The Real Cost of Accessing Specialist Medical Services for Rural and Remote Communities in Western Australia

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INTRODUCTION:
Specialist medical services in Australia tend to be located in densely populated areas such as major towns and cities. As a consequence, many rural and remote communities in Australia do not have access to resident specialist medical services. Gadiel and Ridoutt confirmed this finding in a report which examined the specialist medical workforce and specialist service provision in rural areas (1).

The State of Western Australia covers approximately one third of the land mass of Australia with a population of over 2 million, 25 per cent of which live in rural and remote communities. As the majority of these communities are under 20,000, resident medical specialists are a rarity (2). These factors greatly limit access to specialist medical services by rural and remote communities, as they are required to travel great distances. No current information is available on the utilisation and costs of accessing specialist medical services for rural and remote residents.

Rural and remote patients incur many extra costs when accessing specialist medical services, compared with metropolitan patients. The majority of which are relocation and accommodation costs which maybe partially subsidised by the Patients’ Assisted Travel Scheme (PATS). In addition to the relocation costs there are other individual costs which impact on not only the total cost of accessing specialist services, but the physical and psychological burden associated with referral to and utilisation of these services, both local and metropolitan. Some of the common consumer concerns for rural patients are patient age, severity of medical condition, family structure, dependency rates, occupation, travel time, ethnicity influence and the fact that large teaching hospitals offer little flexibility for rural patients who often experience long delays and the need for recurrent visits.

In an attempt to reduce these financial and social burdens, the University Department of Surgery with the support of the Health Department of WA, introduced a specialist surgical service to visit rural and remote communities in Western Australia. The aims of the service are to offer the same standard of care that is available to urban Australians, based on the concept of equity of access.
In doing so it was important that the service did not incur costs but rather optimised existing facilities and services. Since it inception in 1996 the service has provided over 3500 items of patient care and modifies its delivery to meet community needs. The University Rural Surgical Service (URSS) has shown that a wide range of patient concerns are amenable to quality care in existing health care facilities.

The University Rural Surgical Service is unique in that it targets small rural towns where it is not economical for specialists to reside, but where community needs are great. By adopting a formal team approach to the service, problems associated with leaving private metropolitan specialists’ rooms unattended have been overcome, thereby optimising travel arrangements, patient appointments and most importantly, ensuring commitment to the provision of a regular service. Unlike other flying surgical services such as the Flying Surgeon Service of Queensland and the Flying Obstetric and Gynaecology Service, the University Rural Surgical Service is committed to providing specialist surgery consultation and day surgical procedures, the complexity of which varies from town to town depending on the hospital theatre and support staff. It should be noted that all surgical procedures are performed under the same strict safety guidelines as those in Perth metropolitan hospitals.

The aim of this study was twofold. Firstly, to measure the individual costs associated with accessing specialist medical services for rural and remote communities in Western Australia. Secondly, to compare the costs of accessing a local and metropolitan health service by rural and remote communities. It was hypothesised that the provision of a local specialist medical service would reduce the individual cost of accessing such services for rural and remote communities.

**METHODOLOGY:**

All patients who underwent a consultation or procedure with the University Rural Surgical Service between the months of December 1998 and February 1999 were eligible for inclusion in the study. Patients were randomly contacted within 8-10 weeks of their appointment and invited to participate in the study. Participants were required to complete the rural health survey, taking between 3 and 6 minutes. All data was collected via telephone interview.

The rural health survey was adapted from a yet to be published survey developed by the HDWA. Questions in the survey provided information on patient demographics like household structure, employment status and the distances traveled to access local and metropolitan specialist services. Their URSS consultation, the waiting time for consultation, whether or not the patient required time off work to see the specialist and if so how much, and the mode of transport used to travel to the hospital. Inquiries were also made to those who underwent a procedure regarding their discharge and recovery. Questions were also asked about accompanying persons, were they accompanied to the appointment, if so by whom, and did this person require any time off work to do...
so. Finally we asked about the patient's treatment options, did they consider having this appointment in Perth, would they have had the appointment if a local service wasn’t provided and if so where would they have gone.

RESULTS:
The pilot sample consisted of 50 patients who used the URSS within the last 8-10 weeks. The mean age of the sample was 50.3 years with an age range of 19-88 years.

Graph 1 below shows the household structure of the sample. As you can see, the majority of households were made up of couples. These were both young couples without children and older couples whose children had left home. The next largest group was that of couples with children under the age of 14 years.

Graph 1: Household Structure

Graph 2 shows the employment status of the sample. Sixty per cent of the subject group were in some form of employment with 40 per cent in full time employment. It is also important to note that 26 per cent of the sample was retired.
The graph below, Graph 3, shows the number of subjects from the regions visited by the URSS.

**Graph 3: Sample Regions**

- Jurein
- Kelleberrin
- Gnowangerup
- Wongan Hills
- Dalwallinu
- Moora
- Paraburdoo
- Meekathara
- Lake Grace
- Kojonup

The tables below outline the real costs incurred by rural and remote patients when accessing specialist medical services. Table 1 clearly illustrates the travel time and cost advantages of accessing a local specialist medical service. The differences observed here were significant and show a dollar saving of $477.98 to the patient if a local service is available. It is important to note here that 96 per cent of the sample used their own car to travel to their appointments.
As this study was a pilot study, we decided to look at the time off work in two ways. Firstly we calculated the time taken off work for a specialist consultation only. Table 2 below illustrates that when accessing a local specialist service, patients required 4.4 hours on average off work which amounted to $66.00. In keeping with Table 1, we calculated that the average travelling distance for the sample to access a metropolitan service would be 608.4 km one way. It was therefore assumed that patients would spend two days travelling and one day attending the specialist appointment. The result being 3 days off work at a cost to the patient of $360.00. So the employed rural patient is potentially out of pocket almost $300.00 if no local specialist service exists.

Table 2: Patient Lost Income - Consultation

<table>
<thead>
<tr>
<th></th>
<th>Local Service</th>
<th>Metropolitan Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kilometres Travelled</td>
<td>67.8 km</td>
<td>1 214.8 km</td>
</tr>
<tr>
<td>Cost to Patient</td>
<td>$28.26</td>
<td>$506.24</td>
</tr>
</tbody>
</table>

Table 3 shows the actual time taken off work by the sample when accessing a local and metropolitan service. To arrive at these figures, we asked the sample how much time they required off work to see the visiting surgeon and of those who had used a metropolitan service in the last 6-12 months, how much time they required off work. The n in each group was 16 in the local and 6 in the metropolitan example. A similar percentage of patients in each group required time off work, yet the time required for the metropolitan visit (12.8 days) far exceeded that of the local visit (4.4 hours). These times equate to a dollar value of $1 545.60 for the metropolitan visit and $66.00 for the local visit.

Table 3: Actual Patient Time Off Work

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<thead>
<tr>
<th></th>
<th>Local Service</th>
<th>Metropolitan Service</th>
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</thead>
<tbody>
<tr>
<td>% Time Off</td>
<td>32%</td>
<td>37%</td>
</tr>
<tr>
<td>Time Taken</td>
<td>4.4 hours</td>
<td>12.8 days</td>
</tr>
<tr>
<td>Cost to Patient</td>
<td>$66.00</td>
<td>$1 545.60</td>
</tr>
</tbody>
</table>

We next examined the proportion of patients who were accompanied to their appointment and the time their companions required off work.
Table 4: Companion Time Off Work

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<thead>
<tr>
<th></th>
<th>Local Service</th>
<th>Metropolitan Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Accompanied</td>
<td>46%</td>
<td>75%</td>
</tr>
<tr>
<td>% Time off</td>
<td>13%</td>
<td>83%</td>
</tr>
<tr>
<td>Time Taken</td>
<td>1 day</td>
<td>7.7 days</td>
</tr>
<tr>
<td>Cost to Individual</td>
<td>$120.00</td>
<td>$924.00</td>
</tr>
</tbody>
</table>

In the majority of cases, the accompanying person was a spouse and more people were accompanied when visiting a metropolitan service. Table 4 again illustrates the cost savings to the individual if a local service can be accessed. Our sample clearly showed this with a potential loss of income of $120.00 when accessing a local service compared with $924.00 for a metropolitan service.

When asked about treatment options for sample, 88 per cent said they did not consider having their appointment in Perth as a local service was available. Interestingly when asked about treatment options in the absence of a local service, 10 per cent of the sample reported that they would not have had the appointment. Of those rural and remote patients who chose to continue with their medical treatment, the majority indicated they would access a metropolitan hospital, both public and private, see Table 5.

Table 5: Treatment Options

44 patients did not consider having the consultation in Perth, as local service available
If no local service, 10% of patients WOULD NOT have had the consultation
90% continue medical treatment, would go to:
53% (23) Perth PUBLIC
27% (12) Perth PRIVATE
14% (6) Regional Hospital
4% (2) District Hospital
--- 2% (1) GP referral

With these statistics in mind, we compared the average waiting time for a specialist surgical consultation with the URSS and that of a public metropolitan hospital. Table 6 shows that if a local service can be provided, the waiting time for a consultation is reduced, 3.5 weeks compared with 5 weeks. Included in Table 6 are the waiting times for the procedures performed locally for this sample of patients and those currently at a public metropolitan hospital. You would have to agree that the differences for all procedures is substantial for all procedures. Another point to note here is that in many instances the patient had their procedure on the same day as their consultation, a situation which would almost never occur in a metropolitan setting.
CONCLUSIONS

From the results of the pilot study presented above, we concluded that a visiting specialist medical service reduces the inconvenience and costs associated with access to metropolitan specialist services by rural and remote communities in Western Australia. It was further concluded that rural and remote patients were very satisfied with the visiting specialist surgical service as 88 per cent of the sample reported that they would use the service again if required or recommend it to a friend.

REFERENCES