

TABLE 3

CONSANGUINEOUS MARRIAGE IN ASIA

Region/country	Location	Collection period	Study population	Sample size	Consanguinity (%)	Consanguinity types	Coefficient of inbreeding (α)	Reference
Eastern Asia								
China: Han	Beijing (urban)	1949/67	Household survey	2,370	0.7%	1C,1 ^{1/2} C,D2C,2C	0.0003	Du <i>et al.</i> (1981)
	Beijing (suburban)	1949/67	Household survey	1,409	1.1	1C,1 ^{1/2} C,D2C,2C	0.0005	Du <i>et al.</i> (1981)
	Beijing (rural)	1949/67	Household survey	1,572	1.1	1C,1 ^{1/2} C,D2C,2C	0.0003	Du <i>et al.</i> (1981)
	Shanghai (urban)	-	-	3,127	0.8	1C,1 ^{1/2} C,2C	0.0006	Wu (1987)
	Hubei (urban)	1949/67	Household survey	500	1.2	1C,1 ^{1/2} C,D2C,2C	0.0007	Du <i>et al.</i> (1981)
	Hubei (rural)	1949/67	Household survey	1,874	2.8	1C,1 ^{1/2} C,D2C,2C	0.0015	Du <i>et al.</i> (1981)
	Hubei (rural)	-	-	14,427	4.3	1C,1 ^{1/2} C,2C	0.0026	Wu (1987)
	Sichuan (Shifang)	1987	Household survey	526	6.8	1C	0.0043	Wang (pers. comm.)

	Sichuan (rural)	-	-	168	4.8%	1C,1 ^{1/2} C,2C	0.0023	Wu (1987)
	Heilongjiang	-	-	5,313	1.2	1C,1 ^{1/2} C,2C	0.0006	Wu (1987)
	Yunnan (rural)	-	-	553	4.7	1C,1 ^{1/2} C,2C	-	Wu (1987)
	Xinjiang	-	-	1,535	1.7	1C,1 ^{1/2} C,2C	0.0008	Wu (1987)
	Guizhou (rural)	-	-	518	5.7	1C,1 ^{1/2} C,2C	0.0034	Wu (1987)
	Zejiang (mountain)	1981/91	Household survey	11,199	3.0	1C,1 ^{1/2} C,2C	0.0017	Zhan <i>et al.</i> (1992)
	Zejiang (plateau)	1981/91	Household survey	15,762	1.1	UN,1C,1 ^{1/2} C,2C	0.0006	Zhan <i>et al.</i> (1992)
	Zejiang	1981/91	Household survey	17,381	2.5	1C,1 ^{1/2} C,2C	0.0014	Zhan <i>et al.</i> (1992)
	All-Hong Kong	1961/64	Obstetric inpatients	9,749	1.8	>1C,1C,<1C	-	Stevenson <i>et al.</i> (1966)
<i>Kazakh</i>	Xinjiang	1951/76	Household survey	1,079	2.9	D1C,1C,2C	0.0011	Ai <i>et al.</i> (1985)
<i>Uyгур</i>	Xinjiang	1951/76	Household survey	2,553	8.2	D1C,1C,2C	0.0047	Ai <i>et al.</i> (1985)
<i>Kirgiz</i>	Xinjiang	-	-	2,863	45.2	D1C,1C,1 ^{1/2} C,2C	0.0274	Wu (1987)
<i>Tajik</i>	Xinjiang	-	-	1,325	42.8	D1C,1C,1 ^{1/2} C,2C	0.0246	Wu (1987)
<i>Uzbek</i>	Xinjiang	-	-	159	23.3	1C,1 ^{1/2} C,2C	0.0011	Wu (1987)

<i>Huizu</i>	Xinjiang	1951/76	Household survey	1,079	2.9%	UN,1C,2C	0.0011	<i>Ai et al.</i> (1985)
	Gansu	-	-	1,376	9.7	1C,1 ^{1/2} C,2C	0.0049	Wu (1987)
	Guangdong	-	-	614	3.9	1C,1 ^{1/2} C,2C	0.0012	Wu (1987)
	Guizhou	-	-	555	11.2	1C,1 ^{1/2} C,2C	0.0065	Wu (1987)
<i>Tibetan</i>	Xi Zhang	1949/67	Household survey	697	0	-	0	<i>Du et al.</i> (1981)
<i>Korean</i>	Ji Lin	1949/67	Household survey	2,080	0	-	0	<i>Du et al.</i> (1981)
<i>Lizu</i>	Guangdong/ Hainan	1949/67	Household survey	1,310	1.5	1C,1 ^{1/2} C,D2C,	0.0005	<i>Du et al.</i> (1981)
	Sichuan (urban)	-	-	354	58.2	1C,1 ^{1/2} C,2C	0.0431	Wu (1987)
	Sichuan (rural)	-	-	326	32.2	1C,1 ^{1/2} C,2C	0.0112	Wu (1987)
<i>Yizu</i>	Sichuan	1949/67	Household survey	2,054	14.6	1C,1 ^{1/2} C,D2C,	0.0091	<i>Du et al.</i> (1981)
	Guizhou	-	-	512	12.7	1C,1 ^{1/2} C,2C	0.0067	Wu (1987)
<i>Dongxiang</i>	Gansu	1949/67	Household survey	2,092	4.3	1C,1 ^{1/2} C,D2C,	0.0023	<i>Du et al.</i> (1981)
<i>Bo'an</i>	Gansu	1949/67	Household survey	772	10.9	1C,1 ^{1/2} C,D2C, 2C	0.0058	<i>Du et al.</i> (1981)
<i>Ewenki</i>	Nei Meng Gu	1949/67	Household survey	626	3.4	1C,1 ^{1/2} C,2C,	0.0012	<i>Du et al.</i> (1981)

<i>Orogen</i>	Nei Meng Gu/ Hei Lung Jiang	1949/67	Household survey	183	1.6%	1 ^{1/2} C	0.0003	Du <i>et al.</i> (1981)
<i>Miaozu</i>	Guangdong/ Hainan	1949/67	Household survey	330	0.9	1C,1 ^{1/2} C	0.0004	Du <i>et al.</i> (1981)
<i>Xibe</i>	Xinjiang	1951/76	Household survey	1,222	4.7	1C,2C	0.0025	Ai <i>et al.</i> (1985)
<i>Mongolian</i>	Xinjiang	1951/76	Household survey	446	0.5	1C	0.0003	Ai <i>et al.</i> (1985)
<i>Daizu</i>	Yunnan	-	-	94	21.3	1C,1 ^{1/2} C,2C	-	Wu (1987)
<i>Hizhen</i>	Heilongjiang	-	-	60	18.3	1C,1 ^{1/2} C,2C	0.0098	Wu (1987)
<i>Hani</i>	Yunnan	-	-	449	12.5	1C,1 ^{1/2} C,2C	-	Wu (1987)
<i>Mong</i>	-	1992	Household survey	525	27.4	UN,1C,1 ^{1/2} C,	0.0150	Yang <i>et al.</i> (1994)
<i>Man</i>	Laioning	1998	Household survey	418	3.1	1C,1 ^{1/2} C,2C	0.0012	Wang <i>et al.</i> (2002)
Japan	Fukushima	-	Household survey	3,659	15.5	1C,1 ^{1/2} C,2C	0.0067	Watanabe (1956)
	Hiroshima	1948/53	Obstetric outpatients	27,934	5.9	1C,1 ^{1/2} C,2C	0.0027	Schull (1958)
	Nagasaki	1948/53	Obstetric outpatients	33,319	8.0	1C,1 ^{1/2} C,2C	0.0037	Schull (1958)
	Kure	1948/53	Obstetric outpatients	8,211	7.0	1C,1 ^{1/2} C,2C	0.0032	Schull (1958)

Hirado	1964/65	Civil registration	10,457	14.7%	1C,1 ^{1/2} C,2C	0.0061	Schull <i>et al.</i> (1970)
Fukuoka	1962/65	Household survey/civil registration	45,230	7.6	D1C,1C,1 ^{1/2} C,2C	0.0029	Yamaguchi <i>et al.</i> (1970)
Shizuoka	1958/60	Household survey	6,161	8.1	1C,1 ^{1/2} C,2C	0.0036	Komai and Tanaka (1972)
All-Japan	1972	Household Survey	9,385	5.7	1C,1 ^{1/2} C,2C	0.0018	Imaizumi <i>et al.</i> (1975)
Tokyo	1975/76	Paediatric outpatients	2,383	1.2	1C,1 ^{1/2} C,2C	0.0006	Tanaka <i>et al.</i> (1978)
Tokyo	1961	School survey	4,153	4.6	1C,1 ^{1/2} C,2C	0.0021	Furusho (1979)
Yokohama	1961	School survey	2,713	5.3	1C,1 ^{1/2} C,2C	0.0026	Furusho (1979)
Tokyo and Osaka	1981	Workplace survey/optician outpatients	983	0.4	1C,1 ^{1/2} C,2C	0.0001	Hosoda <i>et al.</i> (1983)
All-Japan	1983	Household survey	9,225	3.9	1C,1 ^{1/2} C,2C	0.0013	Imaizumi (1986)

Southeastern Asia

Indonesia	West Timor and West Flores (Roman Catholic)	1990	Household survey	970	17.8%	1C,1 ^{1/2} C,2C	0.0095	Glinka (1994)
Malaysia	Kuala Lumpur	1961/64	Obstetric inpatients	15,658	7.6	>1C,1C,<1C	-	Stevenson <i>et al.</i> (1966)
Philippines	Manila	1961/64	Obstetric inpatients	29,143	0.4	>1C,1C,<1C	-	Stevenson <i>et al.</i> (1966)
Singapore	All-Singapore	1961/64	Obstetric inpatients	39,333	5.0	>1C,1C,<1C	-	Stevenson <i>et al.</i> (1966)
	Chinese	1980	Marriage registration	16,698	0.3	1C	0.0002	Tay (1982)
	Indian	1980	Marriage registration	989	4.0	UN,1C	0.0028	Tay (1982)

South Asia

Afghanistan	Nangarhar and Kunard provinces	1995	Household survey	168	55.4%	1C,1 ^{1/2} C,2C	0.0332	Wahab <i>et al.</i> (2006)
Bangladesh	Matlab	1966/-	Household survey	8,000	6.7	1C,2C	0.0015	Khan <i>et al.</i> (unpublished)
	Teknaf	1976/-	Household survey	4,266	17.6	1C,2C	0.0101	Khan <i>et al.</i> (unpublished)
India (East)	Calcutta	1961/64	Obstetric inpatients	19,111	0.5	>1C,1C,<1C	-	Stevenson <i>et al.</i> (1966)
	West Bengal (Muslim)	1969/71	Household survey	835	22.2	1C,2C	0.0135	Huq (1976)
	Bihar (Muslim: surburban)	-	Household survey	7,209	24.0	1C	0.0150	Afzal (1988)
	Bihar (Muslim: rural)	-	Household survey	4,524	39.9	1C	0.0249	Afzal (1988)
	Bihar (All-Muslim)	-	Household survey	476	13.9	1C,2C	0.0076	Ansari and Sinha (1978)
	All-region (Muslim)	1992/93	Household survey	2,622	15.8	UN,1C,2C	0.0097	Bittles and Hussain (2000)
India (Central)	Madhya Pradesh (Hindu)	-	-	1,145	8.6	UN,1C,2C	0.0033	Goswami (1970)

	Madhya Pradesh (Scheduled tribes and castes)	-	-	147	28.6%	UN,1C,2C	0.0145	Goswami (1970)
	Madhya Pradesh (Muslim)	-	-	451	46.1	UN,1C,2C	0.0215	Goswami (1970)
	Madhya Pradesh (Christians)	-	-	72	25.0	UN,1C,2C	0.0098	Goswami (1970)
	All-region (Muslim)	1992/93	Household survey	1,819	27.3	UN,1C,2C	0.0168	Bittles and Hussain (2000)
India (North)	Delhi (Sunni Muslim)	-	Household survey	1,483	24.4	1C,1 ^{1/2} C,2C	0.0100	Basu (1975)
	Lucknow (Shia Muslim)	-	Household survey	1,000	43.4	1C,1 ^{1/2} C,2C	0.0202	Basu (1975)
	Udaipur (Shia Muslim)	-	Household survey	957	41.1	1C,1 ^{1/2} C,2C	0.0218	Basu (1978)
	Delhi (Sunni Muslim)	-	Household survey	502	36.5	1C,1 ^{1/2} C,2C	0.0180	Krishan (1986)
	Lucknow (Hindu)	1981/84	Obstetric inpatients	7,955	0.1	UN,1C	0.0001	Agarwal <i>et al.</i> (1991)
	Lucknow (Muslim)	1981/84	Obstetric inpatients	1,276	17.2	UN,1C,2C	0.0095	Agarwal <i>et al.</i> (1991)
	All-region (Muslim)	1992/93	Household survey	1,166	23.0	UN,1C,2C	0.0130	Bittles and Hussain (2000)

India (South)	Andhra Pradesh	1959/-	Hospital inpatients	2,177	30.6%	UN,AN,1C,1 ^{1/2} C,2C	0.0195	Dronamraju and Meera Khan (1963)
	Andhra Pradesh	1957/58	Household survey	6,945	42.5	UN,1C	0.0324	Sanghvi (1966)
	Andhra Pradesh (Vedde)	1982	Household survey	2,078	32.4	UN,1C,1 ^{1/2} C,2C	0.0185	Reddy (1992)
	Karnataka (Hindu)	1980/89	Obstetric inpatients	86,448	33.5	UN,1C,2C	0.0333	Bittles <i>et al.</i> (1991)
	Karnataka (Muslim)	1980/89	Obstetric inpatients	17,019	23.7	UN,1C,2C	0.0160	Bittles <i>et al.</i> (1991)
	Karnataka (Christian)	1980/89	Obstetric inpatients	4,038	18.6	UN,1C,2C	0.0173	Bittles <i>et al.</i> (1991)
	All-Karnataka	1980/89	Obstetric inpatients	107,518	31.4	UN,1C,2C	0.0299	Bittles <i>et al.</i> (1991)
	Belgaum (Hindu)	-	Household survey	462	31.2	UN,1C	0.0273	Nath <i>et al.</i> (2004)
	Kerala	1966	Hospital inpatients	889	20.7	1C,2C	0.0118	Kumar <i>et al.</i> (1967)
	Kerala	-	-	1,631	13.0	1C,1 ^{1/2} C,2C	0.0075	Ali (1968)
	Tamil Nadu	1968/69	Household survey	31,390	30.0	UN,1C,1 ^{1/2} C,2C	0.0231	Rao <i>et al.</i> (1971)
	Tamil Nadu (rural)	1969/74	Household survey	11,628	46.3	UN,AN,1C,1 ^{1/2} C	0.0367	Rao and Inbaraj (1977)

	Tamil Nadu (urban)	1969/74	Household survey	8,998	28.6%	UN,1C,1 ^{1/2} C,2C	0.0203	Rao and Inbaraj (1977)
	Tamil Nadu (<i>Brahmin</i>)	1971/72	Household survey	486	17.3	UN,1C,1 ^{1/2} C,2C	0.0124	Srinivasan and Mukherjee (1976)
	Pondicherry	1971/72	Household survey	1,494	55.1	UN,1C,<1C	0.0449	Puri <i>et al.</i> (1978)
Lakshadweep	Koya	1961	Census	176	33.5	1C	0.0210	Roychoudhury (1977)
	Malmi	1961	Census	435	4.1	1C,1 ^{1/2} C	0.0021	Roychoudhury (1977)
	Melacheri	1961	Census	1,471	6.3	1C,2C	0.0039	Roychoudhury (1977)
	All-region (Muslim)	1992/93	Household survey	1,912	19.4	UN,1C,2C	0.0111	Bittles and Hussain (2000)
India (West)	Bombay (Hindu)	-	-	3,520	7.7	1C,1 ^{1/2} C,2C	0.0039	Sanghvi <i>et al.</i> (1956)
	Bombay (Muslim)	-	-	1,436	21.8	1C,1 ^{1/2} C,2C	0.0095	Sanghvi <i>et al.</i> (1956)
	Bombay (Christian)	-	-	1,063	3.4	1C,1 ^{1/2} C,2C	0.0012	Sanghvi <i>et al.</i> (1956)
	Bombay (Parsi)	-	-	578	18.0	1C,1 ^{1/2} C,2C	0.0096	Sanghvi <i>et al.</i> (1956)
	Bombay (Parsi)	1961/72	Obstetric inpatients	2,348	7.4	1C,1 ^{1/2} C,2C	0.0036	Undevia and Balakrishnan (1978)

	Bombay	1961/64	Obstetric inpatients	39,155	9.8%	>1C,1C,<1C	-	Stevenson <i>et al.</i> (1966)
	Maharashtra	1971/73	Household survey	5,282	26.4	UN,1C	0.0175	Malhotra (1979)
	All-region (Muslim)	1992/93	Household survey	917	33.0	UN,1C,2C	0.0201	Bittles and Hussain (2000)
Iran	Shiraz	1972/75	Obstetric inpatients	9,526	24.5	1C,2C	0.0128	Naderi (1979)
	Rural (Azeri)	-	-	440	31.8	1C,2C	0.0071	Farhud <i>et al.</i> (1991)
	Rural (Kurdish)	-	-	550	38.0	1C,2C	0.0157	Farhud <i>et al.</i> (1991)
	Rural (Others)	-	-	3,688	50.0	1C,2C	0.0234	Farhud <i>et al.</i> (1991)
	Tribal (<i>Turkmen</i>)	-	-	647	18.4	1C,2C	0.0077	Farhud <i>et al.</i> (1991)
	Tribal (<i>Qashqai</i>)	-	-	189	73.5	1C,2C	0.0392	Farhud <i>et al.</i> (1991)
	Muslim	-	-	756	24.3	1C,2C	0.0117	Farhud <i>et al.</i> (1991)
	Zoroastrian	-	-	600	17.0	1C,2C	0.0109	Farhud <i>et al.</i> (1991)
	Armenian	-	-	107	2.8	1C,2C	0.0018	Farhud <i>et al.</i> (1991)
	Assyrian	-	-	162	9.3	1C,2C	0.0020	Farhud <i>et al.</i> (1991)
	Jewish	-	-	449	25.4	UN,1C,2C	0.0134	Farhud <i>et al.</i> (1991)
	Persians (Shi'a)	2001	Household Survey	169,310	30.0	D1C,1C,2C	0.0170	Saadat <i>et al.</i> (2004)

Persians (Sunni)	2001	Household Survey	5,435	52.1%	D1C,1C,2C	0.0289	Saadat <i>et al.</i> (2004)
Kurds (Shi'a)	2001	Household survey	17,005	35.9	D1C,1C,2C	0.0208	Saadat <i>et al.</i> (2004)
Kurds (Sunni)	2001	Household survey	14,017	40.1	D1C,1C,2C	0.0235	Saadat <i>et al.</i> (2004)
Azaris	2001	Household survey	60,161	31.6	D1C,1C,2C	0.0184	Saadat <i>et al.</i> (2004)
Lurs	2001	Household survey	22,545	31.1	D1C,1C,2C	0.0182	Saadat <i>et al.</i> (2004)
Baluchis	2001	Household survey	4,484	50.0	D1C,1C,2C	0.0294	Saadat <i>et al.</i> (2004)
Turkamans	2001	Household survey	1,911	37.6	D1C,1C,2C	0.0218	Saadat <i>et al.</i> (2004)
Arabs	2001	Household survey	4,238	44.3	D1C,1C,2C	0.0239	Saadat <i>et al.</i> (2004)
Bakhtiariis	2001	Household survey	4,772	36.5	D1C,1C,2C	0.0203	Saadat <i>et al.</i> (2004)
Zabolis	2001	Household survey	1,193	37.0	D1C,1C,2C	0.0209	Saadat <i>et al.</i> (2004)
Ghashghais	2001	Household Survey	1,272	40.3	D1C,1C,2C	0.0223	Saadat <i>et al.</i> (2004)

Pakistan	Lahore	1979/80	Obstetric inpatients	966	38.8%	D1C,1C,1 ^{1/2} C, D2C,2C	0.0269	Shami and Zahida (1982)
	Mianchannu	1980	Household survey	135	37.8	1C	0.0236	Shami (1983)
	Muridke	1980	Household survey	251	41.2	1C,1 ^{1/2} C,D2C	0.0240	Shami (1983)
	Sheikhupura	1982/83	Household survey	1,007	48.9	1C,1 ^{1/2} C,D2C	0.0271	Shami and Iqbal (1983)
	Gujrat	1982/83	Household survey/ obstetric inpatients	1,002	48.5	D1C,1C,1 ^{1/2} C, D2C,2C	0.0277	Shami and Hussain (1984)
	Jhelum	1983/84	Household survey	1,027	44.2	D1C,1C,1 ^{1/2} C, D2C,2C	0.0262	Shami and Minhas (1984)
	Rawalpindi	1983/84	Household survey	1,000	48.1	D1C,1C,1 ^{1/2} C, D2C,2C	0.0286	Shami and Siddiqui (1984)
	Faisalabad	1985/86	Household survey	1,033	52.1	D1C,1C,1 ^{1/2} C, D2C,2C	0.0293	Bittles <i>et al.</i> (1993)
	Gujrunwala	1985/86	Household survey	1,059	58.9	D1C,1C,1 ^{1/2} C, D2C,2C	0.0323	Bittles <i>et al.</i> (1993)
	Sahiwal	1985/86	Household survey	1,003	56.1	D1C,1C,1 ^{1/2} C, D2C,2C	0.0295	Bittles <i>et al.</i> (1993)
	Sialkot	1985/86	Household survey	1,037	51.8	D1C,1C,1 ^{1/2} C, D2C,2C	0.0261	Bittles <i>et al.</i> (1993)

	All-Punjab	1979/86	Household survey/obstetric inpatients	9,520	50.3%	D1C,1C,1 ^{1/2} C, D2C,2C	0.0280	Bittles <i>et al.</i> (1993)
	Lahore	1987/90	Household survey	940	46.2	D1C,1C,1 ^{1/2} C, D2C,2C	0.0242	Yaqoob <i>et al.</i> (1993)
	All-Pakistan	1990/91	Household survey	6,611	61.2	1C,2C	0.0332	Ahmed <i>et al.</i> (1992)
	Quetta	-	Gynaecology inpatients	171	31.6	1C,2C	0.0217	Mian and Mushtaq (1994)
	Swat (urban)	1986	Household survey	1,019	31.1	1C,1 ^{1/2} C,2C	0.0163	Wahab and Ahmad (1996)
	Swat (rural)	1986	Household survey	1,018	37.1	1C,1 ^{1/2} C,2C	0.0166	Wahab and Ahmad (1996)
Sri Lanka	Kandy (Buddhist)	1973	Household survey	455	21.5	1C,2C	0.0092	Reid (1976)

Western Asia

Bahrain	Bahrain	1983	Obstetric inpatients	141	10.6%	-	-	El-Shafei <i>et al.</i> (1986)
	Bahrain	1989	Child health survey	10,070	45.5	1C,<1C	0.0166	Al-Naser (1994)
	Bahrain	1989	Married women	500	31.8	1C,1 ^{1/2} C, 2C	0.0152	Al Arrayed (1994)
Iraq	Baghdad	-	Hospital in- and out-patients/ medical students	4,491	46.4	1C,1 ^{1/2} C,2C	0.0225	Al-Hamamy <i>et al.</i> (1986)
	Baghdad	-	Workplace survey	382	53.4	1C,2C	0.0228	Hamamy and Al-Hakkak (1989)
	Baghdad (urban)	2004	Household survey	6,381	29.0	D1C,1C	0.0194	Central Organization for Statistics and IT (COSIT) (2005)
	Baghdad (rural)	2004	Household survey	437	50.0	D1C,1C	0.0325	COSIT (2005)
	Central Iraq (urban)	2004	Household survey	3,950	35.0	D1C,1C	0.0238	COSIT (2005)
	Central Iraq (rural)	2004	Household survey	2,274	40.0	D1C,1C	0.0263	COSIT (2005)
	Northern Iraq (urban)	2004	Household survey	553	25.0	D1C,1C	0.0176	COSIT (2005)
	Northern Iraq (rural)	2004	Household survey	2,339	26.0	D1C,1C	0.0219	COSIT (2005)

	Southern Iraq (urban)	2004	Household survey	5,582	32.0	D1C,1C	0.0213	COSIT (2005)
	Southern Iraq (rural)	2004	Household survey	2,384	41.0	D1C,1C	0.0269	COSIT (2005)
	All-Iraq	2004	Household survey	23,937	33.0	D1C,1C	0.0219	COSIT (2005)
Israel	Ashkenazi migrants	1955/57	Obstetric inpatients	4,734	1.4	UN,1C	0.0009	Goldschmidt <i>et al.</i> (1960)
	Sephardi migrants	1955/57	Obstetric inpatients	6,690	8.8	UN,1C	0.0060	Goldschmidt <i>et al.</i> (1960)
	Petah Tiqwa (Jewish, Askenazi)	1969/70	Obstetric inpatients	1,242	1.3	>1C,1C,<1C	-	Tsafrir and Halbrecht (1972)
	Petah Tiqwa (Jewish, Non-Askenazi)	1969/70	Obstetric inpatients	1,916	14.3	>1C,1C,<1C	-	Tsafrir and Halbrecht (1972)
	All-Israel (Arabs)	-	School survey	3,203	34.2	D1C,1C	0.0238	Bashi (1977)
	Galilee (Druze)	-	Paediatric clinic	191	48.7	1C,1 ^{1/2} C,2C	0.0252	Freundlich and Hino (1984)
	Galilee (Muslim)	-	Paediatric clinic	189	39.7	1C,2C,1 ^{1/2} C	0.0199	Freundlich and Hino (1984)
	Galilee (Christian)	-	Paediatric clinic	170	28.8	1C,1 ^{1/2} C,2C	0.0137	Freundlich and Hino (1984)

Galilee (Arab and Druze)	1976/83	Paediatric clinic	1,546	32.2%	1C,2C	0.0163	Gev <i>et al.</i> (1986)
All-Israel (Arab, urban)	1992	School survey	1,156	24.2	D1C,1C,1 ^{1/2} C	0.0153	Jaber <i>et al.</i> (1994)
All-Israel (Arab, suburban)	1992	School survey	2,267	28.2	D1C,1C,1 ^{1/2} C	0.0178	Jaber <i>et al.</i> (1994)
All-Israel (Arab, rural)	1992	School survey	5,098	30.6	D1C,1C,1 ^{1/2} C	0.0194	Jaber <i>et al.</i> (1994)
Central Israel (Arab)	1981/85	School survey	3,328	26.6	D1C,1C,1 ^{1/2} C	0.0153	Jaber <i>et al.</i> (2000)
All Israel (Arab Muslim, non-Bedouin)	1990/92	Obstetric survey	1,025	32.1	D1C,1C,1 ^{1/2} C, 2C	0.0177	Vardi-Saliternik <i>et al.</i> (2002)
All Israel (Bedouin)	1990/92	Obstetric survey	278	45.3	D1C,1C,1 ^{1/2} C, 2C	0.0253	Vardi-Saliternik <i>et al.</i> (2002)
All Israel (Arab Christian)	1990/92	Obstetric survey	107	20.6	D1C,1C,1 ^{1/2} C, 2C	0.0119	Vardi-Saliternik <i>et al.</i> (2002)
All Israel (Druze)	1990/92	Obstetric survey	115	40.9	1C,1 ^{1/2} C,2C	0.0233	Vardi-Saliternik <i>et al.</i> (2002)
Lower Galilee (Arab)	1970/2000	Village study	483	17.5	1C	0.0104	Zlotogora <i>et al.</i> (2002)
Haifa District (Arab Muslim)	1980-85	Multi-village village	264	29.9	D1C,1C,1 ^{1/2} C,2C, 2C	0.0184	Sharkia <i>et al.</i> (2007)
Haifa District (Arab Muslim)	2000-04	Multi-village Village	1,057	20.0	D1C,1C,1 ^{1/2} C, 2C	0.0106	Sharkia <i>et al.</i> (2007)

Jordan	Irbid (north-east)	1963/64	Paediatric outpatients	1,097	52.1%	1C,1 ^{1/2} C,2C	0.0230	Cook and Hanslip (1966)
	All-Jordan	1969/79	Household survey	1,989	39.7	D1C,1C,1 ^{1/2} C, 2C	0.0225	Khoury and Massad (1992)
	Irbid	-	Hospital outpatients	900	50.6	D1C,1C,1 ^{1/2} C, 2C	0.0284	Al-Salem and Rawashdeh (1993)
	Balqa	1986/89	Household survey	340	40.3	1C,1 ^{1/2} C	0.0180	Nabulsi (1993)
	Amman	2004	Diabetic clinic	2,594	25.5	D1C,1C,1 ^{1/2} C, 2C	0.0142	Hamamy <i>et al.</i> (2005)
Kuwait	All-Kuwait	1967/68	Obstetric inpatients	2,220	53.9	-	-	El-Alfi <i>et al.</i> (1968)
	All-Kuwait	-	Obstetric inpatients	2,133	38.4	1C,1 ^{1/2} C,2C	0.0174	El-Alfi <i>et al.</i> (1969)
	All-Kuwait	1983	Obstetric/ gynecology outpatients	5,007	34.3	D1C,1C,1 ^{1/2} C, 2C	0.0219	Al-Awadi <i>et al.</i> (1985)
	Kuwait City	1996/97	Household survey	404	22.5	D1C,1C,2C	0.0139	Radovanovic <i>et al.</i> (1999)
	Jahra	1996/97	Household survey	555	42.2	D1C,1C,2C	0.0251	Radovanovic <i>et al.</i> (1999)
Lebanon	Beirut	1981/82	Obstetric inpatients	750	26.0	1C,1 ^{1/2} C,2C	0.0116	Klat and Khudr (1986)
	Beirut (Christians)	1983/84	Household survey	1,001	16.5	1C,<1C	0.0049	Khlat (1988)

	Beirut (Muslims)	1983/84	Household survey	1,853	29.6%	1C,<1C	0.0109	Khlat (1988)
	Beirut (All religions)	1983/84	Household survey	2,854	25.0	1C,<1C	0.0088	Khlat (1988)
	Bekaa Valley (Sunni Bedouin)	2000	Household survey	1,100	47.2	1C	0.0324	Joseph (2007)
	All Lebanon	-	Household survey	1,556	35.5	1C,2C	0.0204	Barbour and Salameh (2009)
Oman	All-Oman	1994/97	Obstetric outpatients	60,895	35.9	1C,2C	0.0169	Rajab and Patton (2000)
	All-Oman	1995	Health centre	500	33.0	D1C,1C,1 ^{1/2} C, 2C	0.0180	Rajab and Patton (2000)
Palestinian Territories	Gaza	1995	Household survey	10,409	27.2	1C	0.0170	Pedersen (2002)
	West Bank	1995	Household Survey	5,778	31.6	1C	0.0198	Pedersen (2002)
	All-Palestine	1995	Household survey	16,171	29.2	1C	0.0183	Assaf and Khawaja (2009)
	All-Palestine	2004	Household survey	4,971	27.7	D1C,1C	0.0186	Assaf and Khawaja (2009)
Qatar	Doha	2004	Outpatient clinic	1,515	44.5	D1C,1C,1 ^{1/2} C, 2C	0.0271	Bener and Alali (2006)

Saudi Arabia	All-Saudi	1980s	Hospital visitors	143	18.9%	1C,2C	0.0085	Chaleby and Tuma (1987)
	Riyadh	1979/80	Obstetric inpatients	1,149	55.0	1C,2C	0.0330	Serenius <i>et al.</i> (1988)
	Riyadh	1983/86	Obstetric inpatients	4,498	31.4	1C	0.0196	Saedi-Wong <i>et al.</i> (1989)
	Riyadh	1989/90	Household survey	6,421	45.1	1C,2C	0.0174	Zakzouk <i>et al.</i> (1993)
	Northern	-	Household survey	693	35.3	1C,2C	0.0206	El-Hazmi <i>et al.</i> (1995)
	North western	-	Household survey	391	48.1	1C,2C	0.0283	El-Hazmi <i>et al.</i> (1995)
	Central	-	Household survey	1,108	43.2	1C,2C	0.0258	El-Hazmi <i>et al.</i> (1995)
	South western	-	Household survey	998	38.4	1C,2C	0.0229	El-Hazmi <i>et al.</i> (1995)
	Eastern	-	Household survey	22	50.0	1C,2C	0.0302	El-Hazmi <i>et al.</i> (1995)
	All-Saudi	-	Household survey	3,212	40.6	1C,2C	0.0241	El-Hazmi <i>et al.</i> (1995)
	Riyadh	1993	Health clinics	2,001	41.2	D1C,1C,1 ^{1/2} C, 2C	0.0219	Al-Husain and Al-Bunyan (1997)
	Damman City, Eastern Province	-	Health care centres and Hospitals	1,307	43.4	D1C,1C,1 ^{1/2} C, 2C	0.0312	Al-Abdulkareem and Ballal (1998)

Riyadh	2004/05	Household survey	2,522	42.3%	1C	0.0265	El-Mouzan <i>et al.</i> (2007)
Makkah	2004/05	Household survey	2,278	32.4	1C	0.0202	El-Mouzan <i>et al.</i> (2007)
Gizan	2004/05	Household survey	565	32.9	1C	0.0206	El-Mouzan <i>et al.</i> (2007)
Eastern Province	2004/05	Household survey	1,032	33.3	1C	0.0208	El-Mouzan <i>et al.</i> (2007)
Assir	2004/05	Household survey	833	24.6	1C	0.0154	El-Mouzan <i>et al.</i> (2007)
Qassim	2004/05	Household survey	713	29.6	1C	0.0185	El-Mouzan <i>et al.</i> (2007)
Hail	2004/05	Household survey	505	25.1	1C	0.0157	El-Mouzan <i>et al.</i> (2007)
Madinah	2004/05	Household survey	618	39.2	1C	0.0245	El-Mouzan <i>et al.</i> (2007)
Al-Baha	2004/05	Household survey	487	29.0	1C	0.0181	El-Mouzan <i>et al.</i> (2007)
Northern Borders	2004/05	Household survey	504	31.3	1C	0.0196	El-Mouzan <i>et al.</i> (2007)
Tabak	2004/05	Household survey	432	28.2	1C	0.0176	El-Mouzan <i>et al.</i> (2007)
Najran	2004/05	Household survey	472	28.4	1C	0.0177	El-Mouzan <i>et al.</i> (2007)

Syria	Al-Jouf	2004/05	Household survey	593	34.7%	1C	0.0217	El-Mouzan <i>et al.</i> (2007)
	Damascus (urban)	2008	Household survey	6,058	35.4	D1C,1C,2C	0.0253	Othman and Saadat (2009)
	Damascus (rural)	2008	Household survey	6,067	46.1	D1C,1C,2C	0.0366	Othman and Saadat (2009)
	Hama (urban)	2008	Household survey	3,436	33.7	D1C,1C,2C	0.0286	Othman and Saadat (2009)
	Hama (rural)	2008	Household survey	3,634	47.1	D1C,1C,2C	0.0373	Othman and Saadat (2009)
	Lattakia (urban)	2008	Household survey	4,190	14.6	D1C,1C,2C	0.0090	Othman and Saadat (2009)
	Lattakia (rural)	2008	Household survey	4,831	22.8	D1C,1C,2C	0.0159	Othman and Saadat (2009)
	Tartous (urban)	2008	Household survey	2,344	28.2	D1C,1C,2C	0.0178	Othman and Saadat (2009)
	Tartous (rural)	2008	Household survey	4,008	24.6	D1C,1C,2C	0.0159	Othman and Saadat (2009)
	Al Raqa (urban)	2008	Household survey	1,236	48.9	D1C,1C,2C	0.0311	Othman and Saadat (2009)
	Al Raqa (rural)	2008	Household survey	1,850	63.0	D1C,1C,2C	0.0389	Othman and Saadat (2009)
Homs (urban)	2008	Household survey	3,137	33.5	D1C,1C,2C	0.0286	Othman and Saadat (2009)	

	Homs (rural)	2008	Household survey	3,489	46.3%	D1C,1C,2C	0.0362	Othman and Saadat (2009)
	Edlep (urban)	2008	Household survey	4,130	17.2	D1C,1C,2C	0.0111	Othman and Saadat (2009)
	Edlep (rural)	2008	Household survey	4,710	23.9	D1C,1C,2C	0.0153	Othman and Saadat (2009)
	Aleppo (urban)	2008	Household survey	6,853	24.7	D1C,1C,2C	0.0191	Othman and Saadat (2009)
	Aleppo (rural)	2008	Household survey	7,985	32.8	D1C,1C,2C	0.0251	Othman and Saadat (2009)
	All-Syria (urban)	2008	Household survey	31,384	27.5	D1C,1C,2C	0.0203	Othman and Saadat (2009)
	All_Syria (rural)	2008	Household survey	36,574	35.9	D1C,1C,2C	0.0265	Othman and Saadat (2009)
Turkey	Ankara	1971/73	Obstetric inpatients	23,687	17.0	D1C,1C,1 ^{1/2} C	0.0095	Stevenson <i>et al.</i> (1976)
	Ankara (central)	1970/87	Hospital outpatients	1,054	25.7	D1C,1C,1 ^{1/2} C, 2c	0.0064	Basaran <i>et al.</i> (1988)
	Eskisehir (west)	1970/87	Hospital outpatients	38,259	16.8	D1C,1C,1 ^{1/2} C, 2C	0.0046	Basaran <i>et al.</i> (1988)
	Diyarbakir (south-east)	1970/87	Hospital outpatients	15,862	31.5	D1C,1C,1 ^{1/2} C, 2C	0.0110	Basaran <i>et al.</i> (1988)
	All-Turkey	1970/87	Hospital outpatients	55,175	21.2	D1C,1C,1 ^{1/2} C, 2C	0.0065	Basaran <i>et al.</i> (1988)

Antalya (south-west: rural)	1987	Household survey	1,020	13.7%	1C	0.0086	Güz <i>et al.</i> (1989)
Antalya (south-west: urban)	1987	Household survey	1,584	16.3	1C	0.0102	Güz <i>et al.</i> (1989)
All-Antalya (south-west)	1987	Household survey	2,604	15.3	1C	0.0096	Güz <i>et al.</i> (1989)
West	1988	Household survey	1,910	12.8	1C,2C	0.0056	Tunçbilek and Ulusoy (1989)
South	1988	Household survey	731	29.6	1C,2C	0.0131	Tunçbilek and Ulusoy (1989)
Centre	1988	Household survey	1,305	20.8	1C,2C	0.0091	Tunçbilek and Ulusoy (1989)
North	1988	Household survey	587	23.3	1C,2C	0.0115	Tunçbilek and Ulusoy (1989)
East	1988	Household survey	881	30.8	1C,2C	0.0149	Tunçbilek and Ulusoy (1989)
All-Turkey	1988	Household survey	5,257	21.1	1C,2C	0.0096	Tunçbilek and Ulusoy (1989)
Trabzon	1990	Health Centre	999	20.0	1C,2C	0.0108	Baki <i>et al.</i> (1992)
Konya	-	Household Survey	1,120	14.6	1C	0.0092	Demirel <i>et al.</i> (1997)
Denizli (Aegean region)	1996	School survey	1,000	11.7	1C,2C	0.0087	Simsek <i>et al.</i> (1999)

Manavgat (urban)	2001	Household survey	661	8.0%	1C	0.0050	Alper <i>et al.</i> (2004)
Manavgat (rural)	2001	Household survey	884	15.7	1C	0.0098	Alper <i>et al.</i> (2004)
Istanbul	2003/04	Household survey	1,369	17.1	1C,2C	0.0093	Koç (2008)
West Marmara	2003/04	Household survey	316	7.9	1C,2C	0.0038	Koç (2008)
Aegean	2003/04	Household survey	1,030	12.4	1C,2C	0.0068	Koç (2008)
East Marmara	2003/04	Household survey	645	12.6	1C,2C	0.0064	Koç (2008)
West Anatolia	2004/04	Household survey	717	21.4	1C,2C	0.0118	Koç (2008)
Mediterranean	2003/04	Household survey	954	27.1	1C,2C	0.0146	Koç (2008)
Central Anatolia	2003/04	Household survey	429	20.0	1C,2C	0.0108	Koç (2008)
West Black Sea	2003/04	Household survey	478	14.9	1C,2C	0.0084	Koç (2008)
East Black Sea	2003/04	Household survey	268	14.6	1C,2C	0.0075	Koç (2008)
North-east Anatolia	2003/04	Household survey	231	29.0	1C,2C	0.0161	Koç (2008)

	Central east Anatolia	2003/04	Household survey	371	28.0%	1C,2C	0.0164	Koç (2008)
	South-east Anatolia	2003/04	Household survey	627	39.0	1C,2C	0.0221	Koç (2008)
	All-Turkey	2003/04	Household survey	7,435	20.1	1C,2C	0.0110	Koç (2008)
United Arab Emirates	Al Ain	1994/95	Health centre	1,502	37.4	D1C,1C,1 ^{1/2} C, 2C	0.0245	Al-Gazali <i>et al.</i> (1997)
	Dubai	1994/95	Health centre	531	32.0	D1C,1C,1 ^{1/2} C 2C	0.0159	Al-Gazali <i>et al.</i> (1997)
Yemen	All-Yemen	1997	Household survey	9,762	33.9	1C	0.0212	Jurdi and Saxena (2003)
	Sana'a	2000	Household survey	1,050	44.7	D1C,1C,1 ^{1/2} C, 2C	0.0244	Gunaid <i>et al.</i> (2004)