

SHPA's Queensland Branch Committee response to Health Workforce Strategy for Queensland to 2032, January 2024

## List of recommendations made by SHPA Queensland Branch Committee

Recommendation 1: Continue implementation and further expand SHPA's Resident Training Program to support the development and retention of a skilled pharmacy workforce with structured career pathways.

Recommendation 2: Expand on "explore career pathways which create seamless opportunities across the health and social system" to include supporting formalised recognition of specialty practice by pharmacists and pharmacy technicians.

Recommendation 3: Expand on "build sustainable workforce supply pipelines", to include a focus on investing in the recruitment and funding of pharmacy interns.

Recommendation 4: Expand on "staff to work to full scope of practice" to provide regulatory support and additional investment into the statewide implementation of Queensland Health Partnered Pharmacist Medication Charting (QPPMC) Project.

Recommendation 5: Expand on "staff to work to full scope of practice" to support the statewide implementation of Bedside Medication Management (BMM) services delivered by hospital pharmacy technicians.

Recommendation 6: Implement workforce models and arrangements that improve medication safety at transitions of care, thereby reducing re-hospitalisation and creating capacity for Queensland Health workforce.

Recommendation 7: Pharmacy should be considered as its own separate action within the *Health Workforce Strategy for Queensland to 2032*, and its relevance to safety and quality for all identified actions should be meaningfully recognised.

Question 1: Do you have any suggested enhancements/refinements to the objectives and Strategies?
Focus area 1: Supporting and retaining the current workforce
□Yes
⊠No
If yes, please tell us more.
Focus area 2: Building new pipelines of talent
□Yes
⊠No
If yes, please tell us more.
Focus area 3: Adapting and innovating new ways to deliver
□Yes
⊠No
If yes, please tell us more.
Question 2: To ensure our workforce strategy actions make a difference to support and enable the Queensland health workforce, are there actions that need to be refined, expanded or are there additional actions for inclusion?
Focus area 1: Supporting and retaining the current workforce ☑Yes
□No
If yes, please tell us more.

Recommendation 1: Continue implementation and further expand SHPA's Resident Training Program to support the development and retention of a skilled pharmacy workforce with structured career pathways.

The Society of Hospital Pharmacists of Australia (SHPA) recommends the implementation of structured, formalised, and accredited national programs, such as SHPA's Resident Training Program, to upskill pharmacists and provide them with structured career pathways, thereby supporting retention and sustainability of the pharmacy workforce in Queensland. This action aligns with the strategic priorities of *Queensland Health Pharmacy Workforce Plan 2022-2032*<sup>1</sup>, which endorses the importance of structured training and support for residents in the development of the pharmacy workforce in clinical care, optimising health systems, education, research, and leadership.

As noted in *SHPA's Pharmacy Forecast Australia 2023* report<sup>2</sup>, the retention of pharmacists particularly in the aftermath of COVID-19 is an important issue, with only half of people surveyed in 2022 saying they would stay in the pharmacy profession for more than 10 years. Between 2017-18 and 2021-22, a decreasing trend was also noted in the percentage of younger registered pharmacist cohort (<35 years), from 44.7% to 39%.<sup>3</sup>

Opportunities for career progression is a key driver for job satisfaction and subsequent workforce retention. In a study reviewing Australian hospital pharmacists' view on the determinants of job satisfaction, Liu et al. identified that ability utilisation and recognition were key to retaining staff, and lack of empowerment and

confidence in their career progression, particularly among the younger pharmacists, acted as barriers to hospital pharmacists remaining in the profession.<sup>4</sup>

SHPA's Resident Training Program (previously known as the Foundation Residency Program) is Australia's premier structured, formalised, supported, and accredited national pharmacy residency program. In an increasingly complex healthcare landscape and evolving health systems, SHPA's Resident Training Program helps to equip early career pharmacists with foundation clinical skills and develop their seamless transition pathways into advanced practice.

Furthermore, there is significant economic impact of pharmacists undertaking these training programs, as well-trained pharmacists contribute to streamlined healthcare delivery, reducing medication errors, optimising therapeutic outcomes, and mitigating unnecessary healthcare costs associated with suboptimal pharmaceutical care. The value of clinical pharmacy services is well documented in literature, with an Australian economic analysis indicating a \$23 return for every \$1 spent on clinical pharmacy services.<sup>5</sup>

To date, over 300 early career pharmacists have completed SHPA's Resident Training Program, and there are currently another 283 pharmacists undertaking the Resident Training Program across accredited hospital sites around Australia. The program has been highly successful particularly in Queensland, recording the highest number of enrolled foundation residents to date in comparison to other states. In Queensland alone, there are currently 107 early career pharmacists undertaking SHPA's Foundation Residency program, with 145 pharmacists having already completed.

The growing number and success of SHPA's Resident Training Program demonstrates its importance in fostering a skilled workforce, as well as its broader positive impact on staff retention through improved job satisfaction and career progression. SHPA recommends that statewide support for this program is expanded and made widely accessible to maintain a sustainable and skilled Queensland Health workforce, as rural and regional Hospital and Health Services in Queensland face barriers to implementing Resident Training Programs that require additional support from Queensland Health to provide equitable opportunities.

Recommendation 2: Expand on "explore career pathways which create seamless opportunities across the health and social system" to include supporting formalised recognition of specialty practice by pharmacists and pharmacy technicians.

Contemporary healthcare is becoming increasingly complex, with an aging population, advanced disease progressions and higher demand for specialist services. In 2022-23, the percentage of outpatients seen by a specialist within clinically recommended times declined for all three categories that indicate urgency, despite the number of patients being seen in specialist clinics increasing by 9%.<sup>6</sup> In order to alleviate the pressures on medical and nursing staff involved in these specialist services, it is important to develop strategies to expand the scope of practice for pharmacists and pharmacy technicians, who are leading experts in the quality use of medicines.

SHPA recently celebrated success in the launch of The Australia and New Zealand College of Pharmacy (ANZCAP), which currently recognises pharmacists and pharmacy technicians working within 40 different specialty areas of practice across Australia and New Zealand. It provides a platform for pharmacists and pharmacy technicians to track and manage their careers towards three progressive levels of specialisation for the different specialties: Resident, Registrar, and Consultant.

As previously discussed, recognition and opportunities for career progression are strongly associated with job satisfaction and subsequent job retention. Through national endorsement of clinical expertise across various specialty disciplines and continued learning and development in foundational and advanced clinical pharmacy, ANZCAP empowers pharmacists and pharmacy technicians to become leaders in medicine stewardship in all healthcare settings, putting the pharmacy workforce in good stead to provide high quality care to Australians who are presenting to primary and acute health services with advanced disease progression.

This action aligns with focus area three of *Advancing health service delivery through workforce: A strategy for Queensland 2017-2026*<sup>7</sup>, where it discusses the value of ensuring educational pathways and clinical practice programs are streamlined and enhanced in responding to emerging health sector requirements.

Focus area 2: Building new pipelines of talent

⊠Yes

□No

If yes, please tell us more.

Recommendation 3: Expand on "build sustainable workforce supply pipelines", to include a focus on investing in the recruitment and funding of pharmacy interns.

As identified in the *Queensland Health Pharmacy Workforce Plan 2022-2032*<sup>1</sup>, there were 327 provisionally registered pharmacists in Queensland in June 2022, with 31 employed for their intern year within Health and Hospital Services (HHS). Relative to employment figures, the number of interns employed has been declining over the past 10 years. Hospital pharmacy interns are valuable assets, who not only alleviate workload pressures, but support the efficient functioning of hospital pharmacies in multiple ways, including but not limited to:

- Increasing the pool for internal recruitment, reducing recruitment and training costs through a stronger internal pipeline,
- Creating capacity to further recruit for advanced pharmacist positions to provide consistently highquality medicine management,
- Creating more opportunities for current pharmacy staff to progress into unique, specialised roles,
- Providing unique opportunities for mentorship and knowledge transfer within the pharmacy team, fostering a culture of continuous learning and professional growth for all staff.

Increasing the number of intern positions offered across Queensland HHSs in line with workforce growth is key to fortifying and sustaining the hospital pharmacist workforce pipeline in Queensland. It is imperative however to acknowledge that the capacity of hospital pharmacy departments to employ more interns is directly tied to the appropriate resourcing of clinical educators. Clinical educators play a crucial role in shaping the professional development of interns, providing guidance, imparting clinical knowledge, and fostering a culture of excellence, and are paramount in ensuring the success of hospital pharmacy interns throughout their internship year.

SHPA recommends supporting the recruitment of pharmacy interns and clinical educators in Queensland HHSs to provide an immediate solution for Queensland's current workload challenges, and to build the future resilience and competence of the pharmacy workforce, in line with the Strategic Priorities of the Queensland Government. Recommendation 1 in SHPA's Queensland State Budget 2024-25 submission provides an implementation model to increase the intake of intern pharmacists by 50 across 14 HHSs in consultation with their respective Directors of Pharmacy.

Focus area 3: Adapting and innovating new ways to deliver
⊠Yes
□No
If yes, please tell us more.

Recommendation 4: Expand on "staff to work to full scope of practice" to provide regulatory support and additional investment into the statewide implementation of Queensland Health Partnered Pharmacist Medication Charting (QPPMC) Project.

Demand for emergency department services continues to grow, and more people are arriving at emergency departments with complex issues. The increasing complexity of emergency presentation may be a reflection on the increasing wait times for specialist services, combined with the challenges that Queensland Health is currently facing in workforce retention and staffing. According to the Queensland Audit Office's *Health 2023 Report 6: 2023-24*<sup>6</sup>, there has been a 10.3% and 12.4% increase in walk-in and ambulance arrival presentations respectively over the last five years, exceeding the rate of population growth.

Given the current pressures on the healthcare system across the state, all health practitioners should be supported to work to their full scope of practice and expand their scope in collaborative care environments, as supported by the Australian Medical Association (AMA) in their submission to *Unleashing the potential of our workforce – scope of practice review.*<sup>8</sup> This will improve patient health outcomes and the overall capacity of the health system.

Enabling hospital pharmacists to collaboratively prescribe within hospitals as part of expanding scope of practice is an important strategy in building workforce capability and capacity using innovative models of care. It also aligns with the vision outlined in *Advancing health service delivery through workforce: A strategy for Queensland 2017-2026*<sup>7</sup>, where a key focus area is in 'enabling the workforce', ensuring innovative, streamlined work practices are supported by effective legislative, regulatory, policy and funding frameworks.

The Partnered Pharmacist Medication Charting (PPMC) model is the first iteration of collaborative pharmacist prescribing in Australia, which has shown consistently beneficial outcomes in improving the efficiencies of the hospital workflow, reducing medication errors and omission, length of stay, and cost. Most forms of the PPMC model involve a credentialed pharmacist and a medical officer reviewing a patient's medication and current medical issues, collaboratively agreeing on a medication management plan, and the credentialed pharmacist charting the medications according to the plan for subsequent administration or supply.

The PPMC model conceived in Victoria, was first validated in Queensland in 2009, where a randomised controlled trial of doctor-pharmacist collaborative prescribing model was implemented in the surgical preadmission clinic in Princess Alexandra Hospital. In the intervention arm, the pharmacist formed a perioperative medication plan and charted medications on the inpatient medication chart, with the scope of prescribing including continuing or withholding pre-admission medications and prescribing venous thromboembolism (VTE) prophylaxis in accordance with local and national guidelines. The study showed the intervention reduced prescribing errors from 6.3% to 0.2%, reduced unintended medication omissions from 31.5% to 1.2%, and resulted in a cost saving of \$160 per patient with the addition of VTE prophylaxis prescribing to preadmission clinic pharmacist role.

Several Queensland hospitals have since conducted numerous pilots and trials within their hospitals, demonstrating significant benefits in reducing medication errors. A Deakin University health economic evaluation<sup>10</sup> of more than 8,500 patients also explored the impacts of PPMC models upon patients in

emergency departments and general medicine wards. The economic evaluation also showed a decrease in the proportion of patients with at least one medication error from 19.2% to 0.5% and a reduction in patient length of stay from 6.5 days to 5.8 days. The estimated savings per PPMC admission was \$726, which in the replication was a total hospital cost saving of \$1.9 million with the five health services involved in the PPMC service continuing their operations.

Since June 2023, Queensland Health has been actively working on the development and implementation of Partnered Pharmacist Medication Charting (PPMC) in HHSs across the state. Embarking on a two phased project, the Department developed an overarching Queensland Health Partnered Pharmacist Medication Charting (QPPMC) Framework presenting a standardised approach to PPMC processes, scope, training, and credentialing required to ensure the establishment of a quality PPMC service. This Framework was informed by a thorough report, also produced by Queensland Health, detailing the background of PPMC and providing a current state analysis. As the QPPMC Project is nearing the implementation phase, SHPA recommends prioritising and recognising the importance of this project in achieving a sustainable workforce in Queensland Health.

Recommendation 2 in SHPA's Queensland State Budget 2024-25 submission provides an implementation model to support QPPMC implementation across 13 HHSs in consultation with their respective Directors of Pharmacy.

Recommendation 5: Expand on "staff to work to full scope of practice" to support the statewide implementation of Bedside Medication Management (BMM) services delivered by hospital pharmacy technicians.

Nursing staff shortages have placed undue pressures on an already overstretched health system in Queensland. As part of ongoing efforts to protect nursing time, Queensland Health must explore avenues in which the existing pool of skilled workforce can be further utilised and encouraged to work at full scope to create workforce capacity.

Hospital pharmacy technicians working to their full scope of practice through more efficient inpatient medication management systems enables nursing staff to spend more of their time delivering direct patient care and other clinical activities, ultimately improving patient outcomes. In the Bedside Medication Management (BMM) model, a ward-based pharmacy technician is employed to co-ordinate and streamline timely supply of medications, coordinate, and maintain appropriate storage of medications, as well as to remove ceased and unwanted medications from patient care areas. This ensures cost-saving medication stock management at a ward level, cost-savings by the return of unused medicines, timely supply of newly initiated medications, and reduces the risk of administration of expired or incorrect medications. Supplying medications in a timely manner also prevents missed doses from occurring, ensuring patient treatment is not interrupted, and fundamentally, supports the flow of patients through hospitals by preventing gaps in treatment.

Ahead of the implementation of BMM in the Tasmanian Health Service (THS) in 2022, an evaluation conducted by KPMG concluded that Tasmanian nurses 'waste' over 1,526 hours each week on reactively managing medication orders and supply for inpatients, time which could have been spent on delivering direct patient care. A study exploring missed doses on inpatient wards found that of the 1,947 medication administration episodes collected during the pre-implementation period, there were 23 omissions, resulting in an omission rate per medicine episode of 1.18%. Following implementation of a ward-based pharmacy technician, of the 2367 medication administration episodes, there were 7 omissions, resulting in an omission rate per medicine episode of 0.30%.<sup>11</sup>

By employing pharmacy technicians to take on this crucial role, both nursing and pharmacist resources can be redirected to more complex clinical tasks, optimising the utilisation of skilled professionals within the healthcare system and improving the capacity of the Queensland Health system.

Recommendation 3 in SHPA's Queensland State Budget 2024-25 submission provides an implementation model to support BMM implementation across 13 HHSs in consultation with their respective Directors of Pharmacy.

Recommendation 6: Implement workforce models and arrangements that improve medication safety at transitions of care, thereby reducing re-hospitalisation and creating capacity for Queensland Health workforce.

As supported by the *Advancing health service delivery through workforce: A strategy for Queensland 2017-2026*, Queensland Health must prioritise models of care which optimise scope of practice for clinical roles in the context of the patient journey and patient safety. Transitions of care are a high-risk part of the healthcare journey for patients, as identified in the Australian Commission on Safety and Quality in Health Care's (the Commission) report on *Safety Issues at Transitions of Care.*<sup>12</sup> It is a time that involves complex care arrangements between multiple care providers and interdisciplinary teams, and various care settings. Safely transitioning from acute to primary care following a significant health event, relies on clear, accurate and timely communication with the patient and/or carer and between healthcare providers in both sectors.

As highlighted in Chapter 6 of SHPA's *Standards of Practice for Clinical Pharmacy Services*, 50% of medication errors and up to 20% of adverse drug events result from poor communication of medical information at transitions of care.<sup>13</sup> Medication-related problems can lead to patient harm or result in hospital readmissions.

Under the strategic priority 2 of the Queensland Health Pharmacy Workforce Strategy, transitions of care should be supported by a pharmacy workforce that works collaboratively across settings. As medication experts, supporting the implementation of transitions of care pharmacists can promote the sustainability of the Queensland Health workforce by reducing the increasing burden of re-hospitalisations.

Queensland's Transition of Care Pharmacy Project (ToCPP)<sup>14</sup> was implemented between 2021 to 2023 across three principal referral hospitals in Queensland, to increase communication of medicine-related information to the patient's nominated general practitioner and community pharmacy, and to implement post-discharge telehealth or telephone review of patients by the hospital pharmacist. The service evaluation report<sup>15</sup> released by Queensland Health in October 2023 showed generally positive acceptance by both patients and healthcare providers, with evidence to show that the ToCPP service delivered patient benefits. There was also support for ongoing service provision and expansion.

As the demand for comprehensive and integrated healthcare solutions grows, the continued funding and statewide implementation of ToCPP aligns with the Health and Wellbeing *Queensland Strategic Plan 2023-2027*<sup>16</sup>, embedding prevention across the continuum using innovative service delivery strategies. The positive outcomes of this project extend beyond individual patient care to system-wide benefits, such as reduced readmission rates and improved medication adherence.

Question 3: Relevant to you, or your organisation, are there actions Queensland Health should consider as part of the specific cohort of workforce action plans?

Work group

☐Women's health

□Allied health
□Oral health
□Medical
□Palliative care
□Nursing
□Midwifery
□Rural and Remote
□First Nations
☐Mental Health, Alcohol and Other Drugs
□Queensland Ambulance
□Surgical Services
⊠Other

Recommendation 7: Pharmacy should be considered as its own separate action within the *Health Workforce Strategy for Queensland to 2032*, and its relevance to safety and quality for all identified actions should be meaningfully recognised.

Medicines are an integral part of health care. They are the most common health intervention, and up to 90% of people may experience medication changes during their hospital stay. In recognition of this, the Australian Government has committed to ensuring quality use of medicines, with the four pillars of Australia's National Medicines Policy aiming to ensure fair, timely, reliable, and affordable access to high-quality medicines and medicines services for all Australians.

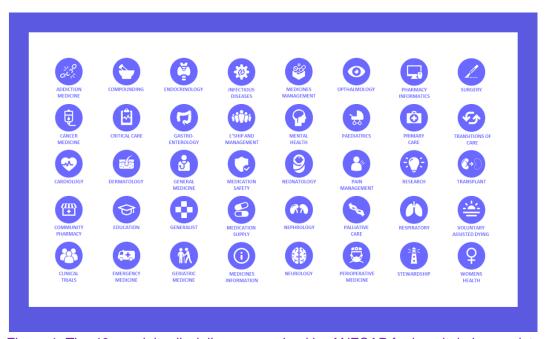


Figure 1: The 40 specialty disciplines recognised by ANZCAP for hospital pharmacists

As the medication experts, hospital pharmacists are present at every touchpoint of patient care and across diverse clinical specialties, working collaboratively in multidisciplinary team-based care models to optimise medicines management. The recent launch of The Australia and New Zealand College of Pharmacy (ANZCAP), a landmark recognition program delivered by SHPA, demonstrates the progressive leadership

and advanced specialty skills harnessed by the hospital pharmacy workforce in various clinical specialties. ANZCAP currently recognises the advanced clinical skills of hospital pharmacists across 40 specialty areas as shown in Figure 1.

Furthermore, the *Queensland Health Pharmacy Workforce Plan 2022-2032* was published in 2022, recognising the significant role of the pharmacy workforce in contributing to Queensland's objectives to promote wellbeing, improve access to quality and safe health care, and overall improve its health system performance.

The current *Health Workforce Strategy for Queensland to 2032* does not represent Pharmacy as its own independent action plan, despite the key role of pharmacists in supporting the operation of each of the listed action areas. Hospital pharmacists provide core functionalities as outlined in *SHPA's Standards of Practice for Clinical Pharmacy Services*<sup>17</sup> to provide medication related support for each listed area. Beyond this, hospital pharmacists provide specialty specific pharmacy services, examples of which can be found in Table 1.

Table 1: Examples of essential pharmacy services supporting each action area

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Action plans supporting Health Workforce Strategy for Queensland to 2032	Examples of essential pharmacy services
Queensland Ambulance	<ul> <li>Timely supply and distribution of critical medicines (e.g. tenecteplase) for ambulances</li> <li>Ensuring drug therapy protocols are compliant with legislation and best practice</li> <li>Continuous improvement in streamlining clinical protocols (e.g. stroke response pathway)<sup>18</sup></li> </ul>
Mental Health, Alcohol and Other Drugs	<ul> <li>Monitoring and advising on complex psychotropic medication management</li> <li>Participating in pharmacist-led services (e.g. clozapine monitoring)<sup>19</sup></li> </ul>
Surgical Services	<ul> <li>Developing perioperative medicines management plan supporting all aspects of pharmaceutical use in surgical planning</li> <li>Pharmacist-led post-operative analgesia management and ongoing analgesia stewardship</li> <li>Provision of antimicrobial and anticoagulation stewardship pharmacy services<sup>20</sup></li> </ul>
Women's Health	<ul> <li>Advising on safe medicines use in various stages of pregnancy and breastfeeding</li> <li>Advising on the off-label use of medicines and drug interactions</li> </ul>
Allied Health	<ul> <li>Working with allied health professionals to support pharmaceutical supply where appropriate (e.g. working with dieticians to support supply of parenteral nutrition according to agreed nutritional plans)</li> </ul>
Oral Health	<ul> <li>Medication supply and procurement</li> <li>Specialised medication administration advice</li> <li>Navigating legal aspects of medication administration for non-dental professionals</li> </ul>
Medical	<ul> <li>Participating in collaborative prescribing</li> <li>Provision of specialty practice</li> <li>Guiding medical staff on safe and appropriate prescribing of medicines<sup>21</sup></li> </ul>

Palliative Care and End-of-Life	<ul> <li>Providing manufacturing services for the administration of non-standard dosage forms (e.g. cytotoxic medicines and syringe drivers)</li> <li>Advising on the safe administration of off-label use medicines<sup>22</sup></li> <li>Participating in statewide Voluntary Assisted Dying (VAD) services</li> </ul>
First Nations	<ul> <li>Working with peak bodies such as the National Aboriginal Community Controlled Health Organisation (NACCHO) to promote quality use of medicines in Aboriginal peoples and Torres Strait Islander communities</li> </ul>
Rural and Remote	<ul> <li>Working collaboratively within the rural and remote workforce, to improve access to chronic medication management</li> <li>Provide virtual pharmacy services through telehealth and virtual care clinics</li> </ul>
Nursing	<ul><li>Provision of medicines administration information</li><li>Provision of medication-related education</li></ul>
Midwifery	<ul> <li>Assisting midwives to safely prescribe medicines within legislation</li> </ul>

Establishing Pharmacy as a separate key action plan in the *Health Workforce Strategy for Queensland to 2032* will ensure appropriate focus is given to this important profession that impacts all areas of health care and align with Queensland Health's ongoing intentions to build the workforce capacity of pharmacists as per the *Queensland Health Pharmacy Workforce Plan* 2022-2032, for the overall sustainability of the Queensland Health workforce.

## References

- <sup>1</sup> Queensland Health. (2022). Queensland Health Pharmacy Workforce Plan 2022-2032. Available at: https://www.health.gld.gov.au/ data/assets/pdf\_file/0040/1196698/Pharmacy-workforce-plan.pdf
- <sup>2</sup> The Society of Hospital Pharmacists of Australia. (2023). Pharmacy Forecast Australia 2023. Available at: https://shpa.org.au/publicassets/5297d615-345b-ee11-912d-00505696223b/Pharmacy-Forecast Australia-Australia-2023.pdf

  3 Australian Health Practitioners Regulation Agency. (2022). Pharmacy workforce analysis. AHPRA, Melbourne (AU).
- <sup>4</sup> Liu CS, White L. (2011). Key determinants of hospital pharmacy staff's job satisfaction. RSAP, 7(1), 51-63. doi:10.1016/j.sapharm.2010.02.003
- <sup>5</sup> Dooley MJ, Allen KM, Doecke CJ, Galbraith KJ, Taylor GR, Bright J, & Carey DL. (2004). A prospective multicentre study of pharmacist-initiated changes to drug therapy and patient management in acute care government funded hospitals. British Journal of Clinical Pharmacology, 57(4), 513-521. doi:10.1046/j.1365-2125.2003.02029.
- <sup>6</sup> Queensland Audit Office. (2023). Health 2023 (Report 6: 2023-24). Available at: https://www.gao.qld.gov.au/sites/default/files/2023-
- 12/Health%202023%20(Report%206%20%E2%80%93%202023%E2%80%9324) 1.pdf
- <sup>7</sup> Queensland Health. (2017). Advancing health service delivery through workforce: a strategy for Queensland 2017-2026. Available at: https://www.health.gld.gov.au/ data/assets/pdf file/0039/657993/QH959-Advancing-Health-Service-Workforcepublication-WEB-2.pdf
- <sup>8</sup> Australian Medical Association. (2023). AMA submission to unleashing the potential of our workforce scope of practice review. Available at: https://www.ama.com.au/articles/ama-submission-unleashing-potential-ourworkforce#:~:text=The%20AMA%20supports%20all%20health,patients%20and%20the%20health%20system.
- <sup>9</sup> Hale AR, Coombes ID, Stokes J, McDougall D, Whitfield K, Maycock E, et al. (2013). Perioperative medication management: expanding the role of the preadmission clinic pharmacist in a single centre, randomised controlled trial of collaborative prescribing. BMJ Open, 3(7). Available at: https://www.ncbi.nlm.nih.gov/pubmed/23847268.
- <sup>10</sup> Deakin University, (2020), Health Economic Evaluation of the Partnered Pharmacist Medication Charting (PPMC) program. Available at: https://www.safercare.vic.gov.au/improvement/projects/mtip/ppmc
- <sup>11</sup> MacNab K., Palma C., Musa H., Soriano M. Chris O'brien Lifehouse Sydney. (2022). Ward-based pharmacy techniciansensuring missed does aren't missed! Presented at SHPA Medicines Management.
- <sup>12</sup> Australian Commission on Safety and Quality in Health Care. (2017) Safety Issues at Transitions of Care: Consultation report on perceived pain points relating to clinical information systems. Sydney: ACSQHC.
- <sup>13</sup> Institute for Healthcare Improvement. (2011). How-to guide: prevent adverse drug events (medication reconciliation). Cambridge: Institute for Healthcare Improvement. Available at: wwwihi.org
- <sup>14</sup> Queensland Health. (2024). Transition of Care Pharmacy Project (ToCPP). Available at: https://www.health.qld.gov.au/ahwac/html/tocpp/info
- <sup>15</sup> Queensland Government. (2023). Transition of care pharmacy project: service evaluation report December 2023. Available at: https://www.health.qld.gov.au/\_\_data/assets/pdf\_file/0030/1297344/Evaluation-Report.PDF
- 16 Queensland Government. (2023). Health and Wellbeing Queensland Strategic Plan 2023-2027. Queensland Government. Available at: https://hw.gld.gov.au/wp-content/uploads/2023/06/Health-and-Wellbeing-Queensland-Strategic-Plan-2023-27.pdf 17 SHPA Committee of Specialty Practice in Clinical Pharmacy. (2013). SHPA Standards of Practice for Clinical Pharmacy Services. J Pharm Pract Res, 43(2), S2-S69.
- <sup>18</sup> Welch S, Currey E, Doran E, Harding A, Roman C, Taylor S, Thomas A, Munro C. (2019). Standard of practice in emergency medicine for pharmacy services. J Pharm Pract Res, 49, 570-84. https://doi.org/10.1002/jppr.1627
- <sup>19</sup> Lowy H, Borja V, Bailey S, Bjorksten C, Kochman A, Longworth J, Meldrum A, Sieff A, Smith L, Wisdom A, Mellor Y. (2023). Standard of practice in mental health for pharmacy services. J Pharm Pract Res, 53(4), 204-25. https://doi.org/10.1002/jppr.1874
- <sup>20</sup> Bui T, Fitzpatrick B, Forrester T, Gu G, Hill C, Mulqueen C, Penno J, Yu A, Munro C, Mellor Y. (2022). Standard of practice in surgery and perioperative medicine for pharmacy services. J Pharm Pract Res, 52, 139-58. https://doi.org/10.1002/jppr.1805 <sup>21</sup> Tong E, Collins J, Firman P, Jovanovic M, Edwards A, Olding S, Polmear J, Munro C. (2020). Standard of practice in general medicine for pharmacy services. J Pharm Pract Res, 50, 356-65. https://doi.org/10.1002/jppr.1672
- <sup>22</sup> Gillbar P. (2006). SHPA Standards of practice for the provision of palliative care pharmacy services. JPPR, 36(4), 306-8. https://doi.org/10.1002/j.2055-2335.2006.tb00636.x