SHPA submission to Queensland Government Pre-Budget 2024-25 consultation, January 2024

The Society of Hospital Pharmacists of Australia (SHPA) is the national, professional organisation for the 6,100+ Hospital Pharmacists, and their Hospital Pharmacist Intern and Hospital Pharmacy Technician colleagues working across Australia's health system, advocating for their pivotal role improving the safety and quality of medicines use. Embedded in multidisciplinary medical teams and equipped with exceptional medicines management expertise, SHPA members are progressive advocates for clinical excellence, committed to evidence-based practice and passionate about patient care.

Welcoming the opportunity to provide input in the 2024-2025 Queensland Pre-Budget consultation, the SHPA Queensland Branch Committee's submission addresses ways in which the Queensland Government can support Queensland hospital pharmacy departments and hospital pharmacists to provide safe and high-quality care, as well as ensuring a sustainable workforce.

SHPA conducted a brief survey of Queensland Directors of Pharmacy, and responses received from 14 Queensland Hospital and Health Services (HHSs) have formed the basis for SHPA's recommendations made in this submission.

Four specific areas for investment into pharmacists and pharmacy technicians are highlighted, which will ultimately support the Queensland Government in achieving its strategic plans, as well as assisting the government to deliver on its promise to deliver 1,700 additional Allied Health Professionals.

SHPA Queensland Branch Committee, chaired by Kate Bennett, recommends:

1. Funding to support **additional intake of 50 intern pharmacists** in Queensland Hospital and Health Services, strengthening the pipeline of hospital pharmacists and securing a healthy workforce capable of delivering quality care and improving system capacity through expand scope of practice.
2. Funding to support the **statewide implementation of Queensland Health Partnered Pharmacist Medication Charting (QPPMC) Project** within 13 HHSs, to improve patient health outcomes and the capacity of the health system.
3. Funding to support the **statewide implementation of Bedside Medication Management (BMM) services delivered by hospital pharmacy technicians** within 13 HHSs, to increase the capacity of the current pharmacy and nursing workforces, freeing them up to undertake more clinical and patient-facing activities.
4. Funding to **expand the current Transitions of Care Pharmacy Project (ToCPP) to all principal referral, and public acute group A hospitals in Queensland**, to ensure high-risk patients discharging from hospitals with complex medication regimens are receiving expert and timely care preventing a hospital re-admission.

If you would like any further information about hospital pharmacy, or this submission, please do not hesitate to contact Jerry Yik, Head of Policy and Advocacy on jyik@shpa.org.au.

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Recommendation 1: Funding to support additional intake of 50 intern pharmacists in Queensland Hospital and Health Services, strengthening the pipeline of hospital pharmacists and securing a healthy workforce capable of delivering quality care and improving system capacity through expand scope of practice.

As identified in the Queensland Health Pharmacy Workforce Plan 2022-2032[1], 31 intern pharmacists were employed within Queensland HHSs in June 2022. Relative to employment figures, the number of interns employed has been declining over the past 10 years. Creating a workforce pipeline for workforce sustainability through increasing the number of intern positions offered across Queensland HHSs in line with workforce growth, was identified as an action under Strategic Priority 3 of the Queensland Health Pharmacy Workforce Plan 2022-2032.

According to responses received from SHPA's survey of Queensland Directors of Pharmacy, 13 of the 14 HHSs were eager to expand their intake of hospital pharmacy interns, recognising their value in supporting the pharmacy workforce (Table 1). However, lack of funding and clinical educator resourcing were noted to be significant barriers to offering additional intern positions in their HHS. Survey respondents indicated an interest in employing **a total of 50 additional hospital pharmacy interns to begin in January 2025,** and would bring this investment into new pharmacy graduates in line with other jurisdictions such as Victoria.

Hospital pharmacy interns play a key role in the Queensland healthcare system, contributing significantly to the efficient functioning of hospital pharmacies. Beyond alleviating workload pressures, these interns serve as integral contributors to the development and fortification of the hospital pharmacist workforce pipeline in Queensland. The practical experiences they acquire during their internship year not only enhance their clinical and operational skills, but also provides a unique opportunity for mentorship and knowledge transfer within the pharmacy team. This mentorship fosters a culture of continuous learning and professional growth, ensuring that these interns are well-equipped to transition seamlessly into hospital pharmacy roles as fully registered pharmacists.

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. It is imperative to acknowledge that the capacity of hospital pharmacy departments to employ more interns is directly tied to the appropriate resourcing of clinical educators. Without sufficient investment in these educators, the expansion of intern programs becomes challenging, limiting the potential growth of the hospital pharmacist workforce.

In Table 1, SHPA has accounted for 0.1 FTE Health Practitioner 4.1 (HP4.1) Clinical Educator Pharmacist per intern. This will ensure hospital pharmacy departments are well equipped to employ additional pharmacy interns and provide them with a high-quality learning experience that contributes fundamentally to the overall quality of patient care.

Fundamentally, investing in the recruitment and training of hospital pharmacy interns is not only an immediate solution to workload challenges but also a strategic investment in the future resilience and competence of the pharmacy workforce, aligning with the Strategic Priorities of the Queensland Government.

Cost of investment: ~$5.4 million per annum to employ 50 additional HP3.0 FTE hospital pharmacy interns each year across 13 HHSs with 0.1 HP4.1 FTE clinical educator pharmacist per intern.

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Table 1: Recommendation 1 - Hospital Pharmacy Interns

Resourcing and Costing	2025													
	Gold Coast	Metro South	West Moreton	Children's Health	Metro North	Sunshine Coast	Wide Bay	Central QLD	Mackay	Townsville	Cairns & Hinterland	North West	Central West	South West
Number of current intern positions per HHS	2	4	3	3	5	5	1	2	1	3	1	1		N/A
Number of additional intern positions per HHS	6	10	2	2	9	6	1	2	2	3	5	1		1
Total number of additional intern positions across all HHSs	50													
Cost per 1 FTE intern (HP3.0 salary + oncosts)	$94,861													
Cost of 0.1FTE HP4.1 Clinical Educator Pharmacist per Intern	$12,817													
	Gold Coast	Metro South	West Moreton	Children's Health	Metro North	Sunshine Coast	Wide Bay	Central QLD	Mackay	Townsville	Cairns & Hinterland	North West	Central West	South West
Total Number of Interns and Clinical Educators per HHS	6.6	11	2.2	2.2	9.9	6.6	1.1	2.2	2.2	3.3	5.5	1.1		1.1
Overall number of personnel	55													
Total percentage growth in number of interns	161%													
Total cost	$5,383,905													

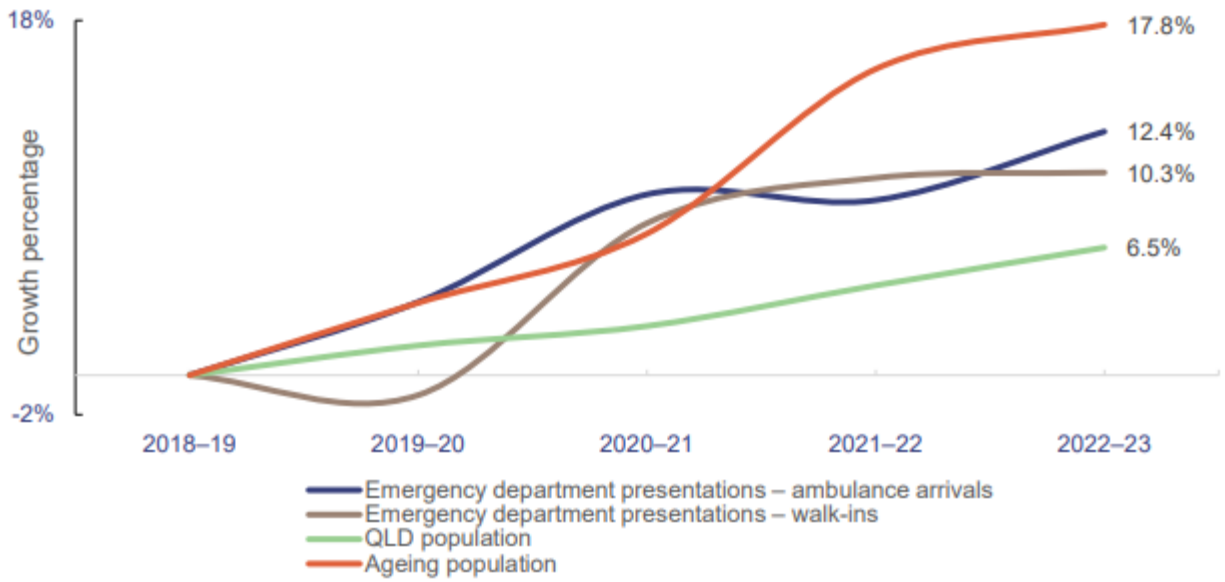
Recommendation 2: Funding to support the statewide implementation of Queensland Health Partnered Pharmacist Medication Charting (QPPMC) Project within 13 HHSs, to improve patient health outcomes and the capacity of the health system.

Since June 2023, Queensland Health has been actively working on the development and implementation of PPMC in Hospital and Health Services (HHSs) across the state. Embarking on a two phased project sponsored by the Chief Allied Health Officer, Queensland Health has 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. The QPPMC Project is nearing the implementation phase and requires funding to support its roll out across the state.

Background

Challenges and pressures on the healthcare system, specifically on acute care in hospitals, has been increasingly demanding with Queensland public hospital emergency departments seeing the highest number of presentations ever recorded in 2022-23. According to the Queensland Audit Office's Health 2023 Report 6: 2023-24[2], there has been a 10.3% and 12.4% increase in walk-in and ambulance arrival presentations respectively, over the last five years. It is concerning that all emergency department presentations are increasing faster than the population growth as shown in Figure 1. The report also reveals ambulance ramping at 43% with over 160,000 ambulance lost hours.

Figure 1: Cumulative annual growth in emergency department presentations compared to Queensland's population growth and ageing population growth from 2018–19 to 2022–23Queensland emergency department presentations, 2012-13 to 2021-22



Source: Queensland Audit Office's Health 2023 Report 6: 2023-24

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.*[3] This will improve patient health outcomes and the overall capacity of the health system.

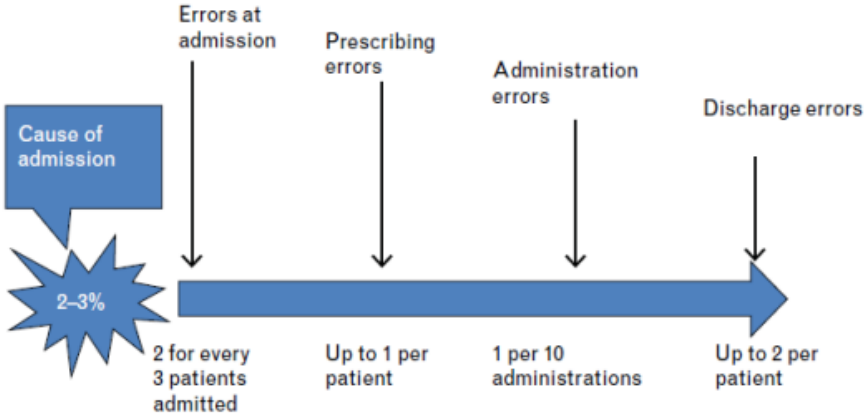
Partnered Pharmacist Medication Charting (PPMC)

The PPMC model is the first iteration of collaborative pharmacist prescribing in Australia. In the PPMC model, an appropriately credentialed pharmacist conducts an interview with the patient/carer and obtains the best possible medication history (BPMH), then co-develops a medication management plan (MMP) for that patient

with the treating doctor, patient/carer and nurse, and charts the patient's regular medications and the doctor charts any new medications. An MMP is a continuing plan developed and used by health professionals in collaboration with patients to develop strategies to manage the use of medicines for the patient.[4]

Local and international evidence demonstrates that hospital medication charts prescribed by hospital medical officers have high error rates. At least half of the hospital medication charts that have not been reviewed by a hospital pharmacist, will have at least one error. Figure 2 from the Quality Use of Medicines and Pharmacy Research Centre (UniSA) demonstrates the incidence rate of medication-related errors throughout the entire acute care journey in hospitals.

Figure 2: Incidence rate of medication-related errors throughout the acute care journey



A Deakin University health economic evaluation[5] of more than 8,500 patients 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.

A recent pragmatic, controlled study[6] compared usual care in (traditional medication charting approach without a pharmacist-collected BPMH in ED) with early BPMH (pharmacist-documented BPMH followed by medical officer-led traditional medication charting) and PPMC in (pharmacist-documented BPMH followed by clinical discussion between a pharmacist and medical officer to codevelop a treatment plan and chart medications). The study found that obtaining an early BPMH alone and providing this to the doctor was not associated with improved key outcomes, highlighting the importance of the co-charting process.

In addition to the health and economic benefits the PPMC model provides, it also improves health system efficiencies. PPMC decreases the burden upon medical staff and clinical resourcing dedicated to medication charting, and increases the through put of patients since medications are already reviewed and accurately charted prior to admission and available to the admitting medical or surgical team.

Implementation of QPPMC

After consulting with Queensland Directors of Pharmacy, SHPA recommends a two-year, staged implementation of PPMC across 13 HHSs in Queensland. Table 2A details an implementation plan for this staged roll-out, outlining which wards each HHS would like to implement PPMC per year. Please note that varied responses received from multiple sites within the same HHS has meant that some HHSs show implementation of PPMC in certain wards to be completed across both years.

As highlighted in the QPPMC Framework, PPMC can be delivered by a credentialed pharmacist with a minimum of two years' experience (HP3.2), however, it is anticipated that many pharmacists delivering this service will be at a HP4 level. Table 2B outlines the resourcing and costing requirements to employ HP3.2 and HP4.1 PPMC accredited pharmacists for each HHS, based off the figures obtained from survey

respondents. Funding to employ a total of 119.2 FTE PPMC pharmacists across 13 HHSs is anticipated to yield substantial cost-savings through enhanced medication management and reduced adverse events, improved capacity of the medical staff, and efficient bed flow management in hospitals.

Cost of investment: ~$15.7 million per annum to employ 119.2 HP3.2 and HP4.1 FTE pharmacists to undertake PPMC across 13 HHSs.

Table 2A: Recommendation 2 - Queensland Partnered Pharmacist Medication Charting (QPPMC) Project, Implementation Plan

Implementation Plan	2024/25												
HOSPITAL WARDS	Gold Coast	Metro South	West Moreton	Children's Health	Metro North	Sunshine Coast	Wide Bay	Central QLD	Mackay	Townsville	Cairns & Hinterland	North West	Central West	South West
Emergency Department														
Short stay/acute medical														
Surgical														
General Medicine														
Intensive Care Unit (ICU)														
Pre-admission clinic														
Total number of wards implementing PPMC per HHS per year	2	5	2	5	3	2	2	2	2	2	2	1		1

Implementation Plan	2025/26												
HOSPITAL WARDS	Gold Coast	Metro South	West Moreton	Children's Health	Metro North	Sunshine Coast	Wide Bay	Central QLD	Mackay	Townsville	Cairns & Hinterland	North West	Central West	South West
Emergency Department														
Short stay/acute medical														
Surgical														
General Medicine														
Intensive Care Unit (ICU)														
Pre-admission clinic														
Total number of wards implementing PPMC per HHS per year	3	3	3	0	5	3	2	2	3	2	1	1		1

Table 2B: Recommendation 2 - Queensland Partnered Pharmacist Medication Charting (QPPMC) Project, Resourcing and Costing

Resourcing and Costing	2024-2026												
Additional FTE PPMC pharmacists per HHS	Gold Coast	Metro South	West Moreton	Children's Health	Metro North	Sunshine Coast	Wide Bay	Central QLD	Mackay	Townsville	Cairns & Hinterland	North West	Central West	South West
Emergency Department	2	3	1	0.5	6.5	2.4	1.6	3.5	0.5	1.4	2	0.5		N/A
Short stay/acute medical	2	3	1	0.5	6.5	2.4	1.6		0.5	1.4	2			
Surgical	2	3	1	0.5	6.5	2.4	1.6	3.5	0.5	1.4		0.5		
General Medicine	2	2.5	1	0.5	6.5	2.4	1.6	3.5	0.5	1.4				
Intensive Care Unit (ICU)	2	3	1	0.5	5.7	2.4		3.5	0.5					
Pre-admission clinic					6						2			N/A
Numer of additional PPMC pharmacists per HHS	10	14.5	5	2.5	37.7	12	6.4	14	2.5	5.6	6	1		2
Number of HP3.2 pharmacists across all HHSs	59.6													
Number of HP4.1 pharmacists across all HHSs	59.6													
Cost per 1 FTE PPMC pharmacist (HP3.2 salary + oncosts)	$110,176													
Cost per 1 FTE PPMC pharmacist (HP4.1 salary + oncosts)	$153,803													
Total cost	$15,733,113													

Recommendation 3: Funding to support the statewide implementation of Bedside Medication Management (BMM) services delivered by hospital pharmacy technicians within nine HHSs, to increase the capacity of the current pharmacy and nursing workforces, freeing them to undertake more clinical and patient-facing activities.

Nursing staff shortages have placed undue pressures on an already overstretched health system in Queensland. Protecting nursing time should be a priority for the Queensland government. 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.

Ahead of the Tasmanian Health Service implementing the BMM model a few years ago, an evaluation conducted by KPMG for the Tasmanian Health Service 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. Funding, however, is required to implement these hospital pharmacy technician-led services across HHSs in Queensland.

With Queensland Health hospitals having ten times the overnight admitted patient activity of Tasmanian public hospitals, the BMM model could deliver immense efficiencies to the Queensland Health nursing workforce by saving thousands of nursing hours each week when extrapolating the results from KPMG's evaluation. This does not even factor in the safety and quality benefits of the BMM model described below.

Bedside Medication Management (BMM)

The role of ward-based pharmacy technicians in the BMM model is 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 not only saves many nursing hours, but also 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.

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%.[7]

According to responses received from SHPA's survey of Queensland Directors of Pharmacy in Table 3, 13 of the 14 HHSs were eager to implement pharmacy technician-led BMM services in their hospitals, recognising their value in supporting the nursing and pharmacy workforces. Survey respondents indicated an interest in employing a total of 149 additional hospital pharmacy technicians to deliver BMM services across 195 wards in 2024/25. However, the lack of funding is once again, the limiting factor to implementing this cost-efficient and quality service in their HHSs.

According to Tasmanian Health data, 29.8 hours of nursing time per-ward-per-week was released to patient care. Extrapolating this data, Queensland Health could save approximately 5,811 hours per week of nursing time over 195 wards in 13 HHSs, 300,000 nursing hours per annum.

SHPA therefore recommends funding 149 CA3.1 pharmacy technicians to be distributed across 13 HHSs as indicated in Table 3, for the purpose of implementing BMM services in Queensland hospitals. By employing pharmacy technicians to take on this crucial role, 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 system as a whole.

Cost of investment: ~$13.6 million per annum to implement pharmacy technician-led BMM services across 13 HHSs.

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Table 3: Recommendation 3 - Hospital Pharmacy Technician-led Bedside Medication Management (BMM)

Resourcing and Costing	2024/25													
	Gold Coast	Metro South	West Moreton	Children's Health	Metro North	Sunshine Coast	Wide Bay	Central QLD	Mackay	Townsville	Cairns & Hinterland	North West	Central West	South West
Number of wards where BMM is to be implemented per HHS	9	42	12		56	23	6	10	12	6	15	2	1	1
Number of additional pharmacy technicians required to undetake BMM services per HHS	6	38	10		41	21	4	7	4	4	10	2	1	1
Cost per 1 FTE pharmacy technician (CA3.1 salary + oncosts)	$91,291.20													
Total number of personnel	149													
Total cost	$13,602,388.80													

Recommendation 4: Funding to expand the current Transitions of Care Pharmacy Project (ToCPP) to all principal referral, and public acute group A hospitals in Queensland, to ensure high-risk patients discharging from hospitals with complex medication regimens are receiving expert and timely care preventing a hospital re-admission.

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*.[8] 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. However, without dedicated funding and resourcing for this imperative service by pharmacists who are medication experts, transitions of care continue to be a significant concern for both individuals and the Queensland health system more broadly.

Medicines are the most common health intervention; up to 90% of people may experience medication changes during their hospital stay.[9,10] 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.[11] Medication-related problems can lead to patient harm or result in hospital readmissions.

Queensland's ToCPP was a Government Election Commitment, established to identify and implement a pharmacist-led intervention to improve transitions of care. It was implemented across three principal referral hospitals in Queensland, namely Princess Alexandra, Royal Brisbane & Women's, and The Townsville hospitals. A service evaluation report released by Queensland Health in October 2023, showed that the service delivered patient benefits and was well accepted by both patients, and healthcare providers. The report also noted that there was support for ongoing service provision and expansion.

SHPA is proposing a two-year staged expansion of the current ToCPP across all principal referral and public acute group A hospitals in Queensland, as shown in Table 4. SHPA recommends continued funding for the three hospitals currently involved in the Project, and funding of an extra two FTE HP4.1 transition of care pharmacists and two FTE CA4.1 pharmacy technicians in the first year (2024/25) to expand the Project into the remaining principal referral hospitals in Queensland. SHPA recommends funding an additional 12 FTE HP4.1 transition of care pharmacists and 12 FTE CA4.1 pharmacy technicians in the second year (2025/26) to expand the Project to all public acute group A hospitals.

As the demand for comprehensive and integrated healthcare solutions grows, the continued funding of ToCPP aligns with the Health and Wellbeing *Queensland Strategic Plan 2023-2027*[12], 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.

Cost of investment: ~$4.2 million per annum to employ 17 HP4.1 FTE transition of care pharmacists and 17 CA4.1 FTE pharmacy technicians to continue to deliver and expand ToCPP across all 5 principal referral hospitals and 12 public acute group A hospitals in Queensland over a two-year period.

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Table 4: Recommendation 4 - Queensland Transition of Care Pharmacy Project (ToCPP)

Implementaiton plan, Resourcing and Costing	2024/25					2025/26								
	Principal referral hospitals					Public acute group A hospitals								
	Princess Alexandra Hospital	Royal Brisbane & Women's Hospital	The Townsville Hospital	Gold Coast Hospital	The Prince Charles Hospital	Bundaberg Hospital	Cairns Base Hospital	Hervey Bay Hospital	Ipswich Hospital	Logan Hospital	Mackay Base Hospital	Mater Adult Hospital	Sunshine Coast University Hospital	Queen Elizabeth II Jubilee Hospital
Cost per 1 FTE ToC pharmacist (HP4.1 salary + oncosts)	$153,802.80													
Cost per 1 FTE pharmacy technician (CA4.1 salary + oncosts)	$91,291.20													
Total number of personnel per year (1 FTE ToC pharmacist and 1 FTE pharmacy-technician per site)	10					24								
Total cost per year	$1,225,470.00					$2,941,128.00								
Total cost	$4,166,598.00													

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