

Table 2: Incidence and aetiology of traumatic spinal cord injury by Region and Author(s) of published data

Region	Country	Author(s) of published data	Observation period	Incidence per million population per year	Aetiology of SCI
Asia Pacific, High Income					
	Japan	Shingu ¹	1990–1992	40.2 (Estimated number 14,968; Males, n=7,842, Females, n=1,909)	Land transport 44%, n=4,263, Falls 42%, n=4,078, Sports/recreation 5%, n=528, Self-harm 2%, n=167 and Other/unknown 7%, n=716
	Japan (Okayama Prefecture)	Ide ²	1988-1989	28.6 (n=55; Males, n=45, Females, n=10)	Land transport 33%, n=18, Falls 16%, n=9, Work-related 38%, n=21 and Other/unknown 13%, n=7
Asia, East					
	China	Zhao ³	1983 and 1985	n/r*	Land transport 12.1%-16.7%, Falls 33.3%-66.7% and Violence 15.1%-22.2%
	Taiwan	Yeh ⁴	1977-1989	250 cases annually** (total cases n=1,617; Males, n=1,295, Females n=322)	Land transport 63%, n=1,096, Falls and Self-harm 12%, n=200, Work-related 19%, n=308 and Other/unknown 6%, n=13
	Taiwan	Chen ⁵	1992–1996	18.8 (n=1,232; Males, n=958, Females, n=274)	Land transport 49%, n=609, Falls 41%, n=500, Sports/recreation 1%, n=16, Violence 2%, n=25 and Other/unknown 7% n=82 (Age group 15-64 years)
	Taiwan	Chen ⁵	1992–1996	47.5 (Geriatric population, n=297; Males, n=186, Females, n=111)	Land transport 33%, n=97, Falls 62%, n=185, Sports/recreation 0.3%, n=1, Violence 2%, n=5 and Other/unknown 2.7%, n=9 (Age group 65-and above years)
	Taiwan	Yang ⁶	2000-2003	73.0 (n=6,455); Males, n=3,058, Females*, n=3,397) *ICD9 806.X (Fractured vertebra with SCI and assuming male to female ratio 0.9	n/r*
	Taiwan (Taipei)	Chen ⁷	1978-1981	14.6 (n=560; Males, n=465, Females, n=95)	Land transport 45%, n=249, Falls 29%, n=157, Sports/recreation 3%, n=19, Violence 3%, n=15, Suicide 1%, n=8 and Other/unknown 20%, n=112

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Asia, South	Taiwan (Hualien County)	Lan ⁸	1986-1990	56.1(n=99; Males, n=79, Females, n=20)	Land transport 62%, n=61, Falls 23%, n=23, Sports/recreation 6%, n=6, Violence 3%, n=3, Self-harm 2%, n=2 and Other/unknown 4%, n=4
	Bangladesh	Hoque ⁹	1994-1995	n/r (n=179; Males, n=158, Females, n=21)	Land transport 18%, n=33, Falls 63%, n=113 and Other/unknown 19%, n=33
	Nepal	Mukhida ¹⁰	2001-2004	5 cases annually (Estimate, ages <19 years)(n=14 during study period; Males, n=9, Females, n=5)	Falls 61%, n=9
	Nepal (East)	Lakhey ¹¹	1997-2001	n/r (n=233; Males, n=169, Females, n=64)	Land transport 7%, n=16, Falls 82%, n=192 and Other/unknown 11%, n=25
	Pakistan	Raja ¹²	1995-1999	5.1 (n=2,654; Males, n=1,922, Females, n=732)	Land transport 7%, n=186, Falls 82%, n=2,176 and Other/unknown 11%, n=292
	Pakistan	Masood ¹³	2003-2007	n/r (n=214; Males, n=189, Females, n=25)	Land transport 23%, n=50, Falls 68%, n=145, Sports/recreation 1%, n=3, Violence 6%, n=12 and Other/unknown 2%, n=4
	Pakistan (AFIRM, Rawalpindi)	Rathore ¹⁴	2006	n/r (n=83; Males, n=68, Females 15)	Land transport 25%, n=21, Falls 58%, n=48, Violence 8%, n=7 and Other/unknown 9%, n=7
Asia, Southeast	Thailand (Chiang Mai)	Kovindha ¹⁵	1985-1991	23 (n=398; Males, n=365, Females, n=33)	Land transport 47%, n=187, Falls 48%, n=191, Violence 4%, n=16 and Other/unknown 1%, n=4
	Thailand (Bangkok)	Parajareya ¹⁶	1989-1994	5.8 (Estimate based on 1992 population of 6,250,000; n=219; Males, n=186, Females, n=33)	Land transport 51%, n=111, Falls 31%, n=67, Sport/recreation 0.5%, n=1, Violence 8%, n=18, Self-harm 0.5%, n=1 and Other/unknown 9%, n=21
	Viet Nam	Weerts ^{17, 18}	2006-2007	13.9 (Estimate based on 2008 population of 86,116,560; n=247)	Land transport 45%, n=111, Sports/recreation 2%, n=4, Work-related 17%, n=40, Violence 1%, n=3 and Other/unknown 36%, n=89

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Australasia					
	Australia	O'Connor ¹⁹	1998-1999	14.5 (Age-standardised, n=265; Males, n=201, Females, n=64)	Land transport 43%, n=113, Falls 31%, n=83, Sports/recreation 9%, n=24 and Other/unknown 17%, n=45
	Australia	Cripps ²⁰	2006-2007	14.9 (Age-standardised, n=272; Males, n=226, Females, n=46)	Land transport 52%, n=142, Falls 29%, n=78, Sports/recreation 8%, n=21 and Other/unknown 11%, n=30
	Australia (Victoria)	Cheshire ²¹	1959-1966	11.6 (Based on Victorian population of 4 million; n=390; Males, n=328, Females, n=62)	Land transport 52%, n=170, Sports/recreation 13%, n=41, Work-related 21%, n=68, Violence 2%, n=5 and Other/unknown 12%, n=41
	Australia (Queensland)	Sutton ²²	1962-1971	16.6 (cases >9 years of age; estimated incidence based on 1.75 million population, n=232; Males, n=202, Females, n=30)	Land transport 50%, n=103, Falls 7%, n=15, Sports/recreation 21%, n=37, Work-related 20%, n=40 and Violence 2%, n=12
	Australia (Victoria)	Burke ²³	1978-1982	325 cases during reporting period; Males, n=254, Females, n=71	Land transport 52%, n=169, Sports/recreation 16%, n=52, Work-related 12%, n=40 and Other/unknown 20%, n=65
	New Zealand	Dixon ²⁴	1988	49.1 (n=164; Males, n=120, Females, n=44)	Land Transport 54%, n=89, Falls 24%, n=39, Sports/recreation 11%, n=18, Violence 2%, n=3 and Other/unknown 9%, n=15
Europe, Central					
	Poland (Poznan)	Jankowski ²⁵	1979-1992	n/r (n=511; Males, n=449, Females, n=62)	Land transport 41%, n=208, Sports/recreation 19%, n=97, Work-related 15%, n=79 and Other/unknown 25%, n=127
	Romania (Bucharest)	Soopramanien ²⁶	1975-1992	28.5 (n=400/yr approx; Males, n=317, Females, n=95)	Land transport 72%, n=296, Sports/recreation 7%, n=29, Work-related 13%, n=52 and Other/unknown 8%, n=35

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Region	Country	Author(s) of published data	Observation period	Incidence per million population per year	Aetiology of SCI
Europe, Eastern	Estonia	Sabre ²⁷	2003-2007	27.9 (n=191; Males, n=159, Females, n=32)	Land transport 27%, n=52, Falls 42%, n=80, Sports/recreation 15%, n=29, Self-harm 1%, n=2, Violence 4%, n=8 and Other/unknown 11%, n=20
	Russia (Novosibirsk)	Silberstein ²⁸	1989-1993	29.7 (n=196 over period 5 yrs; Males, n=153, Females, n=43)	Land transport 25%, n=49, Falls 40%, n=79, Sports/recreation 33%, n=65 and Violence 2%, n=3
	Russia (Saint Petersburg)	Kondakov ²⁹	1994-1996	44 (n=105; Males, n=68, Females, n=37).	Land transport 16%, n=17, Falls 34%, n=36, Sports/recreation 2%, n=2, Work-related 5%, n=5 and Other/unknown 43%, n=45
Europe, Western	Denmark	Biering-Sorensen ³⁰	1975-1984	9.2 (n=360 over this period; Males, n=262, Females, n=98)	Land transport 47%, n=125, Falls 26%, n=70, Sports/recreation 12%, n=30, Self-harm 8%, n=21, Violence 2%, n=5 and Other/unknown 5%, n=17
	Finland	Kannus ³¹	1970-1995	50 (Fall-related SCI in 50 years and above in 1970); 270 (Fall-related SCI in 50 years and above in 1995)	n/r
	Finland (Helsinki)	Dahlberg ³²	1978-1997	13-15 (n=55 cases per year; Males, n=42, Females, n=13)	Land transport 35%, n=53, Falls 43%, n=66, Sports/recreation 9%, n=14, Violence 4%, n=6 and Other/unknown 9%, n=13
	Finland	Ahoniemi ³³	1976-2005	13.8 (n=1,647 >16yrs; Males, n=1,362, Females, n=285)	Land transport 40%, n=651, Falls 41%, n=679, Sports/recreation 7%, n=109, Violence 3%, n=44 and Other/unknown 9%, n=164
	France	Albert ³⁴	2000	19.4 (n=934 Ages>15 years)	n/r
	France (Rhone-Alpes Region)	Minaire ¹⁰	1970-1975	12.7 (n=351; Males, n=276, Females, n=75)	Land transport 47%, n=166, Falls 29%, n=100, Sport/recreation 8%, n=27, Violence 1%, n=3 and Other/unknown/ 15%, n=55

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Region	Country	Author(s) of published data	Observation period	Incidence per million population per year	Aetiology of SCI
	Germany	Exner ³⁵	1976-1996	10.7 (Based on 1985 pop of 77,685,000; n=16,559 over the reporting period; Males, n=11,827, Females, n=4,732) ^{***}	Land transport 46%, n=7,699, Sports/recreation 10%, n=1,709, Work-related 19%, n=3,119, Self-harm 7%, n=1,080, Violence 1%, n=239 and Other/unknown 17%, n=2,713
	Germany	Koning ³⁶	1983	36 (n=2,213)	n/r
	Greece (Thessaloniki)	Divanoglou ³⁷	2006-2007	33.6 (n=87 >15 yrs; Males, n=77, Females, n=10)	Land transport 51%, n=41, Falls 37%, n=30, Sports/recreation 4%, n=3, Violence 2%, n=2 and Other/unknown 6%, n=5
	Greenland	Pedersen ³⁸	1965-1986	26 (n=27; Males, n=20, Females, n=7)	Land transport 4%, n=1, Falls 33%, n=9, Sports/recreation 4%, n=1, Self-harm 26%, n=7, Violence 11%, n=3, and Other/unknown 22%, n=6
	Iceland	Knuttdottir ³⁹	1973-1989	24 (1973-82); 18 (1983-89) (n=79); Males, n=43, Females, n=16, were living)	Land transport 50%, n=39, Falls 37%, n=29 and Other/unknown 13%, n=11
	Iceland	Knuttdottir ⁴⁰	1973-2008	20 (n=191; Males, n=140, Females, n=51)	Land transport 46%, n=87, Falls 29%, n=55, Sports/recreation 20%, n=39, Other/unknown 5%, n=10.
	Ireland	O'Connor ⁴¹	2000	13.1 (n=46; Males, n=40, Females, n=6)	Land transport 50%, n=23, Falls 22%, n=10, Work-related 15%, n=7, Sports/recreation 9%, n=4, Self-harm 2%, n=1 and Other/unknown 2%, n=1
	Ireland (West Ireland)	Roche ⁴²	4-year study	195.4 * (n=285; Males, n=175, Females, n=111)	Land transport 34%, n=97, Falls 58%, n=168, Sports/recreation 2%, n=4 and Other/unknown 5%, n=16
	Israel	Catz ⁴³	1959-1992	15.9 (n=250 consecutive patients; Males, n=189, Females, n=61) (Based on 1989 pop) ^{***}	Land transport 33%, n=82, Falls 17%, n=42, Work-related 27%, n=67, Self-harm 14%, n=34 and Other/unknown 9%, n=25
	Israel	Ohry ⁴⁴	1974-1984	1 (Approx., paediatric SCI. n=23; Males, n=15, Females, n=8)	Land transport 35%, n=8, Falls 22%, n=5, Sports/recreation 22%, n=5 and Violence 21%, n=5

*Likely inaccurate

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	Italy (7 Rehabilitation Centres)	Celani ⁴⁵	1989-1994	2.3 (n=642; Males, n=509, Females, n=133) (Based on 1990 population)***	Land transport 58%, n=375, Sports/recreation 8%, n=27, Work-related 15%, n=98, Violence 3%, n=19, Self-harm 4%, n=27 and Other/unknown 15%, n=96
	Italy	Pagliacci ⁴⁶	1997-1999	Estimated to be 18-20 (n=684; Males, n=548, Females, n=136)	Land transport 54%, n=368, Falls 23%, n=155, Sports/recreation 8%, n=54, Self-harm 4%, n=29 and Other/unknown 11%, n=78
	Italy (Veneto)	Caldana ⁴⁷	1994-1995	14.3 (n=127; Males, n=106, Females, n=21)	Land transport 57%, n=72, Falls 10%, n=13, Work-related 22%, n=28, Sports/recreation 6%, n=8, Violence 1%, n=1 and Other/unknown 4%, n=5
	Netherlands	Schonher ⁴⁸	1982-1993	7.7 (n=142; Males, n=109, Females, n=33)	n/r
	Netherlands	van Asbeck ⁴⁹	1994	7.5 (n=113; Males, n=87, Females, n=26)	Land transport 31%, n=35, Falls 49%, n=55, Work-related 4%, n=5, Sports/recreation 9%, n=10 and Other/unknown 7%, n=8
	Netherlands and Belgium (Flanders)	Osterthun ⁵⁰	2002-2007	n/r (n=503; Males, n=371, Females, n=132)	n/r
	Norway	Lidal ⁵¹	1961-1982	4.5 approx (n=387; Males, n=321, Females, n=66)	Land transport 46%, n=178, Falls 32%, n=124, Sports/recreation 11%, n=43, Violence 4%, n=15 and Other/unknown 7%, n=27
	Norway	Gjone ⁵²	1974-1975	16.5 (n=131; Males, n=109, Females, n=22)	n/r
	Norway	Augutis ⁵³	2002-2004	1.5 (Paediatric SCI aged 0-15 yrs, n=42)	n/r
	Norway (Western)	Hagen ⁵⁴	1952-2001	26.3 (Annual incidence in 1997-2001; n=71; Males, n=277, Females, n=59)	Land transport 34%, n=115, Falls 46%, n=153, Sports/recreation 9%, n=29 and Other/unknown 11%, n=39
	Portugal (Coimbra)	Martins ⁵⁵	1989-1992	57.8 (Survivors plus those who died, n=398; Males, n=306, Females, n=92)	Land transport 57%, n=228, Falls 37%, n=149 and Other/unknown 6%, n=21

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	Portugal	Augutis ⁵³	2002-2004	27 (Paediatric SCI aged 0-14 yrs, n=138)	n/r
	Spain	Herruzo-Cabrera ⁵⁶	1984-1985	8.1*** (n=208)	n/r
	Sweden	Augutis ⁵³	2002-2004	4.6 (Paediatric SCI aged 0-15 yrs, n=21)	n/r
	Sweden (Stockholm)	Divanoglou ³⁷	2006-2007	19.6 (n=49; Males, n=36, Females, n=11 [consenting cases])	Land transport 23%, n=11, Falls 38%, n=18, Sports/recreation 17%, n=8, Self-harm 9%, n=4, Assault 2%, n=1 and Other/unknown 11%, n=5
	Sweden	Augutis ⁵⁷	1985-1996	4.6 (Paediatric SCI aged 0-15 yrs, n=92; Males, n=47, Females, n=45)	Land transport 75%, n=69, Falls 9%, n=8, Sports/recreation 13%, n=12, and Other/unknown 3%, n=3
	Switzerland	Gehrig ⁵⁸	1960-1967	15 (n=584; Males, n=461, Females, n=123)	Land transport 36%, n=210, Sports/recreation 19%, n=111, Work-related 35%, n=204, Self-harm 9%, n=53 and Other/unknown 1%, n=6
	UK	Augutis ⁵³	2002-2004	5.2 (Paediatric SCI aged 0-14 yrs, n=180)	n/r
	UK (Midlands, Nth Wales, Mid Wales, South Mersey)	Aung ⁵⁹	1985-1988	7.3 (n=219; Males, n=173, Females, n=46)	Land transport 50%, n=110, Falls 43%, n=93 and Sports/recreation 7%, n=16
Latin America, Tropical	Brazil	Brasil ⁶⁰	1986-1995	n/r (n=164; Males, n=134, Females, n=30)	Land transport 38%, n=62, Falls 26%, n=42, Sports/recreation 7%, n=12, Violence 12%, n=19 and Other/unknown 17%, n=29
	Brazil	Greve ⁶¹	1986-2007	Estimated 17.3*** (n=3,289; Males, n=2,741, Females, n=548)	Land transport 31%, n=1,010, Falls 39%, n=1,289, Sports/recreation 14%, n=474, and Violence 16%, n=516
	Brazil (San Paulo)	Barros ⁶²	1982-1987	10.1 (Estimated using 1981 population of San Paulo)**** (n=428; Males, n=404, Females, n=24)	Land transport 27%, n=115, Falls 22%, n=96, Sports/recreation 8%, n=34, Violence 37%, n=157 and Other/unknown 6%, n=26

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North Africa/Middle East	Brazil (7 Brazilian capitals)	Campos da Paz ⁶³	1988	n/r (n=108; Males, n=87, Females, n=21)	Land transport 42%, n=45, Falls 15%, n=16, Sports/recreation 9%, n=10, Violence 28%, n=30 and Other/unknown 9%, n=7
	Jordan	Otom ⁶⁴	1998-1993	18 (n=151; Males, n=129, Females, n=22)	Land transport 44%, n=67, Falls 21%, n=32, Sports/recreation 3%, n=4, Violence 28%, n=42, and Other/unknown 4%, n=6
	Saudi Arabia	Alshahri ⁶⁵	2003-2008	1.6 (based on a population of 24 million; n=307 over the 8-year period; Males n=271, Females, n=36)	Land transport 85%, n=261, Falls 9%, n=28, Sports/recreation 1%, n=3 and Violence 5%, n=15
	Turkey	Dincer ⁶⁶	1974-1985	n/r (n=1,694; Males, n=1,282, Females, n=412)	Land transport 35%, n=600, Falls 30%, n=500, Violence 24%, n=406 and Other/unknown 13%, n=188
	Turkey	Karacan ⁶⁷	1992	12.7 (n=581; Males, n=415, Females, n=166)	Land transport 49%, n=284, Falls 37%, n=212, Sports/recreation 1%, n=7, Violence 5%, n=30 and Other/unknown 8%, n=48
	Turkey (SE Anatolia)	Gur ⁶⁸	1990-1999	12.06 (Average incidence) (n=539; Males, n=416, Females, n=123)	Land transport 37%, n=200, Falls 32%, n=172, Violence 23%, n=115, Self-harm 3%, n=15 and Other/unknown 5%, n=27
	Turkey (Istanbul)	Karamehmetoglu ⁶⁹	1992	21.1 (n=152; Males, n=114, Females, n=38)	Land transport 41%, n=62, Falls 43%, n=65, Violence 7%, n=11 and Other/unknown 5%, n=14
	Turkey (Rural areas)	Karamehmetoglu ⁷⁰	1994	16.9 (n=75; Males, n=64, Females, n=11)	Land transport 25%, n=19, Falls 37%, n=28, Violence 31%, n=23 and Other/unknown 7%, n=5
North America, High Income	Canada	Rick Hansen SCI Register ⁷¹	2001-2002	35 (n=1,050; Males, n=840, Females, n=210)	Land transport 47%, n=494, Falls 17%, n=179, Sports/recreation 7%, n=74 and Other/unknown 29%, n=303
	Canada (Toronto)	Tator ⁷²	1947-1973	2.3 (n=351; Males, n=287, Females, n=64)	Land transport 34%, n=119, Falls 10%, n=35, Sports/recreation 15%, n=54, Work-related 30%, n=105 and Other/unknown 11%, n=38

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	Canada (Quebec)	Barss ⁷³	1961-2004	0.64 (Diving related SCI, n=171) Males, n=82, Females 7, based on 89 survivors	Sports/recreation 100%, n=171
	Canada (British Columbia)	Andrews ⁷⁴	1964-1977	0.66 (Paediatric cases, n=15; Males, n=9, Females, n=6)	Land transport 67%, n=10, Violence 13%, n=2 and Other/unknown 20%, n=3
	Canada (Toronto)	Tator ⁷²	1974-1981	3.6 (n=201; Males, n=160, Females, n=41)	Land transport 41%, n=82, Falls 12%, n=24, Sports/recreation 23%, n=46, Work-related 14%, n=28 and Other/unknown 10%, n=21
	Canada (Alberta)	Hamilton ⁷⁵	1975-1988	9.9 (Paediatric cases 17 yrs and below, based on 1988 population of 1.25 million; n=174; Males, n=115, Females, n=59)	Land transport 60%, n=104, Falls 12%, n=21, Sports/recreation 18%, n=31 and Other/unknown 10%, n=18
	Canada (Manitoba)	Hu ⁷⁶	1981-1984	290 (n=944; Males, n=570, Females, n=374)	n/r
	Canada (Ontario)	Pickett ⁷⁷	1994-1999	From 37.2-46.2 age standardised rates (n=2,385; Males, n=1,632, Females, n=753)	Land transport 43%, n=1,021, Falls 43%, n=1,030, Violence 2%, n=52, Self-harm 1%, n=34 and Other/unknown 11%, n=248
	Canada (Alberta)	Dryden ⁷⁸	1997-2000	52.5 (n=450; Males, n=322, Females, n=128)	Land transport 56%, n=254, Falls 19%, n=86, Sports/recreation 11%, n=51, Violence 10%, n=44 and Other/unknown 4%, n=15
	Canada (Southwest Ontario)	Pickett ⁷⁹	1997-2001	40.8 (n=151; Males, n=112, Females, n=39)	Land transport 35%, n=53, Falls 31%, n=47, Sports/recreation 9%, n=14, Work-related 7%, n=10, Violence 5%, n=7, Self-harm 1%, n=2 and Other/unknown 11%, n=18
	USA	Samsa ⁸⁰	1940-1987	n/r (n=5,545; Male veterans)	Land transport 39%, n=2,163, Sports/recreation 13%, n=721, Violence 35%, n=1,941 and Other/unknown 13%, n=720
	USA	Bracken ⁸¹	1970-1977	40.1 (8-year incidence)	n/r

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	USA	Nobunaga ⁸²	1973-1998	n/r (n=25,054; Males, n=20,419, Females, n=4,635)	Land transport 43%, n=10,773, Falls 19%, n=4,710, Sports/recreation 11%, n=2781, Violence 19%, n=4,735 and Other/unknown 8%, n=2,055
	USA	Jackson ⁸³	1973-2003	40 (n=30,532; Males, n=24,426, Females, n=6,106)	Land transport 46%, n=13,923, Falls 20%, n=5,984, Sports/recreation 11%, n=3,267, Violence 18%, n=5,435 and Other/unknown 5%, n=1,923
	USA	Kalsbeek ⁸⁴	1974	50 (estimated n=10,000; Males, n=5,000, Females, n=5,000)	Land transport 33%, n=3,300, Falls 33%, n=3,300 and Other/unknown 34%, n=3,400
	USA	Burney ⁸⁵	1982-1989	n/r (n=2,741; Males, n=2,165, Females, n=576)	Land transport 52%, n=1,439, Falls 20%, n=543, Violence 15%, n=400 and Other/unknown 13%, n=359
	USA	Stover ⁸⁶	1984	30.0 (n=10,000+; Males, n=8,000, Females, n=2,000)	Land transport 48%, n=4,800, Falls 21%, n=2,100, Sports/recreation 14%, n=1,400, Violence 15%, n=1,500 and Other/unknown 2%, n=200
	USA	Harvey ⁸⁷	1988	n/r (n=758; Males, n=538, Females, n=220)	Land transport 48%, n=364, Falls 17%, n=129, Sports/recreation 16%, n=121, Violence 5%, n=38 and Other/unknown 14%, n=106
	USA	Ditunno ⁸⁸	1993	38.8 (Estimated)	Land transport 45%, Falls 22%, Sports/recreation 13%, Violence 16% and Other/unknown 4%
	USA	Lasfargues ⁸⁹	1994	38 (n=11,500 estimated; Males, n=8,015, Females, n=3,485)	n/r
	USA	Vitale ⁹⁰	1997, 2000	19.9 (Paediatric SCI, ages 0-18 years; n=2,909; Males, n=2,088, Females, n=821)	Land transport 56%, n=1,629, Falls 14%, n=407, Sports/recreation 8%, n=233, Violence 9%, n=262 and Other/unknown 13%, n=378
	USA	Ho ⁹¹	2000-2003	n/r	Land transport 50%, Falls 24%, Sports/recreation 9%, Violence 11% and Other/unknown 6%

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Table 2 (continued): Incidence and aetiology of traumatic spinal cord injury by Region and Author(s) of published data

Region	Country	Author(s) of published data	Observation period	Incidence per million population per year	Aetiology of SCI
	USA	NSCISC ⁹²	2005	40 (n=11,000 approx.; Males, n=8,756, Females, n=2,244)	Land transport 48%, n=5,280, Falls 23%, n=2,530, Sports/recreation 9%, n=990, Violence 14%, n=1,540 and Other/unknown 6%, n=660
	USA (Olmsted County, Minnesota)	Griffin ⁹³	1935-1981	54.8 (age-standardised rate; n=154; Males, n=111, Females, n=43)	Land transport 69%, n=106, Falls 13%, n=20, Sport/recreation 8%, n=12, work-related 7%, n=11 and Violence 3%, n=5
	USA (California)	Kraus ⁹⁴	1970-1971	53.4 (n=619; Males, n=457, Females, n=162)	Land transport 56%, n=347, Falls 20%, n=124, Sports/recreation 7%, n=43, Violence 12%, n=74 and Other/unknown 5%, n=31
	USA (Arkansas)	Acton ⁹⁵	1980-1989	28.5 (age-adjusted incidence; n=644; Males, n=518, Females, n=126)	Land transport 50%, n=319, Falls 13%, n=86, Sports/recreation 11%, n=73, Violence 11%, n=72 and Other/unknown 15%, n=94
	USA (New York)	MMWR ⁹⁶	1982-1988	43 (n=5,384)	n/r
	USA (Hawaii)	Goebert ⁹⁷	1987-1989	23.7 (Based on 1989 population of 1,245,600; n=59; Males, n=50, Females, n=9)	Land transport 38%, n=22, Falls 28%, n=17, Sports/recreation 19%, n=11 and Violence 15%, n=9
	USA (Oklahoma)	Price ⁹⁸	1988-1990	40 (n=376; Males, n=300, Females, n=76)	Land transport 50%, n=189, Falls 20%, n=75, Sports/recreation 13%, n=48, Violence 11%, n=42 and Other/unknown 6%, n=22
	USA (Utah)	Thurman ⁹⁹	1989-1991	43 (47 cases per million, age adjusted to 1980 US pop; n=223; Males, n=169, Females, n=54)	Land transport 49%, n=110, Falls 21%, n=47, Sports/recreation 16%, n=35, Violence 5%, n=12 and Other/unknown 9%, n=19
	USA (Alaska)	Warren ¹⁰⁰	1991-1993	83 (n=139; Males, n=116, Females, n=23)	Land transport 53%, n=73, Falls 22%, n=30, Violence 6%, n=8, Sport/recreation 6%, n=8 and Other/unknown 13%, n=20
	USA (Mississippi)	Surkin ¹⁰¹	1992-1994	77 (n=395; Males, n=316, Females, n=79)	Land transport 58%, n=230, Falls 13%, n=51, Sport/recreation 4%, n=14, Violence 16%, n=62 and Other/unknown 9%, n=38
	USA (Colorado)	Johnson ¹⁰²	1994	45.1-46.3 (n=165-169)	n/r

continued

Table 2 (continued): Incidence and aetiology of traumatic spinal cord injury by Region and Author(s) of published data

Region	Country	Author(s) of published data	Observation period	Incidence per million population per year	Aetiology of SCI
	USA (Kentucky, Indiana)	Burke ¹⁰³	1993-1998	27.1 (n=161; Males, n=121, Females, n=40)	Land transport 55%, n=88, Falls 23%, n=37, Violence 14%, n=23 and Other/unknown 8%, n=13
	USA (Rhode Island)	Buechner ¹⁰⁴	1994-1998	56 (n=277; Males, n=185, Females, n=92)	Land transport 29%, n=80, Falls 39%, n=108, Assault 5%, n=14, Self-harm 1%, n=3 and Other/unknown 26%, n=72
	USA (Dade County)	Calancie ¹⁰⁵	1997-2000	n/r (n=229; Males, n=175, Females, n=54)	Land transport 52%, n=118, Falls 20%, n=45, Sports/recreation 11%, n=26, Violence 11%, n=24 and Other/unknown 7%, n=16
Oceania					
	Fiji Islands	Maharaj ¹⁰⁶	1985-1994	10.0 (n=75; Males, n=65, Females, n=10)	Land transport 25%, n=19, Falls 39%, n=29, Sports/recreation 28%, n=21 and Other/unknown 8%, n=6
Sub-Saharan Africa, Southern					
	South Africa (Cape Province)	Key ¹⁰⁷	1963-1967	n/r (n=300; Males, n=270, Females, n=30)	Land transport 34%, n=120, Falls 12%, n=37, Sports/recreation 5%, n=16, Violence 25%, n=76, Other/unknown 24%, n=51
	South Africa (Johannesburg)	Velmahos ¹⁰⁸	1988-1992	48.5 (Median, based on 1990 population of 2,554,726; n=551; Males, n=428, Females, n=123)	Land transport 30%, n=165; Violence 61%, n=336 and Other/unknown 9%, n=50
	South African (Southern Transvaal)	Hart ¹⁰⁹	1988-1993	n/r (n=546; Males, n=437, Females, n=109)	Land transport 28%, n=152, Falls 3%, n=15, Violence 62%, n=341 and Other/unknown 7%, n=38
	Zimbabwe	Levy ¹¹⁰	1988-1994	11.7 (Based on estimated population of 11.6 million; n=136; Males, n=121, Females, n=15)	Land transport 50%, n=68, Falls 17%, n=23, Violence 15%, n=20 and Other/unknown 18%, n=25
Sub-Saharan Africa, West					
	Nigeria (Zaria)	Iwegbu ¹¹¹	1973-1982	n/r (n=48; Males, n=42, Females, n=6)	Land transport 75%, n=36, Falls 8%, n=4 and Other/unknown 17%, n=6
	Nigeria (Plateau State)	Igun ¹¹²	1984-1997	5 cases per year (n=68; Males, n=62, Females, n=6)	Land transport 57%, n=39, Falls 22%, n=15, Work-related 18%, n=12 and Violence 3%, n=2

continued

Table 2 (continued): Incidence and aetiology of traumatic spinal cord injury by Region and Author(s) of published data

Region	Country	Author(s) of published data	Observation period	Incidence per million population per year	Aetiology of SCI
	Nigeria (Lagos)	Obalum ¹¹³	1992-2006	n/r (n=468; Males, n=328, Females, n=140)	Land transport 77%, n=362, Falls 9%, n=44, Sports/recreation 2%, n=8, Violence 11%, n=52 and Other/unknown 1%, n=2
	Nigeria (Ilorin)	Solagberu ¹¹⁴	1995-1999	n/r (n=39; Males, n=36, Females, n=3)	Land transport 67%, n=26, Falls 23%, n=9 and Other/unknown 10%, n=4
	Nigeria (Enugu)	Nwankwo ¹¹⁵	1996-2000	n/r (n=74)	n/r
	Nigeria (Enugu)	Nwadinigwe ¹¹⁶	1996-2001	n/r (n=104; Males, n=88, Females, n=16)	Land transport 58%, n=60, Falls 24%, n=25, Violence 12%, n=12 and Other/unknown 6%, n=7
	Nigeria (Ile-Ife)	Olasode ¹¹⁷	Estimate: 2004-2006	n/r (n=71; Males, n=47, Females, n=24)	Land transport 89%, n=63, Violence 4%, n=3, Self-harm 1%, n=1 and Other/unknown 6%, n=5
	Sierra Leone	Gosselin ¹¹⁸	2002-2004	3.4*** (n=24; Males, n=22, Females, n=2)	Land transport 50%, n=12, Fall 42%, n=10 and Other/unknown 8%, n=2

* n/r: Not reported

** Figures in italics indicate 'Incidence per million population per year' was not available

*** Source/: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, /World Population Prospects: The 2008 Revision/, <http://esa.un.org/unpp>

**** Source: http://en.wikipedia.org/wiki/São_Paulo#Population_growth

***** Estimated incidence based on 1986-2007 case counts (3,289) and 2007 Brazilian population of 190,010,647.

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