




# Health workforce policy in Queensland: mapping the state government landscape

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## ABSTRACT

**Objective.** This study aimed to systematically map the scope, focus, and distribution of Queensland's health workforce (HWF) policies and examine their alignment with strategic HWF objectives. **Methods.** A descriptive policy review was conducted using documents sourced from the Queensland Health and Health Workforce Queensland websites between January and May 2025. Documents were coded by policy type (system-level, individual-level, employment), document type, strategic domain (supply, distribution, performance), health profession, policy author, and publication year. **Results.** A total of 275 policy documents were identified. Among 11 major policy groupings, most policies related to 'general HWF' and 'medical doctors and specialists' with minimal policy attention to pharmacists, physician assistants, paramedics, and aged care workers. Employment-focused policies accounted for 52% of all documents, compared with 38% focused on individual career development and only 10% on system-level strategic objectives. Most documents addressed workforce performance (65%), with fewer addressing supply (39%) or distribution (11%). Employment policy documents were largely authored by human resources and industrial relations bodies, reflecting the prominence of these actors in the HWF policy landscape. **Conclusions.** Despite a high volume of HWF policy in Queensland, the policy architecture is fragmented. Profession-specific siloes, a strong emphasis on employment and industrial policy, and uneven focus across supply, distribution and performance domains suggest coordination and alignment challenges when it comes to addressing broader workforce goals. Further work is needed to understand whether and how these patterns may constrain the development of integrated, equitable workforce strategies capable of addressing persistent system-wide planning issues such as skills mix, retention and rural maldistribution.

**Keywords:** Australia, delivery of healthcare, health personnel, health policy, health profession, health regulation, health workforce, human resources for health.

## Introduction

Policies on human resources for health or health workforce (HWF) are essential to ensure that a country has the right number of health workers, with appropriate skills, deployed in the right locations and at the right times to deliver effective services to intended populations.<sup>1,2</sup> Well designed HWF policies support sustainable workforce solutions, promote efficient resource allocation, and contribute to improved population health outcomes.<sup>3,4</sup>

In Australia, governance of the HWF involves a complex distribution of roles and responsibilities between national and sub-national (state and territory, and service districts within those) levels. This shared governance structure reflects Australia's broader federated political and service-delivery system, in which different levels of government hold complementary yet distinct roles. The federal government oversees overarching policy and regulation, funds primary care and higher education and vocational training placements, and manages professional registration through bodies such as

the Australian Health Practitioner Regulation Agency (AHPRA).<sup>5</sup> Hospital and public health service delivery, direct employment, and health worker management, including recruitment, retention, and performance, fall mainly to state and territory governments, who also manage operations through local entities, such as Queensland's Hospital and Health Services or New South Wales's Local Health Districts, allowing tailored local responses.<sup>6,7</sup>

Despite these longstanding dual governance arrangements, operationalising them remains complex, especially for HWF. Overlapping responsibilities between national, state, territory, private, and Aboriginal Community-controlled actors have contributed to persistent challenges in policy coherence.<sup>8,9</sup> Between 2009 and 2014, Health Workforce Australia (HWA) functioned as a central mechanism supporting national workforce planning, data, and policy.<sup>10</sup> Yet its dissolution in 2014 reintroduced a gap, not only in monitoring what policies were being developed, where, and for whom, but also in nascent efforts to strengthen coordination and alignment of HWF policy.<sup>11</sup>

Although governance responsibility for HWF has always been shared among a dispersed set of actors, the absence of HWA or a similar mechanism mean that multiple federal, state, and territory actors operate within a governance environment with few mechanisms or incentives to coordinate. In this context, there is limited capacity to assess the scope, content, or distribution, let alone impact, of HWF policies produced across jurisdictions, despite the need for systematic documentation and analysis. This paper addresses one aspect of this broader challenge, through a systematic review of Queensland state government HWF policies, mapping document types, professions targeted, authors, and policy domains. By analysing state government policy, the paper offers insights into the state HWF policy landscape and provides a building block towards discussions on coherence, alignment, and strategic coordination.

## Methods

The study aimed to (1) identify Queensland HWF planning and employment policies that impact recruitment, training, distribution, and performance and (2) categorise them by document type, policy type, health profession, author, and strategic workforce domain. We used the CDC's (Centers for Disease Control and Prevention) definition of policy as 'law, regulation, procedure, administrative action, incentive, or voluntary practice of governments and institutions'.<sup>12</sup> This includes legislative or strategic actions and internal mechanisms guiding employment management.

## Data collection

We selected the Queensland Department of Health and Health Workforce Queensland websites as data sources, as

they provide structured, regularly updated access to all state workforce policy instruments, enabling reproducible and comprehensive document identification within the defined jurisdiction. The Queensland Health and Health Workforce Queensland websites were systematically searched for workforce and employment policy between January and May 2025. As online policy repositories are dynamic, the availability of documents may change over time, but copies of all accessed documents were downloaded and retained. Criteria for inclusion were: (1) state government policy documents; (2) wholly focused on the planning, governance, and/or management of HWF; (3) current and effective until at least January 2025; and (4) publicly accessible. Exclusion criteria were: (1) inappropriate policy types (including meeting agendas, books, brochures, campaign certification statements, case definitions, case studies, datasets, digital images, fact sheets, forms, government responses to inquiries, infographics, letters, meeting minutes, posters, presentations, procedures, policy reviews, public interest certificates, reports, statements, terms of reference); (2) clinical practice policy documents; (3) not current and effective after December 2024; and (4) unavailable in full text.

## Data charting and data analysis

We charted demographic data (title, source, author, responsible entity, year) into Excel. Documents were first grouped according to their dominant thematic focus, called here the 'major policy' grouping. Where multiple foci existed, two researchers determined the main one by consensus so that each document was only included in a single major grouping. For instance, the Rural Immersion Placement Program – Allied Health was categorised under 'rural health' (rather than 'allied health') based on its overarching focus on strengthening rural health.<sup>13</sup>

The major policy grouping was analytically distinct from the subsequent coding of different categories of health professionals mentioned within a document; a policy assigned to the major grouping of 'general workforce', for example, could be coded for reference to multiple individual health professions. In coding references to different health professions, we encountered variation in role descriptors (e.g. 'health practitioners', 'health employees', 'health workers') and therefore cross-referenced and standardised all labels before application.

Documents were also categorised (exclusively) to one of three groupings of policy outcome: system-level outcomes (e.g. skill mix and service coverage), individual-level outcomes (e.g. career progression, professional development), or administrative and employment outcomes (e.g. compliance with industrial conditions, workload management, workplace health and safety).

We additionally coded each document for its attention to any (i.e. non-exclusive) of the three strategic workforce domains: supply, distribution, or performance.<sup>14</sup> Finally, those documents

coded for attention to workforce performance were additionally examined for any mention of incentives including: (i) allowance; (ii) leave; (iii) professional development; (iv) workload management; (v) flexible working hours; (vi) positive working environment; and (vii) service access. This coding was informed by the Queensland Guidelines: Incentives for Health Professionals.<sup>15</sup> Documents could be coded for mention of more than one type of incentive.<sup>16</sup>

All documents were assigned to one of 19 types of policy instrument, based on the Howlett and Ramesh framework and Queensland Government document governance standards.<sup>15</sup> The Howlett and Ramesh spectrum classifies policy instruments along a continuum of compulsory, mixed, or voluntary instruments that indicate the degree of government involvement in policy implementation (not whether the document was issued by government). The value of this spectrum lies in recognising that policy instruments vary considerably in their coerciveness and authorising basis (e.g. legislation vs guidelines vs incentives).<sup>17,18</sup> Policy instruments included: law, agreement, strategy, plan, framework, standard, guideline, scheme, program, sub-program, project, incentive, and grant. Employment policies included: labour law, industrial instrument, directive, human resources (HR) policy, HR standard, HR guideline.<sup>19</sup> To ensure consistency, we relied on a pre-agreed set of policy instrument definitions rather than the document title.

One reviewer extracted document characteristics and coding assignments, and a second reviewer independently checked entries. Discrepancies were resolved by consensus.

Data were analysed descriptively through charting and cross-tabulation of coded variables.

**Ethics**

This research received a formal exemption from review by the James Cook University HREC.

**Results**

A total of 9541 policy documents were identified in the initial search. After title screening, 1216 documents were retained for full-text screening. Of these, 941 were removed based on the selection criteria. A total of 275 policy documents were retrieved for analysis.

We identified 11 major groupings (reflecting the primary focus of the document) of Queensland state government HWF policy (Fig. 1). In alphabetical order, the groupings are: (1) Aboriginal and Torres Strait Islander HWF; (2) allied health; (3) dental HWF; (4) general HWF; (5) nurses and midwives; (6) medical and health students/trainees; (7) medical doctors and specialists; (8) mental HWF; (9) pharmacists; (10) physician assistant; and (11) rural HWF.

Among the major groupings, six are specific to healthcare professions (i.e. allied health workers, dentists and dental practitioners, medical doctors, nurses, pharmacists, physician assistants), one is specific to areas of healthcare programming (i.e. mental health), one relates to general HWF,

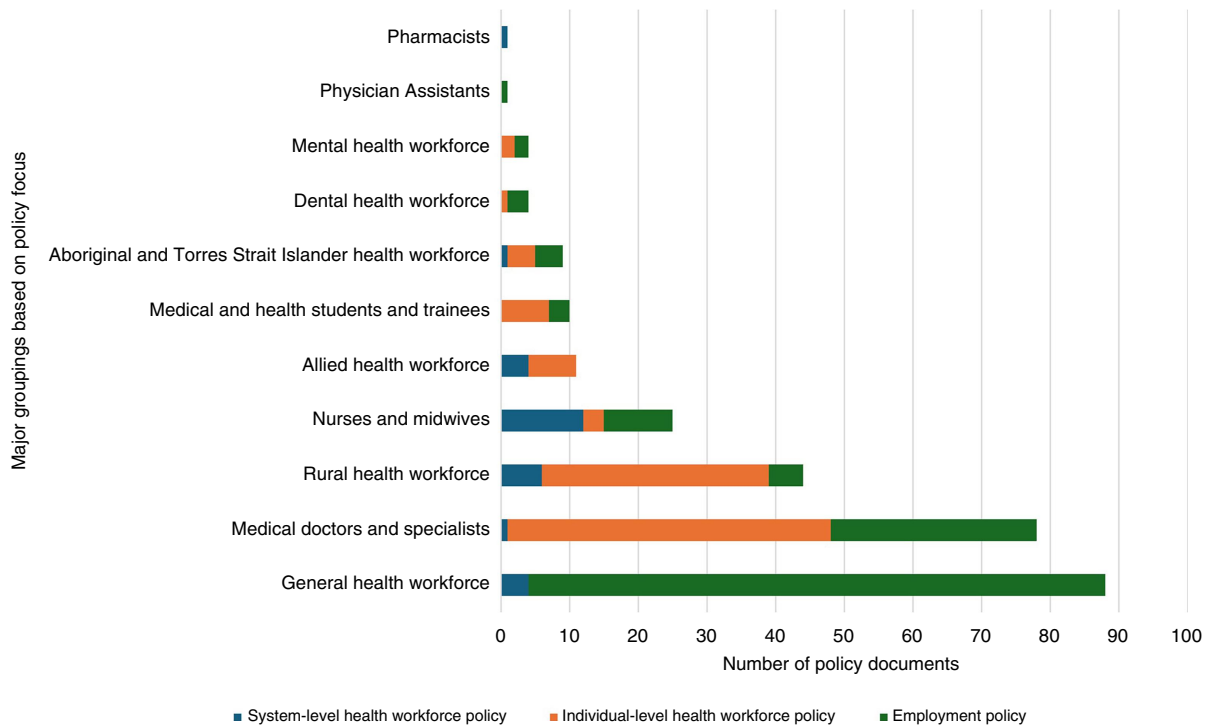


Fig. 1. Major groupings of Queensland's health workforce policy disaggregated by level of policy outcome focus.

and a further three relate to workforce defined by ethnicity, geographic location, or career development stage (i.e. Aboriginal and Torres Strait Islander HWF, rural workforce, and medical and health students/trainees).

Across all documents, the two major groupings of general HWF ( $n = 88$ ) and medical doctors and specialists ( $n = 78$ ) collectively account for the majority (60%) of retrieved documents (Fig. 1). Physician assistants ( $n = 1$ ), pharmacists ( $n = 1$ ), dental HWF ( $n = 4$ ), and mental HWF ( $n = 4$ ) were the primary focus of very few documents. Although we were alert to the possibility, no policy documents were found that focused primarily on paramedics and aged care.

Across all documents, policy that focused on employment outcomes comprised 52% ( $n = 142$ ) of policy documents, as compared to policy focused on system-level (10%,  $n = 29$ ) and individual-level (38%,  $n = 104$ ) outcomes (Fig. 2). We also found that among policy documents with a performance-related focus, the majority addressed employment outcomes (69%,  $n = 123$ ) as compared to individual level (18%,  $n = 33$ ) or systems-level (13%,  $n = 23$ ) outcomes (Fig. 3). Policy documents that focused on system-level outcomes were comparatively more frequent in the distribution domain, accounting for 43% ( $n = 13$ ).

Employment-level (versus systems or individual-level) policy was dominant within most of the 11 major groupings (Fig. 4). Among the major policy grouping of nurses and midwives ( $n = 132$ ), the number of employment-focused policy documents was more than four times that of system-focused policy documents. Among medical doctors and specialists ( $n = 195$ ), employment policy was more than 12 times greater than systems-focused policy documents; and within the groupings for aged care workers ( $n = 72$ ), medical laboratory scientists ( $n = 72$ ), physician assistants ( $n = 73$ ), and dentists and dental practitioners ( $n = 83$ ), the rate of employment policies was more than 20 times that of system-focused policy. The Human Resources Branch within

the Queensland Department of Health, together with the Queensland Industrial Relations Commission, were the most prolific authors of employment policy documents (Table 1).

Analysis of the three strategic policy domains (supply, distribution, performance) reveals greatest overall emphasis on workforce performance (65%,  $n = 179$ ), as compared to supply (39%,  $n = 106$ ) or distribution (11%,  $n = 30$ ) (Fig. 5). Although no policies were classified as an incentive policy-type (Fig. 5), incentive-related content was common within policies focused on the strategic domain of performance; for example, references to professional development (39%), allowances (36%), and workload management (33%) appeared in more than one-third of policies coded to this category (Fig. 6)

## Discussion

This is the first systematic mapping of Queensland’s HWF policy, yielding a total of 275 distinct policies across 11 major groupings. The breadth and volume of policies underscore the substantial investment by the state in HWF governance. However, this volume also points to the complexity and potential inefficiencies of a policy landscape characterised by fragmentation.

One of the most prominent findings is the significant profession-based siloing in policy focus. In recent years, alongside the overarching Health Workforce Strategy for Queensland to 2032,<sup>20</sup> Queensland has produced a number of profession- or population-specific strategies including the Aboriginal and Torres Strait Islander Health Workforce Strategic Framework 2016–2026,<sup>21</sup> the Optimising the Allied Health Workforce Strategy 2019–2029,<sup>22</sup> Early Career Nursing and Midwifery Retention Strategy 2022–2026,<sup>23</sup> Medical Practitioner Workforce Plan for Queensland,<sup>24</sup> and Queensland Health Pharmacy Workforce Plan 2022–2032.<sup>25</sup> The development of profession-based policies is illustrative of

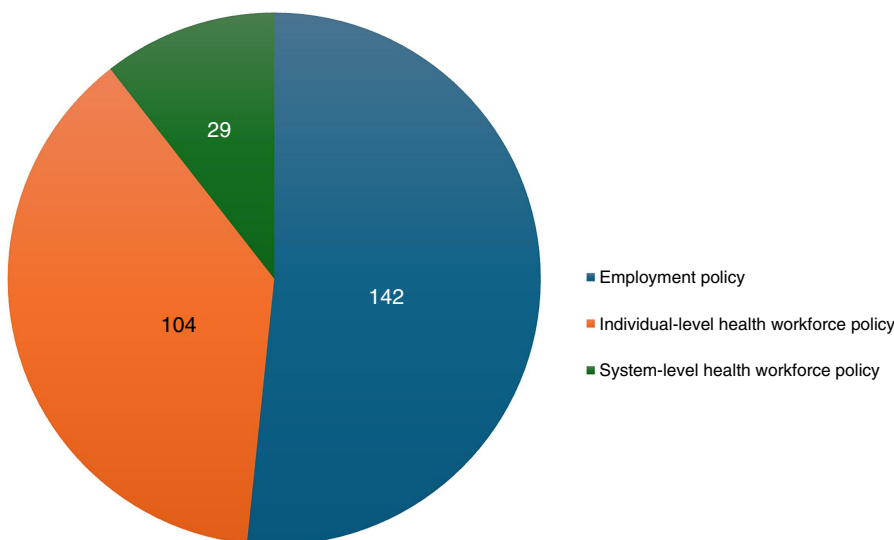
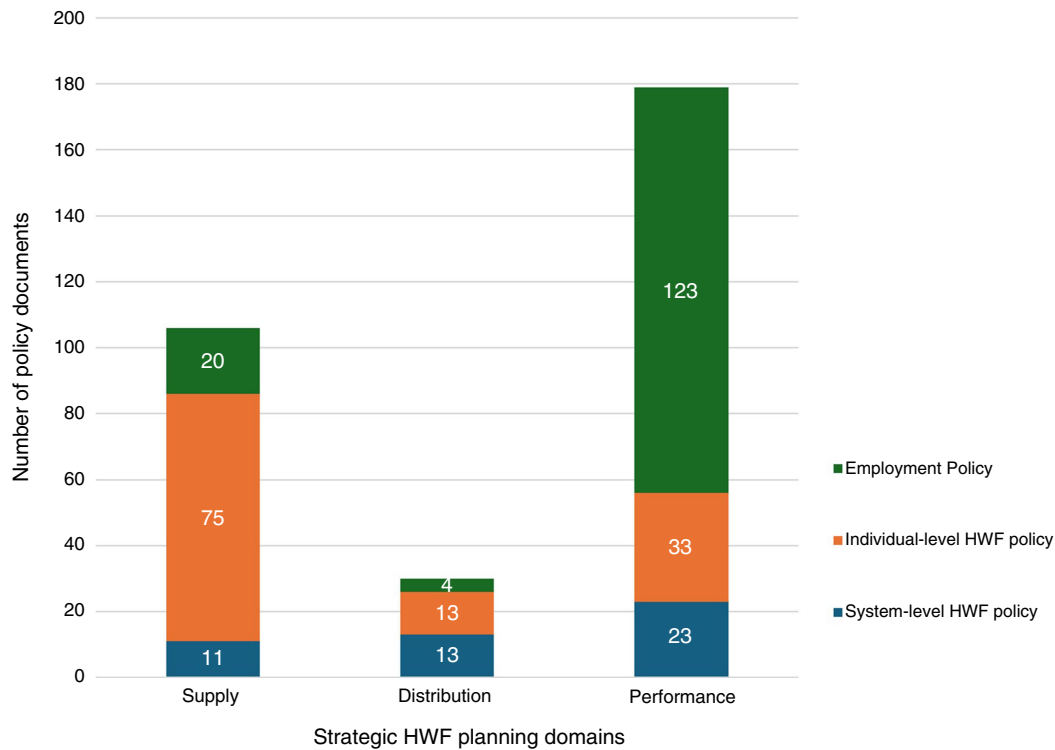


Fig. 2. Queensland health workforce policy documents by individual, system-wide, or employment outcome focus.



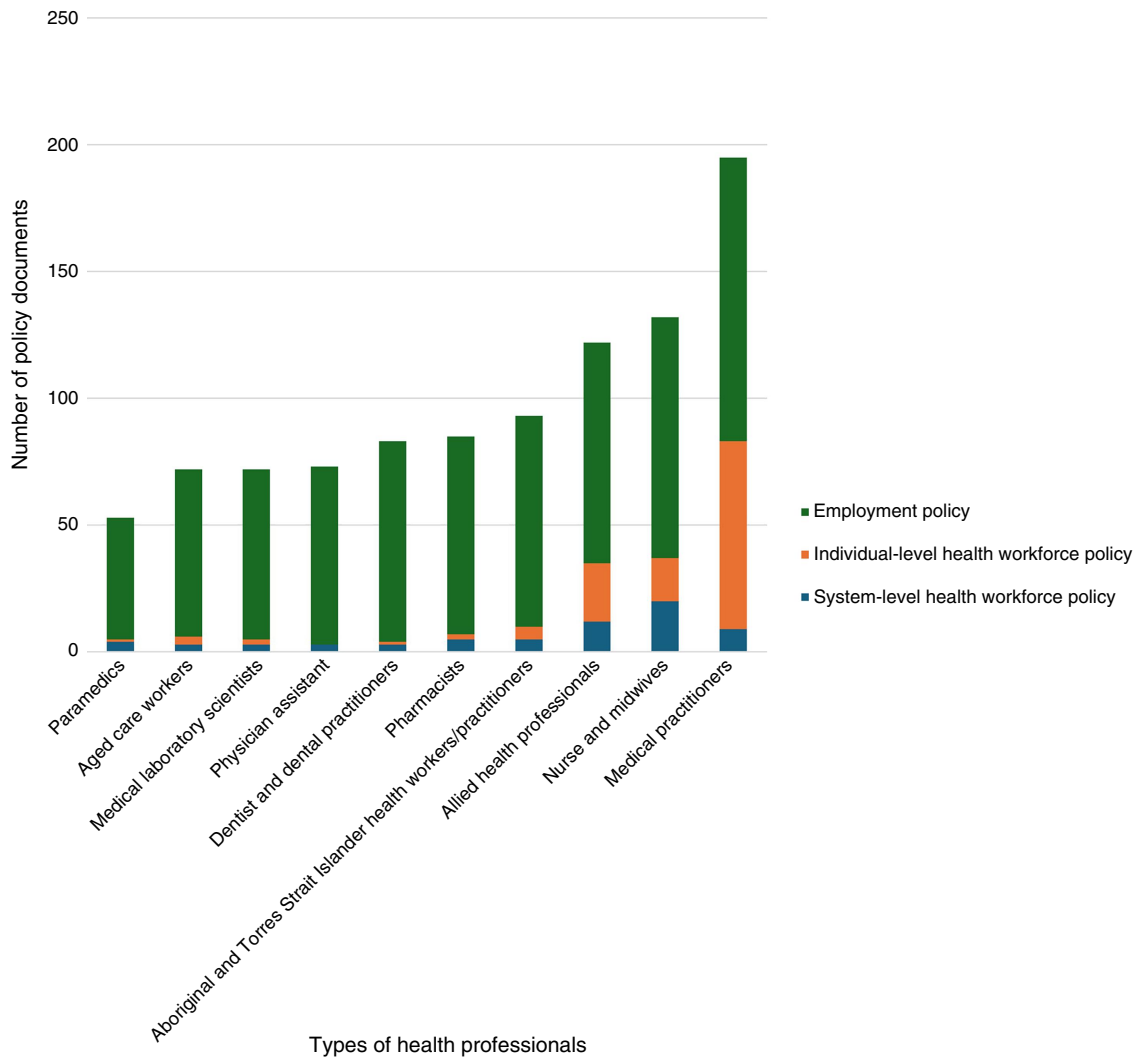
**Fig. 3.** Queensland's health workforce policy documents by strategic HWF domain, disaggregated by level of policy outcome focus.

a focus on forward planning and understandable in a system where industrial relations and registration frameworks are organised by profession. However, policies focused on professions such as medicine, nursing, pharmacy, or allied health are more likely to be developed in isolation to each other. The overarching Health Workforce Strategy for Queensland to 2032 does not specify a coordination mechanism to ensure the alignment among existing or future profession-based HWF strategies, potentially leading to each operating concurrently and in parallel rather than as part of a consolidated whole. This fragmentation may contribute to missed opportunities for coordination and hinder responses to shared system challenges such as chronic rural workforce shortages or breakdowns in care continuity across service sectors.<sup>26</sup> The observed policy siloes, particularly along professional lines, highlight the importance of developing mechanisms to link, monitor, and evaluate these initiatives more systematically to support integrated workforce development.

Another important finding from this analysis is the dominance of employment and industrial relations policy in comparison to strategic HWF policy focused on system-level outcomes. More than half of the identified policy documents pertain to employment matters, such as workplace conditions, wage structures, and industrial agreements, reflecting the strong influence of human resource management and industrial regulation in HWF governance. In contrast, relatively fewer documents focus on strategic policy domains such as

workforce supply, distribution, or performance improvement. The greater number of employment-focused documents may reflect the operational requirements of a large public workforce, and this study does not assess whether this pattern is appropriate. However, we note that the relative volume of employment policy compared with strategic planning documents may influence visibility, perceptions of workforce priorities, and opportunities for coordination in a complex governance landscape. It also highlights the need to investigate to what extent existing policies reflect the needs of the health system, as opposed to the employment-related concerns of specific professional groups.<sup>27</sup>

Among HWF policies focused on performance, we identified multiple types of incentives. Queensland's policy mix includes a range of financial and non-financial incentives – such as allowances, professional development, workload management, and flexible working conditions – aimed at improving retention and supporting a positive work environment.<sup>28</sup> These efforts are valuable, but must be evaluated in relation to parallel investments in workforce supply and distribution. Such evaluation is essential to assess whether incentives achieve intended performance improvements, as well as monitoring for unintentional outcomes. For example, efforts to enhance performance among existing staff may unintentionally increase pressure on an already inequitably distributed workforce, particularly in rural and remote regions, contributing to issues of burnout and poor retention.<sup>29</sup> We were



**Fig. 4.** Number of Queensland health workforce policy documents mentioning different health professions, disaggregated by level of policy outcome focus.

not able to evaluate the extent of any evaluative efforts as part of this study.

This study focused on state government-issued workforce policies. However, Australia's broader HWF governance involves multiple actors, including federal agencies and professional Colleges whose workforce standards, accreditation requirements, and employment agreements also shape workforce supply, distribution, and performance. Attention to these other policy stakeholders will be an important area of further work.<sup>30</sup> Although this study is limited to descriptive mapping of state HWF policy and does not evaluate policy content or implementation, it provides a useful and necessary foundation. Further work should examine policy intentions, effectiveness, and alignment with population health needs, and integrate these additional policy layers to assess alignment and interactions across the full multi-level workforce governance system.

As Australia continues to grapple with HWF shortages, rural maldistribution, and evolving service models,<sup>26,31</sup>

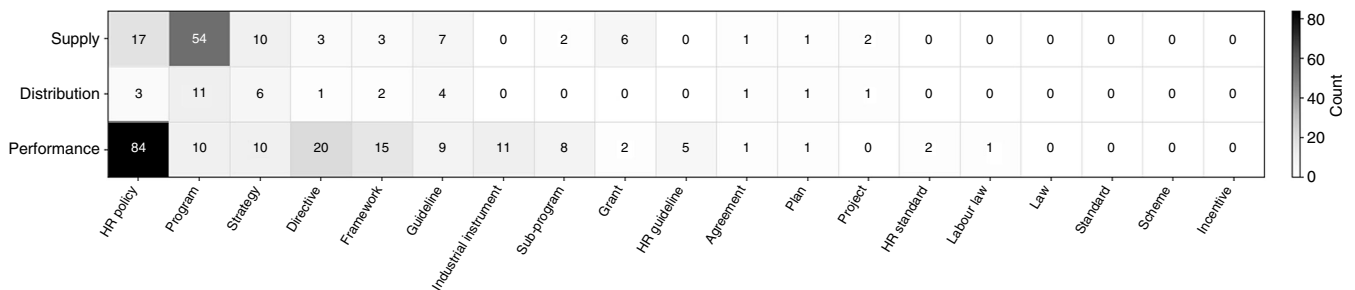
understanding the current policy architecture is a critical step toward more coherent, responsive, and equitable HWF governance. This analysis offers an initial, state-level mapping that supports a more informed understanding of workforce policy architecture and provides a foundation for subsequent national comparative work.

## Conclusion

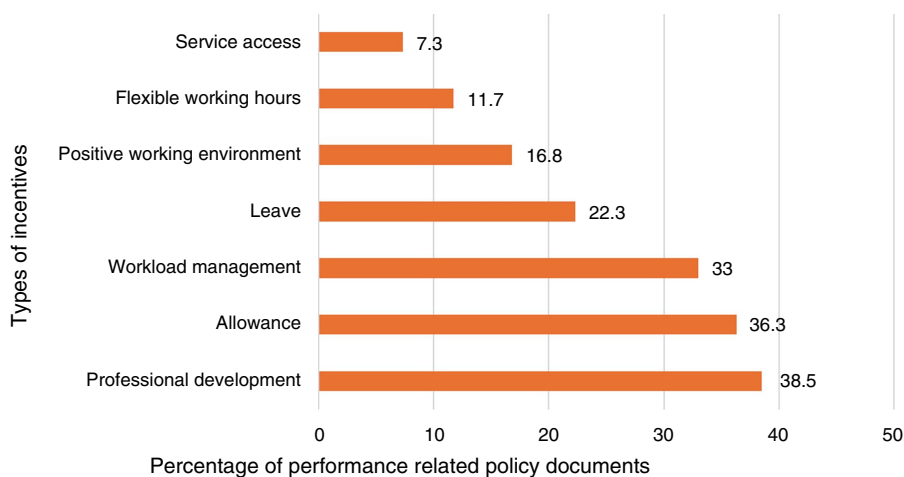
This mapping provides a baseline for renewed HWF policy dialogue. The study highlights not only the volume and diversity of workforce policy activity within the state but also the structural patterns, such as professional siloing and the dominance of employment-focused policy, that may shape strategic possibilities. Although Queensland has made significant investments in a range of HWF strategies, the isolation in which many of these initiatives appear to have emerged raises

**Table 1.** List of Queensland’s health workforce policy authors.

Issuing entities	Number of documents issued
Corporate Service Division, Human Resources Branch	128
Queensland Government, Queensland Health, Department of Health	61
Office of the Chief Allied Health Officer	19
Office of Rural and Remote Health, Queensland Rural Generalist Pathway Unit	16
Office of the Chief Nursing and Midwifery Officer	12
Queensland Government, Industrial Relations Commission	11
Clinical Planning and Service Strategy Division, Workforce Strategy Branch	7
Health Workforce Queensland	6
Queensland Government, Department of Trade, Employment and Training	4
Office of Rural and Remote Health, Queensland Country Practice	2
Office of Rural and Remote Health	2
Queensland Government, Department of Premier and Cabinet, Office of the Queensland Parliamentary Counsel	1
Aboriginal and Torres Strait Islander Health Division, First Nations Workforce Branch	1
Clinical Excellence Queensland	1
Clinical Planning and Service Strategy Division, Mental Health Alcohol and Other Drugs Strategy and Planning Branch	1
Office of the Chief Medical Officer	1
Strategy Policy and Planning Division, Workforce Strategy Branch	1
Queensland Government, Queensland Nurses and Midwives’ Union (QNMU)	1



**Fig. 5.** Queensland’s health workforce policy documents cross-referenced by strategic policy domain and policy types.



**Fig. 6.** Proportion of all Queensland state government performance-related HWF policy documents mentioning different types of HWF incentives.

important questions about their coordination, alignment, and cumulative impact. Though not an evaluation of quality or effectiveness, this study reveals the need to assess how fragmented policies interact and whether they support system goals. Amid ongoing national HWF challenges, a shared understanding of current policy is essential for better, more coherent development.

## References

- 1 Barribal L, Bremner J, Buchan, J, *et al.* Recruitment and retention of the health workforce in Europe. Brussels: European Commission; 2015.
- 2 Crettenden I, Poz MD, Buchan J. Right time, right place: improving access to health service through effective retention and distribution of health workers. *Hum Resour Health* 2013; 11(1): 60. doi:10.1186/1478-4491-11-60
- 3 Liu J, Eggleston K. The Association between Health Workforce and Health Outcomes: A Cross-Country Econometric Study. *Soc Indic Res* 2022; 163: 609–32. doi:10.1007/s11205-022-02910-z
- 4 World Health Organization (WHO). Global strategy on human resources for health: workforce 2030. Geneva: WHO; 2016.
- 5 Australian Institute of Health and Welfare. Health system overview. 2024. Available at <https://www.aihw.gov.au/reports/australias-health/health-system-overview> [accessed 20 June 2025].
- 6 Australian Department of Health and Aged Care. The Australian health system. 2024. Available at <https://www.health.gov.au/about-us/the-australian-health-system> [accessed 20 June 2025].
- 7 Duckett S. The Australian health care system, 6th edn. London: Oxford University Press; 2022.
- 8 Gleeson DH, Legge DG, O'Neill D. Evaluating health policy capacity: Learning from international and Australian experience. *Aust N Z J Public Health* 2009; 6: 3. doi:10.1186/1743-8462-6-3
- 9 Calder R, Dunkin R, Rochford C, Nichols T. Australian health services: too complex to navigate: a review of the national reviews of Australia's health service arrangements. The Australian Health Policy Collaboration, Victorian University; 2019.
- 10 McCarty MV, Fenech BJ. Towards best practice in national health workforce planning. *Med J Aust* 2013; 199: S10–3. doi:10.5694/mja12.10309
- 11 Australian Department of Health and Aged Care. Portfolio budget statements 2014-15. Canberra: Commonwealth of Australia; 2014.
- 12 U.S. Centers for Disease Control and Prevention (CDC). Definition of policy. 2024. Available at <https://www.cdc.gov/polaris/php/policy-resources-trainings/definition-of-policy.html> [accessed 20 June 2025].
- 13 Queensland Health. Rural immersion placement program - allied health (RIPPAH). 2025. Available at <https://www.careers.health.qld.gov.au/allied-health-careers/rural-immersion-placement-program-allied-health-rippah#:~:text=The%20Rural%20Immersion%20Placement%20Program,to%20practice%20rurally%20following%20graduation> [accessed 20 June 2025].
- 14 Sonderegger S, Bennett S, Sriram V, Lalani U, Hariyani S, Robertson T. Visualizing the drivers of an effective health workforce: a detailed, interactive logic model. *Hum Resour Health* 2021; 19(1): 32. doi:10.1186/s12960-021-00570-7
- 15 Queensland Government. The Queensland Government Enterprise Architecture (QGEA) Document Governance. 2024. Available at <https://www.forgov.qld.gov.au/information-and-communication-technology/queensland-government-enterprise-architecture-qgea/qgea-document-governance> [accessed 20 June 2025].
- 16 International Council of Nurses, International Pharmaceutical Federation, World Dental Federation, World Medical Association, International Hospital Federation, World Confederation for Physical Therapy. Guidelines: Incentives for health professionals. Geneva: International Council of Nurses, International Pharmaceutical Federation, World Dental Federation, World Medical Association, International Hospital Federation, World Confederation for Physical Therapy; 2008. Available at [http://www.whpa.org/sites/default/files/2018-11/WHPA-positive\\_practice\\_environments-guidelines-EN.pdf](http://www.whpa.org/sites/default/files/2018-11/WHPA-positive_practice_environments-guidelines-EN.pdf) [accessed 20 June 2025].
- 17 Howlett M, Ramesh M, Perl A. Studying Public Policy, Policy Cycles and Policy Subsystems, 3rd edn. Toronto: Oxford University Press; 2009.
- 18 Howlett M, Ramesh M. Studying public policy: Policy cycles and policy subsystems. Toronto: Oxford University Press; 1995.
- 19 Queensland Health. Employment framework. 2021. Available at [https://www.health.qld.gov.au/\\_data/assets/pdf\\_file/0040/395869/qh-pol-205.pdf](https://www.health.qld.gov.au/_data/assets/pdf_file/0040/395869/qh-pol-205.pdf) [accessed 20 June 2025].
- 20 Queensland Health. Health workforce strategy for Queensland to 2032. 2024. Available at <https://www.publications.qld.gov.au/dataset/queensland-workforce-strategy-2022-2032/resource/ff453627-3e2a-4dc5-96c5-a3e7bdf963fa> [accessed 20 June 2025].
- 21 Queensland Health. Aboriginal and Torres Strait Islander health workforce strategic framework 2016–2026. 2016. Available at [https://www.health.qld.gov.au/\\_data/assets/pdf\\_file/0023/628340/aboriginal-torres-strait-islander-workforce-framework.pdf](https://www.health.qld.gov.au/_data/assets/pdf_file/0023/628340/aboriginal-torres-strait-islander-workforce-framework.pdf) [accessed 20 June 2025].
- 22 Queensland Health. Optimising the allied health workforce for best care and best value: a 10-year strategy 2019-2029. 2019. Available at [https://www.health.qld.gov.au/\\_data/assets/pdf\\_file/0027/840744/ten-year-strategy.pdf](https://www.health.qld.gov.au/_data/assets/pdf_file/0027/840744/ten-year-strategy.pdf) [accessed 20 June 2025].
- 23 Queensland Health. Early career nursing and midwifery retention strategy. Queensland Health; 2022. Available at [https://www.health.qld.gov.au/\\_data/assets/pdf\\_file/0021/1224147/early-career-nursing-midwifery-retention-strategy.pdf](https://www.health.qld.gov.au/_data/assets/pdf_file/0021/1224147/early-career-nursing-midwifery-retention-strategy.pdf) [accessed 20 June 2025].
- 24 Queensland Health. Medical practitioner workforce plan for Queensland. 2016. Available at [https://www.health.qld.gov.au/\\_data/assets/pdf\\_file/0032/648491/medical-practitioner-wp.pdf](https://www.health.qld.gov.au/_data/assets/pdf_file/0032/648491/medical-practitioner-wp.pdf) [accessed 20 June 2025].
- 25 Queensland Health. Queensland Health pharmacy workforce plan 2022-2032. 2022. Available at [https://www.health.qld.gov.au/\\_data/assets/pdf\\_file/0040/1196698/Pharmacy-workforce-plan.pdf](https://www.health.qld.gov.au/_data/assets/pdf_file/0040/1196698/Pharmacy-workforce-plan.pdf) [accessed 20 June 2025].
- 26 Cortie CH, Garne D, Parker-Newlyn L, Ivers RG, Mullan J, Mansfield KJ, Bonney A. The Australian health workforce: Disproportionate shortfalls in small rural towns. *Aust J Rural Health* 2024; 32(3): 538–46. doi:10.1111/ajr.13121
- 27 Džakula A, Relić D. Health workforce shortage – doing the right things or doing things right? *Croat Med J* 2022; 63(2): 107–9. doi:10.3325/cmj.2022.63.107
- 28 Hicks V, Adams O. Pay and Non-Pay Incentives, Performance and Motivation. *Hum Resour Dev J* 2000; 4: 257–74.
- 29 Russell D, Mathew S, Fitts M, *et al.* Interventions for health workforce retention in rural and remote areas: a systematic review. *Hum Resour Health* 2021; 19: 103. doi:10.1186/s12960-021-00643-7
- 30 Topp SM, Nguyen T, Elliott LM. Federal health workforce policy in Australia and its implications: a descriptive policy document review. *Med J Aust* 2025; 223: 459–66. doi:10.5694/mja2.70021
- 31 Tran M, Lee JT, Cormack M, Xiang F, Sugiara T. Health Workforce Shortage in Australia Post COVID-19- International Perspectives. Canberra: National Centre for Health Workforce Studies, Australian National University; 2024.

**Data availability.** The data that support this study will be shared upon reasonable request to the corresponding author.

**Conflicts of interest.** The authors declare that they have no conflicts of interest.

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