Title: Geo-spatial analysis of NWQ GP training practice shortages

**Introduction:** Queensland is the most decentralised state in Australia. The ‘North West Queensland’ (NWQ) GP training region incorporates the bulk of its land area, most of its rural towns, and all of its remote communities. Currently the general practice needs of the NWQ region, especially in the more rural and remote communities, are not being fully met.

**Objectives:** This study applied geo-spatial analysis technology to locate gaps in GP service accessibility for rural and remote dwelling NWQ Australians, in order to establish key location points in NWQ where further GP training practices/posts can be provided to address priority health needs in the area.

**Method:** A total of 367 (right: green dots) accredited GP training posts are located in the NWQ region, covering the statistical catchment area of approximately 2.5 million square kilometres. The practice locations were mapped against town based population socio-economics (SEIFA). All population data was obtained from the 2011 census data.

**Results:** The analysis found 83% of the Indigenous and 79% of the non- Indigenous population lives within 10km of the accredited NWQ practices. The practices are located close to 54% of the poorest third of Indigenous people and 31% of non-Indigenous people, while 6% and 15% respectively of the less disadvantaged people in these two groups live close to these practices.

**Conclusion:** This study has pivotal outcomes for future population-health driven approaches in the identification and accreditation of new GP training posts in the NWQ region. The study will inform future priority areas for the provision of GP training in order to increase access to general practice and provide registrars with the skills required for working in underserved areas.