

Service Robots: Australia's Workforce Solution

How AI-powered service robots are helping Australian organisations bridge staffing gaps while improving service quality.

Executive Summary

Challenge

Australia is facing unprecedented workforce shortages across the healthcare, aged care, hospitality, and retail sectors. With 82% of health occupations in shortage and aged care facing a potential deficit of 110,000 workers by 2030, businesses need innovative solutions.

Solution

Service robots, such as temi, are providing effective workforce support, with companies in Australia reporting a 30% reduction in routine staff tasks and an improvement in service quality.

Opportunity

Early adopters can address immediate staffing pressures and build long-term operational efficiency.

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1. Australia's Workforce Crisis: The Numbers Don't Lie

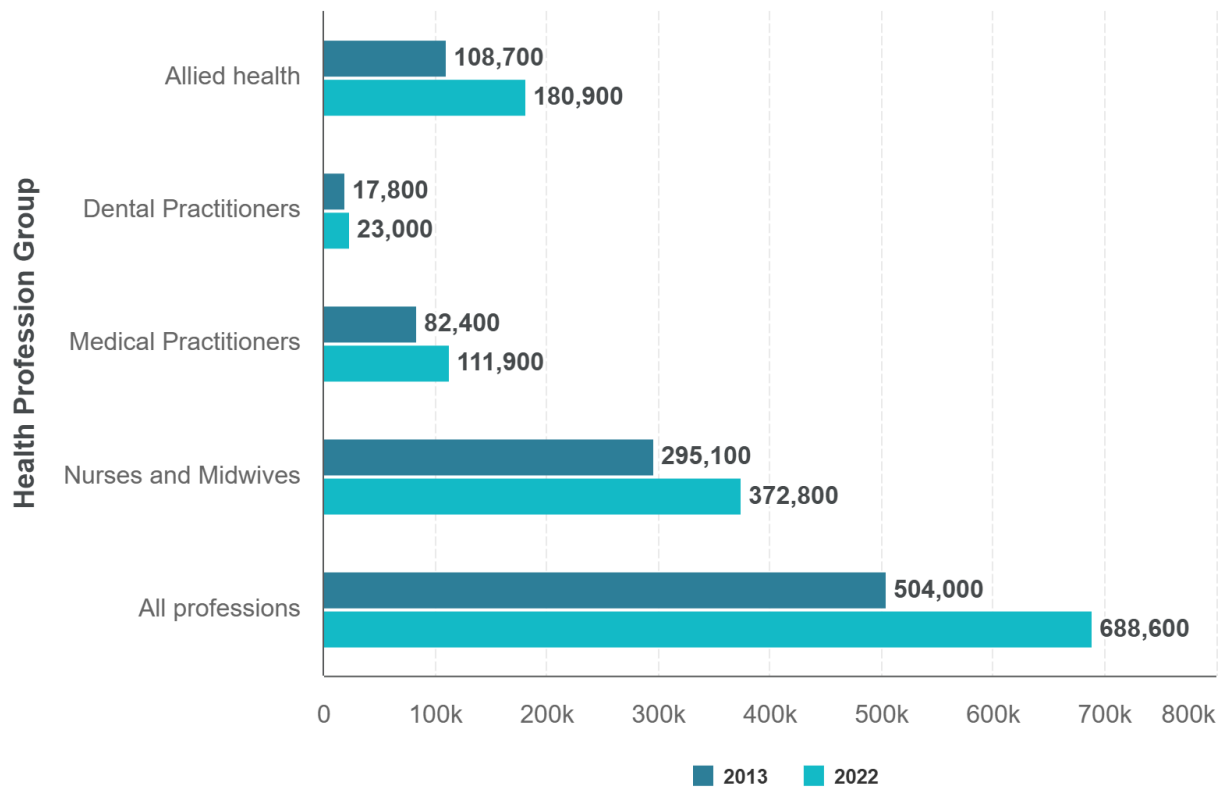
Healthcare Sector Strain

Based on recent Australian Institute of Health and Welfare data:

- The healthcare workforce grew 36.6% from 2013 - 2022, but demand is outpacing supply

- 82% of health occupations are currently in short supply (2023)
- Projected shortage of 100,000+ nurses and 2,700+ doctors within the next 3 years

Figure 1: Number of health professionals, by profession, 2013 and 2022



Source: Department of Health and Aged Care 2023a

Aged Care in Crisis

According to CEDA (Committee for Economic Development of Australia):

- Current shortage projected to reach 110,000 workers by 2030
- Could balloon to 400,000+ workers by 2050 without intervention
- 65,000 aged care workers leave the sector annually
- Despite 28.5% wage increases, recruitment cannot keep pace with demand



Source: [CEDA Duty of Care - Aged Care Sector in Crisis](#)

Beyond Healthcare: Cross-Industry Impact

- Small rural towns have only 65% of urban GP availability per capita
- Hospitality and retail are facing similar staffing pressures post-COVID
- Geographic maldistribution compounds the problem

2. Early Deployment Results in Australia

Proven Impact of temi

- **30% reduction** in routine staff tasks (regional aged care facility)
- **Improved patient/resident satisfaction** scores
- **24/7 availability** without additional labour costs
- **Remote telepresence** capability extends specialist reach

Key Application Areas and Benefits

Immediate Staffing Relief:

- Handle routine, time-consuming tasks
- Provide consistent service during staff shortages
- Offer remote presence for specialists

Quality Enhancement:

- Reduce human error in routine processes
- Provide consistent medication reminders
- Support family connections in aged care

Cost Efficiency:

- Predictable operational costs without variable labour expenses
- 24/7 operation capability
- Scalable across multiple shifts

3. Industry-Specific Applications

Healthcare & Hospitals

Current Applications:

- Telemedicine consultations with mobile functionality
- Medication and supply delivery
- Patient guidance and information
- Vital signs monitoring integration

Addressing Workforce Gaps: With 82% of health occupations in short supply, robots can handle non-clinical tasks. This frees registered professionals to direct patient care.

Aged Care Facilities

Critical Applications:

- Fall detection and emergency response
- Medication adherence monitoring
- Family video calling and social connection
- Staff communication and coordination

Meeting Regulatory Requirements: As the government mandates 200 minutes of daily staff time per resident, temi robots can contribute to care minutes while handling routine tasks.

Hospitality & Retail

Service Quality:

- Guest services and concierge functions
- Product information and store navigation
- Contactless service delivery

4. Organisational Integration

Getting Started

1. Needs Assessment: Identify the top 5 most time-consuming routine tasks
2. Feasibility assessment: Assessing the physical environment suitability and limitations
3. Proof of Concept: Single unit in a small portion of the facility to prove mission completion effectiveness
4. Staff Training: Post user acceptance staff training for different user profiles (e.g. care workers, operation staff, managers)
5. Performance Metrics: Track task completion, staff satisfaction, customer/patient outcomes

Investment Framework

- Initial Investment: Robot purchase/lease + implementation
- Ongoing Costs: Software subscriptions, maintenance, updates
- ROI Timeline: Most implementations see positive ROI within 8-18 months
- Scalability: Additional units can be added as needs grow

Success Factors

Based on case studies in Australia:

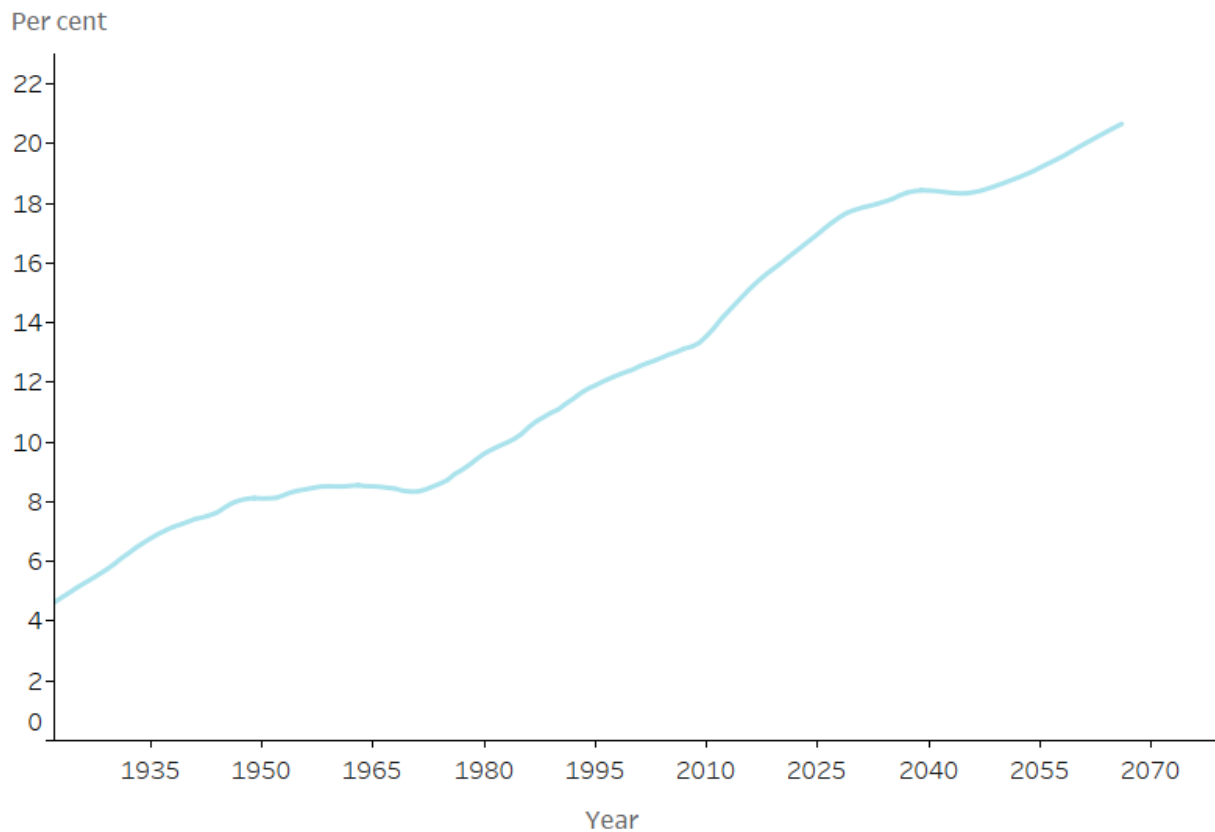
- Staff Buy-in: Include the team in planning and implementation
- Clear Use Cases: Define specific tasks robots will handle
- Ongoing Support: Ensure technical support and training resources
- Performance Monitoring: Regular assessment and optimisation
- Effectiveness: Task completeness effectiveness

5. The Future of Work in Australia

Demographic Reality

With Australia's ageing population and workforce shortages across sectors, technology integration represents a critical factor in service delivery sustainability.

Figure 1.1: Percentage of the Australian population aged 65 and over, at 30 June, over time



Notes

1. Data for 1921 to 1970 are population estimates. Data from 1971 onwards are estimates of the resident population (ERP).
2. Population data from 1992 to 2011 are recast estimates following the rebasing of the 2011 Census. For more information, see the ABS explanatory notes.

Sources: ABS 2018, 2019.
<http://www.aihw.gov.au/>

Source: Australian Institute of Health and Welfare

Technology as Workforce Support

Service robots don't replace human workers. They handle routine tasks so staff can focus on high-value, human-centred activities.

Competitive Advantage

Early adopters demonstrate:

- Operational resilience during staffing shortages
- Consistent service delivery standards

- Higher staff satisfaction scores with reduced routine tasks
- Better resource allocation

6. Industry Leadership Perspective

St. Anna's Residential & Home Care, South Australia

St. Anna's in Brompton, South Australia, is a not-for-profit residential care facility that provides personalised care plans. Like many aged care homes, they wanted to make daily life easier for everyone who walks through their doors.

temi provides wayfinding for families, residents, and new staff. It helps guide people around their facility, making it easy to navigate. The robot has become especially useful during family visits and staff orientation.

New employees can get familiar with the building layout without constantly asking for directions, while visiting families can find their loved ones without interrupting busy care staff.

This application illustrates how service robots can address routine operational needs in aged care facilities. Navigation assistance reduces staff interruptions. The system also facilitates orientation processes for families and new employees.

While St. Anna's currently uses temi for navigation, the robot's capabilities extend to companionship, communication, and daily care support, suggesting potential for expanded applications as the facility becomes more comfortable with the technology.

CEO Amanda Birkin reflects, "The residents are really getting used to the technology. It's proof that when you introduce innovation thoughtfully, people don't just accept it, they welcome it."

Watch the [video](#) on our LinkedIn page.

Conclusion

Australia's workforce challenges indicate a growing need for technological solutions. Service robots represent an emerging approach to addressing staffing constraints. Early evidence suggests potential operational benefits for organisations adopting these technologies.

Next Steps:

- Assess your organisation's specific workforce challenges
- Identify pilot opportunities with the highest impact potential
- Connect with service robot providers for consultation
- Develop an implementation timeline and success metrics

For more information about service robots, visit temi.au

Connect with us: [Omni-Health Group on LinkedIn](#)

Sources and References

- Australian Institute of Health and Welfare (2024). Australia's Health 2024
- Jobs and Skills Australia (2023). Skills Shortages Analysis
- CEDA (2021, 2022). Duty of Care: Meeting the aged care workforce challenge
- Australian Government Department of Health and Aged Care (2024). Aged Care Worker Survey 2024
- Australian Bureau of Statistics (2024). Labour Force Australia
- Research case studies from Australian Temi implementations