Band 6	29	44	53
Pharmacy Technicians Band 5	136	201	241
Pharmacy Technicians Band 4	182	241	288
Pre-registration Trainee Pharmacy Technicians Year 2	16	46	56
Pre-registration Trainee Pharmacy Technicians Year 1	15	47	57
Pharmacy Assistant Band 3	33	66	81
Pharmacy Assistant Band 2	92	126	143
Total	507	784	939

Table 3.2 WTE pharmacy support requirements over the next three to five years.

*WTE, Whole time equivalent.
Data to the nearest whole number.

3.6 General practice pharmacy requirements

While pharmacists have been working in general practice for more than 20 years, it tended to be a niche area involving relatively few pharmacists. The funding provided by the DoH in 2015 supported near universal adoption of pharmacists within general medical practice throughout NI. GP Federations have projected workforce requirements over the next five years based on planned recruitment to achieve full implementation of the initial five-year plan and potential natural churn. However, a significant number of additional posts could be required in the future due to service and career development. In order to optimise the pharmacy skill-mix in general practice these posts would range from foundation to advanced practice. Given that this sector is still in its infancy, the number of pharmacists that will be required in the future is difficult to determine at this stage and thus is not reflected in Table 3.3.

3.7 Summary of pharmacy requirements

Table 3.3 provides an overview of the projected retirement and anticipated recruitment across all pharmacy sectors over the next five years. The raw data presented in Table 3.3 are summarised in Table 3.4 as the net number of new pharmacists entering the PSNI register and the anticipated need arising from retirement/removal from the PSNI register and creation of additional posts.

	2020	2021	2022	2023	2024
Pre-registration trainees[1]	152	156	152	134	130
Pre-registration trainees available to practice in NI[2]	122	125	122	107	104
From GPhC/EEA[3]	22	22	22	22	22
Recruitment (community)[4]	64	64	64	64	64
Recruitment (hospital)[5]	64	64	64	68	68
Recruitment (general practice)[6]	60	20	20	20	20
Retirement (hospital)[7]	5	10	5	14	7
Retirement (other)[7]	0	2	2	5	4
Retirement (community/locum)[7]	24	21	18	17	21
Removal from register (other)[8]	14	14	15	15	16
Hospital vacancy rate (8%)[9]	40	44	48	51	56

Table 3.3 Projected retirement and anticipated recruitment over the next five years.

[1] Based on number of graduates currently training as pharmacists in NI.
[2] Accounts for overseas pre-registration trainees who do not progress to practice in NI following registration.
[3] Based on PSNI previous registrations.
[4] Projections from CPNI based on new services to support the transformation agenda.
[5] New posts from Table 3.1.
[6] Data for 2020 represent planned recruitment, thereafter the data represent natural turnover.
[7] Assumes a retirement age of 65 years.
[8] Typically, 7-10 pharmacists were removed from the PSNI register annually for fitness to practice or non-payment of fees. A smaller number requested they be removed from the register for unspecified reasons.
[9] Based on hospital trust current and past vacancy rates across NI.

	2020	2021	2022	2023	2024	Total (needed)	Total (available)
Net number of pharmacists added to the pharmaceutical register	144	147	144	129	126		690
Net number of new posts and number of pharmacists leaving the pharmaceutical register	271	239	236	254	256	1256	–
Deficit	-125	-90	-90	-127	-132	-566	

Table 3.4 Summary of all pharmacist data from table 3.3.

Since 2015, 101 pharmacists have registered with the General Pharmaceutical Council and Pharmaceutical Society of Ireland. Such registrations tended to be higher in 2015 when pharmacy jobs were scarce in NI. However, with greater employment opportunities these registrations have reduced considerably to around three per year, with most pre-registration pharmacists choosing to remain in Northern Ireland upon qualifying.

A number of factors may affect the deficit of pharmacists outlined in Tables 3.3 and 3.4. For example, the data assume full-time working, whereas Section 4.1 highlights the prevalence of part-time working and, thus, actual workforce availability may be lower than predicted. Expansion in the role of community pharmacy beyond those envisaged may have workforce implications. CPNI suggest this could equate to an additional 0.5WTE pharmacist per pharmacy, increasing the potential deficit from 556 to over 800. Given the declining number of pharmacy graduates, some of this requirement could be mitigated through the wider use of qualified pharmacy technicians and their professional regulation.

Quantifying the number of pharmacy technicians working in Northern Ireland is more difficult as there is no register of qualified technicians. The GPhC currently defines a pharmacy technician as possessing Pharmaceutical Science Level 3 (City & Guilds / BTEC / SQA) and NVQ Level 3 (Pharmacy Service skills). This will be replaced in 2020 by a new qualification, the Level 3 Diploma in Principles and Practice for Pharmacy Technicians. Currently there are 351 WTE pharmacy technicians working in hospital practice, with the requirement rising to over 600 WTE by 2024.

The wide variation in support staff qualifications in the community sector makes it difficult to provide accurate estimates of the current workforce. The 400 pharmacy technicians reported by CPNI as working in this sector is probably an overestimate, arising from confusion around the definition of a pharmacy technician. As such, these data likely represent a combination of all support staff with some qualification. The PSNI estimate, from premises returns, that 262 pharmacy technicians are employed in the community sector. Anecdotal evidence suggests some pharmacy technicians employed in the community sector move to hospital practice. However, the number of staff involved is small and most of this movement arises from unqualified staff. Nonetheless, CPNI have projected that 600 qualified pharmacy technicians will be needed across the community pharmacy network by 2024.

3.8 Future career development

3.8.1 Future pharmacist career development

Following a review of frameworks across the UK (led by the RPS), it is envisaged that independent prescribing will become part of the Foundation Programme from 2021/22. This approach will allow greater focus on further developing prescribing practice during the advanced practice phase. Whilst the NICPLD and NHS Education for Scotland Pharmacy (NES) have been at the forefront of developing and delivering such programmes, there is national acceptance that this is how the profession should be developed, and this approach is being adopted in Wales and in England. Internationally, these programmes are part of the International Pharmaceutical Federation Workforce Development Goals[30] as best practice for how the pharmacy workforce should be developed.

Increasingly, healthcare is delivered by multi-disciplinary teams, yet much of the training is provided in professional silos. This was recognised in Scotland as being disadvantageous to overall service development, leading to the establishment of NES in 2005. A similar approach was taken in Wales with the creation of HEIW in 2018. Health Education England also provides multi-disciplinary learning. Thus, the move of NICPLD to NIMDTA in 2019 and their intended merger, is similarly viewed as a positive move that supports people who work together also training together.

3.8.2 Future pharmacy technician career development

The role of the pharmacy technician should be promoted and the national career framework (APTUK Foundation Pharmacy Framework[31]) adopted to support expansion of the role of pharmacy technicians and better skill-mix (Carter Report 2016)[32]. This model would also make the World Health Organisation goal of reducing medication harm by 50% over the next five years, (Medication without Harm[33]), an attainable one.

Upskilling the workforce would require increasing availability and uptake of post-registration training for pharmacy technicians. Currently, professional development opportunities exist in the form of the ACPT qualification, the MMAP and pre- and post in-process checking accredited programme. Registering the workforce would allow the true value of these qualifications to be realised.

[30] https://www.fip.org/www/streamfile.php?filename=fip/PharmacyEducation/2016_report/2016-11-Education-workforce-development-goals.pdf
[31] https://www.aptuk.org/static/pdf/1d828536f790c7b842907dc23096d62a.pdf
[32] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/499229/Operational_productivity_A.pdf
[33] https://www.who.int/patientsafety/medication-safety/en/

3.8.3 Funding requirements

The NICPLD was originally established as a provider of CE for the pharmacy profession, but it has evolved over the past 17 years into an organisation for developing the pharmacy workforce in-line with national career frameworks. However, the infrastructure needed for workforce development programmes requires funding at a higher level. Moreover, the current funding arrangements cannot accommodate the significant increase in number of trainees recruited to the hospital sector in recent years. A similar picture has emerged with general practice pharmacists and expanding the training infrastructure to support early career community pharmacists will be more difficult still. Although the pace of staff development can be slowed to live within the available funding, pharmacists, like their medical and dental colleagues, have an expectation of being able to progress from foundation (through independent prescribing) to advanced practice. Importantly, Government policy on extending the clinical role of pharmacists is dependent on expanding postgraduate training opportunities.

The extended role of pharmacy technicians in both dispensary and (increasingly) clinical roles has ably demonstrated the impact of a better skill-mix on patient care. This has been made possible by post-qualification training opportunities and should continue at an accelerated pace if technician regulation and registration is introduced into NI. The NICPLD has been innovative in the design and implementation of transformative programmes, which, in turn, have supported the greatly expanded clinical role of pharmacists and pharmacy technicians. However, its budget has remained broadly static over the last decade and more funding is required to continue developing the pharmacy workforce in line with HSC transformation.

Under-standing workforce availability

Step 4

Step 4 – Understanding workforce availability

4.1 Current pharmacist workforce

As of January 2020, the PSNI report there are 2715 pharmacists registered in NI, of which 55% practice in the community pharmacy sector, 24% in the hospital pharmacy sector and 12% in the general practice pharmacy sector. In addition, 10% of registered pharmacists work in other sectors such as academia, the Health and Social Care Board (HSCB) and other public sectors. The breakdown of the pharmacy workforce by area of practice is shown in Figure 4.1.

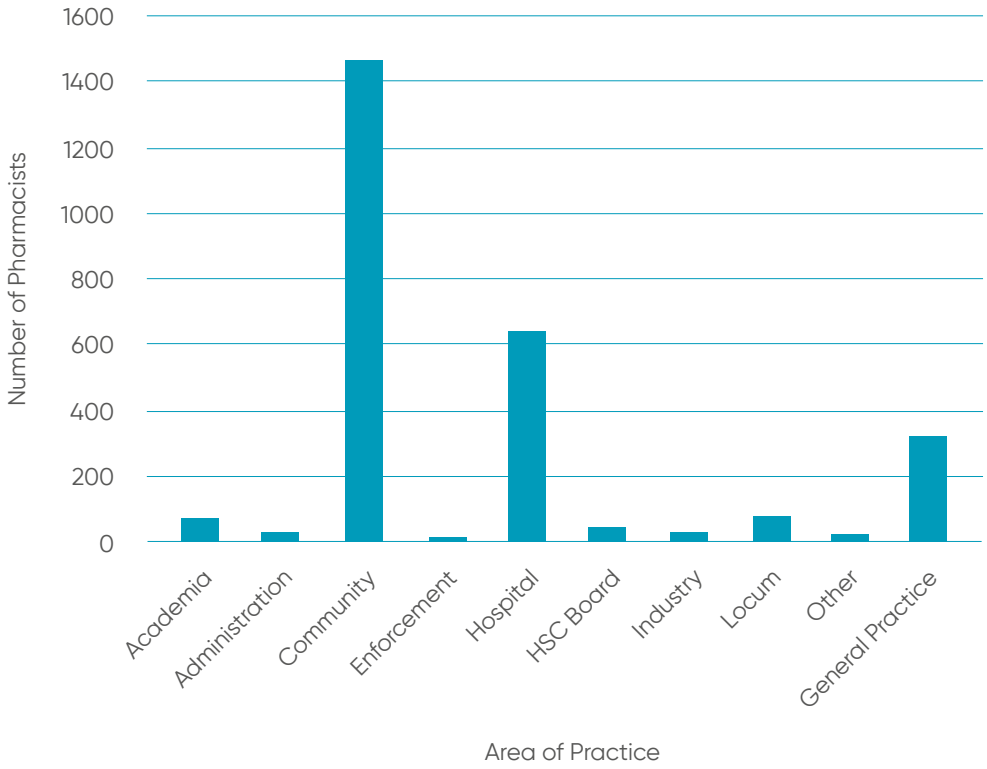


Table 4.1 Number of pharmacists in Northern Ireland according to area of practice.

The pharmacy profession is characterised by a predominantly young female workforce (Figure 4.2 and 4.3). For example, 68% (n=1843) of pharmacists are female and 52% (n=693) are less than forty years of age. Additionally, whilst women make up 68% of the Pharmaceutical Register, they comprise 79% and 78% of hospital and general practice pharmacists, respectively.

Age profiling of the workforce shows that pharmacists aged 30-39 years represent the largest category in hospital and general practice pharmacy, whereas the largest age group in the community pharmacy sector are those under the age of 30 years. Employers raised concerns at the focus group that the change in demographics means that younger, less experienced pharmacists are now managing community pharmacies.

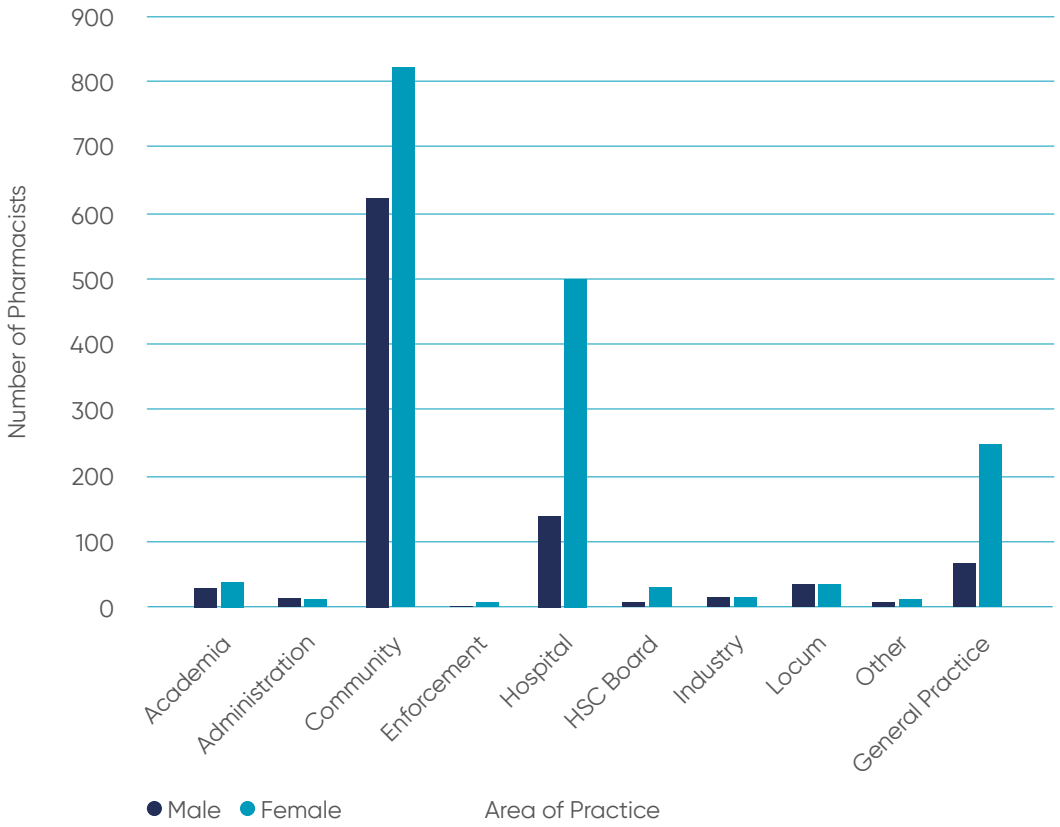


Table 4.2 Gender distribution of pharmacists by area of practice.

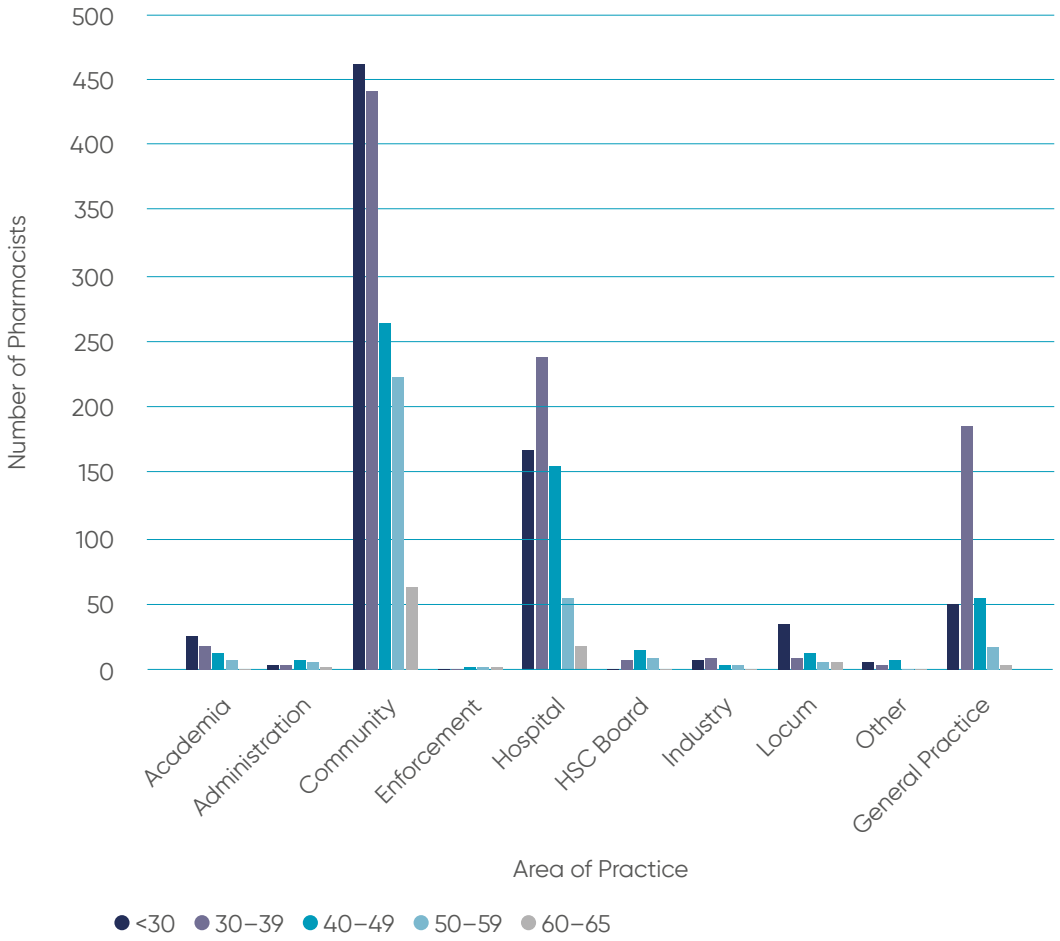


Table 4.3 Age distribution of pharmacists by area of practice.

Figure 4.4 illustrates the patterns of part-time and full-time working of pharmacists by age and gender. There is an element of part-time working for both genders and in the youngest age group these tend to be broadly equal. However, in older age groups there is a higher percentage of pharmacists who work part-time, and this tends to increase with age.

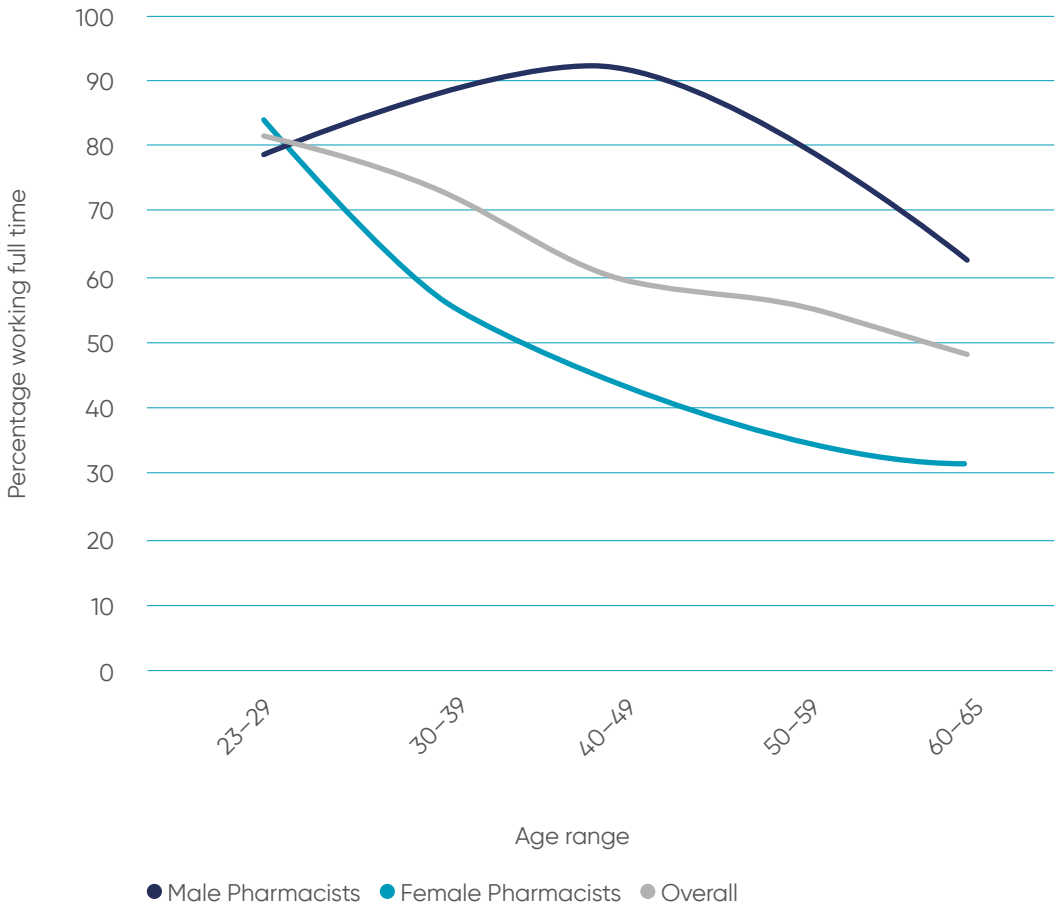


Table 4.4 Patterns of part-time/full-time working by age and gender.

4.2 Current pharmacy technician workforce

Quantifying the number of pharmacy technicians working in Northern Ireland is more difficult as there is no register of qualified technicians. Accurate numbers are known for technicians working in the hospital sector and none are currently working in general practice. However, the general confusion around qualifications has probably resulted in overestimation, the reported numbers likely representing a combination of all support staff with some qualification. This aspect will be dealt with in detail in a separate report.

4.3 Current pharmacist training arrangements

4.3.1 Foundation training

While undergraduate degree programmes have adapted to reflect a more clinical role for the pharmacist, their funding model has remained unchanged which has constrained overall development. Unlike the medical profession, pharmacy has had no mandatory postgraduate training to support workforce development beyond pre-registration training, which further limits expansion in this clinical role. Consequently, personal development was largely a matter for the individual.

Exhaustive research by the Competency Development Group and Joint Programmes Board demonstrated that foundation training is the vital step beyond pre-registration training that supports acquisition of clinical skills in early career pharmacists. Further work by the Royal Pharmaceutical Society, International Pharmaceutical Federation (FIP), NES, NICPLD and others has reinforced this view, which is supported by the four UK Chief Pharmaceutical Officers. Foundation training develops the knowledge, behaviours, skills and values that collectively form the building blocks for all pharmacists across all sectors. Research repeatedly demonstrates that, in contrast to traditional taught postgraduate programmes, a structured work-based approach to developing the knowledge, behaviours, skills and values leads to early, effective and persistent behavioural change in the practitioner. Importantly, practitioners are less likely to focus on semi-professional activity and are more confident in adopting extended roles.

The NICPLD has been accredited as a Foundation School of the Royal Pharmaceutical Society since 2016, demonstrating that the NICPLD's Foundation Programme meets the national standard. Figure 4.1 shows the pharmacy education continuum, from initial education and training, through foundation to advanced practice.

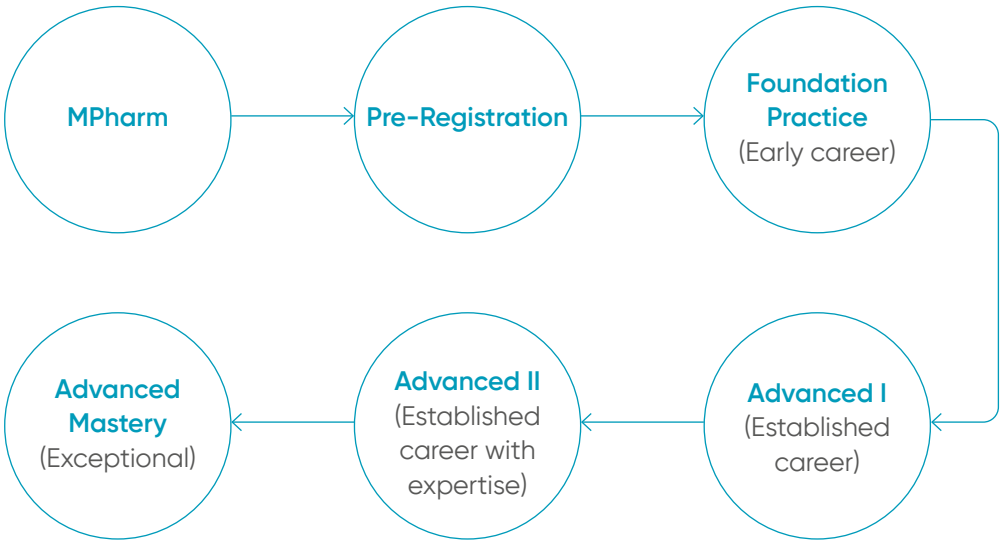


Figure 4.1 Pharmacy education continuum.

The NICPLD Foundation Programme is the standard training pathway for all hospital and general practice pharmacists. For community pharmacists, clinical training is almost exclusively confined to undergraduate study and the pre-registration year. A lack of career and postgraduate training pathway means training can be inconsistent and unstructured. By contrast, in general medical practice, trainee GPs engage in a well-established, centrally funded training programme that is underpinned by an infrastructure of tutors and peer support. This is considered vital to developing competent independent practitioners with the capacity to deliver high-level clinical services.

In order to prepare early career community pharmacists to meet the challenges of a modern health services, access to well-funded, supported, foundation training is needed. Given the anticipated introduction of a new community pharmacy contractual framework, there is a need to revitalise and increase the number of community pharmacists if these services are to be delivered and contribute to the overall transformational change envisaged in the Bengoa Report[34].

By incentivising the workforce, it can serve to attract and retain pharmacists into the community sector by overcoming professional isolation, enabling collaborative working, offering peer support and fostering the acquisition of professional skills necessary to practice to a high level. As with the hospital and general practice sectors, the support and vision of employers will be vital to the success of such a programme.

For widespread availability of foundation training for early career community pharmacists, additional funding is needed that can provide the training infrastructure (including trained educational supervisors) and protected study time necessary.

4.3.2 Independent prescribing

Following publication of the Crown Report, legislation was introduced to NI in 2003 enabling pharmacists to prescribe as supplementary prescribers. That same year NICPLD developed a postgraduate certificate to train pharmacist prescribers and in 2006 legislation was amended to allow independent prescribing. Currently, over 600 pharmacists in NI are independent prescribers, the majority of whom practice in secondary care, although this is rapidly changing as the role of the general practice pharmacist becomes established.

Prescribing by community pharmacists has been more limited. Nonetheless, exemplars have consistently demonstrated the feasibility of prescribing by this sector and access to the electronic care record by community pharmacists will make prescribing a realistic extension to practice across the community pharmacy network. Results from the workforce questionnaire (Section 2) demonstrated that pharmacist prescribers, regardless of practice sector, were more likely than non-prescribers to report being satisfied in their job, able to use their skills to the fullest extent, and less likely to feel professionally isolated or overwhelmed by patient's expectations.

4.3.3 Advanced practice

Whilst pharmacists have traditionally identified with the medication-related aspects of the role, becoming an effective practitioner requires a broader skillset. Thus, the RPS Advanced Practice Framework encompasses six competency clusters: Expert professional practice, Collaborative working, Leadership, Management, Education/developing others, Research.

The APF is intended for use once foundation training have been completed. It forms a supportive framework to gather evidence of continuous advancement across the core competencies, encouraging practitioners to progress from:

- Advanced Stage I: Early stages of specialisation and advancement beyond foundation years
- Advanced Stage II: An expert in an area of practice who routinely manages complex situations and is recognised as a leader locally/regionally
- Mastery: Recognised as a leader in an area of expertise (nationally often internationally), alongside a breadth of experience.

In Northern Ireland, hospital pharmacists completing their foundation and prescribing training progress to train as advanced practitioners (to Stage II) via NICPLD's MSc in Advanced Practice. It is intended that this training should be extended to all pharmacists.

[34] https://www.health-ni.gov.uk/publications/systems-not-structures-changing-health-and-social-care-full-report

4.3.4 Consultant pharmacists

This role was first identified in 'A Vision for Pharmacy in the New NHS' (2003) and was seen as an opportunity to build on the success of clinical pharmacists and make a greater difference in patient care. The guiding principles in developing this role are that:

- benefits to patients are identified when designing posts
- the title consultant pharmacist has real meaning
- there is a uniform approach nationally
- there will be a high level of transferability across organisations.

The title consultant pharmacist applies to those appointed to approved posts who meet the appropriate level of competence. It is not conferred solely in recognition of excellence or innovative practice. Neither are consultant pharmacists advanced level practitioners renamed. A consultant pharmacist is a pharmacist who has developed and demonstrated high level expertise in their area of practice and across the four pillars: 1. clinical practice, 2. leadership, 3. education and 4. research. They have been credentialed as such and have been appointed to an approved consultant post.

As leaders in their field and the profession, consultant pharmacists provide expert care to patients with the most complex needs as well as providing advice to the teams caring for patients. Their influence spreads across organisational and professional boundaries to support the health of those accessing services in their area of practice as well as the wider population. They develop the knowledge-base in their area of expertise through research and innovation and share these developments through their educational role to develop the wider pharmacy workforce, thereby improving patient care.

4.4 Current pharmacy technician training arrangements

Traditionally, Further Education (FE) colleges have been the main training providers for pharmacy technicians in NI, although a greater number of private providers are entering the market with a more flexible distance learning approach that some employers prefer. In the UK, an apprenticeship employer's levy of 0.5% exists for organisations with an annual wage bill above £3 million. In NI, the Department for the Economy (DfE) funds apprenticeship training through the Apprenticeships NI programme, although this is only available to private sector employers for Level 3 apprenticeships. Public sector employers are still liable to pay the levy but have no means of benefitting from the funding. The DfE are reviewing the current arrangements with a view to extending the Apprenticeship NI programme to both private and public sector employers.

Developing an action plan

Step 5

Step 5 – Developing an action plan

5.1 Pharmacy workforce review recommendations

As detailed in Step 2 of this report, focus group and questionnaire data revealed several constrains to the provision of current and future pharmacy services. To overcome these constraints and ensure the workforce can deliver on the wider transformation agenda, a number of recommendations, specific to each pharmacy sector, have been identified (see Table 5.1).

Table 5.1 Pharmacy workforce review recommendations.

Sector	Recommendations
All Sectors	Work should be undertaken with the Department for the Economy, universities and FE colleges to ensure the necessary number of pharmacy graduates and pharmacy technicians are available to meet workforce demands.
	Pre-registration training for pharmacists should be reformed to ensure that students are prepared for increasingly clinical roles in a multi-sector health environment..
	All pharmacists should be supported to undertake foundation training, progressing to independent prescribing and advanced pharmacy practice aligned to service and patient need. This will be subject to appropriately resourced post-graduate pharmacy training and expansion of the current training infrastructure.
	Advanced and consultant pharmacist roles should be defined and developed to support clinical leadership across all pharmacy sectors.
	Appropriate training pathways and opportunities should be devised which support succession planning for senior positions across all pharmacy sectors.
	Pharmacy technicians should be encouraged to practice at the top of their skillset through appropriate pre- and post-registration training. This should be resourced and supported through pharmacy technician education and development leads across all sectors.
Community	Urgent action is needed to ensure the community pharmacy network has adequate workforce capacity to deliver current and future pharmacy services aligned to the wider transformation agenda. This should be reviewed on an ongoing basis.
	Utilisation of pharmacy technicians and technologies should be optimised to enable pharmacists to spend more time on patient-facing clinical activities and manage capacity.
	Flexible working, adequate breaks and safe staffing levels should be addressed to encourage recruitment and retention of pharmacy staff and promote their well-being.
	A career pathway should be developed for community pharmacists.

Cont'd

Sector	Recommendations
Hospital	Safe staffing standards for pharmacy staff must be developed to ensure patient safety.
	The cost to provide all pharmacy support services should be included in any business case for new clinical services. This must also take into account seven day working and headroom.
	A consistent approach needs to be taken across HSC Trusts in respect of job banding and recruitment procedures should be shortened to ensure service continuity.
General Practice	A career pathway should be developed for general practice pharmacists. Moreover, strategic direction needs to be given as to how this sector will develop and how this will affect further recruitment.
	A model for core general practice pharmacy services should be delivered consistently across GP Federations with scope to allow for variation in specialist/additional services according to local need.
	A path-finder study should be undertaken to explore the role of pharmacy technicians in supporting the work of general practice pharmacists.
Pharmacy Technicians	A career as a pharmacy technician should be promoted, particularly to school leavers. The HSC careers services should also be utilised as a means of promoting the pharmacy technician role.
	To maximise the benefit of skill-mix, work should be urgently progressed to enable the registration and regulation of the pharmacy technician workforce in NI in step with the rest of the UK.

5.2 Conclusion

This report has been written to inform HSC pharmacy workforce development for the period 2019-2029. Data collected for this report has demonstrated the need to increase workforce capacity through necessary changes to policy, legislation and funding arrangements, and ensure workforce development is supported. Effective workforce planning and full implementation (to include a formal midterm evaluation of actions taken) of the recommendations in Table 5.1 will ensure we have the right people, in the right place at the right time to ensure efficient and effective delivery of the wider HSC transformation agenda over the next ten years.

Appendices

Appendices

Appendix 1 Project Board members

Colin Adair, (Co-chair) Northern Ireland Centre for Pharmacy Learning and Development, School of Pharmacy, Queen's University Belfast

Jill Macintyre, South Eastern Health and Social Care Trust

Karen Cardwell, Northern Ireland Centre for Pharmacy Learning and Development, School of Pharmacy, Queen's University Belfast

Kate McComiskey, Northern Ireland Centre for Pharmacy Learning and Development, School of Pharmacy, Queen's University Belfast

Peter Barbour, Department of Health

Cathy Harrison, Department of Health

David Lennox, Department of Health

Joe Brogan, Health and Social Care Board

Dianne Gill, Northern Health and Social Care Trust

Louise Brown, Belfast Health and Social Care Trust

Lyn Watt, Southern Health and Social Care Trust

Anne Keenan, Western Health and Social Care Trust

Peter Rice, Community Pharmacy Northern Ireland

Marie Smith, Community Pharmacy Northern Ireland

Aileen Crossin, Community Pharmacy Northern Ireland

Glynis McMurtry, GP Federation

Karen Briers, General practice Pharmacist

Roisin O'Hare, Hospital Pharmacist

Trevor Patterson, Pharmaceutical Society of Northern Ireland

Julie Greenfield, Pharmacy Forum Northern Ireland

Kathy Burnett, School of Pharmacy, Ulster University

Sharon Haughey, School of Pharmacy, Queen's University Belfast

Warren Francis, Association of Pharmacy Technicians UK

Tess Fenn, Association of Pharmacy Technicians UK

Appendix 2 Focus group participants

Hospital Trust Heads of Pharmacy and Medicines Management

Clinical Leads, Medicines Governance and Medicines Information

Aseptics, Radiopharmacy, Quality Assurance and Industry

Patient Services and Procurement and Interface

Community Pharmacy Northern Ireland

GP Federation Lead Pharmacists

Pharmacy Technicians

Ulster University MPharm Level 4 students

Appendix 3 Focus group topic guides

Appendix 3.1 Generic topic guide

Mapping service change

1. How do you see pharmacy services developing in the next two, five and ten years that will impact upon future workforce requirements?

Prompt questions

- What are the benefits of these changes to the HSC?
- What are the drivers for change?
- What factors might prevent this from happening?
- What collaboration do you see across sectors/disciplines?

Defining the required workforce

2. What is the likely impact on the type and number of staff needed to deliver the new service model(s)?

Prompt questions

- Which types of staff will you need to develop the service?
- What new skills will be needed?
- To what extent do you have the right skill-mix?
- What needs to be done to address the skill-mix?
- How could you reduce the cost associated with implementing change/improving the service?

Understanding workforce availability

3. What are the issues around workforce availability that need to be addressed to make change/service development sustainable?

Prompt questions

- What options are open to you for staffing, including issues of skill-mix?
- What training/redeployment considerations need to be addressed?
- How might this be best done?
- What is the likely increase in staff numbers needed for the service in the next short (two years), medium (seven years) and longer (ten years) term?

Developing an action plan

4. A plan for delivering the right staff, with the right skills in the right place needs to be developed. What is the most effective way of ensuring the availability of staff to deliver services?

Prompt question

- What would be your first priority?

Appendix 3.2 Technician topic guide

Service development

1. How do you see pharmacy services developing in the next 2, 5 and 10 years?

Prompt questions

- How will these services benefit the HSC and patients?
- What factors will help drive forward these developments?
- What factors might prevent these developments?

Workforce requirements

2. What type and number of staff do you think will be needed to deliver these new services?

Prompt questions

- What type of staff do you need?
- To what extent do you have the right skill-mix?
- What needs to be done to address skill-mix?

Workforce availability

3. What issues around workforce availability need to be addressed to make service development sustainable?

4. How could we address issues of recruitment and retention of staff to ensure service development is sustainable?

Prompt questions

- Career pathway
- Training issues that need to be addressed?

Action planning

5. What three priorities should be addressed first to achieve the right staff, with the right skills in the right place?

Prompt questions

- Are you in favour of professional registration for pharmacy technicians in NI?
- How would you like to see technician registration be implemented?

Appendix 3.3 Undergraduates topic guide

Choosing pharmacy as an undergraduate degree

1. Why did you choose pharmacy as your undergraduate degree?

Prompt questions

- What attracted to you to pharmacy as a career?
- Was there a particular sector of pharmacy within which you wanted to work?
- Have your views towards a career in pharmacy changed since starting your degree, and if so how?
- If you could go back and make your choices again, would you choose pharmacy as an undergraduate degree?

Development of pharmacy services

2. Have you any opinions on how pharmacy services might develop in the next two, five and ten years?

Prompt questions

- What developments do you see/would you like to see in the provision of pharmacy services?
- How would these developments be of benefit to the HSC?
- What is needed for these developments to happen?
- What factors might prevent these developments from happening?
- What collaboration do you see/would you like to see across sectors/disciplines?

Delivery of pharmacy services

3. In relation to developments in the provision of pharmacy services, how do you think this will impact on the type and number of staff needed?

Prompt questions

- Which types of staff would be needed to provide these developed services?
- What new skills will be needed?
- To what extent do you have/are you developing the right skill-mix?
- What needs to be done to address the skill-mix?

Appendix 4 Questionnaire

General information

1. What is your gender?

- ◯ Male
- ◯ Female
- ◯ Other
- ◯ Prefer not to say

2. Whats is your age?

- ◯ <25
- ◯ 25–34
- ◯ 35–44
- ◯ 45–54
- ◯ 55–64
- ◯ 65+

3. Do you work full time or part time?

- ◯ Full time
- ◯ Part time

4. What is your job description?

- ◯ Pharmacist
- ◯ Pharmacy Technician

5. Are you a Pharmacist Independent Prescriber?

- ◯ Yes
- ◯ No
- ◯ N/A (i.e. Pharmacy Technician)

6. In what sector(s) do you practice? Please tick all that apply.

- ◯ Academia
- ◯ Community Pharmacy
- ◯ Hospital Pharmacy
- ◯ HSCB/DH/Other public sector
- ◯ Practice-based Pharmacy
- ◯ Other

7. Which sector do you consider to be your main area of practice?

- ◯ Academia
- ◯ Community Pharmacy
- ◯ Hospital Pharmacy
- ◯ HSCB/DH/Other public sector
- ◯ Practice-based Pharmacy
- ◯ Other

Community pharmacy

8. Which category do you fall into?

- ◯ Contractor
- ◯ Employee Pharmacist
- ◯ Employee Pharmacist and Staff Manager
- ◯ Employee Pharmacist and Area Manager
- ◯ Locum Pharmacist
- ◯ Pre-Registration Pharmacist
- ◯ Pharmacy Technician

9. For those whose main role does not currently include management, do you see yourself moving into management?

- ◯ Yes
- ◯ No
- ◯ N/A

10. What type of community pharmacy do you work in/represent?

- ◯ Single independent
- ◯ Small multiple (2–5 pharmacies)
- ◯ Medium multiple (6–10 pharmacies)
- ◯ Large multiple (11+ pharmacies)

11. Where is the community pharmacy in which you work located?

- ◯ Rural
- ◯ Semi-rural
- ◯ Urban
- ◯ Town/City centre
- ◯ All of the above

12. Within which country do you practice? Please tick all that apply.

- ◯ Northern Ireland
- ◯ Republic of Ireland
- ◯ Great Britain

Hospital pharmacy

13. What is your current pharmacy grade?

- ◯ Band 4
- ◯ Band 5
- ◯ Band 6
- ◯ Band 7
- ◯ Band 8a
- ◯ Band 8b
- ◯ Band 8c
- ◯ Band 8d
- ◯ Band 9

14. What is your main role?

- ◯ Administration
- ◯ Clinical
- ◯ Dispensary
- ◯ Management
- ◯ Quality Assurance/Aseptic
- ◯ Regional Specialist Services (e.g. MI, Interface Antimicrobial, Medicines Governance)

15. For those whose main role is not currently management, do you see your future career moving into management?

- ◯ Yes
- ◯ No
- ◯ N/A

Practice-based pharmacy

16. What is your job title?

- ◯ Federation Lead Pharmacist
- ◯ Practice-based Pharmacist

17. What is your main role(s)? Please tick all that apply.

- ◯ Clinical patient-facing
- ◯ Clinical non-patient facing
- ◯ Management
- ◯ Administrative

18. For those whose main role is not currently management, do you see your future career moving into management?

- ◯ Yes
- ◯ No
- ◯ N/A

The future

19. Thinking about the future, how likely is it that you will be working in your current area of practice in each of the following time frames? (Highly likely/likely/unlikely/highly unlikely)

In one year

In three years

In five years

20. If you answered highly likely/likely for any of the above, for what reason(s) are you not considering a change? Please tick all that apply.

- ◯ Approaching retirement
- ◯ Defined career pathway
- ◯ Enjoy working in this area of pharmacy
- ◯ Financial incentives
- ◯ Limited opportunity to practice elsewhere
- ◯ Multiprofessional environment
- ◯ Opportunities for professional development
- ◯ Professional automony
- ◯ Team working
- ◯ Use full range of my skills
- ◯ N/A
- ◯ Other (Please specify)

21. If you answered unlikely/highly unlikely for any of the above, for what reason(s) are you considering a change? Please tick all that apply.

- ◯ Approaching retirement
- ◯ Considering working in a different area of pharmacy
- ◯ Considering working outside pharmacy
- ◯ CPD requirements
- ◯ Financial disincentives
- ◯ Finding pharmacy unrewarding
- ◯ Having to work too many hours
- ◯ Lack of defined career pathway
- ◯ Unsustainable workload
- ◯ Unmanageable levels of stress in current role
- ◯ N/A
- ◯ Other (Please specify)

22. What do you consider to be the biggest challenges facing your area of pharmacy over the next 3–5 years?

23. If you could change one thing to improve your area of practice or role, what would that be? (Optional)

Work related stress

24. How often are you concerned about the level of stress you experience in your working day?

- ◯ Every day
- ◯ Most days
- ◯ About once or twice a week
- ◯ About once or twice a month
- ◯ Less than once a month
- ◯ Never
- ◯ I don't know

25. Can you tell us what impact your stress levels have on your practice and on you personally?

26. Different approaches have been tried to support wellbeing in the workforce. Do you engage in any activities to manage your stress or support your wellbeing, such as peer support, or does your employer provide help/training in stress management?

- ◯ Yes
- ◯ No

If yes, please specify which activities you engage in.

27. If you felt your working environment was unsafe, would you feel able to communicate your concerns?

- ◯ Yes
- ◯ No

If yes, please comment on how you would communicate your concerns.

Job satisfaction

28. Please rate your response to the following statements.

I have good opportunities for advancement in my job

I feel overwhelmed tryning to meet patients' expectations

I am not paid enough for my level of responsibility

I am able to use my skills to the fullest extent

I do not feel I am challenged by my job

I feel professionally isolated

I am able to control my own worklload

I find it difficult to balance new roles with existing responsibilities

I often feel stressed that I will make a mistake in the treatment of a patient

I am satisfied in my job

I do not receive respect or recognition from the general public

I feel the role of pharmacy is valued by HSC

I would choose pharmacy again if I could start my career over