The changing pattern of emergency medical evacuations from remote South Australia from 2000–01 to 2011–12

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The Royal Flying Doctor Service of Australia was established by the Rev John Flynn who, in collaboration with Clifford Peel (Aviation) and Alf Traeger (Pedal Radio/Communications), conceived of the idea of delivering health care to remote areas of Australia utilising aircraft for transport and radio for health consultations.

The first flight of the RFDS took place in 1928 between Cloncurry and Julia Creek in an aircraft chartered from the Queensland and Northern Territory Airways Service (now known as QANTAS). In the first year of operation 225 patients were transferred from remote areas of the country to hospitals in larger centres with 28,800 km flown to conduct those tasks. In the last financial year (2011–12) 40,705 patients were transported and 26 million km flown to achieve this. A total of 273,731 patient contacts took place in the 2011–12 period.

Since 1928 there has been extensive evolution of the RFDS into the current organisation represented by five operating sections, one funding raising section and a national office. The operating sections provide 21 aero medical bases with 61 aircraft and 5 health facilities across all states and territories.

RFDS has traditionally been recognised for our role in the aero medical evacuation of patients from remote areas to higher levels of care in hospitals. From the very early days RFDS has also delivered visiting GP and Community Nursing services to remote communities and in 1993, as the outcome of an extensive review, published ‘Best for the Bush’—a blueprint for the RFDS to provide enhanced primary Care services including mental health, women’s health and health prevention and promotion services. Some of these aspects of our service have been the subject of previous presentations at NRHA conferences.

Today’s presentation however is focused on the provision of Primary Evacuation services from remote areas of South Australia—a State characterised by vast distances between a small number of relatively small communities. RFDS has an arrangement with the Commonwealth/State Governments to provide health care to people living, working or travelling through areas of the country that are ‘outside the normal medical infrastructure’. Normal medical infrastructure is understood to mean a Community with access to a doctor, hospital and 24/7 in-patient nursing services. Within South Australia this area comprises that part of the state north a west of line from the WA Border to Port Augusta to Moomba with the exception of the larger centres of Coober Pedy, Roxby Downs, Woomera and Andamooka.

The region is characterised by a number of small Communities such as Marree, Oodnadatta, Marla and Glendambo, a number of Aboriginal Communities such as Yalata and Oak Valley, Pastoral properties and developing mining sites and exploration leases. Data relating to patients requiring a Primary Evacuation has been examined and covers the periods 2000–01, 2005–06 and 2011–12 financial years. As the numbers of Primary Evacuations are low, data from the various locations has been combined into the following community groupings:

- Small Communities—Marree, Oodnadatta, Kingoonya, Tarcoola, Marla
- Aboriginal Medical Services—Tullawon (Yalata) and Oak Valley (where RFDS has provided Primary Care clinics)
- Properties—Birdsville Track, Gawler ranges and Alberga region.
- Mining Sites—Challenger, Beverley and Prominent Hill
The data will be presented by clinical reason for transfer divided into three categories, medical, injury/accident and pregnancy related. An examination of gender differences in these categories will also be presented. Comparable data for the larger mining town Community of Roxby Downs, covering the same time periods, will be presented as a means of comparing the remote area data with a ‘control’ Community. All Primary Evacuations are recorded on a bespoke RFDS database—Flight PMI (Patient Master Index)—this database records flight, aviation, demographic and clinical details of each patient transferred.

Detailed data will be presented and discussed in full at the conference as part of the PowerPoint presentation—a summary of the key findings follows.

- Population data for the remote areas of South Australia has been sourced from the Australian Bureau of Statistics—data relating to the ‘unincorporated’ regions has been used as the benchmark and this reveals a 27% reduction in population between 2000 and 2010. The total number of patients requiring aero medical evacuation fell from 189 in 2000–01 to 112 in 2011–12. This represents a 40% reduction—greater than the decline in population over that time suggesting influences other than falling population numbers were operating. The biggest reduction occurred in the evacuations from Aboriginal Communities—101 down to 44 or a 56% reduction. Evacuations from the small communities reduced at the same rate as the population decline—30%. Evacuations from Roxby downs showed a large increase from 61 in 2000–01 to 95 in 2011–12—a 56% increase. Evacuations from the mining Communities increased by 750 % over the period—these were however based on small numbers.

- Clinical reasons for evacuation being required showed that Pregnancy related reasons increased over the 10 year period for the Properties and the small Communities but declined in the Aboriginal Medical Services suggesting improved antenatal primary care services. Within the mining Communities evacuation for injury dropped from 100% of cases in 2001–01 to 27% in 2011–12 whereas medical reasons for evacuation increased from none in 2000–01 to 73% in 2011–12—an interesting observation that suggests that the FIFO workforce are taking their inherent medical problems with them to the mine sites.

- The data from Roxby Downs shows a steady rate of evacuations for medical reasons and injury but an increase in the rate for Pregnancy related problems.

Possible reasons behind these changes will be discussed at the presentation and may include improved Primary Health Care provision, reduced Obstetric services, changing demographics of populations and implementation of Chronic Disease management services.