

# THE LANCET

## **Supplementary appendix**

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: Patel V, Ramasundarahettige C, Vijayakumar L, et al, for the Million Death Study Collaborators. Suicide mortality in India: a nationally representative survey. *Lancet* 2012; **379**: 2343–51.

	Total injury deaths <sup>1</sup> in the study, 2001-03	Accidents <sup>2</sup>		Suicides <sup>3</sup>		Homicides <sup>4</sup>	
		Male	Women	Men	Women	Male	Women
		Male / female	ASR† (n)	ASR† (n)	ASR† (n)	ASR† (n)	ASR† (n)
Kerala	474 / 186	66•1 (250)	15•6 (72)	66•3 (192)	32•3 (99)	1•3 (5)	1•0 (5)
Andhra Pradesh	489 / 239	94•8 (273)	38•3 (111)	57•2 (164)	32•2 (100)	8•6 (26)	2•1 (6)
Tamil Nadu	497 / 316	92•0 (284)	50•4 (166)	53•1 (183)	39•7 (139)	6•9 (22)	1•1 (4)
Karnataka	476 / 244	95•0 (285)	43•2 (132)	39•7 (141)	23•6 (93)	10•0 (30)	1•4 (5)
Other states**	257 / 132	97•2 (144)	55•6 (80)	32•2 (93)	18•3 (41)	1•5 (5)	8•0 (5)
Maharashtra	391 / 204	75•9 (252)	39•9 (142)	30•9 (110)	14•1 (49)	3•6 (10)	2•5 (7)
Haryana	318 / 109	103•0 (202)	33•8 (63)	30•1 (67)	16•1 (33)	11•4 (21)	1•7 (3)
West Bengal	385 / 269	50•8 (222)	28•5 (116)	28•6 (130)	26•5 (123)	4•0 (18)	1•4 (7)
Madya Pradesh & Chhattisgarh	409 / 237	86•6 (269)	46•6 (151)	27•1 (95)	19•4 (71)	8•6 (27)	1•2 (3)
Orissa	293 / 187	71•3 (195)	34•9 (102)	23•6 (64)	23•5 (69)	3•8 (11)	1•1 (3)
Assam	189 / 77	61•1 (104)	23•4 (35)	19•0 (40)	9•0 (21)	16•0 (28)	1•4 (3)
Gujarat	258 / 155	59•5 (173)	42•5 (109)	17•8 (49)	11•2 (34)	8•1 (20)	0•8 (2)
Northeast*	274 / 100	70•5 (156)	35•7 (62)	16•2 (69)	6•8 (35)	13•0 (36)	0•5 (2)
Rajasthan	292 / 117	67•3 (211)	23•6 (65)	14•2 (46)	11•3 (38)	4•9 (15)	1•1 (3)
Uttra Pradesh & Uttarakhand	675 / 336	85•5 (465)	40•6 (225)	12•6 (79)	10•5 (67)	14•2 (79)	3•0 (16)
Punjab	266 / 77	118•5 (203)	35•3 (60)	10•4 (19)	2•2 (4)	7•0 (11)	1•8 (3)
Jammu & Kashmir	128 / 46	58•7 (89)	29•8 (34)	9•0 (11)	5•6 (7)	13•9 (22)	2•5 (3)
Himachal Pradesh	96 / 54	109•5 (86)	36•9 (35)	7•9 (8)	14•9 (13)	-- --	-- --
Delhi	72 / 30	50•7 (46)	17•4 (15)	6•5 (9)	5•4 (8)	6•7 (7)	-- --
Bihar & Jharkhand	456 / 272	84•2 (361)	48•8 (220)	6•3 (30)	7•8 (41)	12•1 (50)	1•0 (4)
South	2032 / 1033	89•8 (1141)	39•5 (502)	52•9 (724)	32•2 (457)	7•3 (83)	1•5 (21)
Rest of India	4663 / 2354	76•7 (3129)	38•1 (1493)	18•7 (875)	13•3 (628)	8•8 (360)	1•7 (63)
Total	6695 / 3387	79•9 (4270)	38•6 (1995)	26•3 (1599)	17•5 (1085)	8•5 (443)	1•7 (84)

**Web Table 1: Total injury death in the study and the age- standardised suicide, accident, homicide and other injury death rate for men and women age 15 years and older by major states.**

The ICD-10 codes used are as follows: Total injury deaths (V01 to Y98); Accidents (V01 to X59); Suicide (X60 to X84); and Homicides (X85 to Y09). Other injury deaths (rest of the Y10 to Y98, totaling 383 men and 223 women) are not shown.

\* - Northeast states include Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura and Meghalaya

\*\* - Other states include Chandigarh, Daman & Diu, Dadra & Nagar Haveli, Goa, Lakshadweep, Puducherry and A & N Islands.

† - Age standardised rate, age standardised to the total Indian population for 2010.

	Men		Women	
	All deaths	Suicides	All deaths	Suicides
	n	n (%)	n	n (%)
Non worker	22 272	525 (2•4)	31 194	731 (2•3)
Agricultural worker <sup>1</sup>	14 671	472 (3•2)	4487	149 (3•3)
Other <sup>2</sup>	17 182	602 (3•5)	5529	205 (3•7)
Total	54 125	1599 (2•9)	41 210	1085 (2•6)

**Web Table 2: Occupation distribution for suicide and all deaths for male and female age 15 years and older in the study 2001-03.**

Notes: 1 - Agricultural worker category includes agricultural labour and cultivator. Cultivator is defined as a person who engaged in cultivation of a privately or publicly-owned land and an agricultural laborer is defined as a person who works on another person's land for wages in money.

2 - Other category includes salaried, professional and other jobs.

Age in years	All India, 2010 -Total MDS suicide estimates		NCRB suicide deaths for 2010		Difference between NCRB and estimated MDS suicides (%)†		NCRB suicide deaths (average of 2001 and 2003)	
	Men	Women	Men	Women	Men	Women	Men	Women
0 - 14	2300	3000	1640	1490	28•6	50•3	1390	1404
15 - 29	45 110	40 492	26 387	21 238	41•5	47•6	20 822	18 586
30 - 44	35 697	19 272	30 444	14 402	14•7	25•3	24 062	12 687
45 - 59	22 458	6771	20 768	7121	7•5	- 5 •1	15 760	6196
60+	11 576	5557	7941	3168	31•4	42•9	6190	2640
Total	117 141	75 092	87 180	47 419	25•5	36•8	68 224	41 513

**Web Table 3: Comparison of estimated suicide deaths from the study and the NCRB numbers for 2010.**

† - Comparison of 2001 to 2003 NCRB suicide numbers to MDS showed similar undercounts to these for 2010.

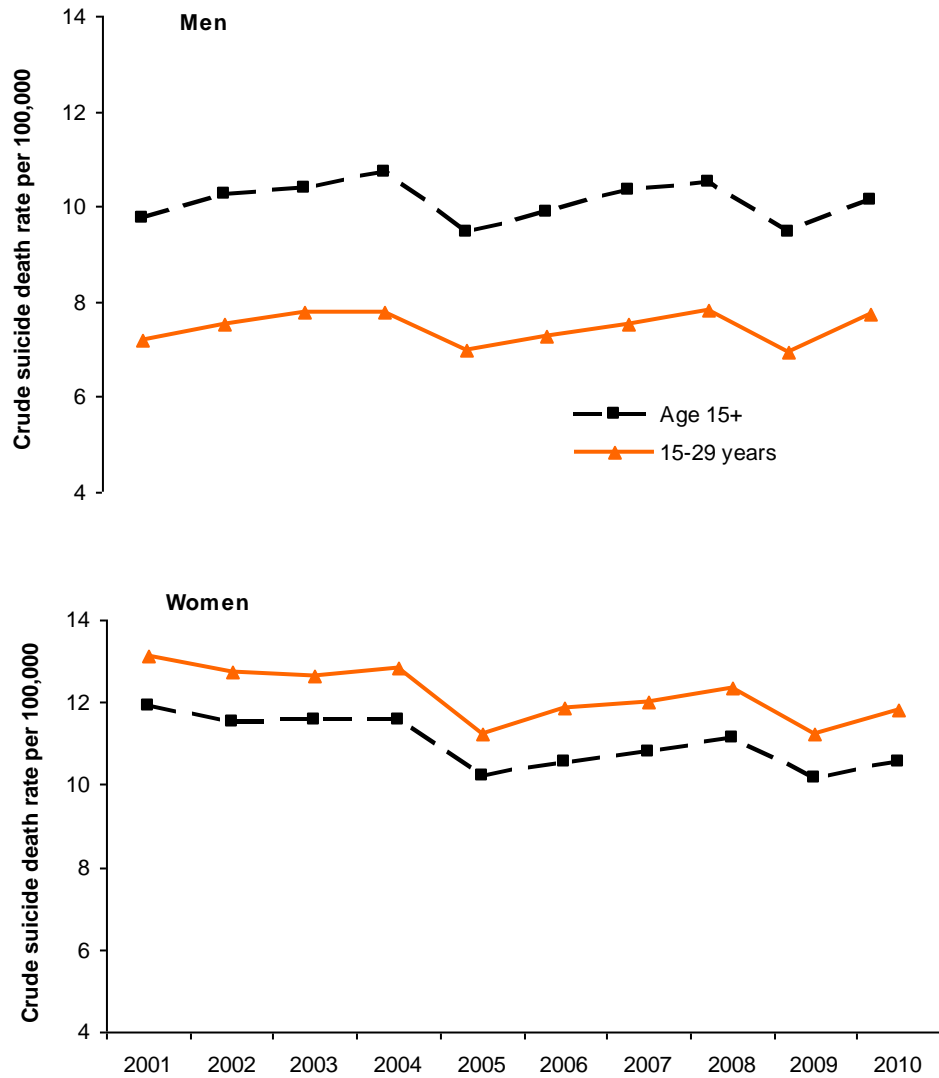
	Men		Women		Both genders combined											
	Rural		Urban		Rural		Urban		Home		Health facility		Other places		Unknown	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Poisoning	729	(52•4)	70	(33•8)	441	(47•4)	36	(23•4)	624	(41•6)	370	(73•7)	254	(41•9)	28	(35•4)
Hanging	474	(34•1)	83	(40•1)	246	(26•4)	38	(24•7)	638	(42•6)	14	(2•7)	165	(27•3)	24	(30•4)
Burns	45	(3•2)	17	(8•2)	120	(12•9)	48	(31•2)	98	(6•5)	99	(19•7)	23	(3•8)	10	(12•7)
Drowning	46	(3•3)	12	(5•8)	68	(7•3)	15	(9•7)	39	(2•6)	2	(0•4)	95	(15•7)	5	(6•3)
Other methods	98	(7•0)	25	(12•1)	56	(6•0)	17	(11•0)	99	(6•6)	17	(3•4)	68	(11•2)	12	(15•2)

**Web Table 4: Method of suicide by residency (rural/ urban) and by place of death for male and female age 15 years and above.**

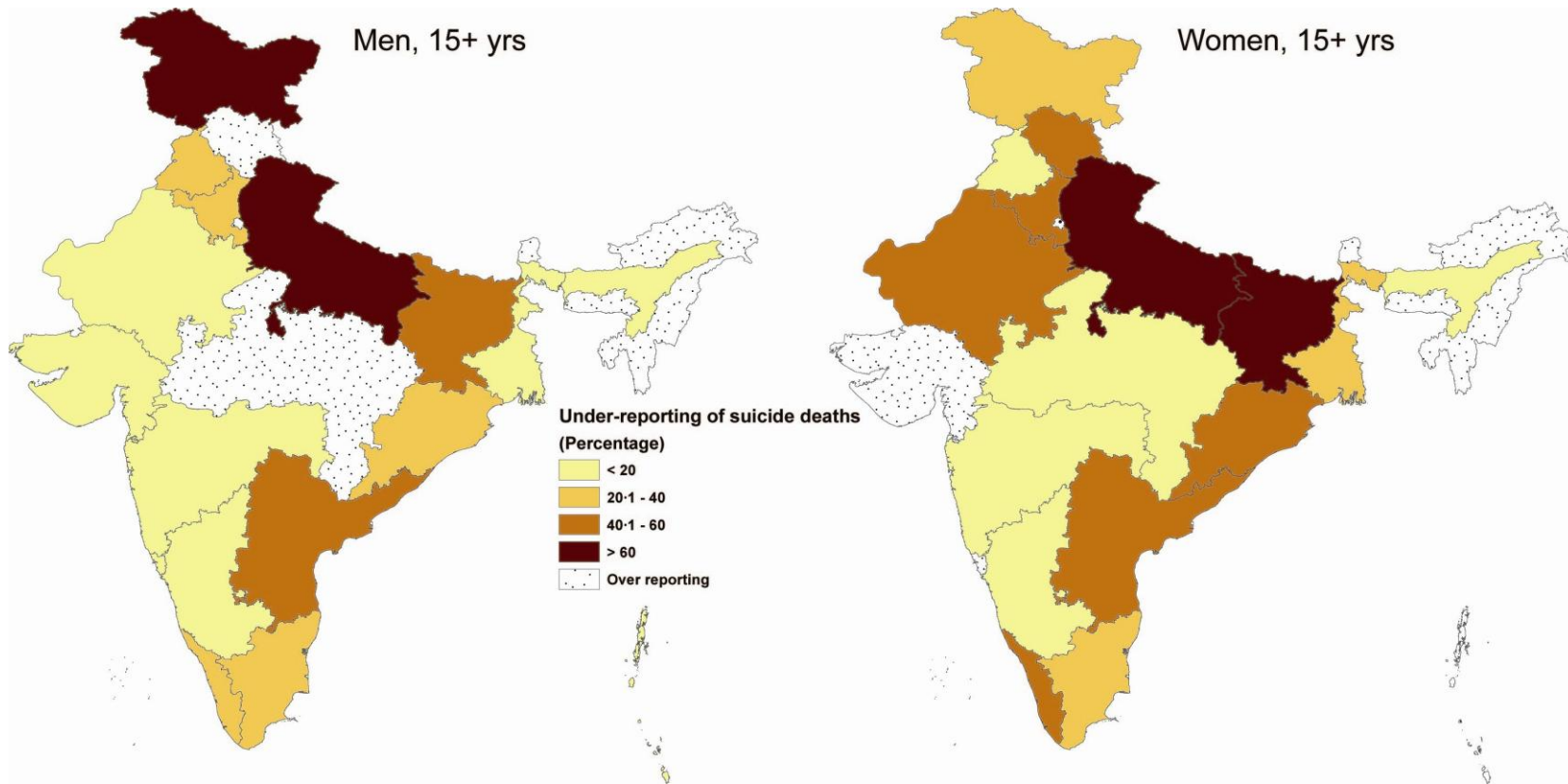
Country	Male	Female
India (2010)	1.7	1.0
US (2004-07)	1.6	0.5
Canada (2004-07)	1.2	0.4
UK (2004-07)	0.5	0.2

**Web Table 5: Risk of suicide of a person of age 15 years old dying of suicide before reaching 75 years in India, US, UK and Canada.**

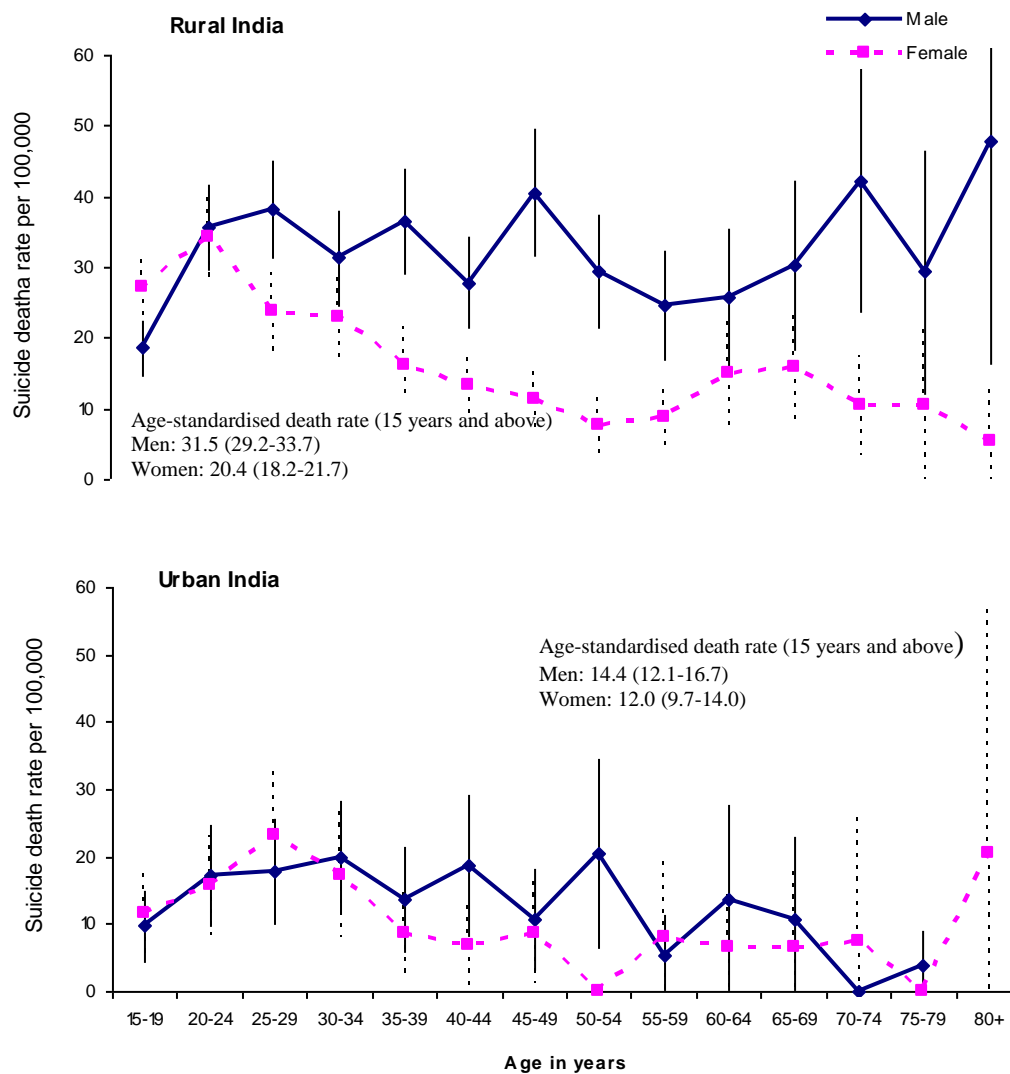
Notes: The US, Canada and UK rates are derived from the WHO mortality database and national mortality statistics.



**Web Figure 1: Crude suicide death rate per 100 000 among men and women age, 15 to 29 and 15 years and above, based on the published NCRB suicide numbers from 2001 to 2010.**



**Web Figure 2: Percentage of under reporting of suicide deaths (2010 estimated suicide deaths are compared with 2010 NCRB suicide values) in states of India for male and female age 15 years and older.** Percentage of under reporting =  $(\text{MDS estimated suicides} - \text{NCRB suicides}) \times 100 / \text{MDS estimated suicides}$ .



**Web Figure 3: Age specific suicide death rate per 100 000 (99% CI) for males and females in rural India (top panel) and urban India (bottom panel).**  
 Note: The 99% CIs are based on observed number of suicide deaths in each strata (and are not the upper/lower bounds shown in the main table for Table 1).



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