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# Maternity specific virtual reality training in Outback Queensland

Initiative Type

Education and Training

Status

Plan

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13 May 2024

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<https://clinicalexcellence.qld.gov.au/improvement-exchange/maternity-specific-virtual-reality-training-outback-queensland>

## Summary

The North West Hospital and Health Services (NWHHS) requires all remote area Nurses to complete Neonatal resuscitation and imminent birth training as part of their mandatory training. There are many

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unique circumstances which hinder continued upskilling in maternity emergencies including, wet season and chronic short staffing. An alternative model of training was sought as remote health services continued to be obstructed from attended face-to-face training in Mount Isa. This is where the idea for offering Virtual reality maternity training to remote sites was first envisioned. During 2023 and 2024 NWHHS employed a Midwife Educator for developing, implementing, and researching Virtual Reality maternity training to Registered Nurses working in remote health centres, it is hoped that virtual reality training will revolutionise education for remote HHS'. Twenty virtual reality headsets and controllers are being dispersed between Mount Isa, Cloncurry, Normanton, Karumba, Mornington Island and Doomadgee. Ethics were sought and approved by the Townsville Ethics Committee to commence a research project to assess the participants' perceived preparedness for unexpected or unplanned maternity care in remote areas, following education delivered by Virtual Reality software.

### Key dates

Jul 2023

Jun 2025

### Implementation sites

North West Hospital and Health Service

### Partnerships

Bundle of Rays, University of Sunshine Coast, Central Queensland University SC, CQU

## Key Contacts

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## **Aim**

The aim of this study is to better understand participants' perceived preparedness for unexpected or unplanned maternity care in remote areas, following education delivered by Virtual Reality software.

## **Benefits**

Innovative maternity training to the NWHHS staff to address unique rural and remote needs.

## **Background**

The need for maternity care in the rural and remote areas of Australia is huge and well-documented.

## **Solutions Implemented**

We are in the process of developing and deploying Virtual Reality (VR) training in both imminent birth and neonatal resuscitation.

## **Evaluation and Results**

Types of evaluation

This study will utilise a Kirkpatrick model framework for evaluating the effectiveness of workforce training (Kirkpatrick, & Kirkpatrick, 2006). This model is supported via a meta-analysis of team training in healthcare (Hughes et al., 2016) and is important to ensure how the training can improve patient outcomes.

The levels are summarised as:

Domain 1: Trainee Reaction: healthcare staff response to training using rating scales about the different aspects of the teaching

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Domain 2: Learning: knowledge acquisition produced by training experience increasing learning scores from pre-to post-training

Domain 3: Behaviour: the application of the knowledge and/or skills learnt during training to the clinical job demands

Domain 4: Results: addressing ultimate performance or measurable impact on the organisation.

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