NSW Ambulance

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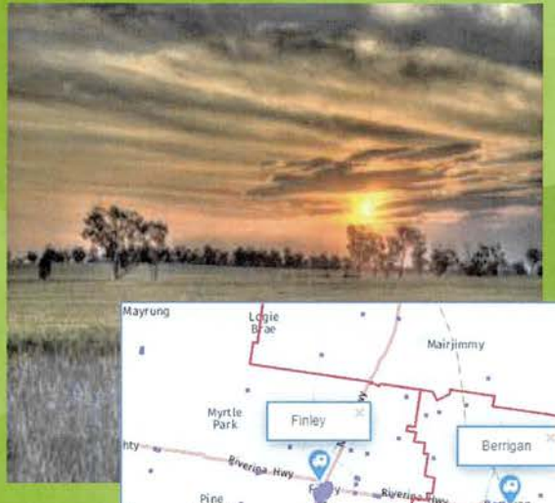
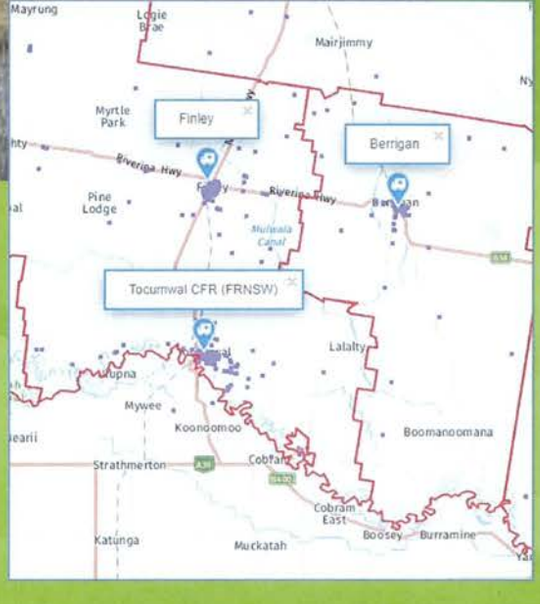
Tocumwal – Emergency Response Assessment

June 2020





NSW Ambulance Tocumwal Needs Assessment
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Glossary of terms

Term	Meaning in the context of this assessment
Utilisation rate	The number of patient presentations (or incidents) per 1,000 population. Age-Specific utilisation rates are measured to provide utilisation metrics that are sensitive to the age profile of the community. Age groupings used by NSW Ambulance parallel those used by hospital and LHD planners. Age-specific utilisation rates are used to project future demand based on projected population age profile.
Clinical volunteers	Clinical volunteers may be members of other emergency services who are accredited and operate under NSW Ambulance governance and training. They are responded from the community to provide life sustaining measures such as basic life support and first aid. They may also be Volunteer Ambulance Officers responding in New South Wales ambulance vehicles.
Community First Responders	Responders are clinical volunteers of other emergency services who do not transport patients.
Volunteer Ambulance Officers	Volunteer Ambulance Officers are clinical volunteers who respond in ambulance vehicles and may transport patients.
Paramedic	Registered paramedic is a qualified health professional registered by AHPRA.
On-duty and On-call	In regional locations, cover of the 24 hour period is generally achieved by a period of on duty followed by a period of on-call. Generally the on-duty period is 10-11 hours per day. For the on-duty period, the staff and ambulance will be located at the station when not involved in providing a response. For the on-call period the staff each with one ambulance will be located at their own residence from which they will be responded if an incident occurs.
Incident	An incident is recorded every time an ambulance resource (including a clinical volunteer) is responded to one specific location, that is, sent to a patient. A single incident may have multiple patients (such as a motor vehicle accident when two patients are treated by the same ambulance resource) and on occasions a single patient may have more than one incident recorded. Generally a single incident equates to a single patient.
Response	A response is recorded every time an ambulance resource (including a clinical volunteer) is sent to an incident. For periods of on-call cover, a response is recorded for each of the two paramedics who were located at their residences, a ratio of two responses per incident. Where a clinical volunteer is responded, an ambulance will also be responded providing a minimum ratio of two responses per incident. Where a clinical volunteer is responded and an ambulance is responded during a period of on-call cover, a ratio of three responses per incident generally occurs.
Transport	A transport is defined where an ambulance resource is recorded as departing a scene for a destination to a health facility. A transport may be emergency or non-emergency. It may originate from a patient's address or another health or residential facility.
Met demand	Instances where a patient calls for and receives care and is recorded as an incident is classified as met demand.
Unmet demand	In some instances residents choose to provide transport themselves rather than calling an ambulance or alternatively do not seek care. These are instances of unmet demand.
Case Cycle time	Average overall time for 'Case Cycle' for ambulance responses
Workload	The time it takes to undertake an incident and return to the response area. Is calculated as the factor of number of incidents, average case cycle time and time to return from transports that take the paramedic outside of the response area.
Transfer	Each time a patient is taken between health facilities. A transfer is one type of transport. A transfer may be emergency or non-emergency.

Executive Summary

Tocumwal has a Priority 1 (emergency) patient load of approximately 150 patients a year. This is a relatively low level of patient need in comparison with other locations for which patient need measures indicate need for a new station. It has a relatively high (40-45%) rate of non-emergency inter-hospital transfers. Of the workload hours associated with transports, 60% is required for non-emergency transfers.

Analysis of age–specific utilisation rates indicates that there is an average to high level of emergency ambulance utilisation rates at Tocumwal suggesting that there is not a high level of unmet demand.

NSW Ambulance monitors the workload of clinical volunteers at Tocumwal and advice provided by local staff indicates that the workload is sustainable at current levels. This matter will continue to be monitored and it is anticipated that with population growth and ageing, the level of demand on the clinical volunteers will become unsustainable in the future.

NSW Ambulance undertakes rigorous reviews both of the prioritisation process and the data that informs annual prioritisation. When compared with other locations across the state that have a need for a paramedic ambulance service, at this point in time Tocumwal is in the 4th level of priority with 30 other locations identified with higher levels of need.

When the relative need of towns along the Newell Highway are compared, there are several reasons why continuation of the current clinical volunteer model at Tocumwal is appropriate. These include:

- Relatively low level of demand
- Relatively short distance to nearest paramedic station
- Relatively close location to two paramedic stations
- Absence of specific locational factors such as major road intersections that could also be considered a reason to establish a service that had a wider role than the local response area.

Most of the services along the highway were established in substantially different social and infrastructure contexts. All were established with staff who at that time were described as 'ambulance drivers' and pre-date contemporary development of clinical paramedicine.

Based on the factors incorporated in the assessment of need, Tocumwal has a level of demand that is appropriate for a Clinical Volunteer Location given current priorities.

Introduction

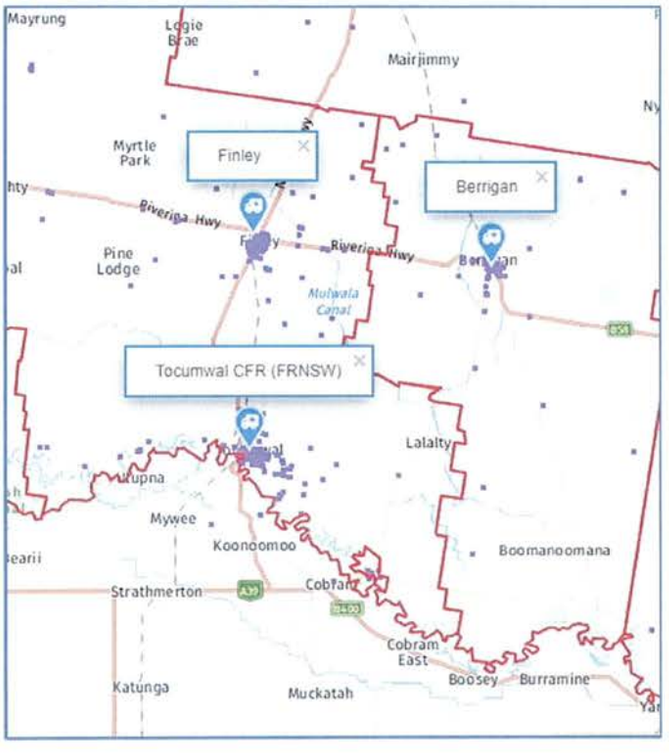
This assessment was commissioned by the Minister for Health and Medical Research in response to a meeting held on 26 February 2020 with Mrs Helen Dalton MP, Member for Murray, the Lions Club's 'Ambulance for Tocumwal' Committee, and representatives from NSW Ambulance. The assessment was coordinated by the Service Planning Unit within NSW Ambulance in consultation with Clinical Operations and Data Analytics.

Tocumwal area and its demand

- The area for which Tocumwal clinical volunteers are engaged is part of the response area for which Finley station is primarily responsible – see figure 1 below.
- Tocumwal is approximately 22 km from Finley – see figure 2 below.
- Three locations form a local network in this area, Tocumwal, Finley and Berrigan.
- Tocumwal demand represents approximately 44% of Finley's response area (average for three years to 2018/19)
- There are approximately three incidents per year for P1a patients (life threatening) at Tocumwal. It should be recognised that the number of P1a incidents is very low and any averages calculated on the basis of such small numbers is not necessarily typical or a reliable predictor.
- The median response time for the first responder to arrive for all P1 patients was 15.1 minutes compared with the average for neighbouring stations of approximately 9 minutes.
- P1 demand across greater Finley response area including Tocumwal was 317 patients per annum.
- Tocumwal demand for R3 inter-facility transfers is relatively high by comparison with other regional stations. R3 incidents comprise 31% of demand. R3 incidents comprise 40-45% of total Tocumwal workload associated with incidents.
- Of the workload hours associated with all patients who are transported, approximately 60% is for R3 patients.
- Destinations of transported patients are predominantly local – primarily Tocumwal - 224 (54%) with 42% going to Shepparton in Victoria.

Distribution of demand is illustrated below with incidents for calendar year 2017.

Figure 1: Distribution of demand



Annual supply by the CFR group is approximately 200 incidents per year.

Figure 2: Distance to nearest paramedic stations

Relative distances and travel times (normal speed) are indicated; 22km from Finley (17 minutes) and 40k from Berrigan (26 minutes) both of which are relatively close compared with NSW Ambulance regional stations. When attending emergency incidents, travel times are less than these times as lights and sirens are utilised.

Met demand

Met Demand is best measured by the number of incidents to which ambulances respond. Generally, one incident represents one patient. R3 incidents are transfers of patients between facilities, generally between hospitals. R3 incidents in locations with small low-level Emergency Departments (ED) such as facilities in this network often reflect transfers of those patients initially taken to the local hospital to a higher level hospital. The larger proportion of patients transferred resulted from patients self-presenting to the ED.

Incidents

All priority activity by response area, annual average 3 years to July 2019 (numbers)

Geo Response Area	P1	P2	R3	R4-7	Total incidents
Berrigan	100	120	68	25	314
Finley	157	202	192	82	634
Tocumwal	160	164	154	23	501
Total	**417**	**486**	**415**	**131**	**1449**
Daily average (incidents per day)					
Berrigan	0.3	0.3	0.2	0.1	0.9
Finley	0.4	0.6	0.5	0.2	1.7
Tocumwal	0.4	0.4	0.4	0.1	1.4
Total	**1.1**	**1.3**	**1.1**	**0.4**	**4.0**

While the relative demand across these stations shows greater level at Tocumwal than Berrigan, NSW Ambulance recognises that ambulance networks are extremely important in locations such as these. Stations co-contribute to meeting demand across their network. Currently two ambulance deployments per hour per day are available within the response network that has a relatively modest total of 1449 incidents. There are three EDs and relatively short travel times between the towns. There is also a historical legacy where demand has changed over time.

Transports Workload

Workload measures include the number of incidents, the Case Cycle time and the time it takes paramedics to return to response area from a distant hospital. Volunteer time is not included.

Figure 3: Transport incidents

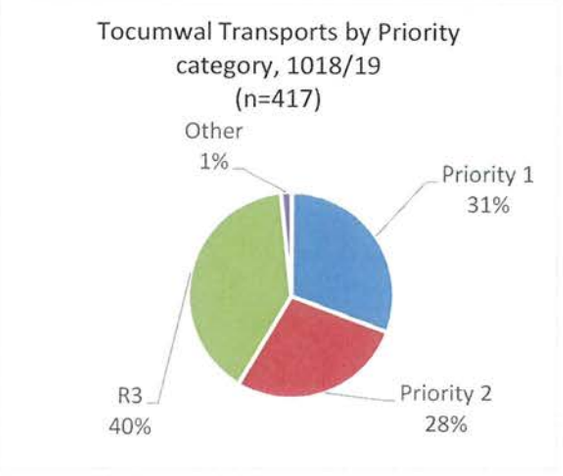
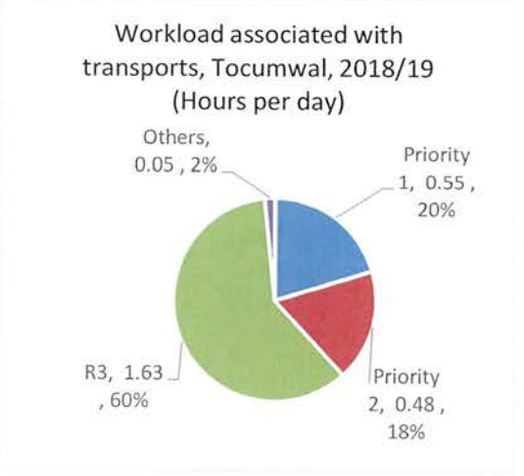


Figure 4: Transport workload



Comment:

- The high proportion of transports from Tocumwal that are R3 (predominantly inter-hospital transfers is evident from the above:
  - 40% of total transport numbers
  - 60% of transport workload
- R3 activity is undertaken on a negotiated time basis and response times are based on understanding of patients' need. There is no disadvantage for R3 demand from Tocumwal residents associated with the base being located at Finley.

Destination of transports

Destination	Transports	Transports (%)
Local (primarily Tocumwal)	224	54%
Vic (primarily Shepparton)	174	42%
Albury / Wodonga	10	2%
Corowa	9	2%
Total	417	100%

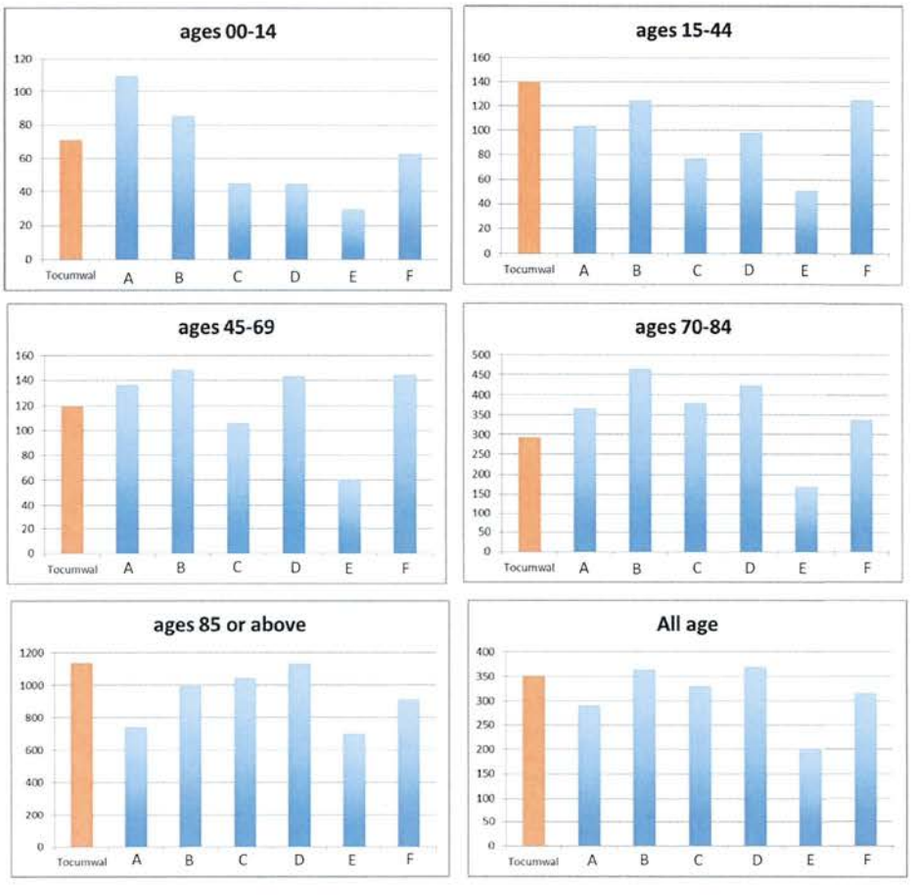
The majority of secondary transports (hospital to hospital) are from Tocumwal to Shepparton which is approximately 60km south.

Unmet demand

Some locations that do not have paramedic ambulance stations have low utilisation rates as residents choose to provide transport themselves rather than calling an ambulance or do not seek care. This phenomenon occurs at all locations, if at a particular location it is happening systematically, this analysis provides a measure of unmet demand. When planning for new stations unmet demand is measured by comparing the relative utilisation rates with other locations that have locally based paramedic stations. If the age-specific utilisation rates are low this suggests there is unmet demand. If not, this suggests that there is not a significant level of unmet demand.

To confirm the potential level of unmet demand, comparison was made of Tocumwal age-specific utilisation rates with two local and a number of randomly selected other locations. See comparative utilisation rates below.

Figure 5: Age-specific relative utilisation



Comment:

In most age groups, Tocumwal has the same level or higher level of age-specific utilisation. This suggests there is no significant level of unmet demand at Tocumwal.

Service model at Tocumwal

- Across NSW, whenever clinical volunteers are dispatched an ambulance staffed by paramedics is also dispatched.
- In the instance of Tocumwal, this is predominantly from Finley and to a lesser extent Berrigan.
- The function of the clinical volunteers is to provide urgent lifesaving care where needed until the arrival of an ambulance.
- Paramedics who provide training and mentoring for the clinical volunteers at Tocumwal are based at Finley.
- At Tocumwal, the clinical volunteers also provide retained fire-fighting services with NSW Fire and Rescue.
- On occasions of predictable high ambulance demand, such as the Strawberry Fields festival, an ambulance with paramedic crew is located on stand-by at Tocumwal.
- Advanced council advice is sought on dates, number and length of such events to ensure sufficient resources are available for posting at Tocumwal.
- When ambulances are on stand-by at Tocumwal, this is effectively the same model that operates at Paramedic Response Point stations (PRPs) which form a significant proportion of ambulance stations across Sydney.
- Where PRPs operate in Sydney, the PRP station response areas have many times the demand level of Tocumwal.

Sustainability of the service model at Tocumwal

Factors that impact on the sustainability for the current model at Tocumwal include:

- Both current and projected demand for ambulance services at Tocumwal which is based on service utilisation by both residents and visitors.
- Growth in older age groups has greatest impact on ambulance demand and projecting future demand.
- Workload of clinical volunteers at Tocumwal is high now by comparison with other clinical volunteer locations and is likely to become unsustainable at some point in the future.
- Based on projected growth, within the next 10-20 years it is likely that level of need will be sufficient to prioritise a paramedic-run ambulance station at Tocumwal should additional resources become available.
- NSW Ambulance monitors closely the level of demand on clinical volunteers at Tocumwal and this includes consultation with staff to ensure that the level of fatigue and workload is sustainable.
- NSW Ambulance conducts annual or more frequent review of demand growth and the level of supply provided by Tocumwal volunteers.
- At this point in time the level of demand met by the clinical volunteers at Tocumwal is manageable.

Advantages of the clinical volunteer model

Clinical volunteers are an adjunct to a paramedic service and whenever a clinical volunteer is dispatched, paramedics are also dispatched. The presence or absence of a clinical volunteer model does not impact on the priority or opportunity to establish a paramedic station. It is therefore not appropriate to compare outcomes of a station with paramedics against one with a service staffed by volunteers. The relevant question is: What are the benefits of establishing and maintaining clinical volunteer services?

Clinical volunteers are deployed by NSW Ambulance and an integral component of the NSW Ambulance strategy for responding to patient need in predominantly regional, rural and remote locations. Patient outcomes are known to be better if clinical volunteers support paramedics. Use of clinical volunteers is supported by ambulance jurisdictions across Australia and the world. Clinical volunteers have life-saving skills, medications and equipment and are continuously accredited through mandatory monthly training, annual reassessment and mentoring by local paramedics who value the irreplaceable contribution that these first responders make to saving life and improving their patients' clinical outcomes. Clinical volunteers annually provide care to approximately 2,500 patients across NSW and the number of locations that they operate is continually growing. In the 2018-19 financial year, clinical volunteers undertook more than 3,888 hours of incident response across NSW, delivering time critical, clinical care prior to the arrival of paramedics.

NSW Ambulance is committed to maintaining clinical volunteer programs as a key component of its response capability.

Each time a clinical volunteer is available to provide a service, improved clinical outcomes are expected. The impact of clinical volunteers is most clearly demonstrated with case examples which both come from a clinical volunteer service at a location that is not dissimilar to Tocumwal. Recent examples are highlighted below.

Patient Story 1 (reported to NSW Ambulance Board in February 2020)

NSW Ambulance partnered with Fire + Rescue NSW (FRNSW) to increase the medical capability within this community by training the local FRNSW team as clinical volunteers under the model of Community First Responders (CFR). The CFR unit 'went live' and waited 10 days before being dispatched by NSW Ambulance to their first incident.

NSW Ambulance Control Centre received 000 call to report of a single motorcycle accident in which the pillion passenger (side car) was described as:

> *"50 year old female, who is unconscious and not breathing,"*

Subsequent advice from the scene stating that,

> *"CPR in progress on side of road, heavy impact into head, patient now had spontaneous effective breaths, and eye movement while unconscious. Caller trained in first aid has log-rolled patient into recovery position and removed helmet already, while CPR in progress, no other patients on scene at this moment"*

Rapid Launch Trauma Coordinator responded by sending a NSW Ambulance helicopter, Westpac 1.

FRNSW was requested to respond the CFR unit who arrived on scene eight minutes after they were called.

Clinical volunteers reported that the female patient was no longer in cardiac arrest, remained unconscious, had an unpalpable blood pressure and was only responding to painful stimuli. They also assessed the rider of the motorcycle and noted that while stable, the mechanism of injury necessitated further assessment at hospital. Further assistance arrived seven minutes later with arrival of paramedics.

A helicopter arrived 21 minutes later and transported patients to the major trauma hospital.

In 'layman's' language the x-ray report indicated that the patient's skull was, in effect, separated from their spine – in effect, an internal decapitation.

Following surgery and treatment the patient was discharged to a private hospital for ongoing rehabilitation. Following discharge from rehabilitation, the patient was observed walking in the local community some eight months later.

Commentary by Manager of the clinical volunteer program - reflections and lessons learnt

This was the very first ambulance incident response for the local Community First Responders after completing their induction training.

The incident presented them with challenging circumstances by virtue of a critically injured patient, in a remote location and a chaotic scene that included significant interference by a particular bystander. As they expressed at a later clinical conference, this interference challenged their confidence and contributed to moments of self-doubt. However, they put aside their self-doubt and relied on the training provided to them by NSW Ambulance Paramedic Educators and, most importantly, immobilised the patient's head and neck until transferring care to the aeromedical crew.

The patient was able to return to her family and her community and continue to live at home.

The outcome for this patient would have been very different in the absence of CFR resources.

Patient Story 2

Further examples are summarised in the words of the paramedic who attended a cardiac arrest in a public place following initial dispatch of a clinical volunteer responder which was also a FRNSW unit.

Along with us [paramedic unit] *they* [CFR unit] *were responded to a 76yr old female in cardiac arrest. Bystanders had commenced CPR* [Cardio-pulmonary Resuscitation] *and were doing a great job. The* [CFR] *crew responded station and were rolling in the truck within five min and were on scene within seven min. They took over from bystanders and defibrillated administering two shocks with a ROSC* [Return of Spontaneous Circulation].

We arrived within 17 mins and the patient was unconscious, breathing (18min) with a strong radial pulse. After cannulation & 12 lead [ECG] *we transported to Hospital with the patient regaining*

consciousness and asking questions prior to arrival at hospital. She was transferred 2hrs later to the [speciality hospital] *with no deficits and a full recollection of events prior to the incident. To say I'm proud of what this crew do on a daily basis is an understatement.*

I have thought about this case and the value we often attribute to the CFR program. Those sitting behind the finance desk can quantify the cost in terms of the billable items however it is impossible to quantify how much the crew saved the health system by their quick response, early defibrillation, and definitive care. The prognosis for the patient is to return to her home and continue to live independently with her husband after 1 -2 week stay in hospital. She has no ongoing deficits with exception of some broken ribs and sternum. The community are extremely proud of their CFR's and this is 100% due to the way they conduct themselves on cases and undertake duties without the wider communities' knowledge. The community often ask where their CFR crew are when we are attending cases. A great result all round.

The weekend didn't end there with responses on Sunday to 2 injured horse riders in separate incidents finalised with a search and treatment of 79y/o male that was involved in a quad bike accident and was missing for 4 hours trapped under the machine. Two of these incidents involved helicopter responses. Once again they [CFR unit] *did a fantastic job.*

Value to community

Service planning demand data had identified that on the basis of prioritisation of need against other communities this location would not be likely to have received funding for a permanent ambulance station until a later date, but existing demand and geographic isolation thresholds indicated that this community did require some form of emergency medical capability enhancement to improve patient outcomes and hence the CFR program was established at this location with support from FRNSW

The costs of maintain clinical volunteer programs include training, clinical equipment, case supervision and mentoring, clinical governance processes and professional development events. The return on investment is reflected in improved clinical outcomes and the benefits that communities express in relation to their service provision. In some instances there are considerable savings to the health system in terms of saved bed days and rehabilitation costs. However, these costs are minute in relation to the value of the lives that are saved and the quality of life that is enabled to both the individuals and the communities that they serve.

Priorities for new paramedic stations and relative position of Tocumwal

- At four other locations across NSW, clinical volunteers provide a greater level of service than Tocumwal.
- There are 30 other locations across NSW where there is higher levels of call volume than Tocumwal. Relevant factors include:
    - 26 locations where there are a greater number of P1 incidents
    - 25 locations at which 50th percentile for P1 cases is greater
    - 16 locations where the distance from nearest station is greater
    - 18 locations where both the 50th percentile and the number of P1 cases is greater
- The relative location of Tocumwal in relation to other locations that have a need for a paramedic station are identified in figures below which comprise:
    - Metric 1: Response time differences achieved by new station, P1 incidents
    - Metric 2: Total number of P1 incidents in new station
    - Metric 3: Distance of incidents from nearest station (under emergency travel times).
- When all factors are factored in with appropriate weightings, Tocumwal is in the lowest priority group (group 4) that is reflected in service and asset planning.

Figure 6 Patient need indicator: Tocumwal compared to other locations: 50th percentile response times

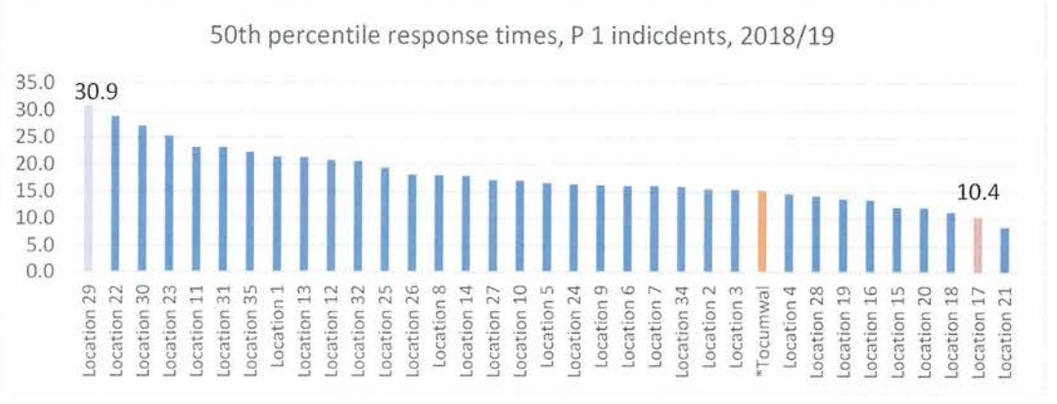


Figure 7 Patient need indicator: Tocumwal compared to other priority locations: Priority 1 incidents

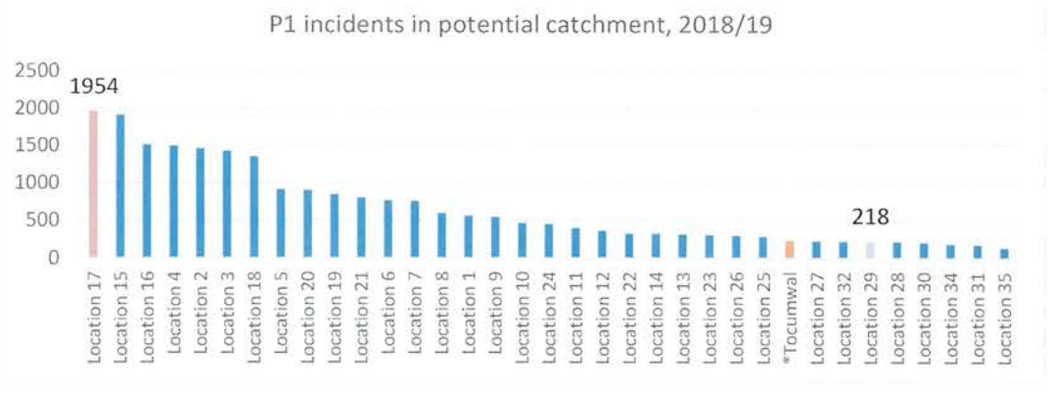
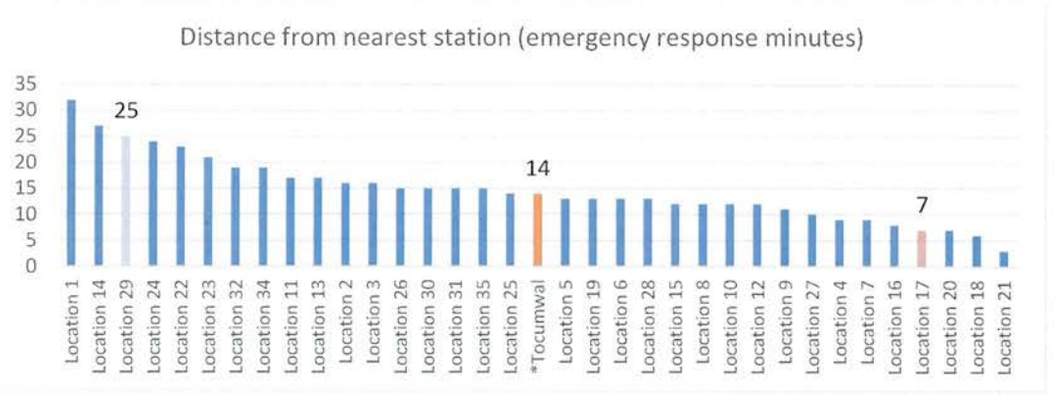


Figure 8: Patient need indicators Tocumwal compared to other priority locations: distance to nearest station



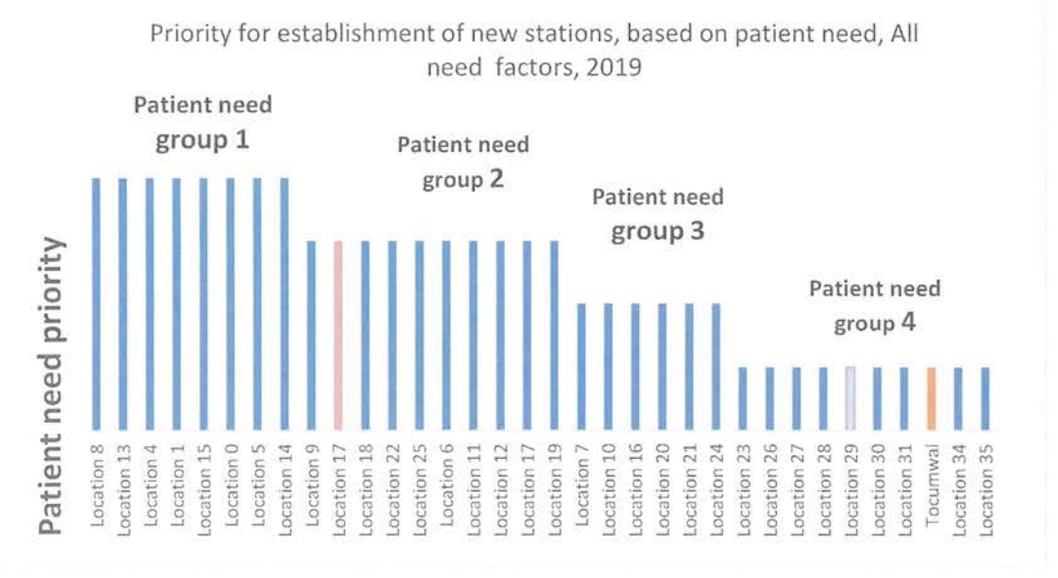
To arrive at an overall priority list based on patient need each of the factors above are considered together. The patient need priority category does not reflect a single measure rather each factor is weighted based on a formula developed with advice of the Clinical Services directorate.

To illustrate the way this operates consider locations 17 and 29.

- Location 17 is at position 1 in metric 1, position 31 in metric 2 and position 32 in metric 3
- It has a very large number of incidents but is relatively close to nearest station with relatively low response times. It is ranked in patient need priority group 2.

- Location 29 is at position 29 in metric 1, position 33 in metric 2 and position 3 in metric 3
- It has relatively few incidents but is relatively distant from nearest station and with poorest response times in the range. It is ranked in patient need priority group 4.

Figure 9 Patient need priority groupings



Attachment: Assessment of priority for new stations

- Need for new stations is calculated on a number of factors primarily;
    - Base wait time for P1 incidents (count only those with a time reduction from new location)
    - Total minutes saved (product of time saved and demand)
    - Weighted % time saved
    - Demand - Paramedic
    - Degree of dispersal.
- These can be simply described as measuring the impact of a new station at each location in providing improvements in response time, the number of emergency incidents and distance of incidents from nearest new or existing station.
- Data from visitors, seasonal population changes as well as residents are included for priority assessment.
- Where evidence of unmet need is available this is included. This is evidenced by a low level of utilisation at a location compared to other locations with similar demographics and with paramedic ambulance stations.
- Where evidence is available of future demand drivers such as new construction of residential facilities utilisation is estimated for demand projections for future years.
- The presence or absence of a clinical volunteer capacity does not influence prioritisation for new stations.
- The prioritisation framework has been developed as an activity of the Senior Leadership Team with major input from Clinical Services Integration Executive Directorate
- Priorities for need are reviewed annually.
- The weighting approach that determines prioritisation is reviewed every three years with advice from Clinical Services Integration.
- Locations with higher priorities for need are reflected in the NSW Ambulance Asset Strategic Plan which has a 10 year time frame and is updated annually.
- Sufficient levels of demand are required for establishment of local paramedic stations. If stations are established where demand is insufficient, paramedics will have insufficient opportunity to maintain a broad range of specialist skills and this challenges clinical quality. If in order for paramedics to retain skills they are absent from the response area providing services for other locations, this defeats the purpose of having a local base and compromises their response times to patients.

Attachment: Assessment of level of need against other towns on Newell Highway

Popular views are sometimes expressed that ambulance stations should be based on locations such as major highways in order to respond to motor accidents.

Location of a town on a particular highway is not a criteria used for assessment of patient need for NSW Ambulance.

The predominant factor that influences demand is the number of people (residents or visitors) in the older age groups.

Of themselves, highways do not generate a significant proportion of demand. Road accidents comprise a relatively small proportion of all emergency ambulance demand. In 2018-19 of 81,000 patients from regional locations who required transport in in the Priority 1 category 4.7% (3,800) were probable or certain motor vehicle related. The variance on this result ranged from 3.7% (mid North Coast) to 6.1% (Central West). The rate for Murrumbidgee was 4.1%

In the case of major trauma for patients in regional locations the resources that are utilised are often beyond those available locally. Extensive use is made of aeromedical that is based in 3 central regional locations and in Sydney. Volunteer services also comprise a significant component of emergency response in dealing with road accidents.

An assessment has been conducted as to the relative need of Tocumwal for an ambulance station against other towns of its size or greater along the Newell Highway between Shepparton and Moree.

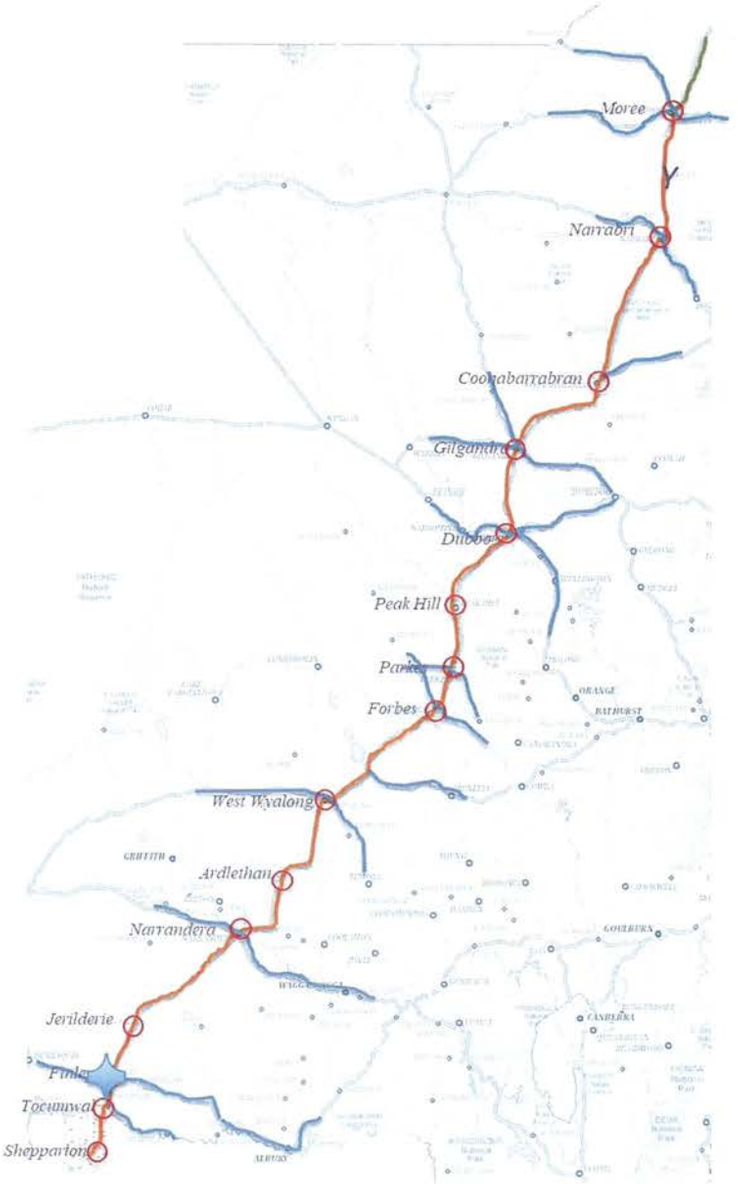
Key considerations include:

- distance from towns with paramedic bases
- population of towns
- current demand - number of high priority incidents in each town

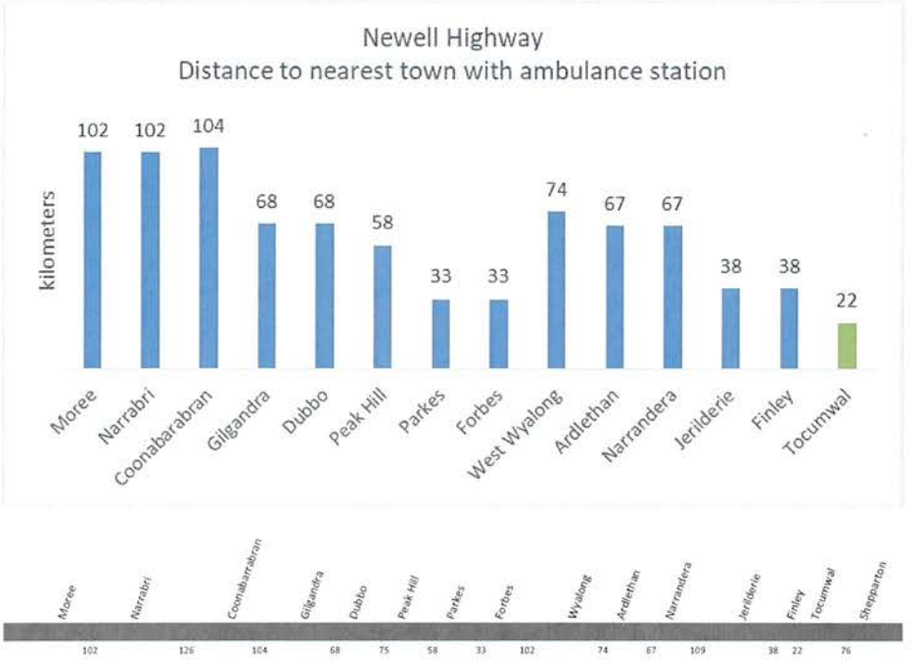
Additional considerations have also been assessed:

- presence or absence of major highway intersections
- date of establishment of stations.

Towns along the Newell Highway

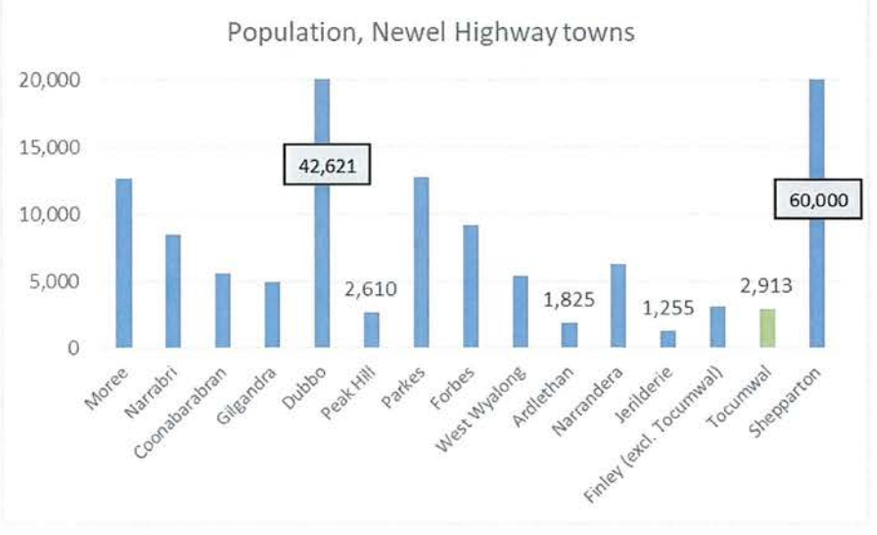


Distance from towns with paramedic bases



When compared with 14 NSW towns on the Newell, Tocumwal has the shortest distance (22 km) to a neighbouring town with a paramedic station base.

Population of towns

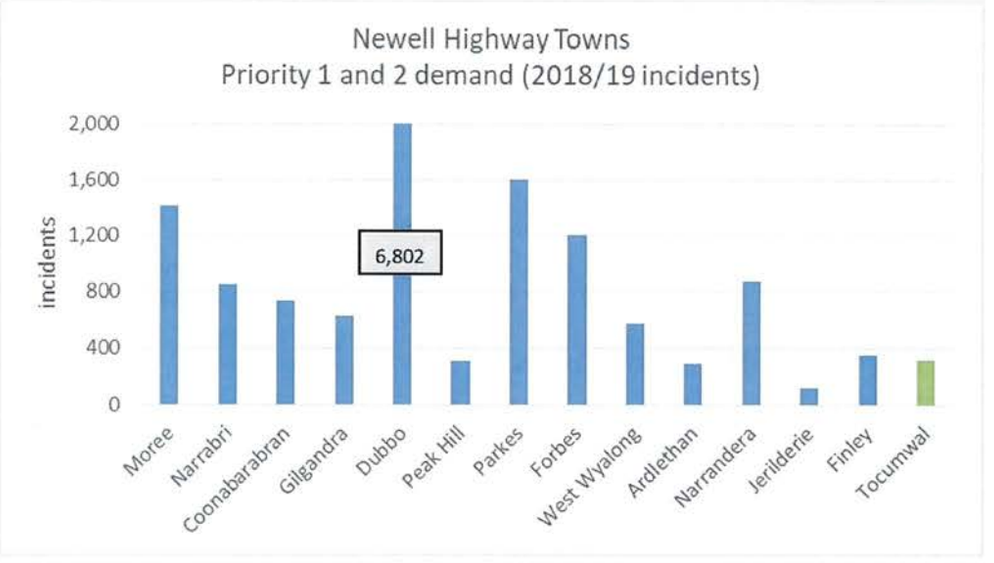


When compared with 14 NSW towns on the Newell, Tocumwal has 4th lowest population and is in the lowest population group (less than 5,000 residents). Although a consideration from local communities, total population is not itself the greatest indicator of need for two reasons:

- The age breakdown of the population has high impact
- In some locations regional visitor numbers impact on demand.

For these reasons current demand is a more significant driver.

Number of high priority emergency incidents in each town



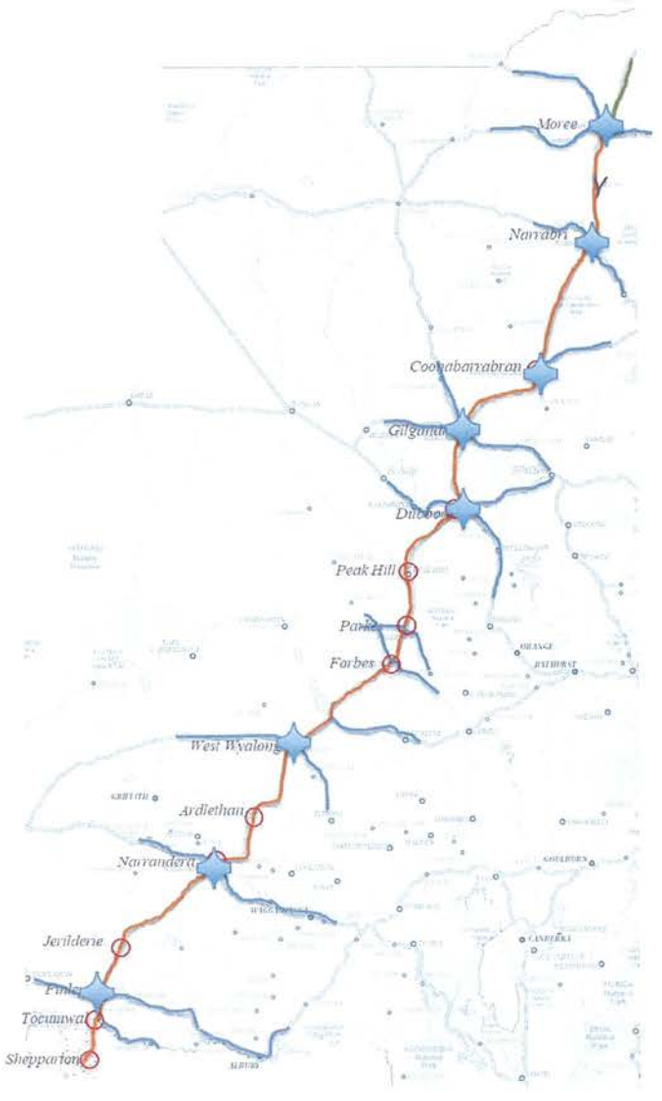
When compared with 14 NSW towns on the Newell, Tocumwal has 3rd lowest P1 and P2 demand and is in the group with the lowest level of demand (less than 500 emergency incidents per year).

The towns which have the lowest level of demand, including Tocumwal, would provide a challenge for paramedics to retain their clinical skills due to each paramedic only having primary responsibility for the care of between 0.5 and 1.4 patients per week.

Other factors for consideration for station location – major intersections

In some instances location of a paramedic base can be influenced by its location on major cross-roads. This can be relevant where that location provides a good opportunity to access other response areas at instances of high demand.

On the figure below, towns on major intersections between Newell with other highways are identified. Eight of 14 towns meet this consideration. Finley is one of the eight but Tocumwal is not. The other locations that do have paramedic stations that do not meet this consideration are Peak Hill, Parkes and Forbes. Parkes and Forbes have more than 4 times the level of demand of Tocumwal. While Peak Hill demand is not substantially different from that of Tocumwal. The distance from Peak Hill to nearest paramedic station (58K) is almost three times that of Tocumwal, which has two paramedic stations within the same distance.



Other factors – date of establishment of stations on the Newell

Over the 125 years of establishment of ambulance services in NSW other than closures for the purpose of relocation or changes in function, very few stations are disestablished when the factors change that were relevant considerations at the time of their establishment. Some of these are located in towns that formerly had higher populations and industry that was associated with high levels of injury and attracted substantial short term population.

This provides a legacy issue of a number of stations with very low demand that would not meet contemporary criteria for establishment of a service. The date of establishment of services in some instances provides insight as to the relevant local factors that were consideration for service establishment at previous times.

The date of establishment of Newell highway stations is set out below.

Station	Date
Moree	1915
Narrabri	1935
Coonabarabran	1937
Gilgandra	1925
Dubbo	1929
Peak Hill	1940
Parkes	1938
Forbes	1938*
West Wyalong	1955*
Ardlethan	1919
Narrandera	1943
Jerilderie	1953*
Finley	1954*

*Approximate – exact date not known

Conclusion

The dates of establishment of other services along the Newell Highway significantly pre-date the turn of the current century and most were developed in a different social and infrastructure context. All were established as "ambulance drivers" and predate contemporary the development of clinical paramedicine.

Having considered relevant factors when patient need for a service at Tocumwal is weighed against other towns on the Newell Highway, there are several sound reasons why continuation of the current clinical volunteer model at Tocumwal is appropriate. These include:

- Relatively low level of demand
- Relatively short distance to nearest paramedic station
- Relatively close location to two paramedic stations
- Absence of specific locational factors such as major road intersections that could also be consideration as a reason to establish a service that had a wider role than the local response area.