Grant Thornton

Independent Review of Wage Cost Pressures

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This report was prepared by Grant Thornton New Zealand, and Strategic Pay as subject matter experts.

Executive Summary

The NAAR has been discussing sector concerns about wage cost pressures for some time now. Sector representatives have expressed a view that workforce pay parity with other professional groups is not keeping pace and that this is leading to, or is wrapped up with, recruitment and retention issues. The knock-on effects could be future workforce shortages or a paucity of skills, which could impact on the model of care aspired to in the Pharmacy Action Plan (Ministry of Health, 2016).

This independent review was required to, firstly, understand what the quantum of unmet wage pressure is; and secondly, what tools process or mechanisms might address the issue. This will allow the sector representatives and the DHBs to have more productive discussions focusing on how to provide greater health outcomes and drive innovation in health models.

In proposing solutions for the impacts of the wage cost pressures, we have attempted to consider if or how unmet wage cost pressures could be managed or mitigated by community pharmacies and what processes, tools or techniques are available and could be useful. In laying out our ideas we have considered the strategic context of the role of pharmacy as part of an integrated model of care, considered what toolsets might be useful and weighed the possibility of unintended outcomes, and sought to use inspiration and examples from within the pharmacy sector and other industries.

The overriding objective for the entire healthcare workforce is to keep people healthier at home for longer, reduce inequity in health outcomes and introduce innovation in practice models. There is little disagreement with the statement that the future model of care for New Zealanders access to medicines and the associated advice on how to use them is integral. Access to, and guidance in the use of, medicines is the role community pharmacy plays in the health care workforce.

Sector concerns about wage cost pressure are the latest major issue to be tabled at the NAAR for assessment. Indeed, the sector has been considering several existential issues for some time. What is the strategy for pharmacy? Is the supply chain effective and efficient? What good practices and innovation are in existence now and what could be used as future models?

In short, it seems to us the central question is:

"How best do we create the service of the future, that provides the access to medicines, knowledge and help for consumers and creates a rich and rewarding place to work for the professionals providing the service as part of the integrated model of care?".

Understanding the Extent (Quantum) of Unmet Wage Cost Pressures in Community Pharmacy

We have approached the question of a potential wage gap from three angles – what we have defined as: pay parity, pay comparability and pay relativity. Our approach enabled us to assess whether there were gaps for specific roles and at particular levels of role within the pharmacy. We have also looked at different measures of remuneration, not just the wages ("base salary") but also some of the wage costs, such as benefits and training costs ("fixed remuneration" in our terminology) as well as variable payments ("total remuneration").

We define and detail the outcomes in this report. In summary, each angle and each measure present a slightly different picture.

Pay Parity The same pay for the same job across different employers/workplaces

Our research and analysis indicate that wages for community pharmacists sit around 96% of equivalent roles in the hospital setting. While obviously a gap, this is not a significant gap in our experience or opinion. Employers will pay within a range above and below an "appropriate" wage level for their staff depending on factors such as experience and performance.

However, technicians in community pharmacies are paid around nearly 20% below an equivalent role in the hospital setting which is a more significant gap which we would consider material.

Community pharmacy managers pay levels do demonstrate a significant gap of nearly 25% below, which suggests they are bearing the cost of the unmet wage costs.

In addition, there are significant additional wage-related costs which are covered for hospital pharmacy staff that are not covered to a similar extent in community pharmacies, such as benefits, training costs and time off for training. Our research and analysis shows that this slightly increases the gap further in terms of dollars, and that there are some further hidden costs such as time off and additional payments for work outside the standard work week, that represent an additional, potentially significant, unmet cost.

Pay Comparability The same pay for comparable jobs across different employers/workplaces

Our research and analysis indicates that wages for community pharmacy staff overall are generally lower than other comparable health professional roles, showing a similar pattern as was seen above for pay parity, but with base salary for pharmacists showing a more significant gap at around 10% below comparable roles, for technicians 17% and managers over 30% below.

We also compared the two retail roles in the pharmacy workforce with comparable roles in the retail sector – retail managers in community pharmacies are paid around 15% below retail managers in the retail market and Pharmacy Assistants are paid about 2% below the comparable role in the retail sector.

Pay Relativity The same pay for jobs of a similar size across different employers/workplaces/sectors

When considered in light of the overall market community pharmacies pay their professional staff base salaries 10% to 20% lower than the overall health industry (managers at 30% below) and their retail staff around 6% (paid very close to the minimum wage) and retail managers 22% lower than the retail sector.

Conclusion

Our findings establish that there are unmet wage costs and that in most cases these are material. While community pharmacist pay levels do not show a material gap in relation to similar roles in the hospital setting, other roles do. When pay comparability and pay relativity are considered there is a material gap.

The review utilized a survey technique of NZ's approximately 1,000 pharmacies, of which 30% responded to the survey request. Amongst the respondents 60% reported issues recruiting pharmacists and 56% recruiting technicians. As a reference point, few other sectors report such levels. Whereas a typical sector level might be 10% reporting issues, in IT it is 20%. Engineering is the only other sector reporting recruitment issues of a similar magnitude (50%). Typically, such a gap would be met with a premium paid for the role, for example in engineering this is some 10%.

The survey work undertaken reported concerns with retention as well. Many reported a lack of time or support to undertake ongoing professional development, and there are reports of burnout in the survey (and we understand in others).

Recruitment and retention are not solely driven by wage. There are many elements that are in play. NZ data (Strategic Pay, personal communication) shows that NGOs tend to be paid lower than health, and health lower than other (including private) sectors. That said, people do choose to take up and maintain roles in NGOs.

In short, it appears there is a gap, however the complete set of reasons are not yet fully known. In terms of this review, our scope is limited to consideration of wage cost, which is but one of the costs of operating a pharmacy.

There do appear to be some characteristics of the pharmacy wage situation that require some further study. Difficulty recruiting is not about process per se, but usually about shortages, which are responded to typically with premiums. In other comparators such as engineering the data show a response of a premium paid for the skills. This might be expected in pharmacy, but for reasons not yet completely known, isn't apparent. We note there is a "large reserve pool". There are around 3,000 pharmacists registered, but also around 33% more who are not. There are also possible effects from the degree of part time labour used, and also perhaps the gender composition of the pharmacy workforce. These issues have not been examined by this review but might be worthy of future consideration.

Suitability of Available Tools, Processes or Mechanisms That Might Address Such Pressures

There are a number of pharmacies in New Zealand, in a number of varied settings and hence different business models. Industry benchmarking (Moore Markhams, 2020) has shown pressure on returns for the last few years, and an uptick in 2020[1] due to the response to the pandemic. However, we note this data relies on survey information (154 pharmacies in this year's survey)[2]. As private commercial businesses there is an understandable reason not to provide detailed financial information to the competition. Indeed, in our Review, our survey questions about revenue were the ones least completed, therefore we can't make strong statements of correlation to wage rates.

The data in the Moore Markham benchmarking studies do illuminate the effect of scale and the effect of pharmacy type:

Type: *"Medical centre pharmacies have the highest overall net profit percentage.*

Standalone pharmacies have the lowest margins, the higher labour cost and therefore the lowest overall net profit.

Rural pharmacies have significantly higher wage costs compared to urban pharmacies, which highlights the difficulties that rural pharmacies have in attracting and retaining quality qualified workers resulting in payment of higher wages to incentivise staff. Lower other costs and higher margins still result in rural businesses recording slightly higher overall net profits"[1]

Scale: "*Smaller pharmacies generate the least net profit due to the higher costs as a percentage of net sales. The level of return generated from some of these smaller businesses is quite concerning and leads us to question their viability*."[1]

In considering the findings in this review we are of the opinion many of the impacts are made worse by scale. The table below shows the data[3] from the Moore Markham's benchmarking survey and the considerable difference in profitability due to scale.

Size (Revenue)	Less than $1m	$1 – $2 m	$2m The survey average	Greater than $2m
Net Profit Before Tax (%)	1.3	5.5 - 6.3	7.4	7.4 – 8.8

One response to the finding of wage cost pressure might be to simply say "allocate more funding". However, we believe this approach might create unintended outcomes. Firstly, while it might produce some short-term relief, solving the problem merely with increased budget might lock in unproductive service models and unrewarding places to work. Secondly, it could create an unintended effect across the sector, inducing more widespread calls for wage escalation which would serve to erode any relativity gains made.

The first part of the review identified 4 impacts from the wage cost pressure in two types, direct and indirect:

Direct:

1. Difficulty recruiting suitable staff.
2. Difficulty retaining suitable staff.

[1] "Covid-19 provides a short-term boost in a challenging time" (Moore Markhams, 2020)

[2] Without examining the methodology, we can't comment on the degree of rigour and control of self-selection. It is also not audited; therefore, we place only some reliance on it.

[3] Returns by Level of Revenue - date taken from Moore Markhams NZ Pharmacy Benchmarking Survey 2020

Indirect:

3. An inability to staff the organisation sufficiently to provide the full range of services required in the community, allow time for staff to maintain registration as a professional, allow sufficient time off and improve systems and processes (resulting in a third level of indirect pressure: inefficiency, compounding the problem).
4. Insufficient funds remaining to invest in technology, infrastructure, business development.

In developing solutions for these various impacts, we have identified a series of ideas. While this document has been written as a series of impacts, in actuality they are interlinked, as such, so are the solutions. As this is a complex problem, there is no silver bullet.

There are some higher-level themes emerging from our analysis. Much of what we have put forward as solutions to the harms used the following design principles:

1. Start with the end in mind – the vision of the place of pharmacy as part of the integrated model of care. Reimagine what pharmacy might look like.
2. Based on what is valued, seek to remove the non-value add work from the roles in the first instance, thereby creating time and space to devote more time with customers and more time for CPD.
3. Propose solutions that are concrete or for which there are already analogous examples, not abstract theories. Consider as much as possible the precursor work the sector has already spent some time thinking about.

We note that designing the best solution for the future is more difficult without a blueprint. The Pharmacy Action Plan was dated 2016 – 2020. We believe a new one for the next period is warranted. With an agreed future vision, and some concrete statements to guide future action it will be considerably easier to prioritise improvement and investment for ideas like the ones we put forward in this document.

A series of 22 solutions to allow community pharmacy to manage and mitigate the pressures are laid out. In summary, we suggest the following sequence to address the issues raised in this Review:

1. Re-establish the strategic vision for Community Pharmacy, to replace the gap left since the Pharmacy Action Plan 2016-2020 expired.
2. Sector representatives can then consider what are the appropriate models of service for the future.
3. In parallel, consider how scale effects can be achieved across the sector to mitigate the impacts on pharmacies, particularly the smaller ones:
    a. Creating an enhanced locum service at a regional or national level, possibly with enhanced targeting to support small and rural pharmacies in particular.
    b. Improving the platform for CPD, building on the models in place such as ENHANCE to make it more accessible, easier to use and more cost effective.
    c. Consider how best practice can be shared more rapidly as an adjunct to the auditing service.
    d. Sector representative advocacy, for pressure to complete the various legislative changes required to allow more scale, and hence use of automation in pharmacy.
    e. Fostering collective action for career development within pharmacy, using the existing National Framework, with career bridging, rotations, secondments, the locum “pool” from a. and other tools of higher-level workforce planning.
4. Seek to create time dividends for pharmacy roles with increasing automation and digitisation. Use the time dividend to spend on more client facing time and more time for CPD.

This review is deliberately kept to scope. It should be regarded as an initial attempt to frame a set of possible solutions on offer. In the time available for this review (October to December 2020) it is not possible to fully explore the detail of these options and go on to develop and populate detailed models or consider contract structures. This is more properly considered as future work, once the NAAR has received this paper and determined which of the recommendations it sees merit in.

Background

As a result of concerns raised by the employer representatives at the recent National Annual Agreement Review (NAAR) of the Integrated Community Pharmacy Services Agreement relating to wage cost pressures, community workforce pay parity over time to comparable professional groups, current staff recruitment and retention issues and future workforce shortages, District Health Boards (DHBs) through Central Region's Technical Advisory Services (TAS) have commissioned an independent review to ascertain whether there are wage cost pressures in the community pharmacy sector. As indicated in the Request for Proposal and Description of Services:

> "The independent review will gather evidence, determine the strength of that evidence and provide conclusions and recommendations based on the evidence.
>
> In broad terms, the evidence sought will relate to:
>
> 1. Understanding the extent (quantum) of unmet wage cost pressures in community pharmacy in relation to pharmacists and pharmacy technicians, what variability exists across the workforce, and what comparisons to other workforces can be made; and
> 2. Suitability of available tools, processes or mechanisms that might address such pressures."

Scope

The scope, as defined in the terms of reference given to us from the NAAR is as follows.

> "The scope of the evidence to be considered in the review is set out below.
>
> **Inclusions**
>
> Scope 1:
>
> 1. Review provider representative (Pharmacy Guild/Green Cross Health) analysis submitted to NAAR to date on this issue, to assess validity and identify any information gaps (to be provided).
> 2. Define what is meant by unmet wage cost pressures and by pay parity (what is the problem?).
> 3. Identify comparable professional workforces for pay parity comparisons.
> 4. Quantify the extent of wage cost pressures relative to comparable professional workforces and to general wage inflation.
>
> Scope 2:
>
> 5. Identify the impact of any unmet wage cost pressures (what outcomes result from the problem?).
> 6. Consider if or how unmet wage cost pressures could be managed or mitigated by community pharmacies.
> 7. What processes, tools or techniques are available and could be useful if material unmet wage cost pressures are established.
>
> **Exclusions**
>
> The review does not need to consider the following:
>
> - Adequacy of contracts – while this review describes contractual requirements that will be relevant as part of the review, the review will not otherwise consider the adequacy or otherwise of current contracts (e.g. coverage, structure, nature).
> - Development and population of models – to the extent that a problem is identified, and consideration of appropriate process or tools is undertaken, the construction of a relevant model and model runs with data are not within the scope of the independent review."

Process

To complete Scope 1, we:

1. Reviewed a broad range of documentation related to the sector and the issues.
2. Held a workshop with TAS and in communication with other stakeholders to:
    - explore what might be meant by unmet wage cost pressures and pay parity in order to inform our approach to determining whether there was a material gap between the pay of community pharmacy staff and other relevant groups
    - review the pharmacy context
    - explore the pharmacy roles; and
    - discuss comparator roles
3. Identified and defined a range of benchmark roles in the sector.
4. Interviewed pharmacists in both the hospital setting and in a range of community pharmacies about the expectations, Responsibilities and skills required for the range of roles within their pharmacy.
5. Identified a range of comparable roles for pay comparison purposes.
6. Sized the pharmacy and other comparator roles using Strategic Pay's SP10® job evaluation methodology to determine comparability for pay purposes (see Appendix 1 for an explanation of the methodology).
7. Undertook a survey of the market for these roles to supplement the existing data held in the Strategic Pay database (in Appendix 2 has details of the pharmacy-specific survey).
8. Quantified the extent of the gap in terms of pay parity, pay comparability and pay relativity.

To complete Scope 2, we:

1. Reviewed the Scope 1 findings.
2. Considered the impacts resulting from the wage cost pressure identified.
3. Researched other industries and sectors for insights to address the pressures.
4. Researched the NZ health sector for insights to address the pressures.
5. Synthesised our findings.
6. Made a series of recommendations of tools, processes or mechanisms that might address the pressures.

What This Review Is, and Is Not

This review has been conducted with some urgency, commencing in October, and ending late December to meet the project requirements. Given the scale of the issue it was broken into two parts; an assessment of the case to establish if there is wage cost pressure, and what might be done about it.

For the purpose of this report, "what might be done about it" should be regarded as an initial attempt to frame a set of possible solutions on offer within the scope boundaries given to us. In the time available it is not possible to fully explore the detail of these options and develop and populate models. This is more properly considered as future work, once the NAAR has received this paper and determined which of the recommendations it sees merit in.

This review has been conducted in an independent manner. As such some of the ideas expressed might already exist in some form somewhere within the sector. We have attempted to point to existing examples where we can, however we acknowledge our command of the entire sector and all the mechanisms within it is incomplete. We point out where we think there is a good idea in existence that could be accelerated or used in a different way for greater effect.

This is an independent review and the ideas and recommendations are our own.

Scope 1: Understanding the Extent (Quantum) of Unmet Wage Cost Pressures in Community Pharmacy

Defining the Problem

What Are "Unmet Wage Cost Pressures"?

The "***unmet***" aspect of this statement can be described as the extent to which the community pharmacy budget is insufficient to cover the community pharmacy workforce's pay at a level which enables the pharmacy to staff its business with an appropriate level of people. The quantum of this can be determined by the extent to which the pharmacy workforce receives lower "***wages***" than other workforces and the "***costs***" could be considered simply in terms of those wages.

There are several issues related to these initial definitions. What is an "appropriate" level of people to staff a pharmacy? This basic question raises further questions: What is "appropriate "? What is "level"?

Determining what is *appropriate* will depend on what the pharmacy is trying to achieve – dispensing medicines or fulfilling a function as a key component in the primary health system, for instance.

What is *level* - number of staff? Level of training? Basically: how many staff are required overall? How many need to be fully trained professionals?

However, the key question arising is - what is an "appropriate" level at which to pay and from which to determine the quantum of any gap?

A gap might arise because of several factors, which at the fundamental level comes down to what an "appropriate" level of pay is for the role. What is appropriate depends on a range of factors: the size and nature of the job, the location, sector and industry, the performance of the individual and affordability.

We therefore approached our analysis from a broader perspective than "pay parity" and have also looked at pay comparability and relativity. We define these terms in the context of this report in the next section.

What Are "Wage Costs"?

In determining the quantum, it is not enough to consider only wages, one should also consider the additional costs directly resulting from those wages (e.g. superannuation and benefits such as insurances paid). In addition, the costs could also include the broader costs of training and supporting staff development.

We therefore approached our survey and our analysis from a broader perspective than simply wages and considered the flow on costs such as superannuation, other benefits, allowances, training costs etc.

The "**pressures**" arising from any unmet wage costs could be classified as direct and indirect pressures, which could ultimately result in "harms" as termed in the documentation related to this work.

Direct Pressures

The theory suggests that when there is a wage gap between what an individual feels they should be paid and what they are paid, they will look to redress that gap by moving to another employer/role/location where they will receive recompense for their labour at a level that is commensurate with what they feel is appropriate. This will result in the employer not being able to recruit or retain the people they need to achieve what the business is intended to achieve.

This results in the **first two key direct** potential pressures resulting from unmet wage costs:

- difficulty recruiting suitable staff.
- difficulty retaining suitable staff.

Indirect Pressures ("Associated Harms")

If there is a wage gap ***and*** this results in the employer not being able to recruit and retain enough sufficiently capable staff to cover the staffing requirements in their business:

- Inability to staff the organisation sufficiently to:
  - provide the full range of services required in the community
  - allow time for staff to maintain registration as a professional
  - allow sufficient time off, (potentially resulting in a third level of indirect pressure: mental health and well-being issues)
  - improve systems and processes (resulting in a third level of indirect pressure – inefficiency, compounding the problem)
- Insufficient funds remaining to invest in technology, infrastructure, business development.

Determining the Existence and Quantum of a Wage Gap

Identifying whether there is a quantifiable gap between what a role or person "should" be paid and what it, or they, are being paid raises several questions. These relate to the role itself and to the decisions that need to be made around what is an appropriate level of pay in any given circumstances.

Defining a Role

The first step in determining how much a role and the person in that role "should" be paid is to define what the job is. In our experience, no job can be assumed to be the same as another job with the same title, even if it is within the same organisation. Therefore, our approach to making comparisons of jobs across the market is to identify and define the key aspects of the role across the different employers and contexts and create a "benchmark" role. These benchmark roles allow us to make comparisons of what a particular job is paid across several different contexts. There will however still be differences between roles e.g. for a "Pharmacy Manager" role – a manager with a team of 30 or more will be a somewhat different role to a manager of 2 people. To ensure a closer match between roles we also size our benchmark roles using an analytical job sizing methodology ("job evaluation"). Job evaluation is a systematic method of assessing the relative sizes of jobs. Size is measured by comparing jobs based on common criteria such as responsibility, skills, knowledge and experience. Jobs are analysed to assess the degree to which these factors are present using a well-defined and tested assessment tool.

For this assignment we used our SP10® job evaluation methodology. (See Appendix 1. The benchmark roles developed and used for the research for this report are included in Appendix 3).

This approach can also be used to identify roles that are similar (as opposed to the same). This can be done by assessing the relative sizes of the roles and also considering the extent to which aspects of the roles are more similar than they are different. For example, a Pharmacy Manager might be similar to another health professional role that manages other health professionals.

The job evaluation methodology can also be used to provide a comparison with all other roles of a similar size, irrespective of nature of role or context – i.e., the comparison is made based on the job size outcome only. This approach can also be used to compare levels of pay for roles of a similar size and in a different sector or industry e.g. public or private, health or retail for instance. While retail is usually private sector there are some retail shops in the Not-for-Profit sector, and while health organisations are usually in the public sector, there are private sector health organisations as well. Context will contribute significantly to what is considered "appropriate" or "should" be paid.

Using a robust measurement methodology to assess the relative worth of roles in the current environment provides a more solid foundation for determining whether there is a gap and the quantum of that gap. The question remains as to *whether* the gap needs to be addressed and *how* it should be addressed.

Deciding What "Should" Be Paid

The context and environment of the role also has a significant impact on the appropriate level of pay. Our market research indicates that the private sector pays more than the public sector which in turn pays more than the Not-for-Profit sector. In our experience we also note that the private sector is more likely to pay employees at the level of Pharmacy/Retail Assistant at the minimum wage than public sector. Any organisation needs to determine how much they can afford to pay for their staff, which, while often a significant proportion of their costs, is not the only demand on their budgets.

Some industries and locations have greater pressures on wages than others – greater demand for certain types of roles or people tends to increase wages. Our market research indicates that the construction industry (in particular trades. labouring

and engineering roles) have wage premiums due to the shortage of labour in those fields.[4] The retail sector pays 7% to 10% below the rest of the market. Location also affects pay levels. Auckland, as a large city with lots of employers competing to recruit staff, tends to have a wage premium, currently around 4% above the rest of the New Zealand market.

To enable a full consideration of whether there is a wage gap we have considered a range of comparisons. We have explored three different comparisons which, for the purposes of this report, we have defined as follows:

Pay Parity	the same pay for the "same" job across different employers/workplaces.
Pay Comparability	the same pay for "comparable" jobs across different employers/workplaces.
Pay Relativity	the same pay for jobs of a "similar size" across different employers/workplaces/sectors.

The "same" job covers aspects including the same key qualification or level of knowledge (e.g. Pharmacy qualification and registration), largely the same key duties (e.g. dispensing, providing health advice) and a similar level of responsibility (e.g. accountability for ensuring accuracy and safety of dispensing).

A "comparable" job could include a qualification or knowledge at a similar level in the same general area (e.g. health) and a similar nature of key duties (e.g. providing health care and advice) and similar level of responsibility (e.g. accountability for ensuring accuracy and safety of care provided).

We determine whether jobs are a "similar size" by assessing the level of knowledge, skills and accountability required in the role using our job evaluation methodology (See Appendix 1).

The next section of the report provides the outcomes of our survey of the relevant markets.

[4] Our latest nationwide survey (November 2020) indicates this is around 13% for trades and labouring roles and 10% for engineering roles.

Findings

1 Pay Parity

Pay Parity is Defined for the Purposes of This Project as the Same Pay for the Same Job Across Different Employers/Workplaces.

This section provides a comparison between community pharmacy roles and hospital pharmacy roles.

Benchmark Roles

We developed 11 benchmark roles based on our knowledge of jobs in general terms, our knowledge of the sector, review of relevant documentation, in discussion with TAS, hospital and pharmacy representatives and from interviews with pharmacy managers in both the hospital and community pharmacy settings. The resulting benchmark role descriptors are included in Appendix 3.

Survey Results

Many of the comparisons with equivalent roles in the hospital setting demonstrate a gap, as can be seen in Table 1 below.

Our research and analysis indicate that wages for community pharmacists sit around 96% of equivalent roles in the hospital setting. While obviously a gap, this is not a significant gap in our experience or opinion. Employers will pay a range above and below an "appropriate" wage level for their staff depending on factors such as experience and performance.

The analysis indicates that the Charge and Specialty responsibilities do not result in additional pay for those undertaking them in community pharmacies. In our view, the charge responsibilities at least should attract an additional payment, resulting in a greater gap for those fulfilling these duties. However, the differences indicated by this comparison are still not material in our opinion.

Technicians in community pharmacies are paid nearly 20% below the level of an equivalent role in the hospital setting which is a more significant gap which we would consider material.

Community Pharmacy managers do demonstrate a significant gap (being paid at the median almost 25% below the comparable role in the DHB), suggesting they are bearing the brunt of the unmet wage costs.

Full details are included in Appendix Four.

Table 1 Pay Parity Comparisons

Pharmacy Manager	76%
Charge Pharmacist	95%
Specialty Pharmacist	96%
Staff Pharmacist	96%
Technician Manager	79%
Intern Pharmacist	82%
Trainee Technician	-
PACT Technician	-
Technician	83%

Sources: Strategic Pay Community Pharmacy Survey 2020,

New Zealand Remuneration Review November 2020

We did not receive sufficient data on PACT or Trainee Technicians from our survey to report without breaching our confidentiality protocols. Information from collective agreements suggests that the pay rates for trainee technicians in community pharmacies are about 89% those of technicians in hospitals (the range starts around $40,000 and steps through to $46,500 for Trainees). While the Technician pay levels in the collective agreement ranges from $45,000 to $55,000 (with merit steps over $60,000) there is no specified PACT Technician range or rate, although our discussions indicate they are usually paid at the higher steps within the relevant scale in the collective agreement.

For pharmacy managers the range in hospital pharmacy collectives is between $94,000 and $113,000, meaning the community pharmacy managers pay levels are between 73% and 89% of the collective rates. As the actual data shows, however, pay levels within the hospital mean the community pharmacist managers are closer to 76% of the actual pay levels in the DHB comparison role, demonstrating that the pay levels in the collective agreements are a minimum not necessarily the actual level of payment.

Additional Commentary

In addition to the wages or "base salary" in our terminology, there are significant additional wage costs which are covered for hospital pharmacy staff that are not covered to a similar extent in community pharmacies, such as benefits, training costs and time off for training. Our research and analysis shows that the remuneration package (fixed remuneration) of community pharmacy roles falls further behind that of the hospital pharmacy roles when these additional components are considered, but some of the gap is made up when variable payments such as bonuses or incentives are included (total remuneration package). Although, it should be noted, that in both hospital and pharmacy settings, variable payments are not as significant as in the general market.

Training and Development

Our research also indicates that community pharmacy staff do not receive as much in the way of time allowed or costs covered for training and development as is mandated within the collectives for staff in the hospital setting.

For hospital phamacy staff, the collective mandates reimbursement of all fees relating to CPD and all required training by employer is paid for by employer including the time spent in attendance. The collective also notes that as pharmacists are required to attend national/international conferences to maintian their ongoing technical/scientific competence, this will be fully at employers' expense (including travel and accomodation expenses).

For community pharmacy staff, our research indicates that course fees are covered for half to three quarters of pharmacists, a half to two thirds of Trainee and PACT technicians and even less for Technicians and Technician Managers. Community pharmacists in general at the median receive around $500 for development costs (with an average of $715, suggesting some higher payments are being made). In DHBs these payments are mandated.

In terms of leave for training and development only around 20% to 30% of pharmacists receive paid time off for CPD (one third to half receive unpaid time off for study). However, a third to half receive paid and unpaid time, for other training and development. Only 10% to 15% of technicians receive paid time off (closer to 20% for trainee technicians and up to 60% for PACT Technicians (probably reflecting the relative recency of this qualification). Unpaid time off for training and development for these roles is around 20%.

Penal and Overtime Payments

There are also substantial additional payments and allowances provided to Pharmacists and Pharmacy Technicians in DHBs for a wide range of circumstances. At a high level these include overtime and penal rates; allowances such as on call, call back, higher duties and travelling allowances; phone consultation payment; and additional entitlements for employees required to work on Public Holidays.

In each case, the applicable overtime or penal rate of pay is in addition to the employee's normal relevent rate of pay and can range from effectively time and a half for working on a weekend through to time and a half plus day in lieu for employees working a public holiday that occurs on a weekend.

Our analysis shows that this can represent an additional 6.2% of base salary overall to a over 18% of base salary.

Many of these payments represent payment for work over and above a "standard" week so have not been included in our figures for comparison in the tables in this report. They do however represent additional potential earnings which are generally not available to community pharmacy staff. While overtime should be excluded from a comparison of a standard working week,

the ability to earn more for working what might be termed unsociable (e.g. nights) or non-standard hours (e.g. weekends) does represent a difference in earning power not reflected in our comparisons. For community pharmacy staff, who do work weekends, evenings and public holidays, there are often no payments of this nature. None of the community pharmacy respondents indicated penal or overtime rates were paid.

Collective agreements mandate these payments but the extent of employees covered by these collective agreements vary significantly. Public sector has 56.3% of the workforce covered by collectives while private sector has 9.4%.

Compounding this, collective employment agreements in the retail and health sectors (sectors within which the community pharmacies reside) have differing levels of protection in terms of penal and overtime rates as well as shown in Table 2 below.

Table 2 Collective Agreement Coverage

	# covered	% of relevant workforce	% without clause for overtime	% with clause for T*1.5
Retail	6,700	5%	88%	62%
Health	87,800	37%	30%	72%

Source: 2017/2018 CLEW Employment Agreements Update.

Conclusion

There is a material gap for most of the roles, especially when the overall package is taken into consideration.

While the data shows that community pharmacists are generally paid at a similar level as equivalent hospital pharmacy roles, technicians and managers are not. When you consider more than just wages (or base salary in our terminology) the gap widens. When you consider the range of additional payments received in the hospital setting, the difference would be even more marked in terms of the actual take-home pay.

2 Pay Comparability

The Same Pay for Comparable Jobs Across Different Employers/Workplaces

In this section we make the comparison between community pharmacy roles and comparable roles with similar levels of responsibility, knowledge, and skill requirements in similar contexts. This includes the hospital/DHB setting as well as the retail environment.

Comparable Roles

Key comparisons are with the retail sector for the retail roles (e.g. Retail Manager and Retail Assistant) and with health professional roles in the health sector for the Pharmacy roles. These latter include such roles as radiology staff, medical radiation and imaging technologists, audiologists, and dental and laboratory roles as appropriate to the level and nature of the relevant pharmacy role.

The comparison was made based on roles that had been sized at around the same level as the relevant pharmacy role – e.g. a sonographer role is sized at an equivalent level to a pharmacist role.

Our research indicates that nearly 70% of Pharmacists and Technicians in community pharmacies undertake retail sales tasks as well as fulfilling their technical pharmacy function. Our search for comparable roles which include being a health professional in a retail environment and with similar levels of responsibility did not provide suitable examples on this aspect of the role.

Survey Results

Our analysis suggests that pharmacists and PACT Technicians appear to be paid closest to the comparable level role in the health sector (90% and 95% respectively), while Pharmacy Managers are paid considerably less. While PACT Technicians are

paid within 5% of their hospital equivalent, Technicians are paid around 17% less than their hospital equivalent. See Table 3 below.

The retail roles are close to the comparable roles in the retail sector, with the pharmacy assistant being closest at 98% to a very similar role in the retail sector. Again, the gap increases slightly when the total package is considered. As with the discussion above, health professionals in the hospital setting are covered by collective agreements which require the employer to pay a range of additional benefits, allowances and penal and overtime rates which affect the overall take home pay.

Table 3 Pay Comparability Comparisons

Pharmacy Manager	67%
Charge Pharmacist	78%
Specialty Pharmacist	90%
Staff Pharmacist	90%
Technician Manager	90%
Intern Pharmacist	65%
Trainee Technician	76%
PACT Technician	95%
Technician	83%
Retail Manager	85%
Pharmacy Assistant	98%

Sources: Strategic Pay Community Pharmacy Survey 2020

New Zealand Benchmark Review July 2020

Conclusion

There is a material gap for most of the roles, excluding the PACT Technician, which might reflect the fact that this role is in demand. The gap increases slightly when the total package is considered and would be even more material when the additional allowances and penal and overtime rates, which affect the overall take home pay, are considered.

3 Pay Relativity

The same pay for jobs of a similar size across different employers/workplaces/sectors

In this section we make the comparison between community pharmacy roles and roles of a similar size across the market – both the entire New Zealand market as well as relevant sub sections of the market - the health sector and the retail sector as appropriate.

Comparable Roles

In this section, the comparison is made based on the job size rather than specific roles. This comparison is enabled by analysing and evaluating the roles based on their level of responsibility, complexity and the skills, experience and knowledge required in the role. This results in a job size, which can then be used to access market information across the full market for roles at a similar size, rather than only information about specific roles.

Survey Outcomes

This analysis indicates a bigger gap than the pay parity or pay comparability analysis showed but with similar patterns – pharmacists are closest to demonstrating relativity with the overall market and with the health sector pay levels while the Pharmacy Manager role continues to show the largest gap.

Specifically, the Pharmacist and PACT Technician pay levels are closest to the rates of pay in the general market, both being at 88% of the General Market. The gap with health sector for these roles is 91% and 89% respectively.

Table 4 Pay Relativity Comparisons

Industry Comparisons

Pharmacy Manager*	71%
Charge Pharmacist*	83%
Specialty Pharmacist*	91%
Staff Pharmacist*	91%
Technician Manager*	81%
Intern Pharmacist*	59%
Trainee Technician*	81%
PACT Technician*	89%
Technician*	83%
Retail Manager**	78%
Pharmacy Assistant**	94%

** Compared to health sector.*

*** Compared to retail industry.*

Sources: Strategic Pay Community Pharmacy Survey 2020, New Zealand Remuneration Review November 2020

Table 5 Pay Relativity Comparisons

General Market

Pharmacy Manager	67%
Charge Pharmacist	80%
Specialty Pharmacist	88%
Staff Pharmacist	88%
Technician Manager	80%
Intern Pharmacist	58%
Trainee Technician	80%
PACT Technician	88%
Technician	83%
Retail Manager	71%
Pharmacy Assistant	86%

Sources: Strategic Pay Community Pharmacy Survey 2020, New Zealand Remuneration Review November 2020

Conclusion

There is a material gap for most roles especially when compared to the rates of pay in the general market as well as with the relevant sector (health for the technical pharmacy roles and retail for the non-pharmacy qualified roles).

Variability Across the Sector

Our research and analysis indicate that there is not significant variability across the community pharmacy sector in terms of rates of pay within each type of role or across various parameters.

The inter-quartile spread for base salary for pharmacists and technicians is less than in the general market at a similar job size. This could be due to the use of fairly closed and limited survey information that provides comparisons within the sub-sector without much reference to markets outside.

Dispensing vs Retail Proportions

There is not a clear pattern of difference in pay with proportion of dispensing vs retail, showing a slight tendency, where there is enough data, to indicate that staff are paid more in pharmacies where there is 60% or less dispensing, especially the retail staff, not surprisingly. However, managers tend to receive slightly more where there is a higher proportion of dispensing to retail in the pharmacy.

Location – Commercial Setting

In terms of location of the pharmacy – technicians (including trainee and PACT technicians) receive slightly more if the pharmacy is near a medical centre. Pharmacists (including interns and managers) receive slightly more when the pharmacy is standalone. Retail managers receive more in a mall and retail/pharmacy assistants receive the minimum wage wherever they are. Again, the differences are generally not significant.

Location – Urban/Rural

Our research indicates that for pharmacists in community pharmacies pay rates at the median are slightly higher in provincial towns, while for technicians they are paid more when the pharmacy is in a major or provincial city. However, the differences are generally not significant. (We did not receive sufficient data from rural pharmacies to be able to comment without potentially breaching confidentiality protocols). Where we can comment on that data we do have, it suggests that Pharmacy Managers, Pharmacists and Technicians are paid somewhat less in rural pharmacies (around 5% less with technicians being paid closer to the overall rate for Technicians (median base salary) and Retail Managers being more than 5% less than the overall rate for Retail Managers).

Additional analysis for the Auckland region, indicates that, other than the Retail Manager role, none of the pharmacy roles are paid more in the Auckland region (including Pharmacy Manager, all pharmacist roles and technician roles, where there is enough data to comment (insufficient data for the Trainee and PACT Technician, and the Specialty Pharmacist).

Size of Organisation

Size of organisation when considered in terms of either staff numbers or revenue shows little variation in pay rates as well. To the extent that there is some variation, larger pharmacies tend to pay more, however this is only marked for Pharmacy Managers and to a lesser extent for Retail Managers. This is not surprising given our methodology indicates that that the larger the organisation, the larger the job itself and therefore one would expect the pay level to be higher as the return for undertaking a bigger role.

Market Movement Over Time

General Wage Inflation

StatsNZ figures indicate that overall wage rates have increased 15.5% since 2012 and 10% since 2015.

During the period since 2012 the health sector overall had 19.3% while the public health system had 16.7% movement, with the health sector having lower movement than the overall market most years until 2018 when the pay equity settlement pay-outs affected pay levels, resulting in increases of 3.6% in the health sector. (See Appendix 5).

StatsNZ commentary indicates for the 2018 September quarter figures that *"The legislated annual pay rise for care and support workers, combined with the rise for those nurses who received one, resulted in the health care and social assistance industry being the primary contributor to annual wage inflation in the year to the September 2018 quarter."*

Market Movement for General Staff

Strategic Pay have been surveying the New Zealand remuneration market for over 20 years. Their market research over the last decade shows that market movement across the across entire market has increased slowly but steadily since the Global Financial Crisis.

Their market research shows that percentage increases across this period for general staff around the same level as community pharmacy staff, have been relatively low, with the health sector showing lower movements than the overall market until 2017.

Table 6 Market Movement

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020
General Market	2.3	2.3	1.9	2.3	2.6	2.2	2.3	2.7	2.2
Health Sector	3.2	1.4	1.7	1.2	1.4	2.6	2.4	3.6	2.2

Source: Strategic Pay NZRR March each year.

Collective Agreements

Additional analysis of a range of collectives indicates that other health professionals have negotiated increases in the region of 2% and 3% across the years (some since 2017 [medical and dental 2% per annum] and some since 2016 [Medical Lab roles 3% per annum and audiologists 2.5% to 3%]). Other collective agreements have also had what look like "catch-up adjustments of around 6% after no movement for two or three years (e.g. physiotherapists and psychologists) while others have had 3% increases annually until the forthcoming year when the increase will be 1.5% (MIT and MRI Technologists).

Analysis of pharmacy roles' rates of increase in the main MECA show that Technicians and Assistants have received around 3% increases each year since 2016 while Pharmacists received only 1.5%, in 2017 followed by 1% in 2018, there were significant increases in 2020, ranging from 3.3% to 5.7% across the different steps in the agreement.

This range of figures compares with the Pharmacy Guild's submission which indicates average annual increases of 8.7% for Health Care workers and 3.26% for nurses. As mentioned above and noted below, the HCA increases are in large part due to the pay equity settlements and therefore not relevant for the purposes of comparison with technician roles movement over time. The recent settlements for nurses have also been in large part adjustments to address historical underpayment.

An additional comparison is made for the Technicians with rates for qualified hospital orderlies, for which a 7% average annual increase is shown. However, this assumes the job has remained the same since 2017 (i.e. the scope of duties has not changed), and also assumes that this is a comparable role to the Pharmacy Technician role, which in our view it is not for the purposes of considering pay relativities.

While some of the increases across time are similar and some significantly different, we do not consider this material:

1. The figures included in the Pharmacy Guild NZ's paper to the NAAR show significant wage adjustments for some roles especially for 2019 and 2020 as noted above. Our market data shows 2.7% and 2.2% movement at this level with 3.9% and 2.2% in the health sector over these two years. Analysis of collective agreements suggests

while some health professionals have had similar levels of increase to that identified in our nationwide surveys, others have had little movement recently while others have had negotiated significant movement in some years.

2. The recent significant increases for the HCA role have been because of a pay equity claim which was intended to address historical undervaluing of the role.

3. While a pay discrepancy now might have occurred due to differing increases over time, pay parity is about the gap at the moment and whether this is justified.

   For example, to be accepted as a legitimate pay equity claim, claimants need to prove, as well as the fact that it relates to a female dominated workforce, that there has been a historical discrepancy in the pay rates over time. However, the case is determined on whether there is a gap in pay at the current time. This logic would also apply to a pay parity or relativity situation.

Using historical relativities to determine pay increases assumes that those relativities were appropriate to start with. In our experience, relativities will change over time as the relative value of a role to an organisation changes and as supply and demand pressures change.

Using a robust measurement methodology to assess the relative worth of roles in the current environment provides a more solid foundation for determining whether there is a gap currently. The question remains as to whether the gap needs to be addressed and how it should be addressed.

Conclusion

Our findings establish that there is a gap and that in most cases this is material. While community pharmacist pay levels do not show a material gap in relation to similar roles in the hospital setting, other roles do. When pay comparability and pay relativity are considered there is a material gap.

Potential Impact

Direct potential impacts of a wage gap include:

- difficulty recruiting suitable staff.
- difficulty retaining suitable staff.

Our research suggests that community pharmacies are having trouble recruiting and retaining staff. The percentage indicating having trouble recruiting staff in community pharmacies is significantly higher than the general market.

Recruitment Issues

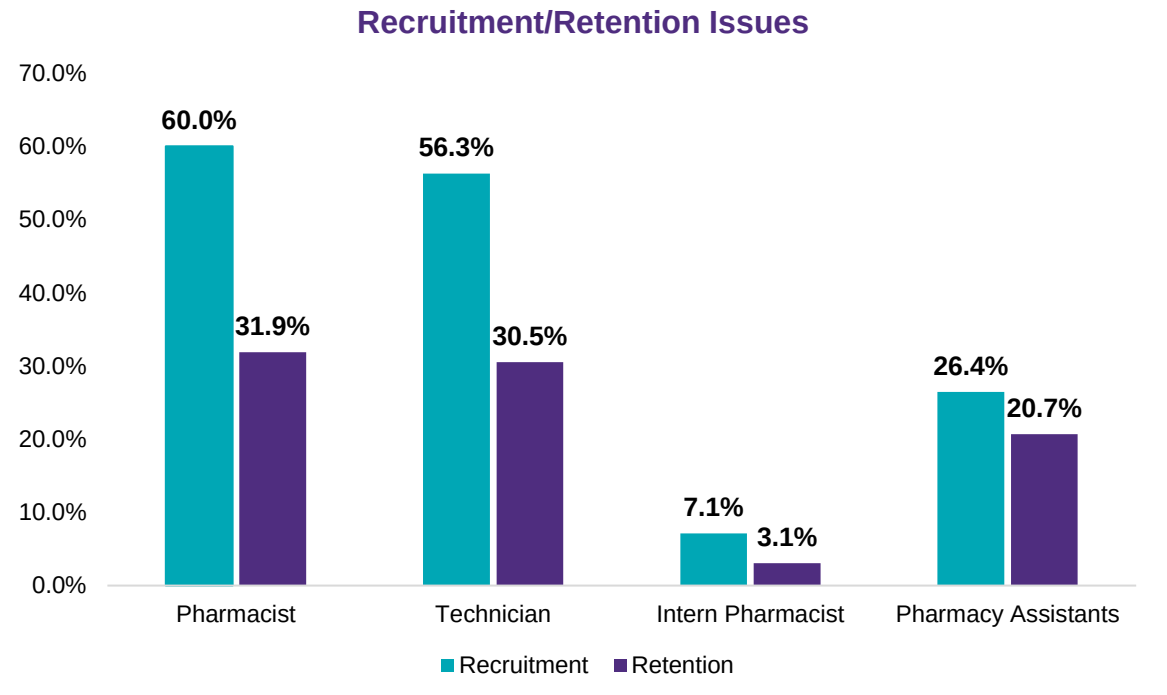
The majority of community pharmacies surveyed this year indicate they have difficulty recruiting pharmacists (60%) and technicians (56%).

Our highest reported area of difficulty recruiting in the general market is close to 50% of organisations reporting difficulty recruiting for engineering specialists and managers and 34% reporting difficulty recruiting for engineers. This reported difficulty is well above nearly every other job type, for which less than 10% of organisations report having trouble recruiting except information technology and trades at around 20%. Our research indicates that roles in the health sector like nurses and caregivers feature in the roles specifically mentioned as difficult to recruit for, but there has been no specific mention of difficulty recruiting for pharmacy roles in the DHB sector. However, as only around 500 of the nearly 3000 registered pharmacists are employed in hospitals, this is not surprising as they do not represent a significant proportion of the overall health workforce in the secondary health sector.

Typically when we see this level of difficulty recruiting staff in a particular area, we also tend to see a premium above the market being paid (engineering currently at around 10% above the rest of the market while IT premiums tend to be for very specific roles).

Retention Issues

Nearly a third of community pharmacies surveyed in our 2020 survey reported having retention issues for Pharmacists and Technicians. This is high for a profession where the qualification means the professionals have limited employment opportunities outside the sector and therefore limited opportunity to move to another job.



Factors Unique to the Community Pharmacy Sector That Make It More or Less Susceptible to Wage Cost Pressures and Any Associated 'Harms'

1. Size of Organisations
   Community pharmacies are mostly small organisations which often have more difficulty staffing efficiently.

2. Professional Staff
   They have a high proportion of professional staff – meaning higher salary bills and greater risk of paying at a higher level than many of the duties require, especially in a smaller organisation where it needs to be "all hands to the pump".

3. Context
   Working in the retail sector which tends to pay well below the rest of the market, will be affecting salary levels downwards for all roles. The health sector also pays somewhat below the general market. Our research (as at November 2020) indicates that the retail sector currently pays around 7% to 9% below the general market for roles at a similar level to the Retail Manager and Pharmacy/Retail Assistant.

   Our latest survey also indicates that the health sector overall pays around 2% less than the general market at the level of most roles in community pharmacies but this increases to around 5% lower at a similar level to the Pharmacy manager role.

   We also analysed our data on the basis of the health professional roles themselves as well as the overall health sector (which will include administrative and other types of roles). This analysis indicates that while health roles around the same level as the technicians and pharmacists pay closer to the general market, most senior health professionals (closer to the pharmacy manager role), on balance pay around 5% to 10% below the rest of the market. This dampening effect on pay levels in the health sector is exacerbated in community pharmacies by the retail "discount".

Scope 2: Suitability of Available Tools, Processes or Mechanisms That Might Address Such Pressures

The Problem

The NAAR has been discussing sector concerns about wage cost pressures for some time now. Sector representatives have expressed a view that workforce pay parity with other professional groups is not keeping pace and that this is leading to, or is wrapped up with, recruitment and retention issues.

The knock-on effects could be future workforce shortages or a paucity of skills, which could impact on the model of care aspired to in the Pharmacy Action Plan (Ministry of Health, 2016).

This independent review is required to, firstly, understand what the quantum of unmet wage pressure is; and what tools process or mechanisms might address the issue. This will allow the sector representatives and the DHBs to have more productive discussions focusing on how to provide greater health outcomes and drive innovation in health models.

Defining Solutions: The Strategic Context, Framing and Comparisons

Wage cost pressure is of concern to the members of the NAAR, the Pharmacy Guild of New Zealand and Green Cross, as representatives of pharmacy who want to provide a great service, give meaningful careers to their staff and operate vibrant commercial concerns. The DHBs seek to have the availability of medicines as a core part of the health strategy for New Zealanders.

Therefore, given the gravity of the issue, we would like to lay out the strategic context, some framing and helpful comparisons before grappling with the detailed discussion of what might be done:

- Strategic context, from the point of view that we need to know the overall goal, before designing solutions for it.
- Framing, because we should consider what are the appropriate toolsets to bring to bear on this kind of problem, and what are the ones that might have perverse outcomes.
- Comparisons, as this might provide inspiration and insight from other domains that might be useful examples of what could be.

Strategic Context: Pharmacy is Seen as a Key Part of the Integrated Model of Care

The overriding objective for the entire healthcare workforce is to keep people healthier at home for longer, reduce inequity in health outcomes and introduce innovation in practice models. There is little disagreement with the statement that the future model of care for New Zealanders access to medicines and the associated advice on how to use them is integral – see Exhibit 1. Access to, and guidance in the use of, medicines is the role community pharmacy plays in the health care workforce.

Sector concerns about wage cost pressure are the latest major issue to be tabled at the NAAR for assessment. Indeed, the sector has been considering several existential issues for some time. What is the strategy for pharmacy? Is the supply chain effective and efficient? What good practices and innovation is in existence now and what could be used as future models?

In short, it seems to us the central question is:

"How best do we create the service of the future, that provides the access to medicines, knowledge and help for consumers and creates a rich and rewarding place to work for the professionals providing the service as part of the integrated model of care?".

Exhibit 1 – all stakeholders believe pharmacy is a key part of the future model of care

Consumer feedback from the Expert Advisory Group meetings that took place in late 2017 told us that consumers want pharmacist services to be "fair with equitable access and no barriers to getting and taking medicines".

The New Zealand Health Strategy's vision for a "…system [that] uses its resources skilfully so that services reach people who need them. As a result, people trust the system and it is more sustainable both financially and clinically". These options require careful consideration of their alignment to not only Government policies and strategies, but also to funding mechanisms and service requirements at different points along the supply chain. The outcome is a supply chain that is not only affordable but delivers timely medicines to New Zealanders regardless of their location.

The Ministry of Health's Pharmacy Action Plan (PAP) 2016-2020 supports smart systems that are responsive to the changing health needs of New Zealanders. The PAP states that pharmacist services need to make "More effective use of the pharmacy workforce and technology to redesign the dispensing process and create an accessible, sustainable and efficient medicines supply chain".

Identified supply chain options include models that are resilient and adaptive to changing technologies, medicine shortages, the rising costs and volumes of medicines, global events, and natural disasters.

DHBs are governed by the NZ Public Health and Disabilities Act (2000) objectives, particularly in relation to section 22 "to seek the optimum arrangement for the most effective and efficient delivery of health services in order to meet local, regional, and national needs".

DHBs have also proposed the Integrated Pharmacist Services in the Community Agreement (IPSCA) contract with a vision to "see DHBs working with the sector, consumers and other stakeholders to co-design a service delivery model that has consumers at the centre". The vision for the proposed national contract was developed with input from communities around New Zealand, pharmacists, and other health care providers. The co-design of services for local commissioning to meet community need is at the core.

Like the NZ Public Health and Disabilities Act, PHARMAC also have a goal to eliminate inequities in access to medicines. The PHARMAC Year in Review 2017 states that "…groups of people in our community face barriers to good healthcare. We need to do more to focus on these people and groups and make sure everyone gets the medicine they need, when they need them".

Framing: What Tools Might, or Might Not, Achieve the Desired Outcome?

The service is challenged by the underlying economics (as is any business to a certain extent). Wage cost pressures is one further element of the commercial pressure.

At inception, the community pharmacy service was funded by a percentage model, which worked well for many years. Since the creation of PHARMAC, and their impressive achievement of their mandate to reduce medicine costs for New Zealanders, slimmer margins on higher volumes have pressured the economics of the sector.

Over the years, considerable relief has been created by changes to the contract[5] and the addition of more of the payment dollar associated with service, and less with the volume of dispensing.

Ongoing efforts to respond to commercial pressures has created a supply chain that provides some resiliency, and is relatively efficient, however a prior review (Grant Thornton, 2016) noted this supply chain is relatively unautomated and there is considerable value lost from the lack of systems talking to systems and manual handling processes.

One response to the finding of wage cost pressure might be to simply say "allocate more funding". However, we believe this approach might create unintended outcomes. These outcomes include locking in outdated models, creating ratcheting effects, creating onerous compliance if legislated or creating de-facto state control.

Locking in an Outdated Model

For some time, NZ has been a laggard in productivity in comparison with other OECD countries. Many factors have been pointed out: our relatively small market, the strong supply of cheap under-educated labour and a reluctance to

[5] We note changes to the mechanics of this contract are excluded from the scope of this review.

invest in capital and ICT equipment. These are statements generally applicable to NZ business as a whole but do describe significant parts of the pharmacy end-to-end supply chain system. By merely allocating more money to an old system we run the risk that while the financial statements will look better, at least in the short term, the underlying structural issues of the pharmacy roles remain unaddressed, and at some point in the not too distant future the NAAR will be reconvening to address this issue yet again.

Creating a Ratchet Effect

Merely allocating money is likely to create knock-on effects in the health sector in general. Comparisons of wage rates for pharmacy roles to other health sector roles has been undertaken as part of this review, and it has found material differences. That said, increasing pharmacy remuneration is likely to generate further comparisons between classes of roles in the sector, and potentially drive a ratcheting-up effect, which would increase costs overall, putting pharmacies back in an unfavourable position.

Ultimately this would result in DHBs having to ask the Government for a higher allocation in the government accounts, a process of uncertain outcome.

Mechanisms to Target Funding Towards Remuneration Are Problematic

The Buddle Finlay review (Buddle Finlay, 2020) noted that funding for health services is generally provided through funding agreements to private sector and NGO providers. There are only two exceptions, both for low paid workers providing age-related residential care and home and community-based care and support. There is currently no precedent for such a mechanism to be used to remunerate professions, which is more usually transacted via commercial negotiation of agreements.

Even if such a mechanism as targeted funding were deemed to be desirable, it would also take time to draft and agree legislation, and then come with the deadweight cost of administering and compliance.

Increasing Public Control of Private Business

The cost of salaries, wages and locums is the single largest expense for pharmacies (Moore Markhams, 2019) & (Moore Markhams, 2020). Were funding to be more targeted, an increasing proportion of the largest single expense of the private business would be coming directly from the public purse. The funder might rightly expect a degree of insight, or control into how this money is being disbursed. At a minimum, this creates a deadweight cost in compliance to measure. The transparency required is in effect an open book model, something that private providers might not be entirely comfortable with.

Comparison: What Sectors Might Be Informative as Comparators to Consider What Tools, Processes or Mechanisms Might Have Utility in This Case?

Before advancing and discussing possible solutions to the issues raised in Part One of this review, we think it useful to consider the pharmacy sector in relation to others.

Clearly, improved health outcomes are desired by all the sector actors. Clearly, innovation in practice models is desired. Clearly, addressing the issues raised in respect of wage cost pressure, such as recruitment, retention, ongoing professional development and having a fulfilling career is also an imperative. But how are these outcomes achieved simultaneously? An investment of time in considering how pharmacy could learn from the practices of other sectors and industries might be beneficial.

All sectors in our economy have experienced commercial pressure from changes in consumer wants, the impact of digitisation, increased competition and globalisation, and the drag of ever-increasing regulation, compliance and drive for transparency. It is fair to say some sectors have responded and adapted more completely or faster, and some less.

Here we will compare and contrast pharmacy with three other sectors, building/construction, food, and financial services. All three provide for consumers' basic human needs: health, shelter, and security. All three are to some degree regulated and the services provided are done so by many professionals,
operating in concert and within frameworks of policy, practice, and laws.

Food is an example where the basic provision (food to consumers) has remained largely unchanged for hundreds of years, but the way we do it is substantially different. The supply chains that support it represent one of the modern miracles that largely goes unnoticed by consumers. However, were they to peek behind the curtains to the warehouse, the use of automation would likely be a cause for amazement. In the last decade we have added the ability to order food to be delivered to you, and pay for it, using a magic rectangle of glass from your pocket. So, extending these ideas: how might a self-service / kiosk type model enable better service provision in a pharmacy, increasing the amount of value-add time pharmacists can spend with clients? Could some of the inventory arrive on the shelf via a vendor managed inventory model, or in a self-service machine? Could clients serve themselves in some way? Could knowledge of medicines be provided or augmented using electronic platforms?

Banking likewise in its modern form has been transformed (largely since the 1960s). Coinage and other forms of currency have been replaced by a completely digital system that spans the globe. The ability to manage your financial security can be completed using the magic rectangle of glass from a location of the customer's choice, at a time that suits them, to perform many of the functions that up until now, they had to go to a specific place, between specific opening and closing times, to line up to be served over a counter and have the transaction completed for them. How might pharmacy replace or augment the traditional model using modern automation, chatbots, and security systems that are extremely secure – "bank grade" security? How might this release pharmacists from behind the dispensary desk and give them the ability to interact in a more comfortable and congenial setting, or even autonomously, closer to the patient? What is the pharmacy equivalent of the ATM?

Other industries and sectors have had much lower degrees of transformation. Despite the use of power tools and some pre-kitting (frame and truss, some kitchen and bathroom pre-assembly) the activity on a building site, at least here in NZ, where houses are largely built one by one, has not changed substantially since last century (and perhaps the one before). As NZ seeks to provide more of this basic human need (shelter) this industry is being confronted by the need to change to modern methods of construction which are widely deployed in other countries to provide service of high-quality homes, at scale and with reasonable economy. How might pharmacy consider the flow of material down its supply chain? How might pharmacy use roboticization better, at key nodal points down the supply chain, to pre-assemble components and transform bulk raw materials into consumer sized pieces?

In our prior study (Grant Thornton, 2016), we noted some characteristics of the pharmacy sector in NZ that suggest a comparatively low uptake of digitisation, automation and integration of supply chain and businesses: a relatively low degree of automation, a relatively low degree of systems interconnection and a supply chain characteristic of an older style push model, rather than a more dynamic demand driven one. So, how might pharmacy imagine new models, shapes, and forms, within which access to medicines, knowledge and help for consumers and creates a rich and rewarding place to work?

Illustrative Lessons from Pharmacy in New Zealand

The comparison above is, naturally, a simplistic thought exercise. We note there are many examples of individual, and some collective, behaviour in the NZ pharmacy environment that are seeking to respond to the pressures of commerce, digitisation, automation, and new market entry.

One example we think highlights a linkage from desired strategic outcome to re-framing of the issue to pragmatic and effective action on a sector basis is that of Pharmacy Accuracy Checking Technicians (PACTs):

- The value of and push for PACTs was clearly stated in the Pharmacy Action Plan
- There has been wide adoption of the concept of the role and utilisation across NZ.

There are further progressive ideas already in the public arena (Pharmaceutical Society of New Zealand, 2019) such as:

- Collaboration with other healthcare professionals to enable pharmacy workforce to be better utilised.
- Integration of pharmacy service with general practice.
- Increasing Pharmacist prescribing and PACTs.
- Making the ENHANCE professional development system more user friendly/less complicated.
- Provision of College education and training. Perceived as good quality (but expensive).

- Producing global frameworks of best practice continuing education (CE) and continuing professional development (CPD).
- Expanding Self Care (introduced in 1992). The Self Care cards reviewed in 2019, combined with a dedicated pharmacy Self Care website launching in 2020. Ongoing review of the models of self-care available to pharmacy providing online and print options.
- Ongoing access to a range of online databases providing access to relevant up to date research and reference material (EBSCOhost and MedicinesComplete).
- Providing immunisation.
- A list of 19 services that could be developed.

It is instructive to bear this in mind as we proceed into the detailed discussion of how wage cost pressure could be addressed in the context of achieving health outcomes and making pharmacy an attractive and rewarding place to work.

The Impact of Wage Cost Pressures

The first part of the Review found there are two types of pressures arising from unmet wage costs.

The first type is classified as 'direct' pressures. These occur when an individual feels there is a gap between what they are paid and what they think they should be paid. The individual will look to redress that gap by moving to another employer, role or location where they will receive what they feel is appropriate compensation for their labour. This will result in the first two key direct pressures from unmet wage costs:

1. Difficulty recruiting suitable staff.
2. Difficulty retaining suitable staff.

The second type of pressure is classified as 'indirect' and results from the impact of the direct pressures mentioned above. The indirect pressures include:

3. An inability to staff the organisation sufficiently to:
    a. provide the full range of services required in the community.
    b. allow time for staff to maintain registration as a professional.
    c. allow sufficient time off (potentially resulting in a third level of indirect pressure: mental health and well-being issues).
    d. improve systems and processes (resulting in a third level of indirect pressure: inefficiency, compounding the problem).
4. Insufficient funds remaining to invest in technology, infrastructure, business development.

Scope 2 of the Independent Review considers the above pressures and attempts to identify potential solutions that will ease them.

A section of this report following is dedicated to each of the above pressures (including the sub-points), expanding upon the identified issue, and identifying potential solutions:

Pressure One:	Difficulty recruiting suitable staff.
Pressure Two:	Difficulty retaining suitable staff.
Pressure Three:	An inability to staff the organisation sufficiently to provide the full range of services required in the community.
Pressure Four:	An inability to staff the organisation sufficiently to allow time for staff to maintain registration as a professional.
Pressure Five:	An inability to staff the organisation sufficiently to allow sufficient time off.
Pressure Six:	An inability to staff the organisation sufficiently to improve systems and processes.
Pressure Seven:	Insufficient funds remaining to invest in technology, infrastructure, business development.

Pressure One: Difficulty Recruiting Suitable Staff

Section Summary

- Recruitment across pharmacy roles is a well-recognised issue that has become a challenge for a number of pharmacies throughout New Zealand. The survey in this review indicated that community pharmacies are having difficulty recruiting both pharmacists (60%) and technicians (56%).
- Pharmacists could receive education and support in undertaking recruiting activities. This could be achieved through a tailored community-based career framework, and/or providing general recruitment support to all pharmacies (e.g., recruitment Q&A platforms).
- There is an opportunity to seek a partnership with a professional recruitment service provider or to facilitate or setup a pharmacy-specific recruitment service.

The Issue

The Review of Wage Cost Pressures highlights that community pharmacies are having trouble recruiting staff. Furthermore, the percentage indicating they are having trouble recruiting staff is significantly higher than the general market.

The majority of community pharmacies surveyed by Strategic Pay indicated they are having difficulty recruiting pharmacists (60%) and technicians (56%). In comparison, 34% of engineers and 20% of information technology and trades are having difficulty recruiting. Approximately 10% of the general market faces difficulty recruiting.

This issue is further emphasised by the Pharmacy Guild NZ in their paper “Provider representative’s expectations for reasonable wage cost pressure adjustments in 2019/20.” A survey conducted by the Guild (Pharmacy Guild of New Zealand, 2018) identifies that the proportion of survey respondents citing difficulties recruiting staff grew by 15% for pharmacists between 2017 and 2018.

This issue has been a recognised and growing challenge faced by pharmacies for some time now. As wage costs continue to increase, the pressure of recruiting is also likely to increase.

There do appear to be some characteristics of the pharmacy wage situation that require some further study. Difficulty recruiting is not about process per se, but usually about shortages, which are responded to typically with premiums. In other comparators such as engineering the data show a response of a premium paid for the skills. This might be expected in pharmacy, but for reasons not yet completely known, isn’t apparent. We note there is a “large reserve pool”. There are around 3,000 pharmacists registered, but also around 33% more who are not. There are also possible effects from the degree of part time labour used, and also perhaps the gender composition of the pharmacy workforce. These issues have not been examined by this review but might be worthy of future consideration.

The solutions below focus on improving process and as such will be a partial response to the issue.

Potential Solutions

Education and Support for Pharmaceutical Role Recruitment

The 2017 Hospital Pharmacy National Career Framework (Ministry of Health, 2017) provides an explicit development pathway for pharmacists, pharmacy technicians and pharmacy assistants within a hospital environment. The framework consists of an overview of the career pathways for these roles with profiles to describe expectations of practice at the various levels. It also describes tools to assess competence, the recommended contribution of postgraduate study and the links with advanced practice.

A potential use of the framework is to serve as a basis to “assist in and improve recruitment and retention” specifically through “design of job/position descriptions, interview questions, staff appraisals.”

However, as identified within the framework “the organisation must have the resources and commitment to undertake this project. If the pharmacy service (and organisation) has a number of other high-profile commitments or competing priorities, this will impact on the ability and readiness of the service to implement and manage any structural career change processes.”

Implementing this framework within smaller, community-based pharmacies is more difficult, given the resource constraints these pharmacies already face undertaking their day-to-day activities. Smaller pharmacies might struggle

to put the framework in place given the lack of time in an already busy day. Or, due to their size, it might be difficult for smaller pharmacies to provide a series of steps to progress ("rungs on the ladder") within a single pharmacy operation.

Accordingly, if this is a scale problem what might be done? How might individual pharmacies achieve the kind of scale to make the framework effective and easy to use? Consideration should be given to pharmacies working as a collective to grow their people. How could the use of seconding, transferring or promoting across clusters, regions or networks of smaller pharmacies assist grow and develop pharmacists?

Increase Recruitment Activity

As noted above, 34% of engineers and 20% of information technology and trades are having difficulty recruiting. In a sector such as engineering with high demand for resources, there is a high level of recruitment activity.

Figure 1 shows roles are being actively sought across the various advertising platforms.

In traditionally under-resourced roles (in this case Construction and Manufacturing), job-seeking advertisements are approximately twice that of the index.

Yet, advertisements for "Health" based roles since 2010 is aligned with the total index of all roles. The health sector, although also facing high demand for resources, seems to have substantially less recruitment activity.

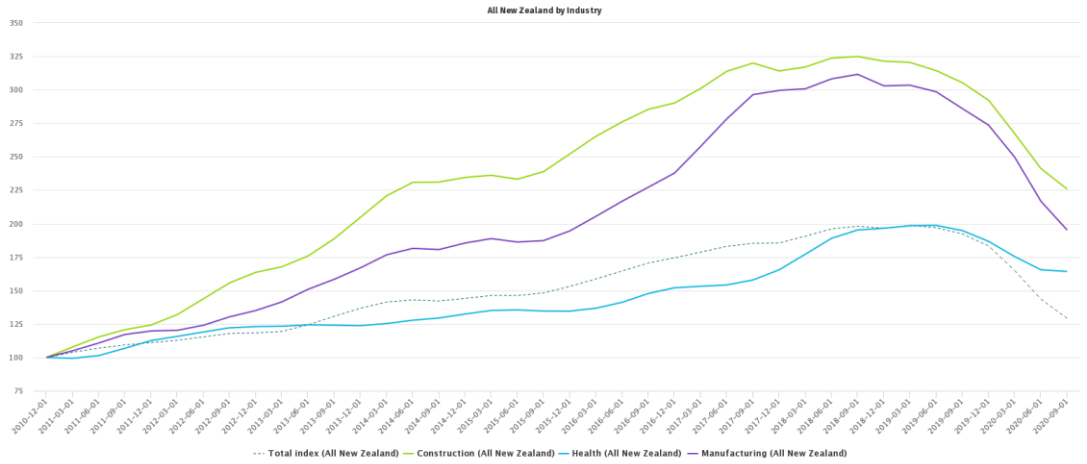


Figure 1: https://mbienz.shinyapps.io/labour-market-dashboard_prod/

This data might suggest that pharmacy (and health in general) could benefit from more active recruitment.

Again, we note the scale effect. As a collection of over 1000 businesses, with a couple of large networks amongst them, there is a scale problem for much of the sector. Smaller and individual pharmacies are unlikely to have access to specialist human resources or recruitment support. How might the sector act more collectively, pool resources or achieve some commonality of definition in solving the recruitment problem?

Equipping pharmacists with adequate resources and skills to recruit could be achieved through the development of tailored resources across the various pharmacy types such as the community-based pharmacy national-career framework and a series of common position descriptions and contract types. Provision of general recruitment support to pharmacies such as recruitment Q&A platforms might be beneficial. Professional recruitment service provider support could also be considered (this is addressed in the following recommendation).

Seek or Establish Partnership with Specialist Recruitment Service Provider

Building further on the need for professional recruitment service provider support, it is worth considering what agencies already have a capability to help Pharmacy with recruitment. There are many commercial providers and also some public sector coordination such as Work and Income.

Work and Income work closely with large businesses and industry associations to "help fill vacancies and provide them with a customised recruitment service, specific to them." (Work and Income, n.d.). Per the Work and Income website, partnerships are already established across various industries, including building construction, office administration, retail, various trades, truck driving, and others.

Work and Income provides support to these traditionally under-resourced industries through dedicated account managers who work to:

- learn about recruitment and workforce needs
- help tailor a recruitment strategy for your business or industry
- provide advice on products and services, e.g.
    - employment training programmes
    - seasonal strategies

There is also opportunity for pharmacies to setup their own dedicated recruitment service, potentially through a partnership with peak body organisation such as The Pharmacy Guild of New Zealand or the NZ Pharmaceutical Society. Although requiring effort and commitment to setup and maintain the service, there is potential for a more tailored, dedicated and aligned service to be established, meeting the specific needs of pharmacies across the country.

Pharmacies could benefit significantly from this recruitment support, mitigating knowledge and resource limitations.

Pressure Two: Difficulty Retaining Suitable Staff

Section Summary

- Retention of staff is an issue for pharmacies. Survey results indicate that 32% of community pharmacies reported difficulties retaining pharmacists, 31% reported difficulties retaining technicians and 21% reported difficulties retaining pharmacy assistants.
- Future practice models need to be tailored to empower staff within pharmacies. This could be achieved through means such as the inclusion of flexible work arrangements, increased autonomy for staff, and/or broader scopes of work.
- There is an opportunity to create a pharmacy-tailored mentor/mentee programme similar to that already in place in Australia.
- There is an opportunity to establish a long service recognition programme, whereby team members are rewarded for their dedication and commitment to a specific organisation.
- There is potential to establish a voluntary bonding scheme (VBS).

The Issue

The Review has indicated community pharmacies are facing difficulties retaining staff. Our survey indicated that nearly a third of community pharmacies are having retention issues for pharmacists and technicians. Specifically, 31.9% of community pharmacies reported difficulties retaining pharmacists, 30.5% reported difficulties retaining technicians and 20.7% reported difficulties retaining pharmacy assistants. As noted earlier, these proportions are high for a profession in which the qualification offers limited employment opportunities outside of the pharmacy sector, limiting the ability to move to another job.

The Schedule One Review (Integrated Community Pharmacy Services Agreement, Schedule 1 Review, 2019) also states that participants were concerned about poor pharmacist retention, particularly due to many recently qualified pharmacists leaving the profession. Young pharmacists appear not to be as interested in pharmacy ownership and are choosing to leave the profession due to poor salaries compared to other professions, long work hours and being unable to use their clinical training.

The Schedule One Review goes on to indicate rural pharmacies, in particular, appear to be having staff retention issues. Interns are reported to leave their roles in rural pharmacies after one year. The high turnover results in continual training, adding to existing staff workload and contributing further to pressures which may push staff out of the profession.

The 2016-2020 Pharmacy Action Plan indicated that having people view pharmacy as a viable long-term option for a career and the profession being able to retain staff are indicative of workforce success. The risk, with wage costs pressure increasing, is retention issues are likely to worsen.

Potential Solutions

Future Practice Models Creating an Empowered Workforce

A future practice model focused on creating an empowered workforce and team can lead to better retention of pharmacists in the profession. This empowerment can be achieved through various means, two of which are discussed further here: flexible work hours, and increased autonomy/broader scopes of service.

Allowing for flexible work hours or weeks will help address the problem that pharmacists currently face through working long hours, a key reason for exiting the profession. The general benefits of flexible working have already been recognised by Employment New Zealand as it helps with retaining skilled staff, increases worker morale and can help meet labour market changes more effectively (Employment New Zealand, 2020). Statistics New Zealand's Working life survey 2018 indicated that those employees who had flexible hours had greater job satisfaction (90% compared with 83% for those without flexible hours) and work-life balance satisfaction (79% compared with 71% for those without flexible hours) (Stats New Zealand, 2019). While the pharmacist profession is relatively constrained in its current ability to provide for flexible working due to the nature of the profession, the implementation of 'flexible elements' could have a positive impact on employee retention. These elements could include:

- Establishment of flexible weekly work patterns (e.g. weekday/weekend swap – employees swap working on a weekday for working on a weekend day).
- Shift self-selection (i.e. employees assist with the development of shift work schedules and choose their own shifts).
- Weeks on/weeks off (i.e. working one or several weeks and taking one or several weeks off).

The consistency across each of the above elements is the ability to provide staff with choice, creating a workforce that feels empowered in how they work. If the above elements are not feasible for some pharmacies given the resource constraints already faced, innovative methods should be promoted to drive a culture of empowerment.

Empowerment of staff can also be derived through other means such as increased autonomy and providing broader scopes of practice. For example, as mentioned in the Schedule One Review, broader scopes of practice allow rural pharmacists to provide more services than their urban counterparts. This could help recruit and retain people and lead to a more stable, permanent workforce. This type of staff empowerment again comes back to providing staff options and the ability to flex their professional scope to deliver patient-focused services.

Future practice models for pharmacies need to be looking at how best they can empower their staff to ensure they are gaining the satisfaction they desire and are intrinsically motivated to deliver good outcomes. When people are intrinsically motivated, they find greater enjoyment in what they are doing, they are more engaged in their work and they have higher job satisfaction.

Establishment of a Mentor/Mentee Programme

Mentor/mentee programmes are a proven means by which greater job satisfaction can be achieved, deriving higher retention rates in staff. A study conducted by Gartner in 2006 examined the financial impact of mentoring and concluded that “mentoring has a positive impact on mentors and mentees, producing employees that are more highly valued by the business” (University of Pennsylvania, 2007). Specifically, retention rates were much higher for mentees (72%) and mentors (69%) than for employees who did not participate in the mentoring programme (49%).

The Pharmaceutical Society of Australia (PSA) has established a mentoring/mentee programme which looks to assist mentees in advancing their career, developing business and/or clinical skills, developing their professional network, while gaining continuing professional development (CPD) credits (Pharmaceutical Society of Australia, n.d.). However, the effectiveness and benefits of this specific programme are unknown as statistics are not reported.

The Pharmacy Action Plan states that the pharmacy sector focus strongly on, and invests in, the development of future leaders who have the skills and confidence to take on key leadership roles. Future leaders receive mentoring and support, and a framework for ongoing development is in place. As such, an action identified was to “provide leadership development for emerging pharmacy leaders”, in which the pharmacy sector held lead accountability.

Beyond this requirement being identified, and a high-level action being agreed, it does not appear to us that any further or deeper consideration has been given to the concept. Specifically, there appears to be no mentor/mentee programme on a national scale for pharmacists in New Zealand. The University of Auckland and University of Otago released guidance for “doctors considering mentoring a pharmacist” (University of Otago), however no further guidance and/or support is evident to us so far.

Given the benefits with respect to staff retention mentioned previously, the establishment of a formalised mentor/mentee programme within the pharmacy sector, similar to PSA’s, could be of benefit to pharmacists across the country.

Establishment of a Long Service Recognition Programme

Although not a common practice in the pharmacy sector globally, long-service recognition programmes have been implemented by a range of organisations over the last few years. With the objective of promoting staff wellbeing and overall workplace happiness, Tesco (UK-based supermarket) recently introduced a long service award scheme that rewards staff on ten-year milestones up to 50 years (Employee Benefits, 2018). Rewards are provided through relatively low-value monetary awards (e.g. £150 after 10 years’ service) or non-monetary awards such as champagne, unpaid sabbatical options, travel etc. Harvard University also implemented a similar scheme in 2016, recognising 5-year service anniversaries by providing staff an ‘anniversary gift’ (Harvard University, n.d.).

A study conducted by O.C. Tanner (US-based employee recognition company) found that employees stay at organisations for 2 – 4 years longer when their company has an effective years of service programme (O.C. Tanner, n.d.).

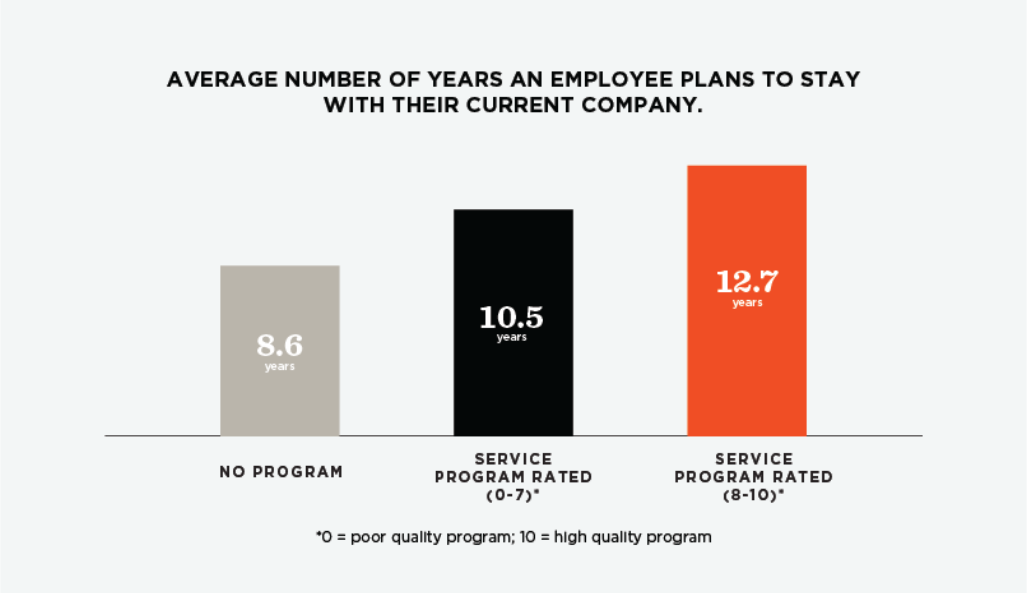


Figure 2: https://www.octanner.com/insights/white-papers/6-best-practices-when-recognizing-careers.html

There is potential for similar benefits being achieved should such a scheme be established within the pharmacy sector in New Zealand. The required monetary value of such a scheme appears to be relatively modest.

Establishment of a Voluntary Bonding Scheme

In 2009, a Voluntary Bonding Scheme (VBS) was set up to encourage doctors, nurses, and midwives to work in places and specialties that are recognised as hard to staff (Ministry of Health, 2014). This scheme calls for graduates across each of these roles to work for three to five years in a hard-to-staff community or speciality.

In return, each individual receives the following financial incentives for undertaking the role:

- $2,833 per year (up to $14,165 for five years) for nurses
- $3,500 per year (up to $17,500 for five years) for midwives
- $10,000 per year (up to $50,000 for five years) for doctors

From 2012 onward, medical physicists and radiation therapists were also included in the scheme, as well as sonographers (2015) and dentists (2016).

The benefits of this VBS are already being recognised, whereby analysis of historical workforce data indicates that registered nurses on the Scheme have higher retention in hard-to-staff specialities compared to nurses not on the Scheme (Ministry of Health, n.d.). Specifically, “of graduate nurses who have registered for the Scheme, the retention rate after five years is up to 27 percent higher than those graduates who did not register for the Scheme.”

The establishment of a VBS for pharmacy roles could help reduce staffing shortages identified across the range of pharmacy-based roles, on a nationwide scale. The implementation and effectiveness of such a VBS has already been proven effective in New Zealand, whereby in 2019, the VBS outlined above had 148 mental health nurses accepted for the intake, the highest ever and an 11% increase on the previous year (New Zealand Government, 2019).

Classification for a pharmacy VBS could be based on other factors outside of a ‘hard-to-staff’ requirement. For example, how many staff the pharmacy already has, and how potentially under-staffed they are.

Pressure Three: An Inability to Staff the Organisation Sufficiently to Provide the Full Range of Services Required in the Community

Section Summary

- Pharmacies, unable to adequately staff operations, might be unable to provide the full range of services required in the community.
- Increased use of Vendor Managed Inventory (VMI), automation and robotics in packing, dispensing and routine knowledge provision (self-service) could be used to reduce the workload of staff in pharmacies.
- Review the legislative and compliance environment to ensure this is operating effectively and enhance the audit process to add value and insight through recommendations on operational efficiencies and sharing of good practice.
- Rethinking the role of Pharmacy Technicians could expand technician activities and reduce Pharmacist workload. An Industry body could be given the mandate to define technician roles, ensure appropriate training, award registration, and provide annual practicing certification.
- Similarly, increasing the availability of Retail Assistants could be useful for larger pharmacies.

The Issue

The first indirect pressure found in the Review is that pharmacies, unable to adequately staff operations, might be unable to provide the full range of services required in the community.

The Pharmacy Action Plan (2016) states that the network of services has the potential to contribute significantly to creating a more people-powered health system.

"*One set of key challenges that the New Zealand Health Strategy discusses relates to health workforce sustainability. One aspect of dealing with these challenges is to make full use of the pharmacist workforce, as part of the wider health system. At the moment, even though this workforce is young and highly qualified, their clinical skills remain underused in the wider health setting. Yet good evidence shows that making better use of pharmacists' skills will improve health outcomes and make the use of medicines safer*" (Ministry of Health, 2016).

While the workforce has the pharmaceutical skills required to deliver a higher level of service, overreliance on Pharmacists to undertake tactical activities is a material indirect pressure on wage cost pressures.

In addition to the challenge of recruiting and retaining (Pressures One and Two above) suitably qualified Pharmacists, there are also competing pressures on Pharmacists' time. These competing pressures take away from time available to dedicate to customers to deliver the higher order service desired. Specifically, the more time Pharmacists spend doing tactical and compliance activities the less time they can spend giving higher order advice to customers. For the current breadth and quantum of activities Pharmacists are called upon to do, additional staffing is often required, however recruitment challenges for this highly skilled workforce remain (see Pressure One).

Other roles in a pharmacy help reduce the workload of Pharmacists to allow time for the most technical activities and delivering customer advice. Some of these roles are regulated (PACTs) and others are not, such as Retail Assistants. While all these supporting roles reduce the workload of the Pharmacists, the training, supervision and end impact on the level of service to the customer vary. In the current environment, a number of factors restrict the wider and more effective use of these supporting roles. The training and certification required for a PACT is substantial and often prohibitive. Many activities still require substantial Pharmacist supervision, removing their ability to be at the shop front assisting customers.

The Schedule One Review (Integrated Community Pharmacy Services Agreement, Schedule 1 Review, 2019) found that participants were keen to explore new models of pharmacy practice, especially where there was a focus on clinical services. This report identified several barriers, including lack of health IT connectivity, robotic restrictions, legislative and audit requirements, and medicines pack sizes.

There is a high compliance cost for the sector, set up to ensure quality of service delivery against legislative standards. The Schedule One Review found that participants felt compliance costs were increasing and took Pharmacists away from patients. Many in the industry feel audit requirements are burdensome, do not deliver benefits and actively stifle innovation. The purpose of the current pharmacy audits is to check the compliance of the pharmacy supply chain against the legislation relating to medicines and pharmacy standards. While the current legislation is considered outdated (soon to be revised), compliance is measured against the current legislation until the new legislation has been passed into law.

Potential Solutions

Increased Use of Automation

Increased use of automation and robotics in packing, dispensing and routine knowledge provision (self-service) could be used to reduce workload of staff in pharmacies, allowing a greater focus on customer advice and support.

There are many opportunities for automating and optimising repeatable, tactical activities within the pharmacy supply chain. For those activities currently undertaken in the pharmacy, any automation and optimisation will have the greatest impact on reducing the workload of Pharmacists and improvement in service provision to the customer.

See Pressures Six and Seven for further details on process automation.

Efficient Legislative and Compliance Environment

Creating a more efficient legislative and compliance environment which ensures quality without stifling innovation would be of value. Audits could also be used to add value and insight through recommendations on operational efficiencies and sharing of good practice.

Reducing the time required on compliance activity would give Pharmacists back time to devote to higher order service for customers.

A key theme in the Schedule One Review was that the regulatory framework should enable safe, efficient pharmacy practice. A Cornerstone-type audit method (e.g. as used by GP practices) and quality bonuses were suggested as quality processes that could be good for pharmacy.

As audits are still likely to be required in the future, the value they bring could be enhanced by providing recommendations on improvements in efficiency of operations. Shared learnings could make the industry as a whole more profitable and make the audit process an activity that pharmacies support and learn from.

An effective solution to this area would address a key pain point and reduce the workload of Pharmacists. Compliance models in other areas of the health sector could help speed a safe transition to an improved model.

The Role of Pharmacy Technicians

Rethinking the role of Pharmacy Technicians could expand technician activities and reduce Pharmacist workload. Reducing the workload from these repetitive tactical activities would allow Pharmacists to deliver higher order services to customers.

In the current state, in order for a pharmacy and a PACT to comply with the requirements of the Health and Disability Service Standards Pharmacy Services, the Ministry of Health requires an additional condition to the Licence to Operate. A schedule is provided with the Licence that lists the standards (with any limitations) that may be completed by a certified PACT operating within that pharmacy (Pharmaceutical Society of New Zealand Incorporated, 2017).

The Schedule One Review recommended that regulating all Pharmacy Technicians (not just PACTs) was a way of defining scopes for pharmacy technicians and potentially increasing their skills so that they could free up Pharmacists to work with more complex patients. Under this concept, a technician working within their regulatory scope would mitigate risk and allow technicians to work more autonomously, for example checking rest home charts to make sure charts had been regularly reviewed and that prescribing was current.

However, further regulation of activities undertaken by Pharmacy Technicians might not be the optimal solution to increase supply and skills of the technician workforce. An alternative method with a larger role from the industry may be possible. An Industry body could be given the mandate to define technician roles, ensure appropriate training, award registration and provide annual practicing certification. This could allow for more efficient ongoing updates to roles and additional required training to effectively practice as technology and process evolves in the industry. This

approach is used across a number of other roles in the health sector, for example for Chiropractors through the Chiropractic Board (New Zealand Chiropractic Board, n.d.) or Physiotherapists through the Physiotherapy board (Physiotherapy Board of New Zealand, n.d.).

The pain-point of training PACTs could be outsourced to an approved education provider. The scope and ongoing enhancements could be supported by an industry body – which could also support industry experience in the form of internships.

This solution would be effective in reducing the workload of Pharmacists so they can provide a greater level of service. The challenges and risks with it, specifically around training and ensuring the high level of quality are noteworthy, but not insurmountable in the medium term.

The Role of Retail Assistants

An adjacent solution is expanding the role or number of Retail Assistants. This has the benefit of reducing the workload of the Pharmacists, however it would likely shift their role to more dispensing and other non-customer facing activities. Reducing the time Pharmacists have with customers could mean less understanding of customers' needs and result in a lower level of service provided.

While increasing the availability of Retail Assistants could be useful for larger pharmacies, it is unlikely to provide a solution for giving more higher order service to customers across the entire sector.

Pressure Four: An Inability to Staff the Organisation Sufficiently to Allow Time for Staff to Maintain Registration as a Professional

Section Summary

- A time poor pharmacy workforce might also face pressures to ensure sufficient time is allocated to maintaining professional development and providing training opportunities generally.
- Ensure funding for pharmacy workforce development is targeted to address issues of the quality and relevance of the training, accessibility (appropriate delivery methods and enabling time to attend) and the cost of training.
- Consider establishing a locum service to provide cover for professional development.
- Consider how to increase opportunities for on-the-job training. This may include rethinking current supervision requirements.
- To supplement on the job training opportunities, establish a team of mobile mentors, observers, and testers to provide in house training opportunities for pharmacists and their teams.
- Expand the use of online courses, potentially funded and managed centrally to increase accessibility and improve cost efficiencies.

The Issue

A further indirect pressure for pharmacies which are unable to adequately staff operations is an inability to allow time for staff to maintain professional registration, and to provide training opportunities generally. As noted under Pressure Two: Difficulty Retaining Suitable Staff above, retention issues exacerbate this issue, with high staff turnover resulting in high numbers of new staff who require training.

This is not a new issue for the sector and has previously been raised, along with potential actions or solutions, in the Schedule One Review (Integrated Community Pharmacy Services Agreement, Schedule 1 Review, 2019) and Pharmacy Action Plan 2016 to 2020 (Ministry of Health, 2016). The section 'Tool 3: Workforce' of the Pharmacy Action Plan cites a desire to "Fully [use] the capacity and skills of today's pharmacy workforce while growing future capability" and under 'What does success look like?' notes:

"*People interested in a career in health see pharmacy as a viable long-term option that offers a range of practice opportunities. Pharmacists have a structured professional development pathway that attracts and retains people with the right skill mix to support new models of care. Development of the pharmacy workforce is aligned with development strategies for the broader health workforce*."

A lack of professional development in private sector pharmacies (unlike DHBs) represents an issue of quality to the model of care.

The Schedule One Review notes:

- The cost of PACT training was considered expensive and time-consuming by participants who wanted PACTs.
- Interns should acquire their clinical services training (for example, ECP, TMP) during their internship.
- Some participants called for DHBs to fund more clinical training for pharmacists; it was also noted that postgraduate support for community pharmacists and GPs differs considerably: "Community pharmacists don't get ongoing post graduate training and support; GPs have a vocational training programme."
- One participant felt that pharmacists risk having knowledge gaps and clinically de-skilling because they are generalists. In their view, pharmacists were not maintaining and building their levels of knowledge.

While the cost of or funding for training is frequently cited as an inhibitor, a prerequisite to relieving this pressure is the ability to allocate time for the pharmacy workforce to engage in training and professional development.

Potential Solutions

Provide Funding for Pharmacy Workforce Development

The first action proposed in the Tool 3: Workforce section of the Pharmacy Action Plan was to

"Ensure funding for pharmacy workforce development is appropriately targeted and leads to outcomes that support the New Zealand Health Strategy."

While increased funding (with appropriate targeting) might alleviate cost concerns and improve equity between community pharmacists and other health care workers (e.g. with vocational training for GPs as noted above) this does not directly address the other issue of creating or allowing time for the pharmacy workforce to participate in professional development.

As well as ensuring adequate funding, the quality and relevance of the training, the appropriateness of delivery methods and the ability of the pharmacy workforce to access the training (e.g. to have sufficient time to engage in training) need consideration to ensure desired outcomes are achieved.

In their 2019 Annual Report the Pharmaceutical Society of NZ Inc. note 78% of their members feel the ENHANCE professional development programme is either meeting or exceeding their requirements, however, could also be more user friendly and less complicated. Members also note while college training courses are perceived as good quality, they are expensive.

Funding could be targeted to address the three aspects of quality, access, and cost.

Locum Service

A locum service could be created, on either a regional or national basis, targeted to provide cover for professional development. Depending on the demand, this service could be extended to provide cover for other reasons as well (e.g. to allow sufficient time off, refer Pressure Five below).

Depending on how this service is staffed, this could also be used to provide rotation of DHB pharmacists and community pharmacists, building knowledge across the sector.

Extension of on-the Job-Training Opportunities

Opportunities to utilise time on the job as part of integrated training courses should be considered, with a mix of course time and on the job training. We note concerns already exist regarding the ability of pharmacists to provide and supervise on the job training e.g. (from the Schedule One Review) a training site must have two pharmacists on site before a PACT can start their training, although one participant pointed out that one pharmacist can supervise two interns; and close PACT supervision means pharmacists are still tied to the dispensary according to one participant. Accordingly, it may be necessary to rethink existing supervision requirements.

Mobile Mentors, Observers and Testing

To alleviate concerns regarding the ability to provide on the job training, and to extend on the job training to include pharmacists (other than in a mentoring or supervision role), mobile mentors, observers and testers could be utilised to go to the pharmacist (and other staff) in training. A course could include self-directed training combined with periodic check-ins from the mobile team, to provide mentoring, gauge progress and complete testing. Not all interactions would need to be in-person, with virtual check-ins facilitated by on-line conferencing, with real-time screen and document sharing readily available.

Increased Access to Online Courses and Training Options

Massive Open Online Courses (MOOCs) have been used to increase training options and reduce costs (per participant) across other industries, with content often provided by leading universities and organisations. Online courses are not new, and we note are already included within the training mix for pharmacists e.g. with the Pharmaceutical Society of NZ Inc. providing online options and podcasts. However, the use of online courses (MOOCs or similar format) could be expanded, potentially funded and managed centrally to increase accessibility and help improve cost efficiencies.

Pressure Five: An Inability to Staff the Organisation Sufficiently to Allow Sufficient Time off

Section Summary

- While focusing on the activities pharmacies are required to complete and ensuring time exists to complete these, it is potentially easy to overlook the equally important need to allow sufficient time off.
- Providing access to a locum service could allow the pharmacy workforce to take sufficient time off.
- Create cluster networks of pharmacies (and DHB pharmacies) where shared resource can create meaningful "chunks" of time off for participants in the cluster.

The Issue

The indirect pressures three to six listed in this report all focus on "creating" time for pharmacies to focus on various important, but often deferred activities. Across all of these pressures there is a commonality of needing to operate more efficiently, delegate or transfer activities to roles best suited to complete them and update methods of practice or operating models (e.g. through increased automation; acting collectively and sharing resources; eliminating non value add work, etc.) to allow time for the pharmacy workforce to complete all of the activities demanded of them.

While focusing on the activities to be completed it is potentially easy to overlook that it is equally important to ensure time is available for the workforce to take time off.

"No matter how strong or strong-willed you are, you cannot live a stressful, maxed-out life without that pace eventually biting you in the butt. It is necessary to take breaks, set parameters, and be kind to yourself if you want to continue making an impact in your corner of the world." — Cynthia Mendenhall, author.

And from the Schedule One Review:

"Many participants were concerned about the number of young pharmacists who were leaving the profession. Reasons for leaving included long work hours."

Both recruitment and retention issues represent a commercial issue for the ongoing viability of community pharmacy. Therefore, both the pharmacy providers and DHBs have a shared need to find a better way. Generally, the potential solutions we propose for pressures three, four and six are equally applicable to the ability to allow sufficient time off.

Potential Solutions

Locum Service

As noted under Pressure Four above, a locum service could be provided, funded or subsidised, and on either a regional or national basis, targeted to provide cover for the pharmacy workforce to complete desired activities. Suggestions we have included are to provide cover for professional development, and to allow sufficient time off.

Develop Cluster Networks

Work together to help each other out and create time off e.g. through a "cluster" of nearby pharmacies sharing staff to allow one FTE one day off per week or fortnight. Where a DHB is located nearby, DHB pharmacists could also be included in the cluster.

Pressure Six: An Inability to Staff the Organisation Sufficiently to Improve Systems and Processes (Resulting in a Third Level of Indirect Pressure – Inefficiency, Compounding the Problem)

Section Summary

- Insufficient staffing levels in community pharmacies is preventing pharmacists from being able to invest time in improving their business model and processes. As a result, inefficiencies are permeating the community pharmacy that are making it even more difficult for pharmacists to allocate time to fix these issues.
- Holding hackathons could assist quick idea generation for driving solutions to the issues facing the community pharmacy model. These could be sponsored by the DHB or the Guild and will allow pharmacists and other private sector actors to innovate processes in the industry.
- Industry forums might also provide a platform upon which the issues surrounding processes and systems in community pharmacy could be addressed. These forums would allow productive discussions to take place and the alignment of a range of different perspectives, thus driving progress in generating solutions to the issues facing the industry.
- Development of standardised platforms for the industry, or common protocols for existing systems to talk to each other will improve current systems and processes and will also reduce administrative load currently on pharmacists. This will, in turn, allow pharmacists to spend more of their time continuing to work on the processes and systems of community pharmacy. Similarly, any process improvement in reducing the complexity of the funding process, reducing the time taken to sort through claims will create more time for value-add.

The Issue

With constrained staffing resources, Community Pharmacies also face the pressure of being unable to staff themselves sufficiently to improve systems and processes. This, in turn, is compounding the issues that are causing the pressures in the first place, and as such, add to the problem.

The Ministry of Health's Pharmacy Action Plan details the need for "More effective use of the pharmacy workforce and technology to redesign the dispensing process and create an accessible, sustainable and efficient medicines supply chain". The report also stresses that "Current models of care do not make the best use of pharmacists' capacity and unique skill set or promote a 'one team' approach to providing health care." These statements highlight two salient points – firstly, that it is vital for pharmacists to have time and capacity to improve processes, and secondly that they do not currently have the capacity to do so.

Importantly, any of the solutions being proposed in this document will require time and effort being spent by community pharmacists to design, plan, and implement. This is capacity they currently do not have. As a result, this resourcing problem is an incredibly important one to resolve, as its impacts reverberate.

Additionally, this issue compounds the problems noted in pressure seven. In order to automate processes or develop significant technological innovation, sector experience is going to be required to guide any innovation. The capacity of pharmacists to provide this expertise is going to be significantly limited given current staffing levels.

Potential Solutions

Periodic Hackathons Sponsored by the Guild and the DHBs to Develop New and Innovative Ideas

The Schedule One Review demonstrates the strong idea generation and implementation capability available within the profession. Pharmacists think deeply about their work and have useful and insightful thoughts about what they do. But it seems the demands on their time and current structure of their working arrangements prevents some in the sector from being able to meaningfully adjust the processes or systems they have become frustrated with.

Given this, our opinion is that it would be good to build involvement from the profession at large. To do this, we suggest that the Guild or DHB's sponsor periodic 'hackathons' where new and innovative ideas can be developed by those within the profession. Hackathons are short competitions held over the duration of a few days where a core issue is proposed to competing participants, and they then work to propose a solution to that issue.

Through these hackathons, the Guild or DHB's could propose certain problems they want solved and have those issues solved by pharmacists themselves or even other private sector actors. The short time frame of these hackathons means their disruptive impact on the profession as a whole is minimal, while still allowing for strong generation of innovative ideas.

The Pharmaceutical Society Annual Report, 2019, page 15) lists a series of services that could be developed. New services like these, and the existing ones already supplied, would be worthy subjects for innovation via hackathons.

Industry Forums to Work on Issues of Joint Concern (Perhaps Coming from the Hackathons) and Then Share Best Practice, Potentially Distributing It via the Auditing System

The issues facing the community pharmacy model are both complicated and multi-faceted in their nature. They will require a number of different stakeholders to come to the table with a genuine commitment towards change and improvement in the sector. As such, it is going to be vital to facilitate discussions between the stakeholders involved in a meaningful and impactful way.

All involved stakeholders should look to host industry forums at which they can assess issues facing the profession and develop plans for the industry at large. These forums would be especially effective if they were placed after the hackathons to allow for discussion about the solutions and ideas generated at those hackathons.

Clearly, there is a desire from DHB's to improve the community pharmacy model, and it is foreseeable that improvements could be made in a way that both boosts the viability of the model for pharmacists and improves health outcomes in a way that aligns with the DHB's wishes.

An effective forum setting could assist align these two sets of values and enable effective and productive discussion between the two parties, particularly if they are able to discuss solutions already being proposed by the hackathon.

Leadership and Funding from DHBs and MoH to Develop Industry Platforms, or Sponsor Common Protocols for Existing Systems to Talk to Each Other

We expand more on this solution in our analysis of Pressure Seven; the Schedule One Review notes there is a need for *"a digital platform that would connect medical centers to pharmacy and patients".* The review also notes that *"Hospital, pharmacy, and GP systems don't talk to each other – sort it out! We have little access to hospital discharge prescriptions and no GP access to patient histories; often, we can't answer simple questions for patients."* It is clear that time is being wasted unnecessarily on administrative tasks being caused by poor system design and a lack of a unified platform.

Creating standardised platforms for the industry would reduce the administrative load on pharmacists and would free up their time. This would both improve systems and processes in their own right and allow those pharmacists to further improve systems and processes with the time created.

Pressure Seven: Insufficient Funds Remaining to Invest in Technology, Infrastructure, Business Development

Section Summary

- Community pharmacies lack the funds to be able to substantively invest in their technology, infrastructure, and business development. This is preventing the profession from being able to make the evolutionary steps it needs to make to alleviate the wage cost pressures impacting it.
- Regulations currently stifle the ability of pharmacies to utilise automation and other technological developments. Reforming regulation with an eye towards innovation could help to reduce the tangible cost of automation and technology for pharmacies, thus maximising the impact of their constrained funds.
- A one-off investment in digitisation could hold the key to quickly reforming the state of technology in the industry.
- Separating dispensation and advice functions could allow for pharmacies to build sufficient economies of scale that would make investment in technology and automation economical. Doing so would also allow pharmacists to provide more value to their community through extended time allocation to advice rather than dispensing.

The Issue

The final indirect pressure of the wage gap detailed in the Strategic Pay report is insufficient funds remaining to invest in technology infrastructure and business development. This is a particularly alarming indirect pressure given its potential to cement profitability issues in the industry at large and worsen the wage-cost pressures noted in Strategic Pay's report for the years ahead.

Both the Ministry of Health's Pharmacy Action Plan and Grant Thornton's report on the "True costs of the pharmaceutical supply chain" stress the importance of infrastructure and technology development for community pharmacies (Ministry of Health, 2016) (Grant Thornton, 2016). The Pharmacy Action Plan notes that *"Rapid changes in technology will impact significantly on pharmacy practice and, in particular, provide new opportunities to transform the current dispensing model."* Additionally, the Grant Thornton report states that the pharmaceutical supply chain *"is constrained by a low level of automation and use of information"*, suggesting a lack of investment into technology and infrastructure in the supply chain as it stands. The Schedule One Review also notes that existing "Technology infrastructure and equipment doesn't allow pharmacies to work efficiently".

Pharmacies are constrained by the current state of technology and infrastructure in use and would benefit from investment to drive and stimulate future growth.

This lack of investment in technology and infrastructure bears a real cost for community pharmacies. In our 2016 report, Grant Thornton found that "*a pool of value around $47-$95 million exists*" in the field of automation. This report is now five years old and was high-level in its approach, but this does indicate a significant pool of value that could be released, for example to alleviate wage cost pressure, by investing in more contemporary and automated methods.

Potential Solutions

Reforming Regulations to Allow for Greater Use of Technology and Automation

Community pharmacies currently exist in a regulatory environment that can stifle their ability to invest in and utilise technology. The Schedule One Review states that "*Pharmacy robots are under-utilised because owners can only supply to pharmacies belonging to one legal entity*." The review also notes that *"Current legislation can't reasonably accommodate robotic storage for CDs.*" (Integrated Community Pharmacy Services Agreement, Schedule 1 Review, 2019).

These regulations have made it difficult, and more importantly, not economically viable or compelling for community pharmacies to invest in widespread technological development or automation. Our 2016 Report and Moore Markhams Annual Surveys indicate that pharmacies, particularly those lacking scale, have limited resourcing available to fund technological development.

The Schedule One Review also observes that "*legislation and regulation, and associated costs of developing different business models or meeting compliance costs associated with different licensing arrangements, make it very challenging / prohibitive to invest in developing different business models."*

Through regulatory reform, the problem of limited investment in technology, infrastructure and business development won't be solved outright, but more productive results could be generated from the spending that does take place.

The Pharmacy Action Plan describes success with regulation as follows; *"Legislation enables innovative pharmacy practice and drives improvement across the sector. The regulatory environment is efficient and effective, with a strong focus on safety, but allows the sector to be sufficiently flexible and responsive to deal with changing needs and conditions."* (Ministry of Health, 2016).

This solution has been widely discussed in both the Schedule One Review and the Pharmacy Action Plan. However, we question how much substantive progress has been made on implementation? The Ministry of Health, DHB's and the Pharmacy Guild could ask what could be done as a collective to firstly, accelerate the pressure to achieve regulatory changes and secondly, agree a robust sector plan for implementation. Without defined plans for accelerating reform and implementing the changes then allowed there will continue to be an absence of notable progress.

Government/DHB Investment in Digitisation

We noted at the beginning of this section, simply increasing rates of wages of the community pharmacy labour force could run the risk of cementing in place issues of lack of productivity and lack of innovation in method and process in the industry.

There is however scope for funding to be injected into the automation of pharmacy, or in technological development. Doing so would solve some of the structural issues that have plagued the industry at large and created some of these wage cost pressures in the first place.

The question then becomes, how best could this funding be allocated, and can this be done in a way that facilitates concerted action? How could results be aligned to the funding to ensure the "right" initiatives and projects are chosen and invested in?

One such investment, it appears to us, would be to fund the creation of more digital interconnection. The Schedule One Review notes that there is a need for *"a digital platform that would connect medical centres to pharmacy and patients"*. Additionally, it highlights that *"The NZ e-prescription service (NZePS) appeared to have little support among participants"*. Both of these areas stand out as possible initiatives for accelerated investment and have clear likely benefits of removing the non-value add work in pharmacy and allowing for more advice to be provided to customers.

An injection of funds here could significantly improve technology interconnection within the sector.

Separation of Dispensing and Advice Responsibilities

There are also cases where the limited economies of scale available within the current community pharmacy model mean that automation and technological development is made even more difficult than it inherently is. As a result, centralising the dispensing functions of a number of pharmacies into one "hub" and having those pharmacies serve as advice "spokes" may help improve the issue of low investment in technological development.

This solution is not a new one in the community pharmacy sphere, and clear concerns were raised about it from pharmacists in the Schedule One Review. The review notes initial concerns such as "*where responsibilities lay (in case of errors)*", *"who would deal with errors"* and *"how dispensary stock would be managed"*. These concerns should be plausibly resolved with effective process, planning and management of the deployment of a hub and spoke model.

More difficult to deal with are the existential questions raised around the hub and spoke model. These are highlighted by a pertinent comment by a pharmacist in the Schedule One Review - *"I think the issue is that community pharmacists mostly don't have a vision beyond a role premised on dispensing and until they have clarity on that part, it will be murky, and they will struggle."*

These questions represent the biggest obstacle to implementation of a hub and spoke model and do need to be addressed. For a move to this model to be successful, all stakeholders involved need to discuss what they see the future of pharmacy being and create a plan that addresses these concerns.

Recommendations

Overview

The first part of this review identified that there are unmet wage costs and that in most cases these are material. While community pharmacist pay levels do not show a material gap in relation to similar roles in the hospital setting, other roles do. In terms of pay parity, community pharmacists are paid 96% of equivalent roles in the hospital setting, a gap not considered material. However, technicians are paid around nearly 20% below an equivalent role and pharmacy managers 25% below both of which are considered material gaps.

There are a series of harms or effects that emerge from this wage cost pressure:

Pressure One:	Difficulty recruiting suitable staff.
Pressure Two:	Difficulty retaining suitable staff.
Pressure Three:	An inability to staff the organisation sufficiently to provide the full range of services required in the community.
Pressure Four:	An inability to staff the organisation sufficiently to allow time for staff to maintain registration as a professional.
Pressure Five:	An inability to staff the organisation sufficiently to allow sufficient time off.
Pressure Six:	An inability to staff the organisation sufficiently to improve systems and processes.
Pressure Seven:	Insufficient funds remaining to invest in technology, infrastructure, business development.

In developing solutions for these various impacts, we have identified a series of ideas. While this document has been written as a series of impacts, in actuality they are interlinked, As such, so are the solutions. . As this is a complex problem, there is no silver bullet.

We present a series of recommendations to each impact below. We note that there are some higher-level themes emerging from our analysis, that are useful to note here. Much of what we have put forward as solutions to the harms used the following design principles:

1. Start with the end in mind – the vision of the place of Pharmacy as part of the integrated model of care. Reimagine what pharmacy might look like.
2. Based on what is valued, seek to remove the non-value add work from the roles in the first instance, thereby creating time and space to devote more time with customers and more time for CPD.
3. Propose solutions that are concrete or for which there are already analogous examples, not abstract theories. Consider as much as possible the precursor work the sector has already spent some time thinking about.

We note that designing the best solution for the future is difficult without a blueprint. We note the Pharmacy Action Plan was dated 2016 – 2020. We believe a new one for the next period is warranted. With an agreed future vision, and some concrete statements to guide future action it will be considerably easier to prioritise improvement and investment for ideas like the ones we put forward in this document.

Acceleration of Existing Capability Will Maximise Effect

We are aware there are a number of resources within the sector. We suggest thinking about them slightly differently and making them connect to each other through digitisation, as has been done in the Schedule 1 review would give some specificity to activities in the next “Pharmacy Action Plan”.

What is then required is concerted action to accelerate the improvements, improve health outcomes and to make the pharmacy roles of the future more vibrant, relevant, and rewarding.

Modern Supply Chain to Create Time

In our recommendations we suggest ideas like increasing digitisation. In our prior report (Grant Thornton, 2016) we noted there are a number of databases, they just don't talk to each other well. We repeat here our recommendation to enable this interconnection. One of the more obvious ones, at least to us, is to exploit the existing ability of the interconnection between the wholesalers and the pharmacies. At the margins predicting exactly which drug is required where on any given day is difficult. That said, existing analysis has shown that at a population level there is high predictability for where customers access their medicines. We are creatures of habit. This is particularly so for medicines for chronic conditions and for the highest volume medicines. Vendor managed inventory (VMI), where the wholesalers look down the system electronically and replenish individual pharmacies could be a significant creator of time, which can then be used to reduce long hours, spend more time with clients, devote more time to CPD and maintaining registration.

Collective Action to Create Scale

The nature of the industry is a variety of types, shapes and forms of pharmacy. In general, some of the issues manifesting are a result of lack of scale. Investment in automation is one. Time off for CPD, process improvement or business development is much harder when your operation is smaller. Without suggesting something as draconian as consolidation, many of our ideas ask the industry to consider how it might act as if it were larger. We do note consideration of scale is an existing topic in the industry[6].

With many facing the issue of time off, how might a collective locum solution be generated? Could there be regional clusters or even a national solution?

With many suffering from the difficulty to recruit how could collective action on demand (increasing activity in advertising) and supply (enhancing the profile of the profession, increasing the pipeline of PACTs for example) be created?

With many suffering retention issues, how might collective action on workforce bridging using the National Career Framework more effectively be done? While an individual small organisation might struggle to provide a variety of learning situations and developmental areas, across the entire sector there are more. While one operation might not have all the rungs on the ladder, by allowing staff to move around, the same effect can be created.

With many lacking the scale to invest in automation, what clusters or nodes could be concentrated to the point where the economics make sense?

Sharing Existing Knowledge Better

There are a series of pools of knowledge and much tacit knowhow embedded in the profession. Much has been codified and is increasingly electronic (EVOLVE for internships, ENHANCE for CPD, access to international databases and Self-Care codified as cards). How might this knowledge be made easier to access and use, for pharmacists at the front line, and for consumers. What does a more integrated, digitally enabled solution that provides advice and knowledge look like? How does this best practice become incorporated into the process of audit and compliance, using this channel to increase the overall level of capability, knowledge and effectiveness of pharmacy?

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[6] "*Smaller pharmacies generate the least net profit due to the higher costs as a percentage of total sales. The level of return generated from some of these smaller businesses is quite concerning and leads us to question their viability. A number of these businesses are in Auckland where there is significant competition. If there are close competitors and sustainable performance cannot be achieved, looking at a merger with the competition can be a good option*." (Moore Markhams, 2020), page 3

Recommendations

Pressure One: Difficulty Recruiting Suitable Staff

1. Pharmacists could receive education and support in undertaking recruiting activities. This could be achieved through a tailored community-based career framework, and/or providing general recruitment support to all pharmacies (e.g., recruitment Q&A platforms).
2. There is an opportunity to seek a partnership with a professional recruitment service provider or to facilitate or setup a pharmacy-specific recruitment service.

Pressure Two: Difficulty Retaining Suitable Staff

3. Future practice models need to be tailored to empower staff within pharmacies. This could be achieved through means such as the inclusion of flexible work arrangements, increased autonomy for staff, and/or broader scopes of work.
4. There is an opportunity to create a pharmacy-tailored mentor/mentee programme similar to that already in place in Australia.
5. There is an opportunity to establish a long service recognition programme, whereby team members are rewarded for their dedication and commitment to a specific organisation.
6. There is potential to establish a voluntary bonding scheme (VBS).

Pressure Three: An Inability to Staff the Organisation Sufficiently to Provide the Full Range of Services Required in the Community

7. Increased use of Vendor Managed Inventory (VMI), automation and robotics in packing, dispensing and routine knowledge provision (self-service) could be used to reduce the workload of staff in pharmacies, creating time for more value-add activities.
8. Review the legislative and compliance environment to ensure this is operating effectively and enhance the audit process to add value and insight through recommendations on operational efficiencies and sharing of good practice.
9. Rethinking the role of Pharmacy Technicians could expand technician activities and reduce Pharmacist workload. An Industry body could be given the mandate to define technician roles, ensure appropriate training, award registration and provide annual practicing certification.
10. Similarly, increasing the availability of Retail Assistants could be useful for larger pharmacies.

Pressure Four: An Inability to Staff the Organisation Sufficiently to Allow Time for Staff to Maintain Registration as a Professional

11. Ensure funding for pharmacy workforce development is targeted to address issues of the quality and relevance of the training, accessibility (appropriate delivery methods and enabling time to attend) and the cost of training.
12. Consider establishing a locum service to provide cover for professional development.
13. Consider how to increase opportunities for on-the-job training. This may include rethinking current supervision requirements.
14. To supplement on the job training opportunities, establish a team of mobile mentors, observers and testers to provide in house training opportunities for pharmacists and their teams.
15. Expand the use of online courses, potentially funded and managed centrally to increase accessibility and improve cost efficiencies.

Pressure Five: An Inability to Staff the Organisation Sufficiently to Allow Sufficient Time off

12. Providing access to a locum service (see above) to also allow the pharmacy workforce to take sufficient time off.
16. Create cluster networks of pharmacies (and DHB pharmacies) where shared resource can create meaningful “chunks” of time off for participants in the cluster.

Pressure Six: An Inability to Staff the Organisation Sufficiently to Improve Systems and Processes

17. Holding hackathons could assist quick idea generation for driving solutions to the issues facing the community pharmacy model. These could be sponsored by the DHB or the Guild and allow pharmacists and other private sector actors to innovate processes in the industry.
18. Industry forums might also provide a platform upon which the issues surrounding processes and systems in community pharmacy could be addressed. These forums would allow productive discussions to take place and the alignment of a range of different perspectives, driving progress in generating solutions to the issues facing the industry.
19. Development of standardised platforms for the industry, or common protocols for existing systems to talk to each other will improve current systems and processes and will also reduce administrative load currently on pharmacists. This will, in turn, allow pharmacists to spend more of their time continuing to work on the processes and systems of community pharmacy. Similarly, any process improvement in reducing the complexity of the funding process, reducing the time taken to sort through claims will create more time for value-add.

Pressure Seven: Insufficient Funds Remaining to Invest in Technology, Infrastructure, Business Development

20. Regulations currently stifle the ability of pharmacies to utilise automation and other technological developments. Reforming regulation with an eye towards innovation could help to reduce the tangible cost of automation and technology for pharmacies, thus maximising the impact of their constrained funds.
21. A one-off investment in digitisation could hold the key to quickly reforming the state of technology in the industry.
22. Separating dispensation and advice functions could allow for pharmacies to build sufficient economies of scale that would make investment in technology and automation economical. Doing so would also allow pharmacists to provide more value to their community through extended time allocation to advice rather than dispensing.

Appendices

Appendix One: SP10® methodology

About SP10® Job Evaluation Methodology

The Strategic Pay 10 factor Job Evaluation methodology has an extensive following in the public, private and Not for Profit sectors. It has a proven track record of over 30 years in a variety of workplaces and operating models in New Zealand. SP10® suits a wide range of positions including executive and professional; technical; administrative or production and environments where points differentials are considered important.

SP10® Advantages

A language to establish relativities and explain how one position compares to another job and why they have the same or different position sizes.

Direct points-dollars linkage to and from NZ's largest source of remuneration market data directly underpins JobWise®, Strategic Pay's job mapping methodology, used for "mapping" positions to broad career pathways, levels and associated pay bands.

SP10® focuses on the requirements of the position and its contribution to the objectives of the organisation rather than the characteristics of the incumbent. This helps organisations better understand pay levels and address pay equity.

Summary of the Ten Factors

Education	The minimum level of education required to perform the functions of the position competently. This combines formal as well as informal levels of training and education.
Experience	The level of experience typically required to perform the role competently. This experience is in addition to formal education, and assesses both the nature and breadth of general, technical and managerial experience.
Complexity	The level of predictability in the role and the innovative or conceptual thinking required to respond to external influences impacting on the organisation and the position.
Scope	The breadth or scope of the position (i.e. the level of influence in the organisation). This factor assesses the level of management, working relationships and influence the position is required to exercise in the organisation.
Problem Solving	The nature and complexity of problem solving expected of the jobholder. This includes the judgement exercised, availability of rules and guidelines to assist in problem solving, the degree of analysis and research required, and the originality, ingenuity and initiative required to arrive at a solution.
Freedom to Act	The extent of supervision, direction or guidance imposed on the jobholder and the freedom the jobholder has to take action.
Impact / Results of Decisions	The impact of the discretionary judgement a jobholder has when making competent decisions within their control. The evaluator must consider the direct dollar impact of a typical, repeatable (and competent) decision that would be made without reference to a supervisor. This factor measures the discretionary or marginal impact the jobholder's decisions have and not the consequence of error.
Interpersonal Skills	The level of interpersonal skills required for dealing with employees within the organisation, as well as external clients or customers and/or the public in general.
Authorities	The formal authority levels exercised in the position, including financial, staffing and contractual authorities. This includes routine and capital expenditure, the authority to employ and dismiss staff, and also the authority to enter into contracts on behalf of the organisation.
People Management	The responsibility for the supervision and management of staff within the organisation, including project team management and indirect supervision.

Appendix Two: Strategic Pay Community Pharmacy Survey 2020

Participants

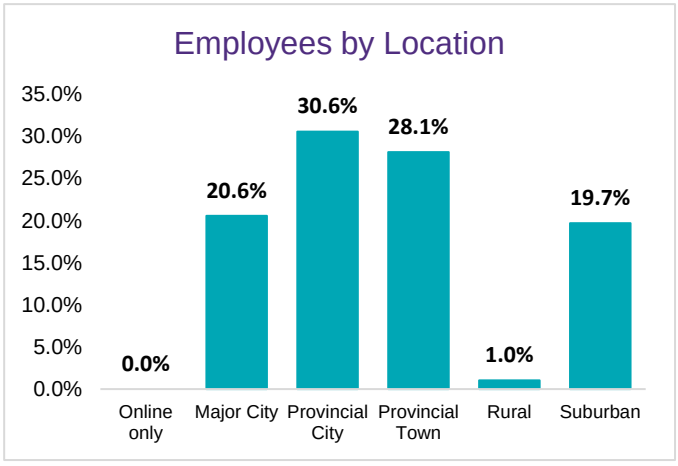
We invited 1,084 community pharmacies to participate and 295 responded, representing a return rate of over 27% which is good by industry standards. This also represents nearly a third of pharmacies.

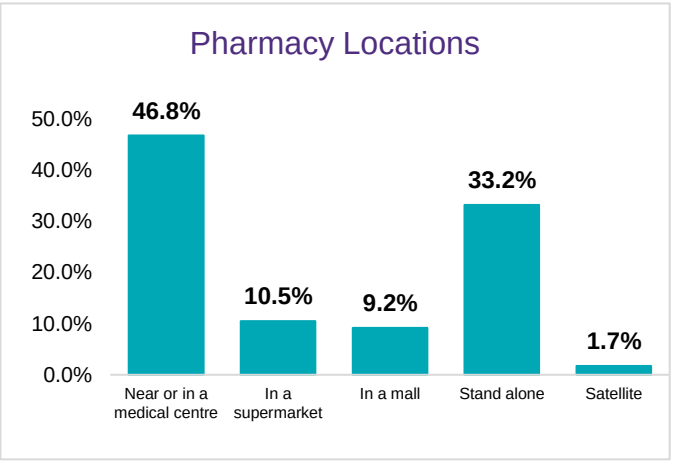
Our sample is also representative in terms of the location of pharmacists as the following table indicates.

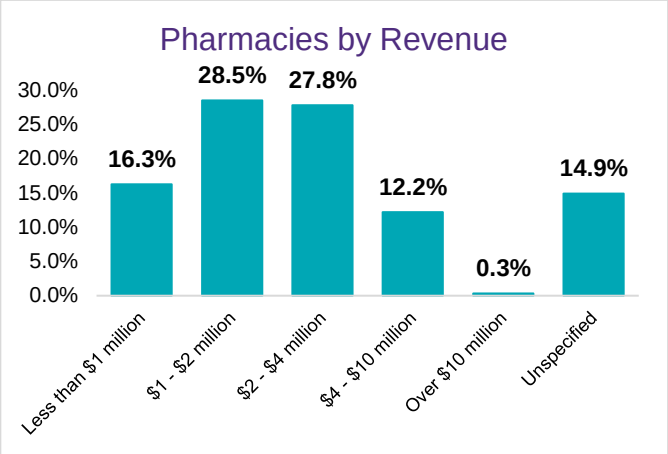
Registered Pharmacists by Region

Region	NZ Total (N=3832) *	Sample Total (N=676)
Auckland	38.1%	24.0%
Bay of Plenty	5.8%	5.3%
Canterbury	12.9%	13.3%
Gisborne	0.8%	0.9%
Hawke's Bay	3.4%	4.7%
Manawatu-Whanganui	4.4%	6.7%
Nelson, Marlborough, Tasman	3.1%	4.3%
Northland	2.8%	8.3%
Otago	5.6%	6.8%
Southland	1.7%	1.8%
Taranaki	2.5%	2.7%
Waikato	7.4%	8.0%
Wellington	11.0%	12.6%
West Coast	0.4%	0.7%

** Source: Pharmacy Council Workforce Demographics 2019*







Survey Process

We developed and evaluated a set of 11 benchmark roles based on the information gained from our research, discussions with relevant stakeholders and interviews with relevant managers from a range of different pharmacy settings.

For the community pharmacies this included in a city, in a provincial town, in a mall, in a rural area, near a medical centre, and from a chain of pharmacies, covering small, medium, and large pharmacies.

We explored and clarified the expectations of the different roles they had within their pharmacy and then sized the 11 benchmark roles based on the information gained from our research and these conversations.

We also evaluated a range of pharmacy roles in a hospital setting following an interview with a Chief Pharmacist with overall responsibility for the hospital's Pharmacy. We developed a set of benchmark roles within the hospital setting which were most closely aligned with the community pharmacy benchmark roles. The resulting benchmark role descriptors and sizes are included in Appendix 3.

Are there differences?

Our research suggested that while there are some differences in the roles across the different settings, the differences are generally not material in terms of the resulting size for a "benchmark" or representative role to be used for the purposes of comparing rates of pay.

Some differences arise in terms of the range of skills required to fulfil the responsibilities required in different settings. One difference relates to the interpersonal skills required for dealing with customers which is not present in the hospital pharmacy setting. However, dealing with patients is often required and, in general terms, while the nature of the skill might be different, the level of skill as measured by the methodology, is similar in most cases. Another key difference is for the Dispensary Technician role and some pharmacist roles in the hospital which do not require the incumbent to deal with patients directly, either. While this would make a difference to the job size on this aspect, the impact on the overall job size is not significant.

Other key differences arise from the titles used for some roles compared to the responsibilities and expectations of the role – e.g., a role titled "Pharmacy Assistant" in one pharmacy might actually be the Retail Manager for that Pharmacy. However, when these are appropriately aligned with the correct benchmark role (rather than the role benchmark with the same title) this is not an issue in terms of making the pay comparison.

While the range of duties undertaken by some roles in smaller pharmacies are broader, (e.g., the Pharmacist will also undertake retail sales duties and may order stock, for instance, these are "lower value" duties which might make the role busier but do not affect the job size, as the job size already reflects the higher-level duties which require their full training and experience.

Appendix Three: Benchmark Role Descriptors

Title	Descriptor	Grade
Pharmacy Manager	A registered pharmacist who manages the day-to-day pharmacy operations and manages staff. Proficient in all facets of service provision.	19-21
Charge Pharmacist	A registered pharmacist employed by the pharmacy. Does act as Charge Pharmacist. These roles are capable of most duties in the pharmacy.	17
Staff Pharmacist	A registered pharmacist employed by the pharmacy. These roles are capable of most duties in the pharmacy.	16
Speciality Pharmacist	A registered pharmacist who spends most of their time in a specialty area. Requires advanced technical or clinical knowledge or expertise involving tasks and/or challenges in excess of that normally associated with the position. For example, managing the robotics section or facilities services manager involved in age related residential care facilities or other care facilities.	16
Intern Pharmacist	A pharmacy graduate completing their registration year.	13
Technician Manager	A pharmacy technician with the added responsibility of overseeing their area of work and managing a team of staff.	13
Technician	A qualified dispensary technician.	11
Trainee Technician	A technician enrolled in the National Certificate (Pharmacy) Programme, but not yet qualified.	9
PACT Technician	A qualified Pharmacy Accuracy Checking Technician.	12
Retail Manager	Manages the day-to-day pharmacy operations and manages retail staff. No legal requirement for qualification. Often responsible for stock ordering.	13
Pharmacy Assistant	Responsible for retail tasks within a pharmacy with no legal requirement for qualification. May advise on customers basic health concerns.	8

Appendix Four: Benchmark Role Data Tables

Pay Parity Comparisons

Role	Median Base Salary comparison	Median Fixed Remuneration comparison	Median Total Remuneration comparison
Pharmacy Manager	76%	77%	78%
Charge Pharmacist	95%	92%	92%
Specialty Pharmacist	96%	94%	93%
Staff Pharmacist	96%	93%	92%
Technician Manager	79%	77%	76%
Intern Pharmacist	82%	85%	85%
Trainee Technician	-	-	-
PACT Technician	-	-	-
Technician	83%	83%	83%

Sources: Strategic Pay Community Pharmacy Survey 2020, New Zealand Remuneration Review November 2020

Pay Comparability Comparisons

Role	Median Base Salary comparison	Median Fixed Remuneration comparison	Median Total Remuneration comparison
Pharmacy Manager	67%	68%	69%
Charge Pharmacist	78%	74%	74%
Specialty Pharmacist	90%	92%	92%
Staff Pharmacist	90%	90%	91%
Technician Manager	90%	90%	90%
Intern Pharmacist	65%	68%	68%
Trainee Technician	76%	76%	76%
PACT Technician	95%	94%	97%
Technician	83%	83%	83%
Retail Manager	85%	85%	83%
Pharmacy Assistant	98%	98%	98%

Sources: Strategic Pay Community Pharmacy Survey 2020, New Zealand Remuneration Review November 2020

Pay Relativity Comparisons

Industry Comparisons

Role	Median Base Salary comparison	Median Fixed Remuneration comparison	Median Total Remuneration comparison
Pharmacy Manager*	71%	72%	72%
Charge Pharmacist*	83%	84%	83%
Specialty Pharmacist*	91%	93%	92%
Staff Pharmacist*	91%	92%	91%
Technician Manager*	81%	81%	81%
Intern Pharmacist*	59%	61%	61%
Trainee Technician*	81%	82%	81%
PACT Technician*	89%	89%	91%
Technician*	83%	82%	82%
Retail Manager**	78%	79%	76%
Pharmacy Assistant**	94%	94%	91%

** Compared to health sector.*

*** Compared to retail industry.*

Sources: Strategic Pay Community Pharmacy Survey 2020, New Zealand Remuneration Review November 2020

General Market

Role	Median Base Salary comparison	Median Fixed Remuneration comparison	Median Total Remuneration comparison
Pharmacy Manager	67%	67%	66%
Charge Pharmacist	80%	78%	77%
Specialty Pharmacist	88%	87%	86%
Staff Pharmacist	88%	86%	85%
Technician Manager	80%	78%	77%
Intern Pharmacist	58%	59%	58%
Trainee Technician	80%	79%	78%
PACT Technician	88%	86%	88%
Technician	83%	81%	80%
Retail Manager	71%	71%	70%
Pharmacy Assistant	86%	85%	83%

Sources: Community Pharmacy Survey 2020, New Zealand Remuneration Review November 2020

Appendix Five: Remuneration Increases Over Time

March Quarter	General Market	Health	Public Health
2012	2.0	1.4	1.0
2013	1.7	1.6	1.5
2014	1.6	1.4	1.1
2015	1.7	1.0	0.7
2016	1.6	1.6	1.8
2017	1.6	1.4	1.5
2018	1.8	3.6	1.0
2019	2.0	3.3	3.5
2020	2.5	4.0	4.5

Total Movements	General Market	Health	Public Health
Since 2012	15.5	19.3	16.7
Since 2015	10.0	14.6	12.9

Source: StatsNZ LCI figures across time

Appendix Six: Remuneration Definitions

Remuneration Definitions - Remuneration Comparator

We have analysed the market data for these Positions from six perspectives:

Base Salary	The base pay paid weekly, fortnightly, or monthly, annualised to full time equivalent and pro-rata to FTE for part time staff. Base salary excludes all additional payments such as benefit or cash payments, KiwiSaver employer contribution, allowances, insurances, club fees, superannuation, salary sacrifice items, variable bonus payments, commission, overtime etc.
Fixed Remuneration	Annualised Base Salary, plus all fixed benefits such as phone allowance, income protection, car parking, car allowance, extra leave, employer contribution to KiwiSaver and superannuation. The following benefits are also included in the fixed remuneration component and attract FBT: Company vehicle, subscriptions, club fees, medical, life insurance and other FBT benefits. Any benefit which are subject to FBT or other tax measures have this tax amount paid by the firm included.
Total Remuneration	The annualised sum of a reward package. This includes base salary, fixed benefits (as described in fixed remuneration) as well as all actual variable payments such as, incentive pay, bonus, service payments, call out or shift allowance, other irregular or regular cash payments etc. Benefits which are subject to FBT or other tax measure have the tax amount paid by the firm included. Total remuneration excludes overtime paid and target amounts for bonus or incentives payments.
Fixed Remuneration (Excl. KiwiSaver)	The above definition of Fixed Remuneration but excluding the KiwiSaver employer contribution component.
Total Remuneration (Excl. KiwiSaver)	The above definition of Total Remuneration but excluding the KiwiSaver employer contribution component.
Midpoint (100%)	The market position selected by the organisation, and the middle of the remuneration range. The midpoint is around where a fully competent performer is likely to be paid.

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