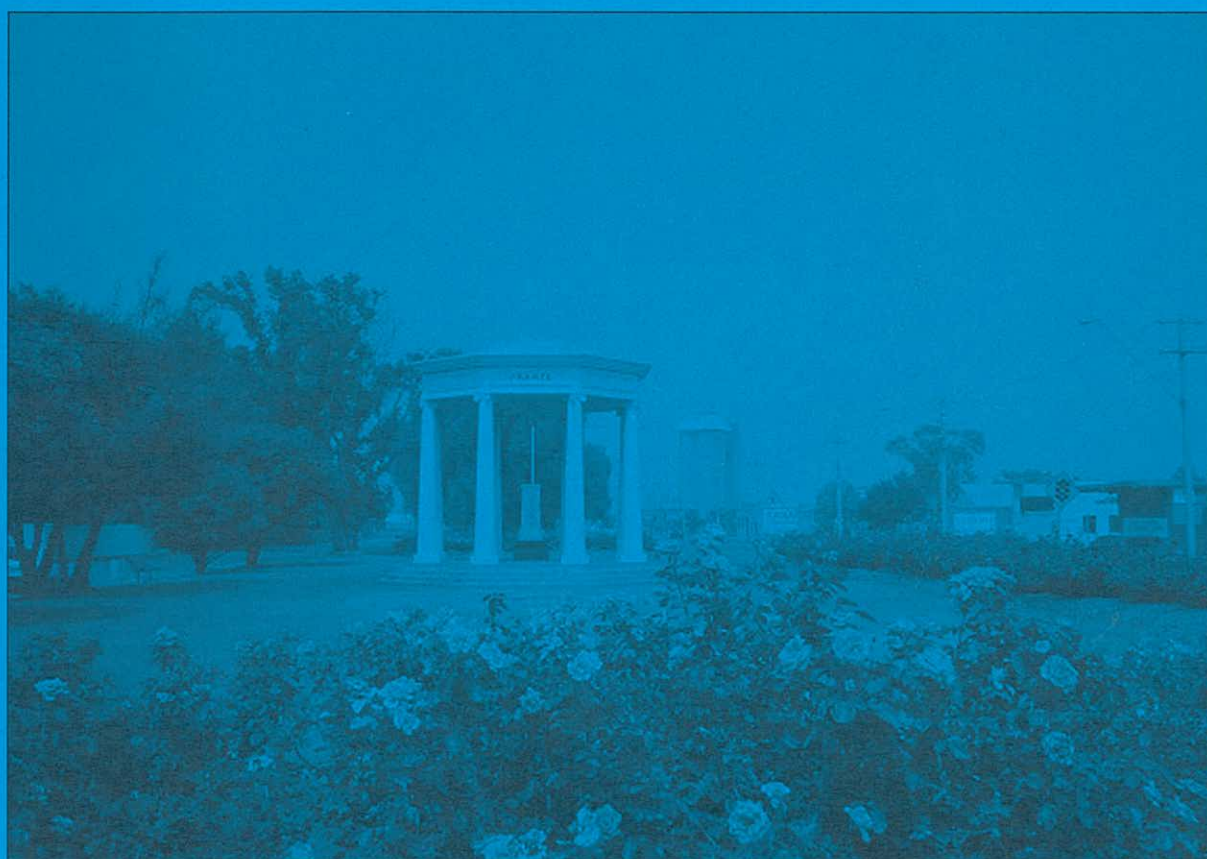


# **The Crossroads Rural Health Studies**

# **HEALTH IN THE MOOROOPNA COMMUNITY**



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Includes Crossroads Household Survey Parts 1 and 2, and the  
Crossroads Undiagnosed Disease Study

## INTRODUCTION

Health research has found that rural people tend to have poorer health than their metropolitan counterparts.<sup>1,2</sup> Poorer health in the rural population is evidenced by higher mortality and morbidity rates, resulting in a lower life expectancy.<sup>1,5</sup> Australia's rural population also has a higher hospitalisation rate for some causes of ill health,<sup>1,3</sup> such as accident and injury, road vehicle accidents, burns and scalds and diabetes.<sup>1</sup> There is, however, limited comprehensive information on the health status of rural Australians, making assessment of the populations health and their health service needs extremely difficult.<sup>2,4</sup>

Many factors contribute to poorer health of the rural population in Australia. Documented factors include geographic isolation, access to care, shortage of health care providers, lack of health services, socioeconomic differences, a higher probability of accident and injury, poorer road quality and small populations spread over a greater distance.<sup>1</sup> These and most Australian rural health statistics are based on overall statistics collected from states and non-metropolitan regions. Little information exists at a local level that provides a detailed understanding of the health profile of specific rural communities and compares differences between rural communities.

The aim of the Crossroads Rural Health Studies was to collect detailed information about health, health behaviours, lifestyles and access to health services in communities across the Goulburn Murray region. The information will be used to identify the needs of consumers and the local community and thus contribute to health service planning and shaping rural health policy. The Crossroads Rural Health Studies are unique, as they provide the most detailed rural health information in Australian communities.

## THE TOWN OF MOOROOPNA

Mooroopna, widely known for its booming fruit industry, lies on the Goulburn River approximately 182kms north of Melbourne and 5kms west of Shepparton.<sup>12</sup> Its population of 6,000<sup>13</sup> are able to “enjoy the benefits of a small community and yet have access to the extensive retail sector, business services and post secondary educational opportunities of a larger regional centre.”<sup>12</sup>

Aboriginal people occupied the Mooroopna area for thousands of years until the arrival of the first squatters in the early 1840's.<sup>12</sup> Processing industries developed from this time, including the saw mill, flour mill, butter factory, cordial factory, brewery and winery, all of which provided local employment.<sup>12</sup> By the 1890's, Mooroopna was a thriving town and supported a range of service industries, such as banks, insurance companies, doctors, a post office, local hall, police station, large public hospital, state school and a railway station.<sup>12</sup>

However, in spite of the adversities faced by the local people in the early twentieth century, through war, depression, floods and the grasshopper plague, an irrigation system was installed and a fruit industry flourished. By 1926 the fruit processing industry was established providing much needed employment opportunities for the town which have continued until the present day.<sup>12</sup>

During the 1940's, Aboriginal families became dissatisfied with the conditions and management of the Cummeragunga Mission Station, established in 1889. As a consequence of this and a lack of employment opportunities, many families moved to Mooroopna seeking work and began living on the river flats. Today there is a significant Aboriginal population in Mooroopna which is serviced by the Rumbulara Aboriginal Co-operative, providing health and community services, employment and recreational programs, childcare and meeting facilities.<sup>12</sup>

Today Mooroopna provides, chiropractors, naturopaths, acupuncturists and remedial massage therapists and has 5.7 full time equivalent practicing GP's. Its diverse ethnic, social and cultured populations add uniqueness to the communities identity. This, combined with its history has given Mooroopna a strong local identity despite its close location to Shepparton.

## METHOD

The Crossroads Rural Health Studies are a collection of population health studies including Shepparton and Mooroopna along with the 6 shire capitals in the region, namely Alexandra, Benalla, Cobram, Echuca, Euroa and Seymour. A total of 9,260 people participated in the studies with 1,455 undertaking a health check up.

A questionnaire was designed which included key questions used in many health studies throughout the world, so that comparisons between the Goulburn Murray and other areas could be made. In addition, some questions asked about specific local issues and respondents were given the opportunity to raise issues of concern to them. Residential addresses were randomly selected from household garbage collection/water lists. The household survey was undertaken in two parts with recruitment approaches differing between the first and second parts. All members of the household were invited to participate. Between September 2000 and December 2002, fieldworkers visited each house selected and interviewed each member of the household. For children under 16, interviews were completed by the parent/guardian. All this information was entered into the computer database and statistically analysed. A total of 847 questionnaires were completed by residents of Mooroopna. The household response rate for the studies were 67%.

Some randomly selected residents were then asked to attend a free, 2-hour health clinic. This tested hearing, eye sight and a range of undiagnosed disease, including diabetes, heart disease, respiratory disease, blood pressure, liver function and cholesterol levels. Participants received a health report with the test results. The response rate for the Undiagnosed Disease Clinic was 61%. This information was analysed anonymously and collectively to determine the health status of each community.

## FINDINGS

A total of 697 adults completed the questionnaire in Mooroopna. Of these, 42% were male and 58% were female (see Table 1). Of the 697 participants, 65% were married or in a de facto relationship and 42% of households had residents under the age of 18 living in the home. Nearly all respondents (98%) spoke English at home. Length of residence ranged from less than a year to 77 years, with an average of 17 years.

**Table 1: Characteristics of the studies sample**

<i>Characteristic</i>	<i>Mooroopna</i>	<i>All participants</i>
Number of Adults Surveyed	697	6,375
% Female	58%	57%
% Married/De facto	65%	67%
% Speak English at home	98%	97%
% Own their own dwelling	71%	70%
Average length of Residence	17 years	21 years
% with Private Health Insurance	47%	43%
% Completed secondary school	48%	47%
% Working full-time in Paid Labour	40%	34%
% Working part-time in Paid Labour	20%	17%
% Retired	18%	19%
Income (median)	\$631	\$580

Most respondents in Mooroopna (71%) owned their own home or unit with 19% living in rental accommodation. This is higher than the national average of home ownership (66%).<sup>6</sup>

Just under half (47%) of the respondents had private health insurance, slightly more than the Australian average (45%).<sup>7</sup>

Of the 699 adults who completed the survey in Mooroopna:

- 12% had a university degree, this is slightly higher than the national average of 9%<sup>6</sup>
- 48% had completed secondary school and/or trade certificate (including 12% with University degrees)
- 40% had completed year 9 and more, but not year 12
- 12% left school before completing year 9

In Mooroopna, the employment status of respondents was:

- 40% worked full time
- 20% worked part time
- 18% were retired
- 5% were students
- 5% were not working but not retired
- 2% were unable to work due to illness

The average weekly income of Mooroopna's wage earners varied. Most households earning between \$299 and \$1499 per week before tax, and the median was \$631. In addition, two thirds of respondents reported having access to a computer at least weekly and half reported access to the internet at least weekly.

## LIVING IN MOOROOPNA

Respondents were asked to indicate how concerned they were about a range of issues in the local area. Respondents were provided with a four point scale from 'not at all concerned' to 'very concerned'. Table 2 presents the percent of respondents indicating they were concerned or very concerned. Over half the respondents were concerned about all the issues in Mooroopna.

**Table 2: Concern about issues in your local area**

<i>Issue</i>	<i>Concerned</i>	<i>Very Concerned</i>
Crime	22%	66%
Unemployment	33%	44%
Quality of education	22%	28%
Quality of health care	25%	27%
The future of farming	33%	27%

Respondents were also asked to rate their satisfaction with local facilities and services. At least 6 in 10 were satisfied with local schools, local hospital and access to exercise facilities (see Table 3).

**Table 3: Satisfaction with local facilities**

<i>Issue</i>	<i>Dissatisfied<sup>1</sup></i>	<i>Satisfied<sup>2</sup></i>
Local schools	6%	66%
Local hospital	16%	64%
Access to exercise facilities	9%	63%
Local entertainment	20%	50%
Public transport	23%	45%
Local government	26%	37%

1 This includes respondents rating the item as 'dissatisfied' and 'very dissatisfied'

2 This includes respondents rating the item as 'satisfied' and 'very satisfied'

All 697 respondents were asked how sorry or pleased they would be to leave Mooroopna. A total of 73% said they would be very sorry or somewhat sorry to leave. 10% indicated that they would be pleased or very pleased to leave. Over half the respondents (54%) were involved in a local community club or group with some being members of up to 8 groups.

## HEALTH

Self reported health status is a commonly used measure of an individual's health.<sup>1</sup> The proportion of respondents in Mooroopna who rated their health as excellent, very good and good (81%) was similar to the Victorian average (82%).<sup>8</sup>

When asked to rate their own health, respondents rated their health in the following ways:

- 13% as excellent
- 34% as very good
- 34% as good
- 15% as fair
- 4% as poor

As an indicator of quality of life, respondents were asked to rate their happiness:

- very happy 21%
- happy 39%
- somewhat happy 14%
- mixed, about equally happy and unhappy 20%

A further 4% described themselves as somewhat unhappy, another 2% as unhappy and 1% as very unhappy.

Respondents were also asked if they had a range of medical conditions (see Table 4). Eye problems (which included wearing glasses), high blood pressure, allergies, asthma and arthritis were the most common conditions. This is similar to the Australian average.<sup>9</sup> In addition, 15% also indicated an injury had prevented respondents from attending school or work.

**Table 4: Reported medical conditions for adults in Mooroopna**

<i>Medical Condition</i>	<i>Percent</i>
Eye Problems	30%
High Blood Pressure	21%
Allergies	19%
Asthma	17%
Arthritis	16%
Skin conditions	14%
Depression	14%
Hearing loss	12%
Digestive problems	10%
Cancer	10%
Other chronic health problems	9%
Heart disease	8%
High blood fats	7%
Respiratory problems	6%

When asked about health checks in the past two years, residents in Mooroopna generally had more checks than the Victorian average.<sup>8</sup>

- 82% had their blood pressure checked, higher than the state average of 79%.
- 68% of women had a pap smear, higher than the state average of 62%.
- 48% had a cholesterol check, similar to the state average of 46%.
- 52% had a test for diabetes or high blood sugar, higher than the state average of 45%.
- 16% had a bowel examination, similar to the state average of 15%.
- 31% had a skin examination (for lesions or cancers) higher than the state average of 25%.
- 69% of women 50 years and over had a mammogram, lower than the state average of 73%.
- 55% of men 50 years and over had a prostate check, similar to the state average of 53%.<sup>8</sup>

In addition, 86% had been immunised for childhood disease, 63% had a tetanus booster in the past 10 years, and 12% had a pneumonia vaccine in the past 5 years. Also, 30% had a flu vaccine in the past 12 months. However, most respondents (92%) had never donated blood.

## USING HEALTH SERVICES

In the past 12 months, respondents had visited a GP up to 104 times, but the average number of GP visits was 5. Nearly half (45%) visited a GP in Mooroopna and half (48%) visited a GP in Shepparton.

Respondents waited anywhere up to 30 days for an appointment with a GP, but 62% waited 1 day or less, 18% waited 1½ - 2 days, 15% waited 2½ -7 days and 2% waited 1-2 weeks. Most respondents were satisfied with their GP, 41% reported being satisfied and 45% were very satisfied.

Among the survey participants, 16% had been hospitalised in the past 12 months. Of these, 60% were hospitalised just once. Of the respondents who were hospitalised, 64% were hospitalised at Goulburn Valley Health, 11% travelled to major hospitals in Melbourne, 9% were admitted to Shepparton Private Hospital and 6% were admitted to the Kyabram Hospital.

In the past 12 months, 17% of the Mooroopna respondents had been to an Emergency Department. Of these, 93% visited Goulburn Valley Health. Of those who visited an Emergency Department, 56% waited less than 1 hour to see the doctor, a third waited 1-3 hours, 10% waited 3-6 hours and 2% waited over 6 hours to see the Doctor.

Participants were asked if they visited a Medical Specialist in the past 12 months. In Mooroopna, 34% of participants had visited a Medical Specialist, of these three quarters saw the Specialist in Shepparton and 23% travelled to Melbourne.

In addition to questions about visits to medical professionals, respondents were also asked about consultations with a wide variety of other health professionals. Listed below are the percent of those respondents who visited an:

Optician/Optomtrist	23%
Pharmacist (for advice only)	19%
Chiropractor/Osteopath	14%
Hospital outpatient clinics	13%
Hospital day surgery	10%
Physiotherapist	8%
Used an ambulance	6%
Acupuncturist/Naturopath	6%
Psychologist/Psychiatrist	4%
Registered nurse/midwife	3%
Audiologist/audiometrist	3%
Other Mental Health Services	3%

From the 697 respondents, 40% had consulted a Dentist/Dental professional within the last year. For 39% it was more than 2 years since they had consulted a Dentist/Dental professional. The major reasons why respondents did not consult a Dentist were: 'no need', 'cost' and 'fear.'

A series of open ended questions were asked to determine what Mooroopna residents thought were the key issues in obtaining health care in their local community. The first question asked about concerns with the medical care provided in the community. 601 people answered the question, giving 761 responses (some respondents gave more than one answer). From these 761 indicated, 257 responded there were 'no problems' with the local medical service and 46 responded with positive comments. From the remaining 458 responses the most common concerns were:

- Lack of Doctors, Nurses and Medical Specialists (109)
- Number of days required to wait for an appointment with a GP (62)
- No Bulk billing service (36)
- Quality and Competency of Doctors (36)
- Long waiting times in the Emergency Department and/or Doctors surgery waiting room (29)

Another question asked about concerns with the local Emergency Department. 604 people answered the question, giving 704 responses (some respondents gave more than one answer). From these 704 responses, 266 indicated that they had no concerns and 30 noted they were happy with the Emergency Department.



Of the 408 remaining responses the most common concerns were:

- Long waiting times in the Emergency Department waiting room (207)
- Lack of Doctors, Nurses and Medical Specialists (37)
- Poor attitude and bedside manner of Doctors and Nurses (23)

The Crossroads Rural Health Studies asked local residents what they perceived to be the issues in accessing health care, or the 'barriers to care.' Participants were asked what they thought were the issues around accessing health care. 544 people answered the question, giving 640 responses (some respondents gave more than one answer). From the 640 responses, 278 indicated that they had no concern and 18 responded with positive comments. Of the 344 remaining responses, the most common concerns were:

- Lack of Doctors, Nurses and Medical Specialists (42)
- The high cost of health care (38)
- The lack of available beds in hospitals (33)
- No bulk billing service (25)
- The distance required to travel to see Specialists (21)

## LIFESTYLES

Lifestyle is related to health, so respondents were asked about their health behaviours, including diet. Table 5 presents how often respondents in Mooroopna ate takeaway food as a main meal.

**Table 5: Takeaway food as a main meal in Mooroopna**

<i>How often</i>	<i>Percent</i>
Never	1%
Less than once a month	28%
2 to 3 days a month	32%
1 to 3 days a week	32%
4 to 6 days a week	0%

Respondents were asked how many serves of fruit, vegetables and dairy products they consumed each day (see Table 6). In Mooroopna, 27% of respondents consumed the recommended serves of vegetables, 51% ate the recommended serves or more of fruit and 64% consumed the recommended amount of dairy products. On the other hand, 73% were not eating the recommended serve of vegetables, 48% were not eating the recommended amount of fruit and 36% were not consuming the recommended amount of dairy products.

**Table 6: Consumption of fruit, vegetables and dairy products for adults in Mooroopna**

	<i>Recommended serve</i>	<i>Number of serves eaten</i>	
Vegetables <sup>10</sup>	5 serves	1-3 serves	73%
		4-5 serves	23%
		6 and more	4%
Fruit <sup>10</sup>	2 serves	1 serve or less	45%
		2-3 serves	43%
		4 and more	8%
		Don't eat fruit	3%
Dairy <sup>10</sup>	2-5 serves	1 serve or less	33%
		2-5 serves	62%
		6 and more	2%
		Don't eat dairy	3%

Respondents had approximately 4 drinks of alcohol in an 'average' week. The most common alcoholic drinks were wine (29%), spirits (28%) and full strength beer (24%).

Of those surveyed, 15% did not currently smoke and 64% had never smoked. The remaining 21% smoked between 1 and 50 cigarettes per day. This is similar to the Victorian average of 25% identifying themselves as being a current daily smokers.<sup>8</sup>

A total of 65% of respondents participated in physical activity and on average 2.5 times per week. The average length of each exercise session was 45 minutes. The most popular form of exercise was walking (37%).

When asked how often respondents deliberately took protective measures when out in the sun, a third 'always' took protective measures, an additional third reported 'usually' while 6% 'never' took protective measures. A total of 7 in 10 wore a hat as a protective measure for the sun, 68% wore sunglasses, 65% put on sunscreen and 36% used clothing as a protective measure.

## CHILDREN

In Mooroopna, 150 children had a parent or guardian complete a survey on their behalf. A survey was completed for all children living in the home aged between 1 and 15 years inclusive. Of these, 54% were male and 46% were female. From the child surveys, 76% had access to a computer at least weekly and 62% had access to the internet at least weekly. Immunisation rates were high in Mooroopna with 99% of children being immunised for childhood diseases.

Children's eating patterns are a national concern in Australia. In Mooroopna, 86% of children surveyed were not eating the recommended serves of vegetables, 32% were not eating adequate fruit, however most children were eating the recommended servings of dairy products (see Table 7).

**Table 7: Recommended dietary intake of children in Mooroopna**

	<i>Recommended serve</i>	<i>Number of Serves eaten</i>	
Vegetables	5 serves <sup>10</sup>	1-3 serves	80%
		4-5 serves	16%
		6 and more	4%
Fruit	2 serves <sup>10</sup>	1 serve or less	28%
		2-3 serves	60%
		4 and more	10%
		Don't eat fruit	4%
Dairy	3-4 serves <sup>11</sup>	1 serve or less	11%
		2-4 serves	84%
		6 and more	2%
		Don't eat dairy	3%

In the past 12 months, 9% of the child respondents had been hospitalised. Of these, over 80% were admitted to Goulburn Valley Health. Others were admitted to major hospitals in Melbourne. In addition, 22% of the children had been to an Emergency Department in the past 12 months, 87% visited Goulburn Valley Health. Most (59%) waited less than an hour to see the doctor and 24% waited 1-3 hours. The average waiting time was 1½ hours.

Parents and guardians were asked to indicate if their children had any medical conditions. Asthma (23%) was the most common condition reported for children in Mooroopna, which is comparable with the other towns in the studies. Allergies (18%), skin conditions (10%), eye problems (6%) and respiratory problems (5%) were the other most common reported conditions.

## **UNDIAGNOSED DISEASE STUDY**

As part of the Crossroads Rural Health Studies, 1,455 randomly selected adults (aged 25 years and over) also attended the Undiagnosed Disease Clinic held in each town. 155 Mooroopna residents attended the Undiagnosed Disease clinic.

- Mooroopna residents had the lowest rates of chronic obstructive pulmonary disease and other lung diseases (defined as reduced spirometry measures: 9%) and hearing loss (4%) compared to other towns in the study. Vision impairment or vision requiring correction rates were also quite low (15%) in comparison to other study communities.
- Rate of high blood pressure for Mooroopna participants were 7% (with or without diagnosed hypertension, defined as blood pressure of 160+ mm Hg systolic and/or 100+ mm Hg diastolic). This was the lowest of the 8 towns in the study and was less than the Australian average (10%).<sup>9</sup>

- 27% of the study population in Mooroopna was categorised as obese (defined as body mass index of 30 kgm<sup>-2</sup> or more). This was lower than most other towns in the study, but greater than that found in the Australian Diabetes, Obesity and Lifestyle Study (21%)<sup>14</sup> and greater than the national average (17%).<sup>9</sup>
- Likely mild inflammation of the liver for Mooroopna respondents was 8% (as indicated by serum liver enzymes) and was less common than the 7 other towns.
- Renal impairment (as assessed by serum creatinine concentration above the reference range for age, sex and weight, those with diabetes excluded) was common (9%) and was comparable with the 7 other towns in the study.
- Anaemia and rates of leucocytosis (white blood cells) were relatively low (2% and 2% respectively) compared to the 7 other study towns.

Note: This is based on preliminary data.

## CONCLUSION

In Mooroopna, more women than men completed the survey. Mooroopna had a higher level of home ownership and lower numbers of people renting than the average in Australia.<sup>6</sup> Mooroopna residents had a higher proportion of people with a University degree than the Australian average<sup>6</sup> and nearly half the participants had completed secondary school or a trade certificate. The Crossroads Rural Health Studies found that the majority of respondents were happy to be living in Mooroopna and over half the respondents were members of local community clubs, groups or organisations. This could indicate that being actively involved in the community is important to a large portion of the respondents and leads to better health.<sup>15</sup>

Mooroopna respondents were satisfied with local schools, local hospitals and exercise facilities in the area, but were less satisfied with local government and least concerned about the future of farming. Most respondents were satisfied with the services provided by the local hospital.

Happiness is an indicator of quality of life, and in Mooroopna most participants rated themselves as happy or very happy. In addition, self reported health status is a commonly used measure of an individuals health.<sup>8</sup> The majority of respondents in Mooroopna rated their health as good or better, which is similar to the average in Australia.<sup>9</sup> Mooroopna residents have similar long term medical conditions to the average in Australia, most commonly eye problems, high blood pressure, arthritis and allergies.<sup>9</sup> Mooroopna respondents tended to generally have more health checks than the Victorian average.<sup>8</sup> These checks included blood pressure, blood sugar, skin checks for lesions or cancers, pap smears and prostate checks. However, not as many Mooroopna women over the age of 50 were having mammograms as the Victorian average. Although rural health research indicates that rural people tend to have

poorer health than their metropolitan counterparts,<sup>1,2</sup> the Crossroads Rural Health Studies illustrates that residents in Mooroopna had similar or more health checks and their health is on a par with the majority of Australians, rural or metropolitan.

A major issue consistently raised was the general concern about the lack of medical professionals in Mooroopna, Shepparton and the region. This included a lack of Doctors, Nurses and Medical Specialists. The lack of health professionals was an issue in the Emergency Department, inpatient care, medical care and health services in general.

Respondents reported waiting in the Emergency Department and Doctors surgery and were not able to get an appointment to see their GP as soon as they would like. However, when asked specifically about waiting times, consumers did not usually wait for any great length of time

Being a resident of rural Victoria, it is anticipated that the distance required to travel for health services could reduce peoples access to these services.<sup>1</sup> However, the information from the Crossroads Rural Health Studies did not support this. The distance required to travel to visit health professionals was not documented as a major barrier to receiving care for Mooroopna residents.

Our lifestyle is related to our health, hence the Crossroads Rural Health Studies included questions about our diet, alcohol/cigarette consumption and physical activity. The number of Mooroopna residents that smoke is in the same proportion as the Victorian average.<sup>8</sup> Just over half the respondents (both adults and children) were not eating the recommended serves of fruit in a day. Children in particular were not eating adequate fruit and vegetables according to recommendations made by the Dieticians Association of Australia.

In conclusion, it appears that the health status among Mooroopna residents, along with the other towns in the studies (Alexandra, Benalla, Cobram, Echuca, Euroa, Seymour and Shepparton), is not markedly different to the average Victorians, despite previous health research indicating that rural people have poorer health than their metropolitan counterparts. However, when rural people become unwell, access to medical care may become a problem. We believe that the results of the Crossroads Rural Health Studies provides information that is both useful and meaningful to the people of Mooroopna and that benefits will come from it.

**The Crossroads Team would like to Thank all those who completed a Household Survey and everyone who came along to the Undiagnosed Disease Study.**  
*Thank You!*

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