SPOT
Service Planning and Operational Tool
Royal Flying Doctor Service

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Background

- Inequitable health outcomes linked to poor access and utilisation of health services.
- Need comprehensive knowledge of existing service locations, relative to population.
- Without knowledge difficult to allocate resources to facilitate better access to primary health care (PHC) and other health services, and to determine constitutes ‘reasonable’ service access.
- The RFDS developed a Service Planning and Operational Tool (SPOT) to assist in planning where services should be located, relative to need, by mapping existing services and overlaying these with population data.
Creating SPOT

• To create SPOT:
  • A 1 km² grid was applied to a map of remote and very remote regions of Australia;
  • Population of each grid square (‘node’) was added;
  • Demographics of the populations were then added to each node (2016 census); and
  • Travel time from each node added.

• Database of health services compiled from multiple sources that include:
  • ABS population data, National Health Services Directory known health service data, NACCHO data on community controlled health organisations, RFDS service location and activity data.

• Developed with support, and in close partnership with, the Department of Health’s Health Workforce Division.
SPOT service coverage

- All RFDS services
- Hospital services
- Emergency medical
- General Practice/GP (doctor)
- Maternal, child and family health
- Pharmacy
- General dental
- Aboriginal health clinic
- Nurse-led clinic

- Counselling
- Drug/alcohol
- Mental health
- Audiology
- Occupational therapy
- Optometry
- Podiatry
- Physiotherapy
- Diabetes educator
- Speech pathology/therapy
- Dietetics
What SPOT does

SPOT is a Decision Support Model. It:

• Assists RFDS in identifying service options to improve access to primary (and acute health services) for communities across remote and very remote Australia.

• Maps health services, population and road networks.

• Takes account of current service provision by RFDS and by other service providers.

• Relates these to measures of demand for health care mainly using population types (and RFDS own patient data historical demand patterns).
Geography: 86% of Australia
Illustration: 2.3% of population

- Population (dark green)
- RFDS clinic (blue)
Illustration: 3 hour drive to PHC

- Populations within (dark green) and outside (grey) a 3 hour drive time from PHC.
Illustration: 2 hour drive to PHC

- Populations within (dark green) and outside (grey) a 2 hour drive time from PHC.
Illustration: 1 hour drive to PHC

- Populations within (dark green) and outside (grey) a 1 hour drive time from PHC.
Marree, SA

- 58.4% (98.7%) of a population of 380 people live within a 2 hr drive of an RFDS PHC clinic (any GP).
Illustration: Indigenous GP access

- Indigenous populations within (green) or beyond (grey) 2 hour drive of GP services in Northern Australia.
Illustration: Dental coverage

- Western NSW communities within (dark green) and beyond (grey) 2 hour drive of dental services.
- Blue diamonds are RFDS dental clinics.
- SPOT auto add function recommends additional dental services in areas of priority need should be validated for location at:
  - Cobar
  - Lake Cargelligo
  - Dairy Hill
  - Gwabegar.
SPOT’s future

- Data and useability to be validated over next twelve months
- Use for RFDS service planning from 2019
- Addition of Tasmanian and Victorian coverage
- Addition of additional allied health services as data become available
- Development of public good use and access protocol
- Future use to inform public policy priorities for placement of services in areas of most need

RFDS Data Analyst Andy Ransom manages the RFDS SPOT program.