There are several different models of general practice in Australia, and one interesting variant is the Royal Flying Doctor Service of Australia (RFDS), a community-based not-for-profit organisation. The South Eastern Section is one of four operational sections of the RFDS Australia-wide, and the Broken Hill base is this section's corporate headquarters. It employs a core clinical workforce consisting of general practitioners and flight nurses, as well as child and family nurses, women's health practitioners and mental health workers. They run primary care clinics, conduct remote telephone consultations, respond to medical emergencies and manage aeromedical evacuations. The Section works cooperatively with state-based health services and the local community-controlled Aboriginal Health Service to provide a wide range of primary health care and specialist services to remote communities and smaller settlements in far western New South Wales and associated cross-border regions in Queensland and South Australia.

The question of how the RFDS might evaluate the quality of its clinical care has been the subject of a review by the South Eastern Section.

One method for examining quality is to study frequent attenders at a clinic or service. This approach has been applied in both general practice and emergency department settings. We hypothesised that such patients may have conditions that were not well managed and may benefit from a care planning or review process. Our aim was to determine whether frequent use of services, particularly evacuations, could serve as a flag to identify patients whose care should be reviewed.

We report on the usage patterns of RFDS services in remote NSW, the characteristics of patients who are frequent users of clinic and aeromedical services, and the implications for delivery of quality clinical care.

METHODS

We conducted a retrospective audit of the RFDS South Eastern Section's Broken Hill patient database. The study population consisted of residents of remote communities in far western NSW served by the Broken Hill RFDS base, who had accessed at least one RFDS medical service (evacuation to a hospital, clinic consultation or remote consultation) between 1 July 2000 and 30 June 2005. The area served by the Broken Hill RFDS base includes all of the Central Darling Shire, all of the Unincorporated Far West region, and parts of the Bourke, Cobar and Wentworth shires (Box 1). We excluded residents of the city of Broken Hill and visitors to the region because the RFDS is not responsible for providing their primary health care. The resident population of the study area was determined from the 2001 and 2006 censuses (Box 2).

Data extracted from the patient database were the patient's unique identifier, age, sex, postcode of residence, date of consultation, service type (evacuation, clinic consultation or remote consultation) and diagnosis (International Classification of Primary Care [ICPC] code for diagnoses made in the clinic or remote consultation setting, and International Classification of Diseases, 10th rev...
RESULTS

(see tables 1 to 4 for complete data).

The ratio of active to inactive days over the 1-month period is provided in Table 3. The ratio is calculated as the proportion of active days over the total number of days in the period. The results show a significant increase in the ratio of active to inactive days across different age groups, with the highest ratio observed in the 65+ years age group. This trend is consistent across all regions surveyed.

DISCUSSION

The increase in the number of active days compared to inactive days is attributed to the improved healthcare infrastructure and increased availability of medical services. The results also highlight the importance of public health interventions to address the increasing burden of chronic diseases. The data suggest a need for targeted interventions to improve health outcomes and reduce the number of inactive days in the population.

The findings have significant implications for healthcare planning and resource allocation. The results suggest that there is a need for an increased focus on prevention and early intervention strategies to address the high number of inactive days observed in the population. This is particularly important given the aging population and the increasing prevalence of chronic diseases.

The data also highlight the importance of collaboration between healthcare providers, policymakers, and community stakeholders to address the identified challenges. The results provide a solid foundation for future research and policy development aimed at improving health outcomes and reducing the burden of inactive days in the population.
4 Clinical attendance pattern among frequent users of the evacuation service, July 2000 to June 2005*  

<table>
<thead>
<tr>
<th>Clinic attendances</th>
<th>2000-01</th>
<th>2001-02</th>
<th>2002-03</th>
<th>2003-04</th>
<th>2004-05</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1-3</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>11</td>
</tr>
<tr>
<td>4-12</td>
<td>11</td>
<td>6</td>
<td>5</td>
<td>11</td>
<td>7</td>
<td>40</td>
</tr>
<tr>
<td>≥13</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>11</td>
<td>13</td>
<td>18</td>
<td>15</td>
<td>78</td>
</tr>
</tbody>
</table>

* Figures represent number of patients requiring frequent evacuation (≥ 3 evacuations per year).

5 Number of primary diagnoses recorded for frequent users of the evacuation service, by number of clinic attendances, and potential need for multidisciplinary care or specialist shared care, July 2000 to June 2005*  

<table>
<thead>
<tr>
<th>Clinic attendances</th>
<th>One primary diagnosis</th>
<th>Two primary diagnoses</th>
<th>Three or more primary diagnoses</th>
<th>Disciplinary care</th>
<th>Needs specialist care</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>1-3</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>7</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>4-12</td>
<td>10</td>
<td>16</td>
<td>14</td>
<td>27</td>
<td>16</td>
<td>60</td>
</tr>
<tr>
<td>≥13</td>
<td>5</td>
<td>2</td>
<td>16</td>
<td>18</td>
<td>16</td>
<td>47</td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>24</td>
<td>34</td>
<td>53</td>
<td>41</td>
<td>150</td>
</tr>
</tbody>
</table>

* Figures represent number of patients requiring frequent evacuation (≥ 3 evacuations per year).

† Some patients with more than one major diagnosis require both multidisciplinary care and shared care.

Continuous care implies that the RFDS should adopt care pathways and protocols that include multidisciplinary assessments by doctors, allied health staff and where appropriate, medical specialists. These assessments, supported by case conferences (if necessary), should lead to agreed care plans and multidisciplinary or shared care with clear responsibilities for implementing, monitoring and initiating timely reviews.

The evacuation of a patient should act as a trigger for a multidisciplinary assessment, which may lead to a care plan or shared care arrangement. The RFDS should also regularly review evacuations and patients with high clinic attendance to see if the most appropriate service is being provided to those patients, taking account of the difficulties imposed by location and personal circumstances.

RFDS patients may need to travel to regional centres or capital cities to access medical specialists, and waiting times for non-urgent appointments may be a problem. Travelling to attend a specialist appointment may incur costs such as lost earnings and may disrupt family or community responsibilities.

Problems of distance and low population density mean the RFDS will have to continue using a combination of approaches, including face-to-face consultations, phone calls and videoconferencing, to enable primary and secondary consultations, care planning and shared care for its patients in remote areas. The RFDS has already had to redefine its traditional role as a provider of bush clinics and emergency evacuations to encompass comprehensive primary health care based on a multidisciplinary workforce, strong partnerships with other providers and a strong population health perspective.

CONCLUSION

People living in remote communities generally have less access to health care and make less use of services. Further development of practical and manageable assessment, care planning, and multidisciplinary and specialist shared care delivery systems will help the RFDS to achieve better outcomes for patients. The frequency of service use, particularly emergency evacuation, is a simple tool for identifying patients who may benefit from assessment and review.

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Competing interests

None identified.

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