Table S1: Databases and search strategy.

Search Number	Search Term	Results
	MEDLINE (Ovid)	
1	rural.mp. or Rural Health/ or Hospitals, Rural/ or Rural Population/ or Rural Health Services/	176294
2	remote.mp.	83001
3	regional.mp.	338577
4	agricultur*.mp.	135184
5	farm*.mp.	115158
6	1 or 2 or 3 or 4 or 5	787887
7	exp "Wounds and Injuries"/	930960
8	injur*.mp.	1263404
9	accident*.mp.	202620
10	exp Accidents/	196746
11	exp Self-Injurious Behavior/	73967
12	(trauma* or injur* or wound* or accident* or collision* or drown* or poison* or burn* or suicide*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	2105873
13	7 or 8 or 9 or 10 or 11 or 12	2427833
14	6 and 13	68408
15	(Australia or "Australian Capital Territory" or "Queensland" or "New South Wales" or Victoria or "Northern Territory" or Tasmania).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]	198680
16	14 and 15	1827
17	limit 16 to (humans and yr="2010 -Current")	1066
	PUBMED	

1	australia or queensland or "new south wales" or "australian capital territory" or victoria or "northern territory" or tasmania	755043
2	trauma* or injur* or wound* or accident* or collision* or drown* or poison* or burn* or suicide*	2384795
3	rural[Title/Abstract] OR isolated[Title/Abstract] O Regional[Title/Abstract] OR remote[Title/Abstract] OR farm*[Title/Abstract] OR agricultur*[Title/Abstract]	1617475
4	#1 AND #2 AND #3	5179
5	#1 AND #2 AND #3 Filters: from 2010/1/1 - 2021/5/31	3346
6	#1 AND #2 AND #4 Filters: Journal Article, Meta-Analysis, from 2010/1/1 - 2021/5/31	3277
7	#1 AND #2 AND #3 Filters: Journal Article, from 2010/1/1 - 2021/5/31	3277
8	#1 AND #2 AND #3 Filters: Journal Article, Humans, from 2010/1/1 - 2021/5/31	2136
9	#1 AND #2 AND #3 Filters: Journal Article, Humans, English, from 2010/1/1 - 2021/5/31	2133
	SCOPUS	
	TITLE-ABS-KEY ((*australia* OR *queensland* OR *"new south wales"* OR *victoria* OR *"northern territory"* OR *"australian capital territory"* OR *tasmania*) AND (*rural* OR *isolated* OR *regional* OR *remote* OR *farm** OR *agricultur**) AND (*trauma** OR *injur** OR *wound** OR *accident** OR *collision** OR *drown** OR *poison** OR *burn** OR *suicide**)) AND (LIMIT-TO (AFFILCOUNTRY , *"Australia"*)) AND (LIMIT-TO (DOCTYPE , *"ar"*)) AND (LIMIT-TO (EXACTKEYWORD , *"Australia"*) OR LIMIT-TO (EXACTKEYWORD , *"Human"*) OR LIMIT-TO (EXACTKEYWORD , *"Humans"*)) AND (LIMIT-TO (LANGUAGE , *"English"*)) AND (LIMIT-TO (SRCTYPE , *"j"*)) AND (LIMIT-TO (PUBYEAR , *2021*) OR LIMIT-TO (PUBYEAR , *2020*) OR LIMIT-TO (PUBYEAR , *2019*) OR LIMIT-TO (PUBYEAR , *2018*) OR LIMIT-TO (PUBYEAR , *2017*) OR LIMIT-TO (PUBYEAR , *2016*) OR LIMIT-TO (PUBYEAR , *2015*) OR LIMIT-TO (PUBYEAR , *2014*) OR LIMIT-TO (PUBYEAR , *2013*) OR LIMIT-TO (PUBYEAR , *2012*) OR LIMIT-TO (PUBYEAR , *2011*) OR LIMIT-TO (PUBYEAR , *2010*))	1256
	PsycINFO (ProQuest)	
	(australia or queensland or "new south wales" or victoria or "northern territory" or tasmania or "australian capital territory") AND (rural or isolated or regional or remote or farm* or agricultur*) AND (trauma* or injur* or wound* or accident* or collision* or drown* or poison* or burn* or suicide*)	598
	SPORTSDiscus	
1	(australia or queensland or "new south wales" or victoria or "northern territory" or tasmania or "australian capital territory") AND (rural or isolated or regional or remote or farm* or agricultur*) AND (trauma* or injur* or wound* or accident* or collision* or drown* or poison* or burn* or suicide*) **Expanders** - Apply equivalent subjects **Search modes** - Boolean/Phrase	498
2	(australia or queensland or "new south wales" or victoria or "northern territory" or tasmania or "australian capital territory") AND (rural or isolated or regional or remote or farm* or agricultur*) AND (trauma* or injur* or wound* or accident* or collision* or drown* or poison* or burn* or suicide*) **Limiters** - Published Date: 20100101202112 31 **Expanders** - Apply equivalent subjects **Search modes** - Boolean/Phrase	346

3	(australia or queensland or "new south wales" or victoria or "northern territory" or tasmania or "australian capital territory") AND (rural or isolated or regional or remote or farm* or agricultur*) AND (trauma* or injur* or wound* or accident* or collision* or drown* or poison* or burn* or suicide*) **Limiters** - Published Date: 20100101202112 31 **Expanders** - Apply equivalent subjects **Narrow by Language:** - English **Search modes** - Boolean/Phrase	303
Cinahl		
1	"rural or remote or isolated or regional" OR (MH "Services for Australian Rural and Remote Allied Health") OR (MH "Rural Health Centers") OR (MH "Hospitals, Rural") OR (MH "Rural Population") OR (MH "Rural Health Services") **Expanders** - Apply equivalent subjects **Search modes** - Boolean/Phrase	20776
2	MH "Australia") OR (MH "Australian Capital Territory") OR (MH "New South Wales") OR (MH "Northern Territory") OR australia or queensland or "new south wales" or victoria or tasmania or "norther territory" or "australian capital territory"" OR (MH "South Australia") OR (MH "Victoria") OR(MH "Tasmania") OR (MH "Queensland") OR (MH "Western Australia") **Expanders** - Apply equivalent subjects **Search modes** - Boolean/Phrase	155446
3	(MH "Agriculture") OR (MH "Farmworkers") OR agricultur* or farm* **Expanders** - Apply equivalent subjects **Search modes** - Boolean/Phrase	24138
4	(MH "Agriculture") OR (MH "Farmworkers") OR agricultur* or farm* AND (S1 OR S3) **Expanders** - Apply equivalent subjects **Search modes** - Boolean/Phrase	24138
5	S1 OR S3 **Expanders** - Apply equivalent subjects **Search modes** - Boolean/Phrase	44307
6	(MH "Drown") OR (MH "Registries, Trauma") OR (MH "Multiple Trauma") OR (MH "Severity of Injury") OR (MH "Near Drowning") OR (MH "Trauma") OR (MH "Accidents, Traffic") or trauma* or injur* or wound* or accident* or collision* or drown* or poison* or burn* or suicide* OR (MH "Arsenic Poisoning") OR (MH "Burn Units") OR (MH "Accidents, Occupational") OR (MH "Wounds and Injuries") **Expanders** - Apply equivalent subjects **Search modes** - Boolean/Phrase	614103
7	S5 AND S6 **Expanders** - Apply equivalent subjects **Search modes** - Boolean/Phrase	4173
8	S2 AND S7 **Expanders** - Apply equivalent subjects **Search modes** - Boolean/Phrase	276
9	S2 AND S7 **Limiters** - Published Date: 20100101202112 31 **Expanders** - Apply equivalent subjects **Search modes** - Boolean/Phrase	186
10	S2 AND S7 **Limiters** - Published Date: 20100101202112 31 **Expanders** - Apply equivalent subjects **Narrow by Language:** - English **Search modes** - Boolean/Phrase	171

Table S2. Australian rural injury included studies.

Author	Year	Date Range	Location	Total Number Participants	Study Type	Level of Evidence	JBI Bias Score	ICD Coding
Abrari Vajari et al.	2020	2006-2018	Victoria	7714	Retrospective total population cohort study	III-3	≥70%	No
Adams et al.	2017	2000-2011	New South Wales	955	Retrospective cohort study	III-3	≥70%	Yes
Aitken et al.	2010	2003-2006	Queensland	6069	Retrospective cohort study	III-3	≥70%	No
Arnautovska et al.	2014	2000-2009	Queensland	5608	Retrospective total population cohort study	III-3	≥70%	No
Baker et al.	2014	2011-2012	Victoria	14138	Cross-Sectional sub-population cohort study	IV	≥70%	No
Beck et al.	2017	2008-2014	Victoria	2334	Retrospective sub-population cohort study	III-3	≥70%	No
Beck et al.	2019	2006-2016	Victoria	1511	Retrospective sub-population cohort study	III-3	≥70%	Yes
Berry et al.	2010	2000-2006	Australia	95485	Retrospective total population cohort study	III-3	≥70%	Yes
Boufous et al.	2012	2004-2008	Victoria	6432	Retrospective total population cohort study	III-3	≥70%	No
Boufous et al.	2013	2004-2008	Victoria	317	Retrospective sub-population cohort study	III-3	≥70%	No
Cairns et al.	2019	2015-2017	New South Wales	506	Retrospective sub-population cohort study	III-3	≥70%	No
Campbell et al.	2016	2005-2014	Kimberly Region (WA)	125	Retrospective sub-population audit	III-3	≥70%	No
Cenderadewi et al.	2019	2006-2014	Australia	2731	Retrospective total population cohort study	III-3	≥70%	Yes
Chang et al.	2018	2001-2012	Victoria	172	Retrospective sub-population cohort study	III-3	≥70%	No
Chang et al.	2020	2001-2016	Victoria	88	Retrospective sub-population cohort study	III-3	≥70%	No
Cheng et al.	2012	2000-2010	Wimmera Base Hospital (VIC)	57	Retrospective sub-population audit	III-3	≥70%	No
Chen et al.	2012	2000-2007	New South Wales	11829	Retrospective sub-population audit	III-3	≥70%	Yes
Chen et al.	2010	1997-2007	New South Wales	77	Retrospective sub-population audit	III-3	≥70%	No
Cheung et al.	2012	2004-2008	Australia	2507	Retrospective total population cohort study	III-3	≥70%	Yes
Coomber et al.	2013	1999-2001	Victoria	82662	Retrospective sub-population cohort study	III-3	≥70%	No
Cox et al.	2018	2010-2017	Victoria	324060	Retrospective sub-population cohort study	III-3	≥70%	No
Curtis et al.	2012	2003-2007	New South Wales	9769	Retrospective total-population review	III-3	≥70%	No
Curtis et al.	2020	2015-2017	New South Wales	625	Longitudinal sub-population cohort study	III-3	≥70%	No
Czech et al.	2010	2001-2007	New South Wales	264	Retrospective total population cohort study	III-3	≥70%	No
Derek Cheung et al.	2014	2004-2008	Australia	258	Retrospective total population cohort study	III-3	≥70%	No
Dinh et al.	2016	2009-2014	New South Wales	11423	Retrospective total-population audit	III-3	≥70%	No
Dipnall et al.	2020	2006-2016	Victoria	1281	Retrospective total-population audit	III-3	≥70%	No
Duke et al.	2012	1983-2008	Western Australia	23450	Retrospective sub-population audit	III-3	≥70%	Yes
Edmonston et al.	2020	2007-2008	North Queensland	229	Cross-Sectional sub-population cohort study	IV	≥70%	No

Eranki et al.	2016	2009-2012	Western Australia	51	Retrospective sub-population cohort study	III-3	≥70%	No
Esterman et al.	2018	2007-2015	North Queensland	3083	Retrospective total population cohort study	III-3	≥70%	Yes
Falster et al.	2013	2001-2007	New South Wales	86969	Retrospective total population cohort study	III-3	≥70%	Yes
Fatovich et al.	2011a	1997-2006	Western Australia	1328	Retrospective sub-population cohort study	III-3	≥70%	No
Fatovich et al.	2011b	1997-2006	Western Australia	3333	Retrospective sub-population cohort study	III-3	≥70%	Yes
Finch et al.	2020	2010-2017	Victoria	1479	Retrospective total-population review	III-3	≥70%	Yes
Fragar et al.	2013	-	Australia	2639	Cross-Sectional sub-population cohort study	IV	≥70%	Yes
Franklin et al.	2021	2010-2014	Queensland	73 042	Retrospective case series	IV	≥70%	No
Frear et al.	2018	2013-2016	Queensland	2522	Cross-Sectional sub-population cohort study	IV	≥70%	No
Garwood et al.	2020	2012-2016	Western Australia	43041	Retrospective total-population audit	III-3	≥70%	Yes
Gilligan et al.	2007	2000-2013	South Australia	162	Retrospective case series	IV	≥70%	No
Giummarra et al.	2019	2008-2014	Victoria	4440	Retrospective total-population review	III-3	≥70%	Yes
Giummarra et al.	2020	2009-2016	Victoria	5528	Retrospective case series	IV	≥70%	Yes
Greenup et al.	2020	2016	Queensland	2 946 584	Retrospective case series	IV	≥70%	No
Gregor et al.	2019	2011-2018	New South Wales	1088	Retrospective case series	IV	≥70%	No
Griffin et al.	2018	1999-2009	Queensland	1506	Retrospective total-population cohort study	III-3	≥70%	No
Handley et al.	2012	2006-2009	Australia	618	Longitudinal total-population cohort study	III-3	≥70%	Yes
Handley et al.	2018	2006-2009	Australia	364	Longitudinal total-population cohort study	III-3	≥70%	Yes
Hanigan et al.	2012	2007-2009	New South Wales	-	Retrospective total-population audit	III-3	≥70%	Yes
Harrison et al.	2012	1970-2007	Australia	103782	Retrospective total-population audit	III-3	≥70%	Yes
Havard et al.	2011	2000-2006	New South Wales	7406	Retrospective sub-population cohort study	III-3	≥70%	Yes
Heathcote et al.	2020	2014-2017	Queensland	1025	Retrospective total-population cohort study	III-3	≥70%	Yes
Hill et al.	2020	2006-2015	Australia	120	Retrospective total population cohort study	III-3	≥70%	Yes
Holloway-Kew et al.	2020	2014-2016	Victoria	1126	Cross-Sectional sub-population cohort study	IV	≥70%	No
Holloway-Kew et al.	2019	2014-2016	Victoria	14413	Cross-Sectional sub-population cohort study	IV	≥70%	No
Holloway et al.	2018	2010-2013	Victoria	1305	Cross-Sectional sub-population cohort study	IV	≥70%	Yes
Hoskins et al.	2013	2000-2011	Wimmera (VIC)	19	Retrospective sub-population audit	III-3	≥70%	No
Hyland et al.	2015	2008-2012	Westmead (NSW)	4326	Retrospective sub-population cohort study	III-3	≥70%	No
Inder et al.	2014	2006-2009	Australia	8463	Longitudinal total-population cohort study	III-3	≥70%	Yes
Inder et al.	2017	2006-2009	New South Wales	2639	Longitudinal total-population cohort study	III-3	≥70%	Yes
Irie et al.	2012	2005-2008	Queensland	282	Retrospective sub-population cohort study	III-3	≥70%	Yes
Iversen et al.	2017	2014	Australia	1488	Cross-Sectional sub-population cohort study	IV	≥70%	No
Johnston et al.	2017	200-2015	Australia	1548	Retrospective case series	IV	≥70%	No

Katzenellenbogen et al.	2018	2002-2011	Western Australia	16601	Retrospective total-population review	III-3	≥70%	Yes
Kavalidou et al.	2015	1990-2015	Queensland	1375	Retrospective total population cohort study	III-3	≥70%	No
Keel et al.	2017	2015-216	Australia	4836	Cross-Sectional sub-population cohort study	IV	≥70%	No
Kennedy et al.	2019	2013-2015	Northern Territory	104	Retrospective sub-population audit	III-3	≥70%	Yes
Kingston et al.	2014	2012	North Queensland	15	Interpretive phenomenological research design	IV	≥70%	No
Knight et al.	2012	2011	New South Wales	101	Cross-Sectional sub-population cohort study	IV	≥70%	No
Knight et al.	2012	2011	New South Wales	452	Mixed-Method Cross-Sectional sub-population cohort study	IV	≥70%	No
Kolves et al.	2015	2002-2011	Queensland	5752	Retrospective total population cohort study	III-3	≥70%	No
Koo et al.	2019	2000-2013	Queensland	1086	Retrospective total population cohort study	III-3	≥70%	No
Kruger et al.	2010	1999-2005	Western Australia	-	Retrospective sub-population audit	III-3	≥70%	No
Lane et al.	2021	2010-215	Australia (excluding ACT)	919924	Retrospective total-population audit	III-3	≥70%	No
Lang et al.	2014	2005-2009	Queensland	72240	Retrospective total-population audit	III-3	≥70%	Yes
Law et al.	2014	2004-2008	Queensland	2803	Retrospective total-population audit	III-3	≥70%	No
Law et al.	2013	1996-2007	Queensland	6555	Retrospective total-population audit	III-3	≥70%	Yes
Lawes et al.	2020	2004-2019	Australia	67	Retrospective sub-population cohort study	III-3	≥70%	No
Leckning et al.	2020	2013	Alice Springs /Darwin(NT)	167	Retrospective sub-population audit	III-3	≥70%	No
Liddle et al.	2020	2006-2015	Darwin (NT)	150	Retrospective sub-population audit	III-3	≥70%	No
Lim et al.	2020	2010-2015	Northern Territory	248	Retrospective analysis of trauma registry	III-3	≥70%	No
Liu et al.	2013	2010-2012	Tasmania	143	Retrospective sub-population audit	III-3	≥70%	No
LoGiudice et al.	2012	2004-2006	Kimberly (Western Australia)	363	Cross-Sectional sub-population cohort study	IV	≥70%	No
Lower et al.	2017	2010-2014	New South Wales	6270	Retrospective total population cohort study	III-3	≥70%	Yes
Lukaszyk et al.	2018	2010-2012	New South Wales	336	Cross-Sectional sub-population cohort study	IV	≥70%	No
Margolis et al.	2011	1996-2010	Queensland	5375	Ecological Retrospective sub-population audit	III-3	≥70%	No
Marshall et al.	2016	2012-2014	Orange (NSW)	151	Retrospective sub-population audit	III-3	≥70%	No
McDermott et al.	2017	2003-2013	Northern Territory	141,761	Retrospective total-population audit	III-3	≥70%	Yes
McHugh et al.	2017	2014	Western Australia	579	Prospective sub-population observational Study	III-3	≥70%	No
McLaren et al.	2020	2019	Victoria	609	Prospective sub-population convenience sample	III-3	≥70%	No
McPhedran et al.	2013	1990-2008	Queensland	3203	Retrospective total-population audit	III-3	≥70%	No

McPhee et al.	2021	2014-2018	Western Australia	-	Retrospective cross-sectional audit	IV	≥70%	No
Meuleners et al.	2016	2001-2013	Western Australia	32519	Retrospective total-population cohort study	III-3	≥70%	Yes
Meuleners et al.	2010	1990-2004	Western Australia	3607	Retrospective total-population cohort study	III-3	≥70%	Yes
Miller et al.	2012	1999-2009	Victoria	9500	Case Series sub-population cohort study	IV	≥70%	No
Millhouse et al.	2019	2016-2017	Coffs Harbour (NSW)	38986	Retrospective total-population cohort study	III-3	≥70%	No
Mitchell et al.	2016	2009	Australia	167600	Retrospective sub-population cohort study	III-3	≥70%	Yes
Mitchell et al.	2010	2000-2005	New South Wales	609970	Case Series total-population cohort study	IV	≥70%	Yes
Mitchell et al.	2018	2001-2012	Australia	686409	Retrospective total-population cohort study	III-3	≥70%	No
Mitchell et al.	2018	2010-2014	New South Wales	496325	Case Series sub-population cohort study	IV	≥70%	Yes
Mitchell, et al.	2017	2009	Australia	167600	Case Series sub-population cohort study	IV	≥70%	Yes
Miu et al.	2016	2010-2014	New South Wales	4263	Retrospective sub-population cohort study	III-3	≥70%	Yes
Moller et al.	2018	2000-2014	New South Wales	1124717	Retrospective total-population cohort study	III-3	≥70%	Yes
Newman et al.	2010	2008-2009	Tasmania	40	Descriptive exploratory sub-population study	III-3	≥70%	No
Northey et al.	2014	2011-2012	Wagga Wagga (NSW)	528	Case Series sub-population cohort study	IV	≥70%	Yes
O'Hern et al.	2018	2006-1015	QLD/NSW/VIC	336	Retrospective total-population audit	III-3	≥70%	No
Osborne et al.	2017	2001-2013	Australia	209	Observational sub-population study	III-3	≥70%	No
Peck et al.	2020	2017-2019	Victoria	8647	Retrospective sub-population cohort study	III-3	≥70%	Yes
Peden et al.	2020	2007-2017	Australia	5153	Retrospective total-population audit	III-3	≥70%	Yes
Peden et al.	2018	2018	Australia	688	Cross-Section sub-population audit	IV	≥70%	No
Peden et al.	2018	2018	Australia	684	Cross-Section sub-population audit	IV	≥70%	Yes
Peden et al.	2020	2002-2018	Australia	23	Retrospective total-population audit	III-3	≥70%	Yes
Peden et al.	2020	2013-2018	Australia	342	Retrospective total-population audit	III-3	≥70%	Yes
Peiris et al.	2020	2016	Australia	4733	Retrospective total-population audit	III-3	≥70%	No
Pinidiyapathirage et al.	2019	2017	Queensland	352	Case Series sub-population cohort study	IV	≥70%	No
Ponsford et al.	2010	1984-2006	Richmond (Victoria)	959	Case Series sub-population cohort study	IV	≥70%	No
Pozzato et al.	2019	2007	New South Wales	6827	Retrospective total-population audit	III-3	≥70%	Yes
Prabhakaran et al.	2018	2017	Horsham (Victoria)	26	Case Series sub-population cohort study	IV	≥70%	No
Qi et al.	2014	1986-2005	Australia	45293	Retrospective total-population audit	III-3	≥70%	Yes
Qi et al.	2010	1999-2003	Queensland	2445	Retrospective total-population audit	III-3	≥70%	Yes
Randall et al.	2017	2000-2012	Western Australia	10712	Case Series sub-population cohort study	IV	≥70%	No
Rintoul et al.	2011	2000-2009	Victoria	327	Retrospective total-population audit	III-3	≥70%	Yes
Rouen et al.	2019	2006-2011	Far North Queensland	277	Case Series sub-population cohort study	IV	≥70%	Yes

Sankaranarayanan et al.	2010	2003-2007	Hunter (NSW)	44	Case Series sub-population cohort study	IV	≥70%	No
Schmertmann et al.	2014	1999-2008	New South Wales	5439	Retrospective total-population audit	III-3	≥70%	Yes
Senserrick et al.	2014	2004-2008	Victoria	3,702	Retrospective total population study	III-3	≥70%	No
Simpson et al.	2016	-	New South Wales	503	Prospective cross sectional multi-centre study	IV	≥70%	No
Siskind et al.	2011	2004-2007	Rural North Queensland	803	Retrospective sub-population cohort study	III-3	≥70%	No
Snijder et al.	2020	2012-2014	New South Wales	125834	Retrospective total population study	III-3	≥70%	Yes
Soole et al.	2014a	2000-2010	Queensland	69	Retrospective total population study	III-3	≥70%	No
Soole et al.	2014b	2004-2012	Queensland	149	Case control study	III-2	≥70%	Yes
Stokes et al.	2020	2010-2012	Victoria	2154	Retrospective total population study	III-3	≥70%	No
Suen et al.	2016	1999-2013	Victoria	725	Retrospective total population study	III-3	≥70%	No
Sukumar et al.	2016	2003-2012	New South Wales	185670	Retrospective total population study	III-3	≥70%	No
Sun et al.	2019	2003-2013	Fitzroy/Amphetamines (WA)	-	Retrospective total population study	III-3	≥70%	No
Tait et al.	2010	2003-2004	Queensland	567	Retrospective total population study	III-3	≥70%	No
Tiemensma	2019	2003-2018	Norther Territory	4535	Retrospective total population study	III-3	≥70%	No
Torok et al.	2017	2005-2013	New South Wales	91483	Retrospective total population study	III-3	≥70%	Yes
Walker et al.	2013	12007-2009	Rockhampton (QLD)	570	Retrospective sub-population cohort study	III-3	≥70%	No
Wallis et al.	2015	2002-2008	Queensland	1299	Retrospective total population study	III-3	≥70%	Yes
Wallis et al.	2015	2002-2008	Queensland	87	Retrospective sub-population cohort study	III-3	≥70%	Yes
Walsh et al.	2017	2008-2012	Hunter region (NSW)	495	Retrospective sub-population cohort study	III-3	≥70%	Yes
Watson et al.	2015	2009	Queensland	-	Retrospective sub-population cohort study	III-3	≥70%	Yes
Welton, Williams et al.	2017	2000-2013	Australia	41585	Retrospective total population study	III-3	≥70%	Yes
Werner et al.	2018	1995-2011	Rural Queensland	80882	Retrospective sub-population cohort study	III-3	≥70%	Yes
West and Rouen	2019	2006-2011	Cape York Peninsula (QLD)	229	Retrospective sub-population cohort study	III-3	≥70%	Yes
West et al.	2018	2006-2011	Far North Queensland	NR	Retrospective total population study	III-3	≥70%	Yes
West et al.	2019	2006-2011	Cape York Peninsula (QLD)	563	Retrospective sub-population cohort study	III-3	≥70%	Yes
Willcox-Pidgeon et al.	2019	2005-2015	Australia	415	Retrospective total population study	III-3	≥70%	No
WongShee et al.	2015	2003-2012	Victoria	NS	Retrospective total population cohort study	III-3	≥70%	Yes
WongShee et al.	2017	2003-2012	Reginal Victoria	17915	Retrospective total population cohort study	III-3	≥70%	Yes

Wundersitz et al.	2017	2008-2010	South Australia	403	Retrospective cohort study	III-3	≥70%	No

NR – Not Reported

Table S3. Epidemiology of rural injury included studies.

Author	Published	Date Range	Location	Age	Intent I/U/B	Injury Type/Mechanism	Fatal/Non-Fatal	Increase with Rurality
Abrari Vajari et al.	2020	2006-2018	Victoria	All ages	NR	Motorcycle crash injury	Both	Both
Adams et al.	2017	2000-2011	New South Wales	0-16 years	U	Splenic injury - pedestrian, motor vehicle, motor cyclist, pedal cyclist, accidental fall	Both	Yes
Aitken et al.	2010	2003-2006	Queensland	65-85 + years	NR	All injury types	Both	No comparison
Arnautovska et al.	2014	2000-2009	Queensland	34-55 years	I	Suicide	Fatal	Yes
Baker et al.	2014	2011-2012	Victoria	All ages	NR	All injury types + poisoning	Non-fatal	No comparison
Beck et al.	2017	2008-2014	Victoria	16+ years	B	Traumatic cardiac other than hanging or drowning - including motor vehicle, pedestrian, fall, shooting/stabbing other	Both	No
Beck et al.	2019	2006-2016	Victoria	<16 years	UI	Mechanism (motor vehicle, motor collision, pedestrian, fall, collision, horse, submersion, fire, cut, other) type (blunt, penetrating, burn, other)	Non-fatal	No
Berry et al.	2010	2000-2006	Australia	0-14 years	B	Traumatic brain injury - mechanism (falls, transport, mechanical force, assault, other)	Non-fatal	Yes
Boufous et al.	2012	2004-2008	Victoria	All ages	NR	Cyclist crash	Both	Yes
Cairns et al.	2019	2015-2017	New South Wales	<18 years	NR	Button battery exposure	Non-fatal	Yes
Cenderadewi et al.	2019	2006-2014	Australia	All ages	Both	Drowning	Fatal	Yes
Chang et al.	2018	2001-2012	Victoria	0-14 years	NR	Road traffic injury	Fatal	Yes

Chang et al.	2020	2001-2016	Victoria	0-14 years	U	Drowning	Fatal	Yes
Cheng et al.	2012	2000-2010	Wimmera (VIC)	<18 years	U	Poisoning	Non-fatal	Yes
Chen et al.	2012	2000-2007	New South Wales	10-17 years	U	Car-crash hospitalisations	Non-fatal	Yes
Chen et al.	2010	1997-2007	New South Wales	17-25 years	NR	Road traffic injury	Fatal	Yes
Cheung et al.	2012	2004-2008	Australia	All ages	I	Suicide	Fatal	Yes
Coomber et al.	2013	1999-2001	Victoria	<45 years	NR	Alcohol-related injury	Non-fatal	Yes
Cox et al.	2018	2010-2017	Victoria	65< years	U	Falls	Non-fatal	Yes
Curtis et al.	2012	2003-2007	New South Wales	15< years	NR	All injury	Both	Yes
Curtis et al.	2020	2015-2017	New South Wales	2-13 years	B	All injury	Non-fatal	No
Czech et al.	2010	2001-2007	New South Wales	All ages	NR	Alcohol-related fatal traffic	Fatal	Yes
Derek Cheung et al.	2014	2004-2008	Australia	All ages	I	Suicide	Fatal	Yes
Dipnall et al.	2020	2006-2016	Victoria	0-15 years	NR	All paediatric trauma	Both	Yes
Duke et al.	2012	1983-2008	Western Australia	All ages	B	Burns	Non-fatal	Yes
Esterman et al.	2018	2007-2015	North Queensland	15-64 years	B	Traumatic brain injury - all mechanism	Not specified	Yes
Fatovich et al.	2011a	1997-2006	Western Australia	0-87 years	NR	All cause injury	Not specified	Yes
Fatovich et al.	2011b	1997-2006	Western Australia	0-87 years	B	All cause injury	Not specified	Yes
Garwood et al.	2020	2012-2016	Western Australia	All ages	NR	Injury and poisoning	Not specified	No comparison
Gilligan et al.	2007	2000-2013	South Australia	15-80+ years	NR	Traumatic intracranial haematoma all causes	Both	No

Greenup et al.	2020	2016	Queensland	All ages	NR	Road mortality associated with hospital presentation	Fatal	Yes
Griffin et al.	2018	1999-2009	Queensland	0-14 years	U	Low speed vehicle run over events	Both	Yes
Harrison et al.	2012	1970-2007	Australia	15-24 years	B	Head injury and traumatic brain injury - all causes	Both	Yes
Heathcote et al.	2020	2014-2017	Queensland	18< years	B	Injured trauma patients all cause	Both	Yes
Holloway-Kew et al.	2020	2014-2016	Victoria	40< years	NR	Fall from height all cause	Both	No
Holloway-Kew et al.	2019	2014-2016	Victoria	40< years	NR	Falls all causes	Not specified	No
Holloway et al.	2018	2010-2013	Victoria	40< years	NR	Hip fracture all causes	Not specified	No
Hyland et al.	2015	2008-2012	Westmead (NSW)	<18 years	B	Burns all causes	Not specified	Yes
Inder et al.	2014	2006-2009	Australia	18+ years	I	Suicide all causes	Non-fatal	No
Irie et al.	2012	2005-2008	Queensland	<17 years	I	Assault related injury all causes	Both	Yes
Iversen et al.	2017	2014	Australia	All ages	I	Opioid injection	Both	Yes
Johnston et al.	2017	200-2015	Australia	All ages	U	Snake bites	Both	Yes
Katzenellenbogen et al.	2018	2002-2011	Western Australia	15-79 years	U	Traumatic brain injury all cause	Non-fatal	Yes
Kavalidou et al.	2015	1990-2015	Queensland	-	Intentional	Suicide all cause	Fatal	No Comparison
Keel et al.	2017	2015-216	Australia	40-98 years	NR	Ocular injury all cause	Non-fatal	Yes
Kennedy et al.	2019	2013-2015	Northern Territory	All ages	NR	Ocular injury all cause	Non-fatal	Yes
Kolves et al.	2015	2002-2011	Queensland	All ages	I	Suicide all cause	Fatal	Yes
Koo et al.	2019	2000-2013	Queensland	65+ years	I	Suicide all cause hanging, firearms explosives drug poisoning , poisoning other, suffocation plastic bag, drowning. Other	Fatal	Yes

Kruger et al.	2010	1999-2005	Western Australia	All ages	NR	Jaw fracture all cause	Non-fatal	Yes
Lang et al.	2014	2005-2009	Queensland	All ages	U	Horse related injuries - all cause	Non-fatal	Yes
Lawes et al.	2020	2004-2019	Australia	All ages	U	Drowning (bystander) in costal environment	Fatal	Yes
Leckning et al.	2020	2013	Alice Springs/Darwin(NT)	-	I	Suicide all cause	Non-fatal	Yes
Liddle et al.	2020	2006-2015	Darwin (NT)	16-30 years	NR	Quad bike injuries	Both	Yes
Lim et al.	2020	2010-2015	Northern Territory	27-48 years	I	Interpersonal violence	Both	Both
Liu et al.	2013	2010-2012	Tasmania	65 + years	U	Hip fractures (all cause)	Non-fatal	No Comparison
LoGiudice et al.	2012	2004-2006	Kimberly (WA))	45 + years	U	Falls (all cause)	Non-fatal	No comparison
Lower et al.	2017	2010-2014	New South Wales	All ages	B	Farm Injury (all cause)	Both	Yes
Lukaszyk et al.	2018	2010-2012	New South Wales	All ages	U	Falls (all cause)	Non-fatal	No
Margolis et al.	2011	1996-2010	Queensland	All ages	NR	Injury (all cause - hospitalisation)	Non-fatal	No Comparison
Marshall et al.	2016	2012-2014	Orange (NSW)	18-98 years	NR	Femur Fractures (all cause)	Non-fatal	No Comparison
McDermott et al.	2017	2003-2013	Northern Territory	All ages	B	Injury Trauma (all cause)	Both	Yes
McPhedran et al.	2013	1990-2008	Queensland	All ages	I	Suicidal Ideation (all cause)	Non-fatal	Yes
McPhee et al.	2021	2014-2018	Western Australia	10 + years	I	Self-Harm (all cause)	Non-fatal	Yes
Meuleners et al.	2010	1990-2004	Western Australia	11-18 years	I	Interpersonal Violence	Non-Fatal	No Comparison
Meuleners et al.	2016	2001-2013	Western Australia	60 + years	U	Falls (all cause)	Non-fatal	Yes
Mitchell et al.	2016	2009	Australia	18 + years	B	All injury	Non-fatal	No Comparison

Mitchell et al.	2010	2000-2005	New South Wales	All ages	B	All injury	Both	Yes
Mitchell et al.	2018	2001-2012	Australia	0-16 years	B	All injury	Both	Yes
Mitchell et al.	2018	2010-2014	New South Wales	All ages	B	All injury	Both	Yes
Mitchell, et al.	2017	2009	Australia	18 + years	B	All injury	Non-fatal	No comparison
Miu et al.	2016	2010-2014	New South Wales	55 + years	B	Falls (all cause)	Both	No
Moller et al.	2018	2000-2014	New South Wales	0-17 years	B	Burns (all cause)	Non-fatal	Yes
Newman et al.	2010	2008-2009	Tasmania	All ages	U	All injury	Non-fatal	No Comparison
Northey et al.	2014	2011-2012	Wagga Wagga (NSW)	All ages	U	Eye Trauma (all cause)	Non-fatal	No Comparison
O'Hern et al.	2018	2006-1015	QLD/NSW/VIC	All ages	U	Cyclist injury	Fatal	No Comparison
Osborne et al.	2017	2001-2013	Australia	All ages	B	Pesticide Ingestion (all cause)	Both	Yes
Peck et al.	2020	2017-2019	Victoria	0-14 years	U	All injury	Non-fatal	No comparison
Peden et al.	2020	2007-2017	Australia	0-19 years	B	All injury	Fatal	Yes
Peden et al.	2020	2002-2018	Australia	0-17 years	U	Drowning (portable pools)	Fatal	Yes
Peden et al.	2020	2013-2018	Australia	0-17 years	U	Drowning (all cause)	Fatal	Yes
Peiris et al.	2020	2016	Australia	All ages	B	Road Injury (all cause)	Fatal	Yes
Pinidiyapathirage et al.	2019	2017	Queensland	All ages	U	Agriculture-Related Injuries (all cause)	Both	No Comparison
Pozzato et al.	2019	2007	New South Wales	All ages	B	Traumatic Brain Injury (all cause)	Both	Yes
Prabhakaran et al.	2018	2017	Horsham (Victoria)	All ages	U	Motocross injuries	Non-fatal	No comparison
Qi et al.	2014	1986-2005	Australia	All ages	I	Suicide (all cause)	Fatal	Yes

Qi et al.	2010	1999-2003	Queensland	All ages	I	Suicide (all cause)	Fatal	Yes
Randall et al.	2017	2000-2012	Western Australia	All ages	B	Burns (all cause)	Both	Yes
Rintoul et al.	2011	2000-2009	Victoria	All ages	B	Oxycodone Ingestion (all cause)	Fatal	Yes
Rouen et al.	2019	2006-2011	Far North Queensland	All ages	I	Self-Harm (all cause)	Non-fatal	No comparison
Sankaranarayanan et al.	2010	2003-2007	Hunter (NSW)	15-65 + years	I	Suicide (all cause)	Fatal	Yes
Schmertmann et al.	2014	1999-2008	New South Wales	0-4 years	U	Poisoning (all cause)	Both	Yes
Torok et al.	2017	2005-2013	New South Wales	>5 years	I	Suicides and suicide attempts	Both	Yes
Wallis et al.	2015	2002-2008	Queensland	0-19 years	U	Drowning	Both	No comparison
Wallis et al.	2015	2002-2008	Queensland	0-19 years	U	Drowning	Both	Yes
Watson et al.	2015	2009	Queensland	All ages	B	Road crashes	Both	No comparison
Welton, Williams et al.	2017	2000-2013	Australia	All ages	U	Envenoming	Both	No comparison
Werner et al.	2018	1995-2011	Rural Queensland	0-19 years	B	Injury presentations	Not specified	No comparison
West and Rouen	2019	2006-2011	Cape York Peninsula (QLD)	All ages	U	Dog bite injuries	Non-fatal	No comparison
West et al.	2018	2006-2011	Far North Queensland	All ages	B	Injury presentations, assault and alcohol-related assault	Non-fatal	No comparison
West et al.	2019	2006-2011	Cape York Peninsula (QLD)	0-14 years	B	External causes of injury presentations	Both	No comparison
WongShee et al.	2015	2003-2012	Victoria	All ages	U	Sports injury hospital admissions	Non-fatal	Yes
WongShee et al.	2017	2003-2012	Reginal Victoria	All ages	U	Hospital treated sport injury (ED and admissions)	Non-fatal	No comparison

I – Intentional, U – unintentional, B – Both, NR – Not Reported,

Table S4. Injury Epidemiology by rurality in Australia.

Study	Period	Location	Injury	Outcome	Intent	Annual average number (n)										Rate/100,000 population				
						MC (n)	MC (%)	IR (n)	IR (%)	OR (n)	OR (%)	R (n)	R (%)	VR (n)	VR (%)	MC	IR	OR	R	VR
[58]	2000-2006	Australia	HI 0-14 yrs	NF	UI	56602	59.5	20584	21.6	13159	13.8	2890	3.0	1850	1.9	382.6	366.7	482.2	557.1	511.9
[58]	2000-2006	Australia	TBI 0-14 yrs	NF	UI	10719	48.9	5590	25.5	4012	13.3	1066	4.9	492	2.2	72.4	99.6	147.0	205.5	136.1
[23]	2015-2017	NSW	button battery >18 years	NF	UI	-	-	-	-	-	-	-	-	-	-	0.82	1.52	3.98	4.78	3.51
	2015-2017	NSW	button battery * >18 years	NF	UI	-	-	-	-	-	-	-	-	-	-	0.68	1.12	2.29	1.91	3.51
[57]	2006-2014	Australia	Drowning All ages	F	I	314	70.5	86	19.3	45	10.1	-	-	-	-	-	-	-	-	-
	2006-2014	Australia	Drowning All ages	F	UI	971	59.8	338	20.8	229	14.1	45	2.7	40	2.4	-	-	-	-	-
	2006-2014	Australia	water transport All ages	F	UI	122	47.6	63	24.6	49	19.1	13	5.1	9	3.5	-	-	-	-	-
	2006-2014	Australia	Drowning all ages	F	#	97	58.8	39	23.6	29	17.6	-	-	-	-	0.07	0.11	0.14	0.07	0.11
[27]	2007-2015	FN QLD	TBI 15-64 yrs	B	#	-	0	-	0	2491	80.8	465	15.1	127	4.1	-	-	91	184.1	79.5
[50]	2001-2007	NSW	RTI Aboriginal	#	#	595	25.1	841	35.5	684	28.9	161	6.8	87	3.7					
	2001-2007	NSW	RTI non-aboriginal	#	#	45961	54.5	25934	30.7	11192	13.3	942	1.1	313	3.7					
[28]	1997-2006	WA	ACI 0-87 yrs	#	#													2.25	4.03	4.69
[51]	2010-2014	QLD	ACI-AR All ages	B	B	476	5.1	2388	25.8	3409	36.8	35	10.1	1455	15.7					

[44]	2000-2013	SA	TIH 15-80< yrs	B	B	9	6	45	28	79	49	22	14	7	4					
	2000-2013	SA	TIH 15-80< yrs	NF	NF	4	44	16	36	19	24	7	32	3	43					
[25]	1999-2009	**QLD**	LSR 0-14 yrs	B	UI											15.7	32.5	63.5	42.2	
			LSR (m) 0-14 yrs	B	UI											19.9	42.5	73.1	56.9	
			LSR (f) 0-14 yrs	B	UI											11.4	21.9	53.2	26.4	
			LSR 5-9 yrs	B	UI											14.2	21	38.7	25	
			LSR (m) 5-9 yrs	B	UI											17.7	28.2	48.1	30	
			LSR (f) 5-9 yrs	B	UI											10.5	13.5	28.8	19.6	
			LSR 10-14 yrs	B	UI											11.7	17.8	26.8	18.6	
			LSR (m) 10-14 yrs	B	UI											13.5	20.5	36	26.9	
			LSR (f) 10-14 yrs	B	UI											9.8	14.9	17	9.7	
[55]	1970-2007	Australia	HI	B	B	57917	56.8	22512	22.1	14488	14.2	3604	3.5	3375	3.3					
			TBI	B	B	14728	52.8	6738	24.2	4644	16.6	1077	3.8	687	2.4					
			HI-T	B	B	16576	53.3	7782	25.1	4904	15.8	1110	3.5	676	2.1					
			HI-A	B	I	17873	58.5	5569	18.3	3864	12.6	1375	4.5	1866	6.1					
			HI-F	B	B	7578	59.7	2758	21.6	1822	14.3	349	2.7	214	1.7					
			HI-EMF	B	B	4110	54.1	1880	24.9	1172	15.5	225	2.9	150	1.9					
			HI-IMF	B	B	3756	53.6	1701	24.3	1165	16.6	230	3.2	147	2.1					
			HI-other	B	B	8024	61.7	2822	21.7	1521	11.7	315	2.4	322	2.5					
			TBI-T	B	B	6285	50.0	3305	26.3	2187	17.4	511	4.1	271	2.2					
			TBI-A	B	I	3301	59.8	1046	18.9	754	13.7	196	3.5	218	3.9					

			TBI-F	B	B	2796	56.2	1126	22.6	805	1.6	163	3.3	86	1.7					
			TB-MF	B	B	970	45.9	577	27.3	421	19.3	95	4.5	49	2.3					
			TBI-IMF	B	B	599	48.1	298	23.9	260	20.9	64	5.1	24	1.9					
			TBI-other	B	B	777	52.9	386	26.3	217	14.8	48	3.2	39	2.7					
[43]	2002-2011	WA	TBI (i) 15-44 yrs	NF	UI	4359	46.5	2789	29.7	1079	11.5	313	3.3	827	8.8					
			TBI (n-i) 15-44 yrs	NF	UI	289	17.1	211	12.4	221	13.1	34	2.0	937	55.3					
			TBI (i) 45-79 yrs	NF	UI	2723	53.1	1472	28.7	521	10.1	149	2.9	257	5.0					
			TBI (n-i) 45-79 yrs	NF	UI	63	20.6	51	16.6	29	9.4	7	2.1	156	50.9					
			TBI (i) 79< yrs	NF	UI	7082	48.8	4261	29.4	1600	11.0	462	3.1	1084	7.4					
			TBI (n-i) 79< yrs	NF	UI	352	17.6	262	13.1	250	12.5	41	2.0	1093	54.7					
[122]	2010-2014	NSW	ACI	B	B	496325	69.9	156809	22.1	50922	7.1	4178	0.6	1230	0.2					
[33]	2001-2013	Australia	P-Ingest All ages	F	B	101	49.1	48	23.3	51	24.8	4	1.9	2	0.1	0.1	0.1	0.2	0.1	0.1
			P-Ingest All ages	NF	B	544	63.5	232	27.1	72	8.4	7	0.8	1	0.1	0.9	1.2	0.9	1.8	0.9
[65]	2007-2017	Australia	ACI (m) 0-14 yrs Male	F	B										2.27	4.53	5.37	9.16	12.52	2.27
			ACI (f) 0-14 yrs Male	F	B										1.08	1.93	2.58	4.4	9.79	1.08
			ACI 0-4 yrs	F	B										4.94	8.8	14.65	18.23	24.43	4.94
			ACI 5-9 yrs	F	B										1.63	4.11	5.11	9.95	12.49	1.63
			ACI 10-14 yrs	F	B										2.74	4.67	5.76	2.48	32.17	2.74

			ACI 15-19 yrs	F	B										17.11	32.31	37.48	71.63	102.33	17.11
			RTI	F	U										2.45	6.24	7.37	10.77	14.39	2.45
			W/AT	F	U										0.06	0.08	0.16	0.26	0.18	0.06
			Falls	F	U										0.15	0.18	0.25	0.64	0.37	0.15
			MF	F	U										0.14	0.35	0.49	1.15	20.3	0.14
			Drowning	F	U										0.64	1.05	1.45	1.41	2.58	0.64
			Elect.	F	U										0.01	0.06	0.04	0.26	0.18	0.01
			Burns	F	U										0.14	0.4	0.25	0.26	0.92	0.14
			Nature	F	U										0.05	0.1	0.1	0.13	0.18	0.05
			Poisoning	F	UI										0.31	0.37	0.2	0.64	0.92	0.31
			AMF	F	UI										0.08	0.08	0.06	0.13	0.37	0.08
			Self-harm	F	I										2.2	3.22	4.32	7.69	16.97	2.2
			Assault	F	I										0.5	0.41	0.96	1.03	1.11	0.5
			Unknown	F	#										0.2	0.51	0.43	0.38	0.55	0.2
			Threat B.	F	UI										0.34	0.47	0.72	1.95	1.29	0.34
			Other	F	UI										0.07	0.1	0.18	0.26	0	0.07
[52]	2013-2018	Australia	Drowning (lakes)	F	UI										0.08	0.42	0.69	0.27	1.52	0.08
	2013-2018	Australia	Drowning (rivers)	F	UI										0.5	1.53	2.67	2.43	7.98	0.5

I – Intentional, UI – Unintentional, TBI – Traumatic Brain Injury, HI – Head Injury, RTI – Road Traffic Injury (all cause), ACI – All cause injury, ACI-AR – All cause injury aeromedical retrieval, LSR – Low speed run over, HI-T – Head Injury Transport, HI-A – Head Injury Assault, HI-F – Head Injury Falls, HI-MF – Head Injury exposure to mechanical force, HI-IMF – Head Injury exposure to innate mechanical force, W/AT – Water or Air Transport, Elect. – Electrocution, Threat B. – other threat to breathing

*excluding hospital calls

#undeterined intent

(m) – male, (f) – female, (I)-Indigenous, (NI) – non-indigenous

Table S5. Risk Factors for Rural Injury.

Risk Factor	Injury Mechanism	Remoteness Classification	Significance Measure	Comparator
BAC >0.05[99, 109]	Motor Vehicle Crash Injury Motor Vehicle Fatal Crash	Regional Rural	RR 8.2 p<0.05 p=0.001	No Illegal BAC in road crash
Remoteness[9,23-25,37,41,42,49,53,57, 58,61,69-71,78,79,82-85,90,94,95,97,101, 121,137,151,154,157,159,160, 163,167–169,171,174,175]	Unintentional Drowning (Watercraft)Drowning (indigenous) Readmission – Injury from falls Mortality with 24 hours arrival from liver trauma Self-Reported Serious Injury Suicide Indigenous Children Suicide Indigenous Children Drug/Alcohol Abuse – Traumatic Brain Injury Aboriginal Males Alcohol Injury Non-Aboriginal Males Alcohol Injury Non-Aboriginal Females Alcohol Injury Fatal Firearm Environmental Deaths Drowning (paediatric) Child Injury Suicide Idealisation Farm Injury Drowning – Bystander Horse Injury – skilled riders (only) Horse Injury – work related Traditional suicide methods Ocular Trauma Ocular trauma Snake Bite Opioid Injury – recently used PO injection	Regional Location Remote Location Regional Location Rural (OR/R/VR Rural Location Rural Location Remote Area Regional Area Remote Area Regional Location Regional Location Regional Location Rural QLD Rural NT Very Remote Very Remote Remote Locations Rural IR/OR/V/VR IR/OR/V/VR Remotes areas Rural Very remote Very remote IR/OR/R/VR Outer regional/remote Outer regional/remote Rural OR/R/VR OR/R/VR IR/OR/R/VR Rural IR/OR/R/VR Regional and remote IR/OR/R/VR	RR 4.97 (CI:2.40-10.28) p<0.05 RR 27.13 (CI: 10.91-67.45) p<0.05 (X2 = 85.09 df2 p < .001) (ARR 1.12; 95%CI 1.08–1.16, p<0.0001) 0.15 (0.03-0.69) p=0.015 OR1.4 (1.1-1.7)*p<0.05 33.75 per 100,000; p<0.001 OR3.46, 95% CI = 1.00–11.99; p<0.001 X210.109 p<0.05 RR1.46 (1.05-2.03) p<0.01 RR0.64 (0.47-0.87) p<0.01 RR0.65 (0.49-0.87) p<0.01 χ2 0.01 = 9.61>6.64 p<0.05 134(80%) v 33 (20%) p<0.05 RR = 15.41; CI: 0.03-7579.65 p<0.05 (RR = 5.84; 95 %CI: 3.76–9.12) B = 0.12, 95% CI ¼ 0.06, 0.19 χ^2 (df) 6.3 (1) p<0.001 X2 = 61.654; p < 0.001 (p < 0.001) (p < 0.01) (x2 (4) = 23.17, p < 0.001) <0.000001 P< 0.02 P<0.05 <0.0001 <0.0001 <0.0001 (χ =14.62, degrees of freedom (df)=6, p<0.05)	Compared to metro Metro other injury Compared to urban Compared to major city Compared to Urban QLD Compared to City NT Compared to major cities Compared to major cities M1 Locations Compared to urban Compared to major city Compared to metro Compared to urban Compared to major city Compared to major city Compared to major city Compared to major city Compared to major city Compared to urban Compared to MC/IR

	Opioid Injury – no recent use of PO injection Type of paediatric burn Low speed vehicle run over Lowe speed vehicle run over (ISRAD) Low speed vehicle run over (heavy vehicle) Train suicide (other than jumping from train) Travel risk of injury (to medical appointments) Treatment for injury (anxiety/depression) Paediatric trauma patients Severe Head Injury (AIS>2) Severe Chest Injury (AIS>2 Spine/vertebral column((AIS>2) Severe Upper Limb (AIS>2 Severe Lower limn((AIS>2) Fatal Alcohol-related Road crash Alcohol-related injuries Unintentional paediatric poisoning Child traffic injury Drowning (Inversely) Paediatric Button Battery Injuries Paediatric Head Injury Paediatric Traumatic Brain Injury Paediatric major trauma over time	Rural/Regional Rural/Regional Rural/Regional Rural/Regional Rural/Regional Rural/Regional Rural OR/R/VR Rural Rural area Very Remote Remote/Very Remote Remote/Very Remote Remote/Very Remote IR/OR/R/VR	(χ =55.2, degrees of freedom (df)=14, p<0.005).. (χ =20.31, df=6; p<0.005) X2 (1, N+171) = 10.08, p < .01 P<0.06 P<0.05 P<0.001 P<0.001 P<0.001 P=0.005 P<0.001 P<0.001 P<0.05 P<0.05 P<0.05 p = 0.01 95%CI [2.64,4.23] 4.0 times (CI: 0.6–28.6) p<0.05 P<0.05 P<0.05 P<0.05 P<0.008	Compared to Rural Metro Metro Major City Metro Urban Major City/IR Urban Metropolitan Major City Major City Major City
Age[120] Age [35-44yrs][60, 159] Age [65-74yrs][128, 162] Age [15-24yrs][143] Age [25-34yrs] [143] Age [35-44] [54, 143, 159] Age [0-4][142] Age [5-9][142]	Dog Bite Injury Suicide Attempt (Hospital Admission) Fall related injury – Hospitalisation Non-Fatal Self-Harm Non-Fatal Self-Harm	Very Remote Inner Regional Rural (OR/R/VR) Remote Remote Remote Very Remote	RR1.4 (CI: 1.2-1.5) p<0.001 OR1.02 (95%CI1.00-1.03) p=0.05 (p<0.0001) 18.4 (8.0–42.4) p< .001 27.1 (11.9–61.7) p< .001	Compared to <15 yrs Compared to major cities Compared to urban areas Non-Fatal Self-Harm

Age[140] Age[31, 37] Age[97] Age[28, 90, 92, 106, 113] Age[0-4 years] [24 Age [mean60yrs][56]	Non-Fatal Self-Harm Burns Burns Traumatic Brain Injury Farm Injury Farmer suicide Paediatric burns (average 4.5 years) (25)Older – suicidal ideations Major Trauma Major Trauma Paediatric road injuries Farmer Suicide Low speed vehicle run over Low speed vehicle run over 0-4 years Low speed vehicle run over 5-9 years Domestic/public setting injury	Very Remote Regional Rural Rural location Rural Rural Rural Rural Rural area Rural area OR/R/VR R/VR IR/OR/R/VR IR/OR/R/VR Rural location	10.1 (4.3–23.8) p< .001 p<0.05 p<0.05 p<0.001 χ^2 (df) 42.7 (11) p<0.01 (t(1373) = –5.71, P < 0.01 P< 0.0001 p = .014 p<0.0001 P<0.02 P<0.05 (t(5603) = 2.3, p<0.05) (χ =14.62, degrees of freedom (df)=6, p<0.05). RR1.76 (95%CI=1.16–2.68) p<0.05 RR2.73; 95%CI=2.16–3.44 P<0.05 P < .001)	 Compared to all burns Compared to metro Other workforce suicide Metro paed burns (3.5yrs) No depression Metro Metro Metro Non-Farmer Age
Male[32, 41, 44, 63, 73, 96, 97,120, 136, 145, 149, 162]	All cause injury Suicide Attempt – Hanging Fall related injury – Hospitalisation Unintentional Injury Suicide Ocular Injury Quad Bike Injury Suicide Assault related injuries Unintentional injury Paediatric Burns Drought related suicide Traumatic brain injury	Very Remote Inner Regional Rural (OR/R/VR) Outer Regional IR/OR/R/VR Inner Regional/Out Regional IR/OR/R/VR Remote IR/OR/R/VR Rural location Rural Rural Rural location	RR1.4 (CI: 1.2-1.5) p<0.001 OR2.76 (95%CI1.43-5.30) p=0.002 (p<0.0001) OR 0.67 (0.57–0.80) p<0.001 p<0.05 p<0.001 p<0.01 RR = 1.63 95%CI: 1.26-2.12 p<0.01 P<0.001 (OR 1.39, 99%CI 1.06–1.82) p<0.05 P<0.001 P<0.05 P<0.05	Compared to female <14yrs Compared to major cities Compared to urban areas Average QLD suicide rate Ocular Injury IR/OR Female quad bike injury Male Metro Suicide Accidental injuries Unintentional injury Female Female drought related Female traumatic brain injury
Drug overdose[120]	Suicide Attempt (ICU Admission) Suicide Attempt (Hospital Admission)	Inner Regional Inner Regional	OR10.89 (95%1.45-81.90) p=0.02 OR2.69 (95%1.37-5.29) p=0.004	Compared to major cities Compared to major cities

Previous Attempt[120]	Suicide Attempt (Hospital Admission)	Inner Regional	OR1.53 (95%CI1.03-2.28) p=0.03	Compared to major cities
Less comorbidities[162]	Fall related injury - Hospitalisation	Rural (OR/R/VR)	(p<0.0001)	Compared to Metro
Comorbidities[43, 114] Depression[73]	Aboriginal traumatic brain injury Female suicide attempt Unintentional injury	Rural locations Rural location Rural locations	P< 0.0001 P<0.001 (OR 1.68, 99%CI 1.20–2.35) p<0.05	Traumatic brain injury No comorbidities Unintentional injury
Retired/Unemployed[56]	Domestic injury Domestic injury farm (inversely related)	Rural location Rural location	P<0.001 P<0.001 (inversely related)	Employed Employed
Indigenous[26, 30, 43, 47, 50, 83, 86, 97, 131, 161, 163, 171,174]	Suicide – Children Traumatic Brain Injury Children Burns Blunt/penetrating weapon injuries Jaw Fracture – Access Services (Days) Remoteness- Ocular Injury Assault – Ocular Injury Animal related – Ocular Injury Traumatic brain injury Traumatic brain injury hospitalisation Paediatric burns Road Transport Injury (all cause)	Regional Areas Regional Location Rural locations OR/IR/R/VR Remote Very remote Very remote Very remote Rural locations Rural locations Rural Remote/Very Remote	RR=6.81, 95%CI 2.76-16.50 X2 13.132 p<0.001 (SI 2.8, 95% CI 1.2-7.2) p<0.001 P< 0.05 P< 0.05 <0.00001 P<0.0003 P<0.003 P< 0.0001 P< 0.0001 P<0.0001 P<0.05	Non-indigenous Non-indigenous Non-indigenous Non-indigenous Non-indigenous Non-indigenous Non-indigenous Non-indigenous Non-indigenous Non-indigenous Non-indigenous Non-indigenous Non-indigenous
Employment Type [Farmer][106]	Farmer Suicide	Rural area	(p<0.01)	Non-Farmer suicide
Mental Health History[147, 163] Anxiety/substance disorder[147] Psychotic disorders[147] Mental health usage <12 month[56, 147] Depression[73] [113, 114]	Traumatic Brain Injury Suicidal Ideation Suicidal Ideation Suicidal Ideation Suicidal Ideation Domestic/Public Injury Unintentional injury Suicidal ideation Suicide attempt Suicidal ideation	Regional Location Rural locations Rural locations Rural locations Rural locations Rural location Rural locations Rural locations Rural locations Rural location	X27.011 p<0.05 AORs of 50 and 36, p < 0.001 AORs ranging from 2.0 to 11, p < 0.001 AORs ranging from 1.9 to 6.8, p < 0.001 AOR 4.1, p < 0.001 (OR 2.5; 99% CI: 1.6, 3.9), p<0.001 (OR 1.68, 99%CI 1.20–2.35) p<0.05 p < 0.001 P<0.0004	No-metal health history No mental health history Unintentional injury No Depression No depression No depression

			(OR = 6.6, 95% CI 4.5-9.9, p < .001).	
Straight/Open Road[109] Dark/Wet Conditions[155]	Motor Vehicle Crash Injury Single-vehicle bicycle road crash	Rural Rural areas	p=0.003 p<0.05	Obscured road Urban
Unlit/daw/Dusk[109]	Motor Vehicle Crash Injury	Rural	p=0.036	Day/Lighting
Alcohol[52, 107, 109, 129, 133, 175]	Motor Vehicle Fatal Crash Domestic Violence Injury Drowning (river) Post-Alcohol Lockout Sexual Assault Post-alcohol Lockout Injury RFDS Retrieval All cause injury	Rural Remote OR/IR/R/VR Remote Location Remote Location Rural location	RR1.71 (1.15-2.54) p=0.001 20% reduction p<0.05 X2 0.231 (1) P = .37 33.7% reduction, P = 0.004 p<0.001 AOR 2.46 CI95% (1.61-3.76) p<0.05	No alcohol Alcohol restrictions Drowning (lake) Pre-Alcohol Lockout Pre-Alcohol Lockout
Speeding Related[89, 109, 164]	Motor Vehicle Fatal Crash Fatal Pedestrian Injury	Rural Rural	RR 2.39 (1.61-3.55) p=0.001 Increase 79% p<0.05	Not speeding Metro high-speed zone
Road rule violation[109]	Motor Vehicle Fatal Crash Motor Vehicle Fatal Crash	Rural Rural	Speeding RR 2.39 (1.61-3.55) p=0.001 RR1.74 (1.10-2.74) p=0.02	Speed limit 100-110km/h Road rule violation
Cluster Demographics[145]	Suicide	CQLD FNQLD SECoast QLD	p<0.05	Average QLD suicide rate
Involving Equipment[139]	Farm Related Injury	Rural Location	P<004	Injury hospitalisations
Metropolitan Postcode[137]	Increased BAC at Regional River	IR/OR/R/VR	12.124 (p < 0.001)	NO BAC
Low ISRAD[9, 147, 159, 177]	Increased BAD at Regional River Child Injury Suicide Suicidal ideation	IR/OR/R/VR IR/OR/R/VR IR/OR/R/VR Rural location	(p < 0.001) X2 = 69.1; p < 0.001 P<0.001 AORs of 1.7 and 2.9, p < 0.001	NO BAC Child Injury Suicide major city Suicidal ideation
Risky Behaviour[54, 97, 110, 111, 138]	Drowning – Drive through flood water Cycle Crash – Helmet (Male) Paediatric burns	Outer Regional Inner Regional Rural	X =4.9; p=0.027 v2 (1) ¼ 6.3, P = .012 p<0.0001	Compared to major cities Cycle Crash – Female Metro paediatric burns
Day of Week/Season[166] Seasonal/Wet Season[117]	Suicide – female Indigenous suicide	IR/OR/V/VR Very remote	IRR = 1.70, p = 0.028 P<0.05	Female Major city Dy Season
Non-Riders[79]	Internal organ injuries – horse	IR/OR/V/VR	(p < 0.025)	Skilled riders

Females[41, 79, 114]	Horse Injury (rider, paediatric, sport/leisure) Suicide Depression – suicidal ideations	IR/OR/V/VR Remote Rural Locations	(p <0.025) RR = 1.72 95%CI: 1.08-2.72, p<0.01 P<0.0001	Compared to metro Metro Suicide Male
Sport/Leisure[79]	Horse injury (adult/child)	IR/OR/V/VR	(p < 0.001)	Compared to metro
Work Related Injuries[79, 170]	Horse injury Rural injuries – work disability	Remote Remote	P <0.001 -0.57 (-0.75 to 0.40) p<0.001	Sport/Leisure Ridding Compared to metro
Motocross Sport[169]	Motorcycle incidents	Rural locations	(81.1% vs. 66.5%, p = 0.001)	Recreation off-road
Drought[96]	Male Suicide	Rural	P<0.0001	
History of abuse/neglect[108] Parent Separation[108]	Youth suicide Youth suicide	Rural location Rural location	P<0.02 P<0.022	No neglect No parent separation

Table S6. Increase Morbidity/Mortality Rural Injury Risk Factors.

Risk Factor	Injury Mechanism	Remoteness Classification	Significance Measure	Comparator
Severity[79, 112, 164, 177] [25, 92, 156, 160]	Pedestrian injury	Rural	AOR2.72 (2.01-3.68) p<0.05	Urban
	Horse Injury – non-riders	Remote	p<0.01	Horse skilled riders
	Paediatric Burns (major burn>10%)	Rural	p<0.02	Metro
	Paediatric burn (skin grafting)	Rural	P<0.0001	Metro
	Paediatric burns (burn unit >24 hrs)	Rural	P<0.0001	Metro
	Splenic injury	Rural location	p<0.05	Low ISS
	Low speed vehicle run over (age)	IR/OR/R/VR	$\chi 2$=14.62. Df=6; p<0.05	Metro
	Low speed vehicle run over (vehicle type)	IR/OR/R/VR	$\chi 2$=20.31. Df=6; p<0.0005	Metro
	No first aid (burn)	Rural location	P<0.001	Metro
	Rural/Remote location (burns)	Rural location	p=0.045	Metro
	Major trauma	Rural	p<0.0001	Metro
	Rural location (cyclist crash)	Rural	P<0.05	Urban
Severity - GCS[140]	Traumatic Brain Injury	Regional location	p<0.001	Metro
Service Accessibility[26]	Jaw Fracture – Severity (Indigenous)	Remote	p < 0.05	Urban
Indigenous[171]	Mild vision loss– ocular injury	Very remote	P< 0.0007	Non-indigenous
	Severe vision loss – ocular injury	Very remote	P <0.009	Non-indigenous
Private Health [43]	Aboriginal traumatic brain injury	Rural location	P<0.0001	Non-indigenous TBI
Single Site Injury[48]	Injury (All cause)	Rural	18% (17.39–18.65); p<0.05	Multiple-site injury
Mortality[75, 92]	Major trauma (adjusted)*	Rural	OR 2.60, CI 95%(1.05–6.53);	Metro
	Fatal crash at intersection (motor-cycle)	Rural	p=0.039	Urban area
			RRR 1/0.69, p<0.05	
First Aid Required[139]	Farm Related Injury	Rural location	p<004	Injury hospitalisations
CPR Attempted[154]	Traumatic out-of-hospital cardiac arrest	Rural	AOR 0.64, CI 95%(0.46–0.90);	Urban
			p<0.05	
Hospitalisation[29] [139]*	Injury from falling object	Outer regional	IRR11.50 CI95%(3.7-36.1); p=0.006	Major cities
Hospitalisation ^Days[122, 130, 140]	Traumatic Brain Injury	Rural (OR/R/VR)	p<0.0001	Urban areas
	Farm Related Injury	Regional	p<0.001	Metro
Re-presentation<72hr[51, 88, 134]	Rural Injury	Rural location	p<0.001	Injury Hospitalisation
	Hospital Re-presentation Injury	Rural locations	p<0.001	Rate
	Aboriginal traumatic brain injury	Outer regional	4.9%; p<0.05	Urban injury
	Remoteness differential:	Rural location	p<0.0001	Hospitalisations
	presenting/treating#	Rural location	$\chi 2$=28 719.4; n = 59 759; p<0.01	Metro hospital injury
Time to Treating Hospital[28, 92, 158]	Increase Time Major Trauma	Rural	p<0.001	Non-aboriginal
	Increase Time Major Trauma	IR/OR/R/VR	p<0.001	Metro
	Distance travelled Major Trauma	IR/OR/R/VR	p<0.001	Major City

	Distance travelled facet joint dislocation	Rural	P<0.1	Major City
	Increase time for treatment(FJD)	Rural	p=0.01	Urban
	Older Adults Injury (All cause)	Small regional	P<0.003	Urban
Level of Definitive Care[153]	Paediatric Splenic Injuries	Rural	P<0.001	Tertiary Hospital
Operative Management[6]	Paediatric Splenic Injuries			Non-operative

*adjusted for age, injury, severity and effect of time #Remoteness differential from first treating hospital and end-care treatment hospital