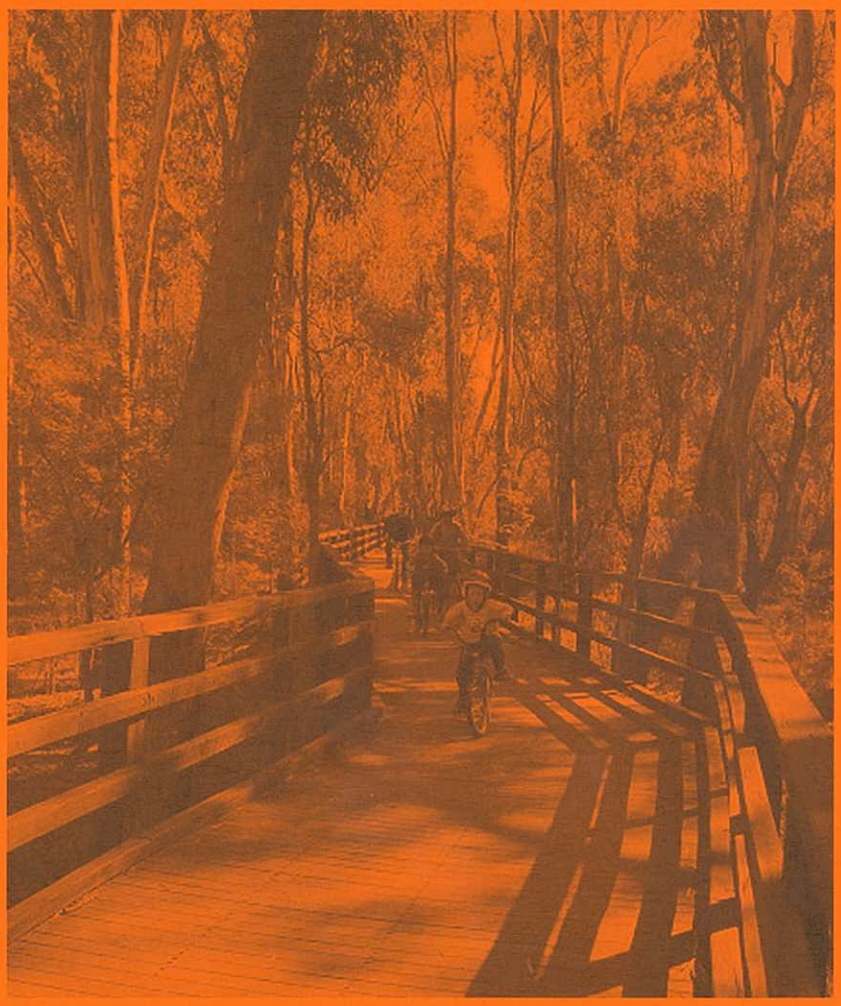
The Crossroads Rural Health Studies

HEALTH IN THE SHEPPARTON 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.[1,2] Poorer health in the rural population is evidenced by higher mortality and morbidity rates, resulting in a lower life expectancy.[1,5] Australia's rural population also has a higher hospitalisation rate for some causes of ill health,[1,3] such as accident and injury, road vehicle accidents, burns and scalds and diabetes.[1] 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.[2,4]

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.[1] 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 SHEPPARTON

Shepparton is a large multicultural town situated on the Goulburn River 180kms north of Melbourne. The Goulburn River provided the vital resource of water in the region and was instrumental in the settlement of the indigenous peoples and later inhabitants.[13]

McGuire's Punt was the original name for the town now known as Shepparton. Mr. Patrick McGuire provided a punt for passengers to cross the Goulburn River.[13] By 1841, squatters occupied vast 'runs' in the area and there began the agricultural development of the region.

Mr. Sherbourne Sheppard, an Irishman who immigrated to Australia in 1841, arrived in the Goulburn Valley in 1843 taking up the large run of Tallygaroopna. Several years later Mr Sheppard left for England and on his return, he found that his property and stock had been disposed of to meet outstanding commitments. Determined to regain all that was his, Mr Sheppard eventually repossessed his land by force, in what became known as the "siege of Tallygaroopna." It was this event that probably changed McGuires Punt, to Sheppard's Town, and the lazy Australian accent made the change to Shepparton.[13]

From the time of the First World War until after the Second World War, significant numbers of Albanian, Greek, Yugoslav and Italian people arriving in Australia made their way to the Goulburn Valley, where they took up fruit and vegetable growing. Their arrival gave the Shepparton region a cosmopolitan energy[12] adding diversity to the area, which is also home to the largest Indigenous population in Victoria outside of Melbourne.[16]

Shepparton is home to large fruit orchards and dairy farms, thanks to the irrigation system that was established in 1912. The irrigation system has enabled the establishment of a range of agricultural industries in the area: tomatoes, strawberries, kiwi and nashi fruit, sunflower and other vegetables. The non-irrigated areas are highly productive with cereal crops of wheat, oats and barley. In addition, sheep (for wool), prime lambs and cattle are grazed as well as the establishment of some very large piggeries.[12] Shepparton has evolved into a bustling regional centre providing a diverse range of retail shops, over 80 manufacturing establishments, the Driver Education Centre of Australia, and a large number of restaurants.[12]

Shepparton's private and public hospitals offer a wide range of medical services. Goulburn Valley Health has 148 acute beds, 20 mental health beds, and provides a range of services, namely: Obstetric/Maternity, Paediatric, Psychiatric, Nursing Home, Geriatrics', Domiciliary Care, Coronary Care, Maintenance Renal Dialysis, Oncology, and Rehabilitation.[14] Shepparton Private Hospital has 65 acute medical and surgical beds. The private hospital has a high dependency/coronary care unit, 3 operating theatres, a day surgery unit and post natal facilities.[15]

Approximately 27 full time equivalent GP's practice in Shepparton. Also located in Shepparton are a number of medical specialists- General Surgeons, Physicians, Ophthalmologists, Eye Surgeons, Obstetricians/Gynaecologists, Urology, Ear Nose and Throat Surgeons, Dentists, Orthopaedics and an array of health services including: Physiotherapy; Chiropractic; Naturopathy; Acupuncture; Massage Therapy; Aromatherapy; Bowen Therapy; Hypnotherapy; Radiology; Psychologists; Psychiatrists; Nurses and Community Health Services.

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. This information was then entered into the computer database and statistically analysed. A total of 3,068 questionnaires were completed by residents of Shepparton. The household response rate for the studies were 67%.

Some residents were again randomly selected and asked to attend a free, 2-hour health clinic in their own community. This clinic 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 Study was 61%. This information was analysed anonymously and collectively to determine the health status of each community.

FINDINGS

A total of 2,504 adults completed the questionnaire in Shepparton, of these 43% were male and 57% were female (see Table 1). Of the 2,504 respondents, 69% were married or in a de facto relationship and 44% of households had residents under the age of 18 living in the home. Nearly all (97%) spoke English at home. Length of residence ranged from less than a year to 90 years, with an average of 19 years.

Table 1: Characteristics of the Shepparton sample (Part 1 & Part 2)

Characteristic	*Shepparton*	*All participants*
Number of Adults Surveyed	2,504	6,375
% Female	57%	57%
% Married/De facto	69%	67%
% Speak English at home	97%	97%
% Own their own dwelling	70%	70%
Average length of Residence	19 years	21 years
% with Private Health Insurance	47%	43%
% Completed secondary school	53%	47%
% Working full-time in Paid Labour	38%	34%
% Working part-time in Paid Labour	17%	17%
% Retired	20%	19%
Income (median)	$625	$580

Most respondents (70%) owned their own home or unit with 23% living in rental accommodation. The percent of people who were living in their own home is higher than the national average of 66%.[6]

Just under half (47%) of the residents had private health insurance, slightly more than the Australian average (45%).[7]

Of the 2,504 adults that completed a survey:

- 16% had a university degree, this is higher than the national average of 9%[6]
- 52% had completed secondary school and/or trade certificate (including 16% with University degrees)
- 35% had completed year 9 but not year 12
- 12% left school before completing year 9

In Shepparton, the employment status of respondents was:

- 38% worked full time
- 17% worked part time
- 20% were retired
- 5% were students
- 5% were not working but not retired
- 2% were unable to work due to illness

Most households in Shepparton earned between $299 and $1499 per week before tax. The median was $625. In addition, two thirds of respondents reported having access to a computer at least weekly and half of the respondents reported access to the internet at least weekly.

LIVING IN SHEPPARTON

All 2,504 respondents were asked how sorry or pleased they would be to leave Shepparton. A total of 75% said they would be very sorry or somewhat sorry to leave. 9% indicated that they would be pleased or very pleased to leave. Over half the respondents (55%) were involved in a local community club or group with some being members of up to 8 groups.

Respondents were asked to indicate how concerned they were about a range of issues in their local area. Respondents were provided with a four point scale from 'not at all concerned' to 'very concerned'. Table 2 presents the percent of respondent's indicating they were concerned or very concerned. More than half the respondents were concerned about each issue in Shepparton.

Table 2: Concern about local issues Shepparton

Issue	*Concerned*	*Very Concerned*
Crime	24%	66%
Unemployment	36%	41%
Quality of health care	26%	26%
Quality of education	24%	26%
The future of farming	29%	24%

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

Table 3: Satisfaction with local facilities.

Issue	*Dissatisfied* [1]	*Satisfied* [2]
Local schools	4%	70%
Access to exercise facilities	7%	67%
Local hospital	15%	66%
Local entertainment	17%	54%
Public transport	12%	46%
Local government	22%	40%

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

HEALTH

Self reported health status is a commonly used measure of an individual's health.[8] The proportion of respondents in Shepparton who rated their health as excellent, very good and good (85%) was similar to the Victorian average (82%).[8]

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

- 15% as excellent
- 35% as very good
- 35% as good
- 12% as fair
- 3% as poor

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

- very happy 24%
- happy 41%
- somewhat happy 12%
- mixed, about equally happy and unhappy 17%

When asked about health checks in the past two years, residents in Shepparton had a similar number of health checks as the average in Victoria.[8]

- 89% had their blood pressure checked, higher than the state average of 79%.
- 65% of women had a pap smear, similar to the state average of 62%.
- 48% had a cholesterol check, again similar to the state average of 46%.
- 50% had a test for diabetes or high blood sugar, higher than the state average of 45%.
- 16% had a bowel examination, this is similar to the state average of 15%.
- 32% had a skin examination (for lesions or cancers), more than the state average of 25%.
- 70% of women 50 years and over had a mammogram, similar to the state average of 73%.
- 55% of men 50 years and over had a prostate check, similar to the state average of 53%.[8]

In addition, 86% had been immunised for childhood diseases, 64% had a tetanus booster in the past 10 years and 12% had a pneumonia vaccine in the past 5 years. A further 33% had a flu vaccine in the past 12 months. Most respondents (91%) had never donated blood.

Respondents were also asked if they had a range of medical conditions (See Table 4). Eye problems (which included wearing glasses), high blood pressure, arthritis, allergies and asthma were the most common conditions. This is similar to the Australian average.[9] In addition, 10% also indicated an injury had prevented respondents from attending work or school.

Table 4: Reported medical conditions for adults in Shepparton

Medical Condition	*Percent*
Eye Problems	33%
High blood pressure	19%
Arthritis	17%
Allergies	15%
Asthma	14%
Skin conditions	14%
Hearing loss	11%
Depression	10%
Digestive problems	10%
Other chronic health problems	9%
Cancer	8%
Heart disease	8%
High blood fats	8%
Respiratory problems	5%
Diabetes	5%

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 4. Most respondents (88%) visited a GP in Shepparton and 6% visited a GP in Mooroopna. Respondents waited anywhere up to 90 days for an appointment, however 59% waited one day or less, 17% waited 1½-2 days, 10% waited 2½-4 days, 8% waited 4½-7 days and 3% waited 1-2 weeks for an appointment. Most reported being satisfied with their GP, 41% were very satisfied and 43% were satisfied. 6% reported being dissatisfied with their GP and 2% were very dissatisfied with their GP.

Among the survey participants, 16% had been hospitalised in the past 12 months. Of these, 69% were hospitalised just once. Of those respondents that were hospitalised, 54% were hospitalised at Goulburn Valley Health, 16% at Shepparton Private Hospital and 14% at major hospitals in Melbourne.

In the past 12 months, 17% of participants had been to an Emergency Department. Of these, 89% had visited Goulburn Valley Health. Of those who visited an Emergency Department, 56% waited less than 1 hour to see the doctor, 27% waited 1-3 hours, 14% waited 3-6 hours and 2% waited over 6 hours to see the Doctor.

Participants were asked if they had visited a Medical Specialist in the past 12 months. In Shepparton, 31% of respondents had seen a Medical Specialist. Of these, 7 in 10 consulted the Specialist in Shepparton and 26% 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/Optometrist	25%
Pharmacist (for advice only)	18%
Chiropractor/Osteopath	15%
Hospital outpatient clinics	12%
Hospital day surgery	10%
Physiotherapist	10%
Used an ambulance	5%
Acupuncturist/Naturopath	5%
Registered nurse/midwife	4%

Nearly half of the respondents (45%) had consulted a Dentist/Dental Professional within the last year. For a third of respondents it was greater than 2 years since they had consulted a Dental Professional. The major reasons why respondents did not consult a Dental Professional were: 'no need', 'cost' and 'fear'.

A series of open ended questions were asked to determine what Shepparton 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. 2,195 people answered the question, giving 2,677 responses (some respondents gave more than one answer). From these 2,677 responses, 963 responded there were 'no problems' with the local medical service and 177 responded with positive comments. Of the 1,537 remaining responses, the most common concerns were:

- Lack of Doctors, Nurses and Medical Specialists (324)
- Number of days required to wait for an appointment with a GP (178)
- Long waiting times in the Emergency Department and/or Doctors surgery waiting rooms (114)
- Quality and competency of Doctors (86)
- No bulk billing service (70)
- The high cost of health care (60)
- Poor attitude and bedside manner of Doctors and Nurses (54)
- Long waiting time for elective surgery on the public hospital waiting list (54)

Another question asked about concerns with the local Emergency Department. 2,173 people answered the question, giving 2,466 responses (some respondents gave more than one answer). From these 2,466 responses, 982 responded that they had no concerns and 116 noted they were happy with the Emergency Department. Of the 1,368 remaining responses the most common concerns were:

- Long waiting time in the Emergency Department waiting room (704)
- Lack of Doctors, Nurses and Medical Specialists (110)
- Quality and competency of Doctors (80)
- Poor attitude and bedside manner of Doctors and Nurses (48)
- Care and services "needed improving" (39)
- Lack of senior/more qualified staff available (36)
- Concerns relating to personal issues (35)
- Language/communication barriers with Doctors (31)
- The general public using the Emergency Department as a GP surgery (27)

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. 1,986 people answered the question, giving 2,262 responses (some respondents gave more than one answer). From these 2,262 responses 1,049 responded that they had no concern and 102 responded with positive comments. Of the 1,111 remaining responses, the most common concerns were:

- The high cost of health care (139)
- The number of days required to wait for an appointment with a GP (134)
- Lack of Doctors, Nurses and Medical Specialists (148)
- The lack of available information on services and treatment available (69)
- No bulk billing service (49)
- The distance required to travel to appointments (specialists) (45)
- Long waiting time for elective surgery on the public hospital waiting lists (44)
- Lack of public transport (31)
- Lack of specialist services eg radiation therapy (30)

LIFESTYLE

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

Table 5: Takeaway food as a main meal in Shepparton

How often?	*Percent*
Never	1%
Less than once a month	30%
2 to 3 days a month	30%
1 to 3 days a week	31%
4 to 6 days a week	0%

Respondents were asked how many serves of fruit, vegetables and diary products they consumed each day (see Table 6). In Shepparton, 27% of respondents consumed the recommended serves of vegetables, 59% ate the recommended serve or more of fruit and 62% consumed the recommended amount of dairy products. On the other hand, 73% were not eating the recommended serve of vegetables, 45% 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 Shepparton

	Recommended serve	*Number of serves eaten*	
Vegetables	5 serves[10]	1-3 serves	73%
		4-5 serves	23%
		6 and more	4%
Fruit	2 serves[10]	1 serve or less	41%
		2-3 serves	45%
		4 and more	10%
		Don't eat fruit	4%
Dairy	2-5 serves[10]	1 serve or less	34%
		2-5 serves	62%
		6 and more	2%
		Don't eat dairy	2%

Respondents had approximately 5 drinks of alcohol in an 'average' week. The most common alcoholic drinks were wine (35%), full strength beer (25%) and spirits (24%).

Of those surveyed, 15% did not currently smoke and 63% had never smoked. The remaining 22% smoked between 1 and 120 cigarettes per day. This is similar to the Victorian average of 25% identifying themselves as being current daily smokers.[8]

A total of 65% of respondents participated in physical activity and on average 3½ times per week. The average length of each exercise session was 41 minutes. The most popular form of exercise was walking (41%).

When asked how often respondents deliberately took protective measures when out in the sun, 32% 'always' took protective measures, an additional 32% reported 'usually' while 5% 'never' took protective measures. A total of 7 in 10 wore a hat as a protective measure for the sun, 65% wore sunglasses, 59% used clothing as a protective measure and 58% put on sunscreen.

CHILDREN

In Shepparton, 564 children had a parent or guardian complete a survey on their behalf. The survey was completed for all children living in the household aged between 1 and 15 years inclusive. Of these, half (49%) were male and half (50%) were female. From the children's surveys, 79% had access to a computer at least weekly and 56% had access to the internet at least weekly. In Shepparton, 96% of child respondents were immunised for childhood diseases.

Children's eating patterns are a national concern in Australia. In Shepparton, 80% of children surveyed were not eating the recommended serves of vegetables, 28% were not consuming the recommended serves of fruit, however the majority were eating the recommended amount of dairy products (see Table 7).

Table 7: Consumption of fruit ,vegetables and dairy products for children in Shepparton

	Recommended serve	*Number of Serves eaten*
Vegetables	5 serves[10]	1-3 serves 80% 4-5 serves 16% 6 and more 4%
Fruit	2 serves[10]	1 serve or less 28% 2-3 serves 60% 4 and more 10% Don't eat fruit 4%
Dairy	3-4 serves[11]	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 children who's parent/guardian had completed a survey, had been hospitalised. Of these, 8 in 10 were hospitalised at Goulburn Valley Health. In addition, 23% of the children had been to an Emergency Department in the past 12 months, of these 9 in 10 visited Goulburn Valley Health. Less than half (46%) waited under an hour to see the doctor, 38% waited 1-3 hours, 12% 3-6 hours, while 2% waited over 6 hours to see the Doctor.

Parents and guardians were asked to indicate if their children had any medical conditions. Asthma (22%) was the most common medical condition for children, which is comparable to other towns in the studies. Skin conditions (11%), allergies (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) attended the Undiagnosed Disease Study held in each town. The Shepparton clinics were held at the School of Rural Health, Graham Street, Shepparton and 670 Shepparton residents attended.

- Shepparton residents had some of the lowest rates of chronic obstructive pulmonary disease and other lung diseases (defined as reduced spirometry measures: 11%), hearing loss (5%) and vision impairment or vision requiring correction (10%), compared to other towns in the study.

- Rate of high blood pressure for Shepparton participants was 9% (with or without diagnosed hypertension, defined as blood pressure of 160+ mm Hg systolic and/or 100+ mm Hg diastolic). This was lower than in most other study communities however was similar to the Australian average (10%).[9]

- 26% of the study population in Shepparton was categorised as obese (defined as body mass index of 30 kgm^{-2} or more). This was also lower than most other study towns, but greater than the national average (17%)[9] and the Australian Diabetes, Obesity and Lifestyle Study (21%).[17]

- Likely mild inflammation of the liver, as indicated by serum liver enzymes, was common (10%) and Shepparton had similar results to other study communities.

- Renal impairment (as assessed by serum creatinine concentration above the reference range for age, sex and weight, those with diabetes excluded) was also common (9%) and again Shepparton was comparable with other study communities.

- 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 Shepparton, more women than men completed the survey. Shepparton has a higher level of home ownership and lower numbers of people renting than the average in Australia.[6] Shepparton residents have a higher proportion of people with a University degree than the Australian average and over half the participants had completed secondary school or trade certificate. The Crossroads Rural Health Studies found that the majority of respondents were happy to be living in Shepparton 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.[18]

Shepparton respondents were satisfied with local schools 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 Shepparton two thirds of participants rated themselves as happy or very happy. In addition, self reported health status is a commonly used measure of an individuals health.[8] The majority of respondents in Shepparton rated their health as good or better, which is similar to the Australian average.[9] Shepparton residents have similar long term medical conditions as the Australian average, most commonly eye problems, high blood pressure, arthritis and allergies.[9] Shepparton respondents had similar numbers of health checks as the Victorian average.[8]

Although rural health research indicates that rural people tend to have poorer health than their metropolitan counterparts,[1,2] the Crossroads Rural Health Studies illustrates that residents in Shepparton had similar, if not more health checks, and their health is on a par with the majority of Australians, rural or metropolitan.

A major issue that was consistently raised was the general concern about the lack of medical personnel in Shepparton and the region. This included a lack of Doctors, Nurses and Medical Specialists. Respondents reported waiting in the Emergency Department and Doctors surgery and to get an appointment with their GP were also key issues. 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.[1] 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 Shepparton 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 Shepparton residents that smoke is in the same proportion as the state average.[8] Just over half the respondents (both adults and children) did not eat the recommended serves of fruit in a day. Children in particular were not eating adequate fruit and vegetables according to the recommendations made by the Dieticians Association of Australia.

In conclusion, it appears that the health status among Shepparton residents, along with the other towns in the studies (Alexandra, Benalla, Cobram, Echuca, Euroa, Mooroopna and Seymour), is not markedly different to the Victorian average, 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 Shepparton, 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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