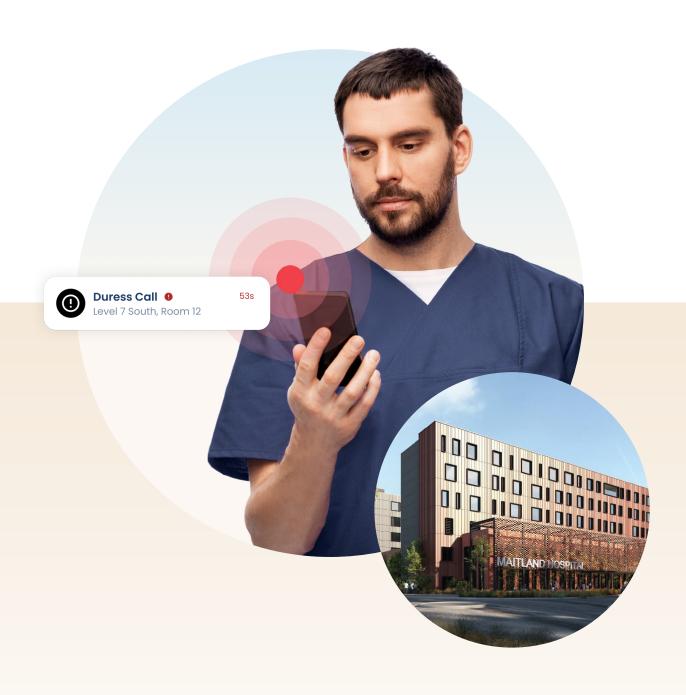
Enhancing Staff Safety at Maitland Hospital with Mobile Duress





The use case of the Reach Duress application at Maitland Hospital

The need to protect nurses and other healthcare workers has accelerated due to the increase of occupational violence, rising mental health issues, strained healthcare systems struggling to meet demand and the push to provide more services in non-healthcare related places, such as people's homes.

Studies have shown that more than 60% of all healthcare workers have been subject to violence and aggression from patients, relatives and visitors and healthcare professionals are more vulnerable to occupational violence than people employed in other occupations⁽¹⁾. In Australian healthcare, incidents of physical violence are the highest in mental health and emergency department settings. Research shows that nurses and doctors, those working in urban settings and clinical staff working longer hours are particularly at risk⁽¹⁾.

More and more healthcare workers are calling for technology that can provide continuous protection, regardless of their location, such as mobile duress. Staff want mobile duress systems that are mobile because workers may not be able to reach fixed alarms and responders need to know where they are if they are on the move.

The New Maitland Hospital is a 339-bed hospital green field development located in Hunter New England Local Health District in New South Wales, Australia that opened in January 2022. It serves as a rural referral hospital in the lower Hunter Valley Region of NSW Australia. In the dynamic environment of Maitland Hospital, which in 2024 saw over 54,000 Emergency Department presentations⁽²⁾, ensuring the safety of healthcare workers is of paramount importance to the hospital administrators and staff alike.

Mobile duress technology provides a layer of protection for healthcare workers so they can work with confidence, knowing that should anything happen, they will get the response they need. By using systems that provide quick response times and precise location tracking, healthcare providers can ensure staff are protected no matter where they are in the facility. Providing peace of mind to healthcare workers about their safety will undoubtedly contribute to a better working environment and overall staff wellbeing.

In 2022, Concentric Care Reach Duress was implemented across the site, modernising staff safety in line with the hospital's new \$470m facility. This upgrade allows for the best care possible for the people of the lower Hunter Valley and beyond. Reach Duress uses advanced Bluetooth-based positioning for precise indoor tracking and

automatically switches to GPS for outdoor use, making it ideal for both in hospital and community health workers who carry clinical smart phones. Recognising that duress events are often not static; the response team will receive automatic alerts to their mobile devices as and when the location of the duress event changes. In addition, a "staff down" function was also implemented, so that if a worker falls or is knocked to the ground, a duress alarm is automatically triggered after 15 seconds. The system also reassures the worker that the duress alarm was sent, and a response team has been alerted.

This system's impact is evident in its ability to support staff during duress incidents. Between 1/7/2023 to 30/6/2024, Maitland Hospital recorded 5,649 code blacks-emergency situations involving personal threats or aggression. Of these, 5,386 were triggered using the Reach Duress functionality on staff clinical-grade wireless devices, with the remainder initiated via fixed duress stations or calls to switchboard. The median time to cancel or stand down all duress events was just 37 seconds⁽³⁾ due to the seamless integration of Reach Messaging. When an incident is triggered, staff receive immediate push notifications and simultaneously, responders are automatically connected via an audio conference call, allowing real-time monitoring of the situation. Alongside room-level location accuracy, the right personnel are quickly directed to the scene to de-escalate, resulting in shortest possible resolution time to incidents raised.

The implementation of Reach Duress at Maitland Hospital marks a significant advancement in staff safety, aligning with the hospital's commitment to creating a secure and supportive environment for healthcare workers. By providing instant protection and precise location tracking, this technology empowers staff to deliver care with confidence, knowing their safety is a priority.

References

- Liu J, et al. Occup Environ Med 2019;76:927–937. doi:10.1136/ oemed-2019-105849.
- Australian Institute for Health and Welfare. My Hospital Maitland Data. Accessed at www.aihw.gov.au. Accessed 22/01/2025 @ https://www.aihw.gov.au/reports-data/myhospitals/hospital/h0102
- Lea, L., & Wright, J. (2024) Enhancing healthcare worker safety through customisable mobile duress implementation. Oral Proffered paper presentation. Health Innovation Conference, Brisbane, Australia.

