

Table 13: Summary of Surveys Included in Meta-Analysis: India												South Central Asia	
Country	Study (survey year*)	Region	Population and sampling method	Sex	Sample (n)	HBsAg positive (%)	lower 95% CI	upper 95% CI	RE weight (%)	FE weight (%)	Reference	Access No	Ref No.
India	Sandesh, 2002-2004	Calicut, Kerala state (south India)	Applicants for jobs abroad; attending mandatory medical checkup for jobs in the Gulf countries (Middle East Asia) male (48,275)	males	48,275	0.9%	0.81%	0.97%	2.00%	13.2%	Sandesh, K., T. Varghese, et al. (2006). "Prevalence of Hepatitis B and C in the normal population and high risk groups in north Kerala." <i>Trop Gastroenterol</i> 27(2): 80-3.	17089617	508
India	Joshi, 1977-1978	Western Maharashtra	Residents of 15 villages of Murbad Taluk of Thane district; sampled by stratified random sampling; people of difference castes; Western Maharashtra males (296)	males	296	3.4%	1.32%	5.44%	1.07%	0.0%	Joshi, S. H., A. J. Baxi, et al. (1983). "Incidence of hepatitis B (Australia) antigen among three communities in malarial Western Maharashtra, India." <i>Hum Hered</i> 33(4): 231-6.	6885085	467
India	Sobeslavsky, 1980*	Poona	Apparently healthy non-institutionalized population of Poona; no selection; male (367)	males	367	7.2%	4.56%	9.84%	0.82%	0.0%	Sobeslavsky O. (1980) Prevalence of markers of hepatitis B virus infection in various countries: a WHO collaborative study. <i>58(4):621-8</i>	6969134	520
India	Irshad, 1992*	Delhi and environs	Truckers; no info on sampling, eligibility, or participation rate; Delhi and environs, male (217)	males	217	5.0%	2.10%	7.90%	0.74%	0.0%	Irshad, M., Y. K. Joshi, et al. (1992). "HBV transmission in healthy persons at high risk in India." <i>Natl Med J India</i> 5(1): 40.	1304252	455
India	Chaudhury, 1994*	Bareilly	Healthy outpatient controls without any physical or mental illness; outpatients and visitors; exclude for jaundice or hepatomegaly or hx jaundice; no participation rate; males (100)	males	100	2.0%	-0.74%	4.74%	0.79%	0.0%	Chaudhury, S., S. Chandra, et al. (1994). "Prevalence of Australia antigen (HBsAg) in institutionalised patients with psychosis." <i>Br J Psychiatry</i> 164(4): 542-3.	8038945	471
India	Chowdhury, 1997-1998	village in West Bengal	Poor, agrarian inhabitants of rural community; door to door survey; 76% of villagers participated; no sampling method reported; village demographic similar to district as a whole; males (514)	males	514	6.0%	3.97%	8.09%	1.07%	0.0%	Chowdhury, A., A. Santra, et al. (1999). "Prevalence of hepatitis B infection in the general population: a rural community based study." <i>Trop Gastroenterol</i> 20(2): 75-7.	10484893	480
India	Chowdhury, 2000-2001	West Bengal; eastern India	General population; "First population-based epidemiological study of HBV in India"; multistage sampling of rural population West Bengal; eastern India; male (4,089)	males	4,089	4.4%	3.74%	5.00%	1.86%	0.2%	Chowdhury, A., A. Santra, et al. (2005). "Community-based epidemiology of hepatitis B virus infection in West Bengal, India: prevalence of hepatitis B e antigen-negative infection and associated viral variants." <i>J Gastroenterol Hepatol</i> 20(11): 1712-20.	16246191	505
India	Gawande, 2000*	Nagpur City	Truck drivers selected randomly from 7 transport agencies, which were also selected randomly from a total of 20 transport agencies in Nagpur City males (670)	males	670	5.1%	3.43%	6.77%	1.28%	0.0%	Gawande, A. V., N. D. Vasudeo, et al. (2000). "Sexually transmitted infections in long distance truck drivers." <i>J Commun Dis</i> 32(3): 212-5.	11407008	489
India	Kaur, 2002*	New Delhi	Consecutive children presenting to clinics with complaints other than LD; males (169)	males	169	9.5%	5.08%	13.92%	0.40%	0.0%	Kaur, R., N. Berry, et al. (2002). "Hepatitis B virus in a select pediatric population in Delhi, India." <i>J Commun Dis</i> 34(2): 146-8.	14768833	493
India	Bhagyalaxmi, 2002	Ahmedabad city	Urban male population Ahmedabad city; selected one locality in each of five zones in the city; house to house survey; youngest healthy family member; fingerstick blood sample; males (304)	males	304	1.6%	0.21%	3.07%	1.41%	0.0%	Bhagyalaxmi, A., M. K. Lala, et al. (2005). "HBsAg carrier status in urban population of Ahmedabad city." <i>Indian J Med Res</i> 121(3): 203-4.	15802763	499
India	Singh, 2002	Bangalore, Rajahmundry southern India	Multistage sampling of urban population Bangalore, Rajahmundry males(706)	males	706	3.7%	2.29%	5.07%	1.44%	0.0%	Singh, J., R. Bhatia, et al. (2000). "Community studies on prevalence of HBsAg in two urban populations of southern India." <i>Indian Pediatr</i> 37(2): 149-52.	10745409	483
India	Thomas, 2002*	Tamil Nadu, southern India	Randomly selected representative sample of general population; probability proportional to size" cluster survey conducted in 3 randomly selected districts; Tamil Nadu, males (824)	males	824	6.0%	4.38%	7.62%	1.30%	0.0%	Thomas, K., S. P. Thyagarajan, et al. (2002). "Community prevalence of sexually transmitted diseases and human immunodeficiency virus infection in Tamil Nadu, India: a probability proportional to size cluster survey." <i>Natl Med J India</i> 15(3): 135-40.	12186325	490

India	Gupta, 2003-2005	New Delhi	Healthy adult HIV-negative prospective organ donors; routine screening for donation; males (259)	males	259	1.5%	0.02%	2.98%	1.38%	0.0%	Gupta, S. and S. Singh (2006). "Hepatitis B and C virus co-infections in human immunodeficiency virus positive North Indian patients." <i>World J Gastroenterol</i> 12(42): 6879-83.	17106941	509
India	Qamar, 2004*	Aligarh, North India	Children attending well baby and pediatric outpatient clinics; voluntary, no selection method or response rate reported; male (312)	males	312	4.2%	1.94%	6.38%	1.00%	0.0%	Qamer, S., T. Shahab, et al. (2004). "Age-specific prevalence of hepatitis B surface antigen in pediatric population of Aligarh, North India." <i>Indian J Pediatr</i> 71(11): 965-7.	15572813	498
India	Bal, 2004	Siliguri-Guwahati national highway	Transport workers operating through the Siliguri-Guwahati national highway; subjects approached at truck stops by outreach workers; males (301)	males	301	3.7%	1.57%	5.83%	1.04%	0.0%	Bal, B., S. I. Ahmed, et al. (2007). "HIV infection among transport workers operating through Siliguri-Guwahati national highway, India." <i>J Int Assoc Physicians AIDS Care (Chic Ill)</i> 6(1): 56-60.	17329505	510
India	Jindal, 2008*	Amritsar (Punjab), Northern India	Members of a local truckers union; no selection or response rate described; Amritsar (Punjab), Northern India; males (100)	males	100	6.0%	1.35%	10.65%	0.37%	0.0%	Jindal, N., U. Arora, et al. (2008). "Prevalence of human immunodeficiency virus (HIV), hepatitis B virus, and hepatitis C virus in three groups of populations at high risk of HIV infection in Amritsar (Punjab), Northern India." <i>Jpn J Infect Dis</i> 61(1): 79-81.	18219142	513
India	Euler, 1990-1993	4 urban areas (Hartford and New Haven Co CT; DeKalb and Fulton Co GA; Wayne Co MI; Dallas Co TX)	Pregnant women Indian immigrants to US; multicenter, retrospective chart review; females (366)	females	366	3.2%	1.41%	5.03%	1.20%	0.0%	Euler GL, Wooten KG, Baughman AL, Williams WW. (2003) Hepatitis B surface antigen prevalence among pregnant women in urban areas: implications for testing, reporting, and preventing perinatal transmission. <i>Pediatrics</i> . 2003 May;111(5 Part 2):1192-7	12728137	516
India	Sandesh, 2002-2004	Calicut, Kerala state (south India)	Applicants for jobs abroad; attending mandatory medical checkup for jobs in the Gulf countries (Middle East Asia); female (1,247)	females	1,247	1.2%	0.56%	1.74%	1.87%	0.3%	Sandesh, K., T. Varghese, et al. (2006). "Prevalence of Hepatitis B and C in the normal population and high risk groups in north Kerala." <i>Trop Gastroenterol</i> 27(2): 80-3.	17089617	508
India	Joshi, 1977-1978	Western Maharashtra	Stratified random sampling of general population Western Maharashtra females (214)	females	214	4.7%	1.84%	7.50%	0.76%	0.0%	Joshi, S. H., A. J. Baxi, et al. (1983). "Incidence of hepatitis B (Australia) antigen among three communities in malarial Western Maharashtra, India." <i>Hum Hered</i> 33(4): 231-6.	6885085	467
India	Sobeslavsky, 1980*	Poona	Apparently healthy non-institutionalized population of Poona; individuals of both sexes and different age group; female (333)	females	333	5.2%	2.82%	7.58%	0.92%	0.0%	Sobeslavsky O. (1980) Prevalence of markers of hepatitis B virus infection in various countries: a WHO collaborative study. 58(4):621-8	6969134	520
India	Biswas, 1985-1986	Chandigarh	Pregnant women admitted to labor ward of Nehru Hospital, Postgraduate Institute of Medical Education and Research; no selection or response rate reported; Chandigarh (1,000)	females	1,000	2.3%	1.37%	3.23%	1.70%	0.1%	Biswas, S. C., I. Gupta, et al. (1989). "Prevalence of hepatitis B surface antigen in pregnant mothers and its perinatal transmission." <i>Trans R Soc Trop Med Hyg</i> 83(5): 698-700.	2617634	462
India	Panda, 1986-1989	Delhi	Pregnant women delivering at three hospitals; part of a vaccination study; "patient compliance was high"; no rate provided; Delhi (8,431)	females	8,431	2.6%	2.26%	2.94%	1.96%	0.8%	Panda, S. K., R. Ramesh, et al. (1991). "Comparative evaluation of the immunogenicity of yeast-derived (recombinant) and plasma-derived hepatitis B vaccine in infants." <i>J Med Virol</i> 35(4): 297-302.	1802958	459
India	Gupta, 1987-1988	Chandigarh	Pregnant women consecutively admitted to labor ward of Nehru Postgraduate Institute of Medical Education; no participation rate Chandigarh (2,337)	females	2,337	2.5%	1.85%	3.11%	1.86%	0.2%	Gupta, I., A. Sehgal, et al. (1992). "Vertical transmission of hepatitis B in north India." <i>J Hyg Epidemiol Microbiol Immunol</i> 36(3): 263-7.	1293210	454
India	Nayak, 1987*	New Delhi (north)	Consecutive pregnant women attending the OB Dept of 2 large hospitals; routine screening; New Delhi (north) (8,575)	females	8,575	3.7%	3.30%	4.10%	1.94%	0.6%	Nayak, N. C., S. K. Panda, et al. (1987). "Dynamics and impact of perinatal transmission of hepatitis B virus in North India." <i>J Med Virol</i> 21(2): 137-45.	3819704	466

India	Sharma, 1987-1988	Aligarh	Pregnant women randomly selected from attending Jawaharlal Nehru Medical College hospital, Aligarh (157)	females	157	10.2%	5.47%	14.93%	0.36%	0.0%	Sharma, R., A. Malik, et al. (1996). "Hepatitis B virus infection in pregnant women and its transmission to infants." J Trop Pediatr 42(6): 352-4	9009562	476
India	Kulkarni, 1988*	Davangere	Pregnant women admitted to labor ward of large hospital in Davangere; hospital is in heart of city and more than 90% of deliveries in the community take place here; no info on sampling or participation (400)	females	400	5.0%	2.86%	7.14%	1.04%	0.0%	Kulkarni, M. L. and P. V. Reddy (1988). "Prevalence of HBsAg in asymptomatic carrier mothers and vertical transmission in South India." Am J Dis Child 142(2): 124-5.	3257639	464
India	Sriprakash, 1991-1992	Bangalore, southern India	Pregnant women attending antenatal clinic, Bangalore (520)	females	520	4.6%	2.82%	6.42%	1.20%	0.0%	Sriprakash, I. and T. P. Anil (1997). "Routine prenatal screening of Indian women for HBsAg: benefits derived versus cost." Trop Doct 27(3): 176-7.	9227020	477
India	Meena, 1993*	Delhi	Pregnant women attending antenatal clinic, Delhi; ; no further info (251)	females	251	3.6%	1.29%	5.89%	0.96%	0.0%	Meena, H. S. and D. C. Jain (1993). "Prevalence of hepatitis B virus in pregnant women." J Assoc Physicians India 41(1): 59-60.	8340342	472
India	Jain, 1994*	Alwar district, Rajasthan	Pregnant women attending antenatal clinic, Alwar district, Rajasthan; ; no further info (252)	females	252	3.6%	1.28%	5.86%	0.97%	0.0%	Jain, D. C., R. K. Jain, et al. (1994). "Prevalence of hepatitis B virus in pregnant women." J Commun Dis 26(4): 233-4.	7759807	470
India	Gill, 1995*	Bombay	Pregnant women prospectively studied; Alwar district, Rajasthan, Bombay (2,000)	females	2,000	5.0%	4.04%	5.96%	1.69%	0.1%	Gill, H. H., P. D. Majumdar, et al. (1995). "Prevalence of hepatitis B e antigen in pregnant women and patients with liver disease." J Assoc Physicians India 43(4): 247-8.	8713262	473
India	Mittal, 1996*	New Delhi	Pregnant women women presenting for delivery at Loknayak Jai Prakash Nrain hospital were recruited; no eligibility criteria or response rate reported (850)	females	850	6.4%	4.71%	7.99%	1.29%	0.0%	Mittal, S. K., S. Rao, et al. (1996). "Hepatitis B--potential of perinatal transmission in India." Trop Gastroenterol 17(3): 190-2.	8987418	475
India	Bhalla, 1996-2000	New Delhi	Women of reproductive age living in urban slum; New Delhi; blood was collected from 74% of eligible women; no eligibility described; females (329)	females	329	5.8%	3.26%	8.30%	0.87%	0.0%	Bhalla, P., S. Garg, et al. (2003). "Community-based study of hepatitis B markers in women of reproductive age." Indian J Gastroenterol 22(1): 33-4.	12617458	491
India	Chowdhury, 1997-1998	village in West Bengal	Poor, agrarian pregnant women; door-to-door survey; 76% of villagers participated; no sampling method reported; females (446)	females	446	4.5%	2.56%	6.40%	1.14%	0.0%	Chowdhury, A., A. Santra, et al. (1999). "Prevalence of hepatitis B infection in the general population: a rural community based study." Trop Gastroenterol 20(2): 75-7.	10484893	480
India	Banerjee, 1998	Calcutta	Pregnant women at antenatal clinic at Lohia Matri Seva Sadan, a maternity home in the city, Calcutta (400)	females	400	3.8%	1.89%	5.61%	1.17%	0.0%	Banerjee, A., R. Chakravarty, et al. (2005). "Hepatitis B virus genotype D infection among antenatal patients attending a maternity hospital in Calcutta, India: assessment of infectivity status." Southeast Asian J Trop Med Public Health 36(1): 203-6.	15906669	500
India	Jain, 1998	Delhi	Pregnant women at LNJP Hospital; part of an infant immunization program testing two vaccination schedules; Delhi; exclude mothers with jaundice or clinical or lab evidence of hepatic pathology; (725)	females	725	2.3%	1.24%	3.44%	1.61%	0.1%	Jain, A. K., S. K. Mittal, et al. (2005). "Hepatitis B vaccine in the EPI schedule." Indian J Pediatr 72(8): 661-4.	16131770	504
India	Prakash, 1998*	Delhi, Uttar Pradesh, Rajasthan, Manipur (northern India)	Pregnant women screened during routine visits to antenatal clinics; all three tiers of the healthcare system were included in four regions of India; included sampling at district health center, bigger hospitals and medical colleges; Delhi, Uttar Pradesh, Rajasthan, Manipur (1,112)	females	1,112	9.5%	7.80%	11.26%	1.24%	0.0%	Prakash, C., R. S. Sharma, et al. (1998). "Prevalence of North India of hepatitis B carrier state amongst pregnant women." Southeast Asian J Trop Med Public Health 29(1): 80-4.	9740274	478
India	Abass, 1999	Delhi	Pregnant women antenatal clinic; all pregnant women are routinely screened at this hospital; Delhi (6,910)	females	6,910	1.0%	0.77%	1.23%	1.98%	1.7%	Abass, F., R. D. Thomas, et al. (2001). "Controlling perinatally acquired hepatitis B." Indian J Pediatr 68(4): 365.	11370450	487

India	Chakravarti, 1999-2000	New Delhi	Mothers of children attending outpatient department with minor ailments; New Delhi (400)	females	400	4.3%	2.27%	6.23%	1.11%	0.0%	Chakravarti, A., D. Rawat, et al. (2005). "A study on the perinatal transmission of the hepatitis B virus." <i>Indian J Med Microbiol</i> 23(2): 128-30	15928445	501
India	Chowdhury, 2000-2001	West Bengal; eastern India	"First population-based epidemiological study of HBV in India"; multistage sampling of rural population West Bengal; females (3,564)	females	3,564	2.4%	1.88%	2.88%	1.91%	0.4%	Chowdhury, A., A. Santra, et al. (2005). "Community-based epidemiology of hepatitis B virus infection in West Bengal, India: prevalence of hepatitis B e antigen-negative infection and associated viral variants." <i>J Gastroenterol Hepatol</i> 20(11): 1712-20.	16246191	505
India	Shenoy, 2001	South Kanara District, Karnataka State	Pregnant women attending antenatal clinic of Lady Goschen Hospital; South Kanara District, Karnataka State (300)	females	300	4.0%	1.78%	6.22%	1.00%	0.0%	Shenoy, S., S. Baliga, et al. (2004). "Prevalence of hepatitis B surface antigen (HBsAg) in pregnant women in South Kanara District, Karnataka State, India." <i>Trop Doct</i> 34(2): 98-9.	15117139	496
India	Kaur, 2002	New Delhi	Consecutive children presenting to clinics with complaints other than LD; female (107)	females	107	3.7%	0.12%	7.28%	0.55%	0.0%	Kaur, R., N. Berry, et al. (2002). "Hepatitis B virus in a select pediatric population in Delhi, India." <i>J Commun Dis</i> 34(2): 146-8.	14768833	493
India	Sahni, 2002	Sangam Vihar on the outskirts of Delhi	Pregnant women; Sangam Vihar on the outskirts of Delhi; all mothers delivering in the study are over a 1-year period were tested (987)	females	987	2.2%	1.28%	3.12%	1.71%	0.1%	Sahni, M., K. Jindal, et al. (2004). "Hepatitis B immunization: cost calculation in a community-based study in India." <i>Indian J Gastroenterol</i> 23(1): 16-8.	15106709	495
India	Sandesh, 2002-2004	Calicut, Kerala state (south India)	Pregnant women attending antenatal clinic, Calicut, Kerala state (70,659)	females	70,659	0.3%	0.21%	0.29%	2.01%	68.1%	Sandesh, K., T. Varghese, et al. (2006). "Prevalence of Hepatitis B and C in the normal population and high risk groups in north Kerala." <i>Trop Gastroenterol</i> 27(2): 80-3.	17089617	508
India	Bhagyalaxmi, 2002	Ahmedabad city	Urban females Ahmedabad city; selected one locality in each of five zones in the city; house to house survey; youngest healthy family member; fingerstick blood sample. (702)	females	398	1.3%	0.16%	2.34%	1.61%	0.1%	Bhagyalaxmi, A., M. K. Lala, et al. (2005). "HBsAg carrier status in urban population of Ahmedabad city." <i>Indian J Med Res</i> 121(3): 203-4.	15802763	499
India	Singh, 2002	Bangalore, Rajahmundry southern India	Multistage sampling of urban population Bangalore, Rajahmundry females (1,553)	females	847	3.8%	2.50%	5.06%	1.50%	0.1%	Singh, J., R. Bhatia, et al. (2000). "Community studies on prevalence of HBsAg in two urban populations of southern India." <i>Indian Pediatr</i> 37(2): 149-52.	10745409	483
India	Thomas, 2002*	Tamil Nadu, southern India	Randomly selected representative sample of general population; probability proportional to size" cluster survey conducted in 3 randomly selected districts; females (1,157)	females	1,157	4.8%	3.57%	6.03%	1.53%	0.1%	Thomas, K., S. P. Thyagarajan, et al. (2002). "Community prevalence of sexually transmitted diseases and human immunodeficiency virus infection in Tamil Nadu, India: a probability proportional to size cluster survey." <i>Natl Med J India</i> 15(3): 135-40.	12186325	490
India	Hussain, 2002	Uttar Pradesh state in Northern India	Adult outpatients attending Ob-Gyn; OPD clinics, and ANC females Uttar Pradesh state in Northern India females (578)	females	578	2.3%	1.04%	3.46%	1.54%	0.1%	Hussain, T., K. K. Kulshreshtha, et al. (2006). "HIV, HBV, HCV, and syphilis co-infections among patients attending the STD clinics of district hospitals in Northern India." <i>Int J Infect Dis</i> 10(5): 358-63.	16678462	506
India	Chatterjee, 2003-2006	all over	Pregnant women antenatal clinic; all pregnant women were screened (36,379)	females	36,379	1.1%	0.98%	1.20%	2.00%	8.1%	Chatterjee, S., K. Ravishankar, et al. (2009). "Hepatitis B Prevalence during pregnancy." <i>Indian Pediatr</i> 46(11): 1005-8.	19430075	486
India	Singla, 2003-2007	Chandigarh, North India	Pregnant women; retrospective analysis of women attending antenatal clinics at a tertiary care hospital (2,933)	females	2,933	1.7%	1.26%	2.20%	1.92%	0.4%	Singla, N. and J. Chander (2008). "Seroprevalence of HBsAg in females in a North India tertiary care hospital, with special reference to pregnancy." <i>N Z Med J</i> 121(1278): 105-6.	18670484	514
India	Gupta, 2003-2005	New Delhi	HIV-negative, healthy prospective organ donors adult females (169)	females	169	1.1%	-0.47%	2.67%	1.33%	0.0%	Gupta, S. and S. Singh (2006). "Hepatitis B and C virus co-infections in human immunodeficiency virus positive North Indian patients." <i>World J Gastroenterol</i> 12(42): 6879-83.	17106941	509

India	Qamar, 2004*	Aligarh, North India	Children attending well baby and pediatric outpatient clinics; voluntary, no selection method or response rate reported; Aligarh, North India, females (148)	females	148	4.4%	1.06%	7.64%	0.62%	0.0%	Qamar, S., T. Shahab, et al. (2004). "Age-specific prevalence of hepatitis B surface antigen in pediatric population of Aligarh, North India." <i>Indian J Pediatr</i> 71(11): 965-7.	15572813	498
India	Kumar, 2004-2006	New Dehli	Pregnant women consecutive attendees antenatal clinic; women with previous liver disease were excluded; New Delhi (8,130)	females	8,130	4.8%	4.34%	5.26%	1.92%	0.4%	Kumar, A., K. A. Sharma, et al. (2007). "Prevalence & risk factors for hepatitis C virus among pregnant women." <i>Indian J Med Res</i> 126(3): 211-5.	18037715	519
India	Toteja, 2007*	East Delhi	Stratified random sample of mother-child dyads in households in a resettlement colony in East Delhi; females (148)	females	148	3.4%	0.47%	6.29%	0.73%	0.0%	Toteja, T., C. Satyamala, et al. (2007). "Point prevalence of hepatitis B in mother-child dyads in a stratified random sample in an urban resettlement community in Delhi." <i>Indian J Gastroenterol</i> 26(4): 193-4.	17986756	512
India	Smith-Garcia, 1978-1987	adoptees to Oregon	Adoptees to US; all children adopted to Oregon families via the PLAN Agency; 76% of invited participated (76)	both	76	6.6%	1.02%	12.18%	0.27%	0.0%	Smith-Garcia, T. and J. S. Brown (1989). "The health of children adopted from India." <i>J Community Health</i> 14(4): 227-41.	2482845	461
India	Friede, 1979	adoptees to WA	Adoptees to Washington state; adopted through WA Assoc of Christian Adoptive Parent; 96% participation rate (78)	both	78	5.0%	0.16%	9.84%	0.35%	0.0%	Friede, A., J. R. Harris, et al. (1988). "Transmission of hepatitis B virus from adopted Asian children to their American families." <i>Am J Public Health</i> 78(1): 26-9.	3337301	517
India	Hostetter, 1986	adoptees to Minneapolis-St Paul	Adoptees to Minnesota; all children referred to University of Minnesota pediatric clinic by adoptive parents (52)	both	52	10.0%	1.85%	18.15%	0.14%	0.0%	Hostetter, M. K., S. Iverson, et al. (1991). "Medical evaluation of internationally adopted children." <i>N Engl J Med</i> 325(7): 479-85.	1649404	518
India	Proos, 1986	adoptees to Sweden	Adoptees to Sweden; consecutively recruited children; 86% of those invited (114)	both	114	7.3%	2.52%	12.08%	0.35%	0.0%	Proos, L. A., Y. Hofvander, et al. (1992). "A longitudinal study on anthropometric and clinical development of Indian children adopted in Sweden. II. Growth, morbidity and development during two years after arrival in Sweden." <i>Ups J Med Sci</i> 97(1): 93-106.	1381851	456
India	Mital, 1974-1976	Northern India	"normal healthy persons" ; no info on sampling; Northern India (846)	both	846	1.2%	0.45%	1.91%	1.81%	0.2%	Mital, V. N., O. P. Gupta, et al. (1980). "Pattern of hepatitis B antigen--contact and carrier state in Northern India." <i>J Indian Med Assoc</i> 74(6): 105-7.	7410864	469
India	Kaur, 1981*	Patiala, Punjab (north of Delhi)	Random adult samples from three populations: Jat Sikhs (agriculturists); Khatri (traders); Balmikis (scavengers); no info on sampling; Patiala, Punjab (north of Delhi) (405)	both	405	1.0%	0.03%	1.95%	1.68%	0.1%	Kaur, H., P. K. Sehajpal, et al. (1981). "Distribution of some genetic traits in three populations from Punjab, North India." <i>Anthropol Anz</i> 39(1): 66-9.	7294740	468
India	Werner, 1985-1986	Punjab	General population; apparently healthy persons in rural Punjab; no info on sampling (385)	both	385	3.4%	1.57%	5.17%	1.20%	0.0%	Werner, G. T., G. G. Frosner, et al. (1989). "Prevalence of serological markers for viral hepatitis and AIDS in rural Punjab." <i>J Commun Dis</i> 21(2): 139-41.	2809149	463
India	Sebastian, 1986*	in and around Delhi	Children admitted to hospital for various illnesses; no selection described; Delhi (148)	both	148	1.6%	-0.42%	3.64%	1.09%	0.0%	Sebastian, M., S. K. Sarin, et al. (1986). "Incidence of hepatitis B surface antigen (HBsAg) in and around Delhi." <i>J Commun Dis</i> 18(1): 22-7.	3745861	465
India	Thakur, 1990*	representing all the twelve districts of the State of Himachal Pradesh	General population; healthy persons representing all the twelve districts of the State of Himachal Pradesh; no history of jaundice were also included; no sampling info, eligibility criteria, or participation rate (500)	both	500	3.6%	1.97%	5.23%	1.30%	0.0%	Thakur, T. S., A. Goyal, et al. (1990). "Incidence of australia antigen (HBs Ag) in Himachal Pradesh." <i>J Commun Dis</i> 22(3): 173-7.	2098421	460
India	Tandon, 1991*	Kanpur, Mysore, New Delhi, Secunderabad	Preschool children from well baby clinics of 4 centers (Kanpur, Mysore, New Delhi, Secunderabad); no info on sampling; eligibility criteria, or response rate (982)	both	982	2.1%	1.23%	3.05%	1.72%	0.1%	Tandon, B. N., M. Irshad, et al. (1991). "Prevalence of HBsAg & anti-HBs in children & strategy suggested for immunisation in India." <i>Indian J Med Res</i> 93: 337-9.	1797638	458

India	Jain, 1992*	Loni area in Ahmednagar district of Western Maharashtra	Patients admitted to hospital (non-hepatitis case); rural population; no info on sampling, eligibility criteria, or response rate; Loni area in Ahmednagar district of Western Maharashtra; (202)	both	202	11.4%	7.02%	15.78%	0.41%	0.0%	Jain, R. C., S. D. Bhat, et al. (1992). "Prevalence of hepatitis surface antigen among rural population of Loni area in Ahmednagar district of Western Maharashtra." J Assoc Physicians India 40(6): 390-1.	1452565	457
India	Satish, 1992-1998	Hyderabad	Cardiac cath patients; retrospective review of mandatory screening of all patients getting procedure at Nizam's Institute of Medical Sciences; Hyderabad (23,057)	both	23,057	2.5%	2.29%	2.69%	1.99%	2.3%	Satish, O. S., C. Raghu, et al. (1999). "Routine screening for HIV and hepatitis B in patients undergoing cardiac catheterisation: the need to make it mandatory." Indian Heart J 51(3): 285-8.	10624067	481
India	Bhattacharyya, 1993-1995	Calcutta	Normal controls not suffering from jaundice and they did not have a past history of jaundice" no info on sampling, eligibility, or participation rate; Calcutta (100)	both	100	2.0%	-0.74%	4.74%	0.79%	0.0%	Bhattacharyya, S., B. S. Dalal, et al. (1998). "Hepatitis D infectivity profile among hepatitis B infected hospitalised patients in Calcutta." Indian J Public Health 42(4): 108-12.	10389522	479
India	Ahmad, 1993-1998	Chandigarh	Prospective kidney donors and other apparently healthy persons attending Nehru Hosptial between 1993 and 1998; no sampling info, eligibility criteria, or participation rate Chandigarh (946)	both	946	2.4%	1.42%	3.38%	1.68%	0.1%	Ahmad, B., R. Grover, et al. (2001). "Prevalence of hepatitis B virus infection in Chandigarh over a six year period." Trop Gastroenterol 22(1): 18-9.	11398238	488
India	Kaur, 1996*	Chandigarh	Random sample of college students; majority from urban backgrounds; no info on sampling, Chandigarh (515)	both	515	2.9%	1.47%	4.39%	1.40%	0.0%	Kaur, U., S. P. Sahni, et al. (1996). "Sexual behaviour, drug use and hepatitis B infection in Chandigarh students." Natl Med J India 9(4): 156-9.	8772330	474
India	Mohite, 1997-1998	Mumbai	Randomly selected hospitalized patients; ; no selection described Mumbai (170)	both	170	7.7%	3.65%	11.65%	0.47%	0.0%	Mohite, J. B. and A. D. Urhekar (1999). "Prevalence of HBsAg positivity in staff and patients at MGM Medical College and Hospital, Navi-Mumbai." Indian J Med Sci 53(10): 434-8.	10776499	484
India	Ganju, 1998-1999	Shimla	Healthy controls; no selection described Shimla (200)	both	200	3.5%	0.95%	6.05%	0.86%	0.0%	Ganju, S. A. and A. Goel (2000). "Prevalence of HBV and HCV infection among health care workers (HCWs)." J Commun Dis 32(1): 69-71.	11129570	485
India	Kurien, 1998	Tamil Nadu, southern India	General population urban and rural; large random sample of urban and rural subjects used "proportionate to population" cluster technique" Tamil Nadu (1,856)	both	1,856	5.7%	4.65%	6.75%	1.63%	0.1%	Kurien, T., S. P. Thyagarajan, et al. (2005). "Community prevalence of hepatitis B infection and modes of transmission in Tamil Nadu, India." Indian J Med Res 121(5): 670-5.	15937371	502
India	Mehta, 1998-2003	Mumbai	Source patients for HCW needlestick injuries occuring at the Hinduja National Hosptial, Mumbai (254)	both	254	9.1%	5.56%	12.64%	0.56%	0.0%	Mehta, A., C. Rodrigues, et al. (2005). "Needlestick injuries in a tertiary care centre in Mumbai, India." J Hosp Infect 60(4): 368-73.	15961184	503
India	Chakravarti, 1999-2000	New Delhi	Unvaccinated children <5 yo; study to detemine the age-wise prevalence of HBV in children below five years; random selection of children attending the pediatrics OPD with minor ailments; HBV vaccinated children excluded (400)	both	400	2.3%	0.80%	3.70%	1.40%	0.0%	Chakravarti, A., D. Rawat, et al. (2005). "A study on the perinatal transmission of the hepatitis B virus." Indian J Med Microbiol 23(2): 128-30.	15928445	501
India	Singh, 2000	Delhi	Healthy residents of Bihar selected as controls for kala-azar patients; no selection information; Delhi (240)	both	240	1.6%	0.01%	3.19%	1.32%	0.0%	Singh, S., S. N. Dwivedi, et al. (2000). "Hepatitis B, C and human immunodeficiency virus infections in multiply-injected kala-azar patients in Delhi." Scand J Infect Dis 32(1): 3-6.	10716069	482
India	Mahalakshmi, 2001-2002	Chennai	Consecutive cadaveric eye donors; serologic testing of cadaveric blood from consecutive eye donors at C. U. Shah Eye Bank; Chennai (483)	both	483	3.5%	1.88%	5.16%	1.29%	0.0%	Mahalakshmi, B., H. N. Madhavan, et al. (2004). "Seroprevalence of human immunodeficiency virus, hepatitis B virus and hepatitis C virus among eye donors." Indian J Ophthalmol 52(1): 61-2.	15132383	497
India	VinodKumar, 2002	Gulbarga, Karaaka	Persons of different occupations visting barbers; no info on sampling, Gulbarga, Karaaka (215)	both	215	1.5%	-0.13%	3.11%	1.30%	0.0%	VinodKumar, C. S., H. Anandkumar, et al. (2002). "Seroprevalence of HBV among people visting barbers at Gulbarga." J Commun Dis 34(2): 154-6.	14768835	494

India	Singh, 2003*	Lucknow, Uttar Pradesh	Healthy volunteers attending college or social service camps; no info on sampling; no participation rate; Lucknow, Uttar Pradesh (730)	both	730	2.1%	1.02%	3.08%	1.65%	0.1%	Singh, H., R. Aggarwal, et al. (2003). "Frequency of infection by hepatitis B virus and its surface mutants in a northern Indian population." <i>Indian J Gastroenterol</i> 22(4): 132-7.	12962435	492
India	Balaji, 2005	Vellore district, Tamil Nadu	Clinic attendees Vellore district, Tamil Nadu (6,233)	both	6,233	1.7%	1.38%	2.02%	1.97%	0.9%	Balaji, N., R. Nadarajah, et al. (2009). "Hepatitis B virus and human immunodeficiency virus infections are a public health problem even in rural communities of Vellore district, Tamil Nadu." <i>Indian J Med Microbiol</i> 27(1): 80-1.	19172073	515
India	Tiwari, 2006*	Amritsar	Control group with no drug intake; no sampling info, eligibility criteria, or participation rate; Amritsar (100)	both	100	2.0%	-0.74%	4.74%	0.79%	0.0%	Tiwari, R., A. Aggarwal, et al. (2006). "Seroprevalence of hepatitis B, hepatitis C and human immunodeficiency viruses amongst drug users in Amritsar." <i>Indian J Med Microbiol</i> 24(2): 151-2.	16687877	507
India	Toteja, 2007*	East Delhi	Stratified random sample of children in mother-child dyads in households in a resettlement colony in East Delhi (231)	both	231	1.3%	-0.16%	2.76%	1.39%	0.0%	Toteja, T., C. Satyamala, et al. (2007). "Point prevalence of hepatitis B in mother-child dyads in a stratified random sample in an urban resettlement community in Delhi." <i>Indian J Gastroenterol</i> 26(4): 193-4.	17986756	512
India	Asim, 2008*	New Delhi	Controls for IDUs; recruited from siblings and voluntary blood donors from the blood bank of the hospital; New Delhi (100)	both	100	4.0%	0.16%	7.84%	0.50%	0.0%	Asim, M., S. K. Potukuchi, et al. (2008). "Hepatitis-G virus infection in multi-transfused patients and intravenous drug abusers: New Delhi experience." <i>Dig Dis Sci</i> 53(5): 1383-9.	17934857	511
					total studies	81	260,880			100.00%	100.00%		
					males	16							
					females	37							
					both	28							

* indicates publication year; survey year not reported

Table 14: Summary of Surveys Included in Meta-Analysis: Iran South Central Asia

Country	Study (survey year*)	Region	Population and sampling method	Sex	Sample (n)	HBsAg			RE weight (%)	FE weight (%)	Reference	Access No	Ref No.
						positive (%)	lower 95% CI	upper 95% CI					
Iran	Amini, 1989	Hamadan province	General population; first national epidemiologic survey of HBV infection using a well defined population; two-stage random sampling; Hamadan Province males (1,649)	males	1,649	2.1%	1.37%	2.75%	4.92%	1.2%	Amini, S., M. F. Mahmoodi, et al. (1993). "Seroepidemiology of hepatitis B, delta and human immunodeficiency virus infections in Hamadan province, Iran: a population based study." <i>J Trop Med Hyg</i> 96(5): 277-87.	8411302	534
Iran	Alizadeh, 2003	Nahavand (pop 72,000)	General population; systematic random sampling using census; mostly suburban populations; 5% of selected did not participate registry male (1,025)	males	1,025	2.2%	1.33%	3.15%	4.46%	0.7%	Alizadeh, A. H., M. Ranjbar, et al. (2006). "Seroprevalence of hepatitis B in Nahavand, Islamic Republic of Iran." <i>East Mediterr Health J</i> 12(5): 528-37.	17333790	529
Iran	Jahani, 2003*		Large vehicle drivers; 51 different police checkpoints on major cross-country routes where driving documents are checked; consecutive vehicles stopping were recruited; 1120/1198 drivers agreed to participate; males (1,113)	males	1,113	5.9%	4.52%	7.28%	3.45%	0.3%	Jahani, M. R., S. A. Motevalian, et al. (2003). "Hepatitis B carriers in large vehicle drivers of Iran." <i>Vaccine</i> 21(17-18): 1948-51.	12706681	533
Iran	Gholamreza, 2004-2005	Golestan province (northeast)	General population; systematic random sampling according to last census tract Golestan Province; males (877)	males	877	10.8%	8.75%	12.85%	2.34%	0.1%	Gholamreza, R., S. Shahryar, et al. (2007). "Seroprevalence of hepatitis B virus and its co-infection with hepatitis D virus and hepatitis C virus in Iranian adult population." <i>Indian J Med Sci</i> 61(5): 263-8.	17478956	528
Iran	Alavian, 2005*	all	Soldiers; all wounded-in-action in two corps of Revolutionary Guards were checked; males (563)	males	563	4.8%	3.03%	6.57%	2.77%	0.2%	Alavian SM, Rajai M, Arab MS, et. Al. (2005) Viral hepatitis in Iranian Armed Forces: prevalence of HBV and HCV in the wounded-in-action (WIA). <i>Hepatitis Monthly</i> 5(4):129-31	NPM	523
Iran	Jamali, 2006	Golestan	General population; systematic clustering random sampling according to data from family registry; Golestan; 76% of males asked to participated did so; males (2,049)	males	698	5.4%	3.76%	7.12%	2.91%	0.2%	Jamali, R., M. Khonsari, et al. (2008). "Persistent alanine aminotransferase elevation among the general Iranian population: prevalence and causes." <i>World J Gastroenterol</i> 14(18): 2867-71.	18473412	526
Iran	Merat, 2006	3 provinces: Tehran (N central), Golestan (NE), Hormozgan (s)	General population; clustered random sampling; Iranian nationals; permanent resident of household; 92% of interviewed gave blood; 18% rural; 3 provinces: Tehran (N central), Golestan (NE), Hormozgan (So) male (2,231)	males	2,231	3.0%	2.29%	3.71%	4.88%	1.2%	Merat, S., H. Rezvan, et al. (2009). "The prevalence of hepatitis B surface antigen and anti-hepatitis B core antibody in iran: a population-based study." <i>Arch Iran Med</i> 12(3): 225-31.	19400598	521
Iran	Nokhodian, 2006	Isfahan, central iran	General population; multistage cluster sampling; Isfahan, central Iran males (816)	males	388	1.9%	0.51%	3.19%	3.54%	0.3%	Nokhodian Z, Kassaian N, Atael B, et. Al. (2009) Hepatitis B markers in Isfahan, Central Iran; a population-based study. <i>Hepatitis Monthly</i> 9(1):12-16	NPM	524
Iran	Amini, 1989	Hamadan province	General population; first national epidemiologic survey of HBV infection using a well defined population; two-stage random sampling; Hamadan Province females (3,281)	females	3,281	2.7%	2.15%	3.27%	5.17%	1.9%	Amini, S., M. F. Mahmoodi, et al. (1993). "Seroepidemiology of hepatitis B, delta and human immunodeficiency virus infections in Hamadan province, Iran: a population based study." <i>J Trop Med Hyg</i> 96(5): 277-87.	8411302	534
Iran	Alizadeh, 2003	Nahavand (pop 72,000)	General population; systematic random sampling using census registry; mostly suburban populations; 5% of selected did not participate; female (799)	females	799	2.4%	1.32%	3.44%	4.14%	0.5%	Alizadeh, A. H., M. Ranjbar, et al. (2006). "Seroprevalence of hepatitis B in Nahavand, Islamic Republic of Iran." <i>East Mediterr Health J</i> 12(5): 528-37.	17333790	529
Iran	Sharifi-Mood, 2004	Zahedan (SE Iran)	Pregnant women selected randomly using a random number table from those referred to OB/GYN clinics in four areas of city of Zahedan (200)	females	200	6.5%	3.08%	9.92%	1.15%	0.1%	Sharifi-Mood B, Kaykhan F, et. Al (2004) Prevalence of hepatitis B surface antigen in pregnant women in Zahedan, Iran. <i>Hepatitis Monthly</i> 4(8):161-3	NPM	522

Iran	Gholamreza, 2004-2005	Golestan province (northeast)	General population; systematic random sampling according to last census tract Golestan Province females (1,850)	females	973	8.6%	6.84%	10.36%	2.77%	0.2%	Gholamreza, R., S. Shahryar, et al. (2007). "Seroprevalence of hepatitis B virus and its co-infection with hepatitis D virus and hepatitis C virus in Iranian adult population." <i>Indian J Med Sci</i> 61(5): 263-8.	17478956	528
Iran	Jamali, 2006	Golestan	General population; systematic clustering random sampling according to data from family registry; Golestan females (2,049)	females	1,351	4.7%	3.61%	5.87%	3.97%	0.5%	Jamali, R., M. Khonsari, et al. (2008). "Persistent alanine aminotransferase elevation among the general Iranian population: prevalence and causes." <i>World J Gastroenterol</i> 14(18): 2867-71.	18473412	526
Iran	Merat, 2006	3 provinces: Tehran (N central), Golestan (NE), Hormozgan (s)	General population; clustered random sampling; 3 provinces: Tehran (N central), Golestan (NE), Hormozgan (So) female (3.447)	females	3,447	2.1%	1.62%	2.58%	5.30%	2.6%	Merat, S., H. Rezvan, et al. (2009). "The prevalence of hepatitis B surface antigen and anti-hepatitis B core antibody in iran: a population-based study." <i>Arch Iran Med</i> 12(3): 225-31.	19400598	521
Iran	Nokhodian, 2006	Isfahan, central iran	General population; multistage cluster sampling; Isfahan, central Iran females (816)	females	428	0.7%	-0.09%	1.49%	4.71%	0.9%	Nokhodian Z, Kassaian N, Ataeb B, et. Al. (2009) Hepatitis B markers in Isfahan, Central Iran; a population-based study. <i>Hepatitis Monthly</i> 9(1):12-16	NPM	524
Iran	CDC, 1979-1991	refugees to US	Refugees from Iran tested at programs that screened, all incoming refugees (293)	both	293	2.4%	0.65%	4.15%	2.79%	0.2%	CDC (1991) Screening for hepatitis B virus infection among refugees arriving in the United States, 1979-1991. <i>MMWR</i> 40(45):784-6	1944126	535
Iran	Rein, 2006-2008	refugees to US	Rein 2006-2008, refugees arriving in the US 2006-2008; information from states with an active refugee health coordinator (3,629)	both	3,629	1.1%	0.76%	1.44%	5.50%	5.1%	Rein DB, Lesesne SB, O'Fallon A, Weinbaum CM (2009) Prevalence of hepatitis B surface antigen among refugees entering the United States between 2006 and 2008. <i>Hepatology</i> . 2010 Feb;51(2):431-4	19902482	537
Iran	Zali, 1991	all	General population; Health and Disease Survey conducted 1991 and 1999; large scale studies conducted on a 1/1000 nationwide sample of population; clustering method for sampling; <u>urban and rural, all geographic areas (39,841)</u>	both	39,841	1.7%	1.57%	1.83%	5.68%	36.3%	Zali, M. R., K. Mohammad, et al. (2005). "Rate of hepatitis B seropositivity following mass vaccination in the Islamic Republic of Iran." <i>East Mediterr Health J</i> 11(1-2): 62-7.	16532672	530
Iran	Farhat, 1998	Khorassan province (north east, largest province)	General population randomly selected sample clusters from urban and rural areas; including from list of families vacc for polio in 1996; (can't understand method -- poor English); <u>Khorassan province (4,528)</u>	both	4,528	3.6%	3.06%	4.14%	5.19%	2.0%	Farhat, A., G. Khademi, et al. (2003). "The prevalence of hepatitis B carrier state in Khorassan province of Iran." <i>Saudi Med J</i> 24(5): 549-51.	12847639	532
Iran	Zali, 1999	all	General population; Health and Disease Survey conducted 1991 and 1999; large scale studies conducted on a 1/1000 nationwide sample of population; clustering method for sampling; <u>urban and rural, all geographic areas (46,631)</u>	both	46,631	1.7%	1.61%	1.85%	5.69%	41.7%	Zali, M. R., K. Mohammad, et al. (2005). "Rate of hepatitis B seropositivity following mass vaccination in the Islamic Republic of Iran." <i>East Mediterr Health J</i> 11(1-2): 62-7.	16532672	530
Iran	Sanaci-zadeh, 2000	Tehran	Autopsy cases; multistage sampling of "low risk" autopsy cases submitted to Tehran Legal Medicine Organization; risk assigned based on antemortem risk for HBV; deaths from homicide, suicide, and accidents <u>overrepresented (173)</u>	both	173	4.6%	1.49%	7.75%	1.32%	0.1%	Sanaci-Zadeh, H., M. Amoei, et al. (2002). "Seroprevalence of HIV, HBV and HCV in forensic autopsies, of presumed low risk, in Tehran, the capital of Iran." <i>J Clin Forensic Med</i> 9(4): 179-81.	15274933	531
Iran	Pourshams, 2004*]	Golestan province (northeast)	Residents of three villages and city of Gonbad recruited for the Golestan cohort study of esophageal cancer, Golestan (1,035)	both	1,035	4.3%	3.02%	5.48%	3.77%	0.4%	Pourshams A, Nasiri J, Mohammadkhani A, Nasrollahzadeh D. (2004) Hepatitis B in Gonbad-Kavoos: prevalence, risk factors and <u>intrafamilial spreading</u> . <i>Govaresh</i> 9(4):222-225	NPM	536
Iran	Amirzadegan, 2005	Tehran	Consecutive patients undergoing coronary angiography at Tehran Heart Center; exclude pts vaccinated for HBV or with fever, MI, major trauma within 14 days (830)	both	830	1.5%	0.64%	2.26%	4.66%	0.9%	Amirzadegan, A., G. Davoodi, et al. (2007). "Association between hepatitis B surface antibody seropositivity and coronary artery disease." <i>Indian J Med Sci</i> 61(12): 648-55.	18174634	527

Iran	Ghotaslou, 2005-06	Tabriz (northwest)	Consecutive coronary angiography patients at Madani Heart Center, Tabriz (4,499)	both	4,499	3.3%	2.77%	3.81%	5.23%	2.2%	Ghotaslou, R., N. Aslanabadi, et al. (2008). "Hepatitis B virus infection and the risk of coronary atherosclerosis." Ann Acad Med Singapore 37(11): 913-5.	19082195	525
Iran	Ghotaslou, 2005-2006	Tabriz (northwest)	Hospital controls for patients with CAD Tabriz; hospitalized in same center for reasons other than suspected CAD (505)	both	505	2.2%	0.91%	3.45%	3.68%	0.4%	Ghotaslou, R., N. Aslanabadi, et al. (2008). "Hepatitis B virus infection and the risk of coronary atherosclerosis." Ann Acad Med Singapore 37(11): 913-5.	19082195	525
				total studies	25	120,987				100.00%	100.00%		
				males	8								
				females	7								
				both	10								

* indicates publication year; survey year not reported

Table 15: Summary of Surveys Included in Meta-Analysis: Pakistan South Central Asia

Country	Study (survey year*)	Region	Population and sampling method	Sex	Sample (n)	HBsAg			RE weight (%)	FE weight (%)	Reference	Access No	Ref No.
						positive (%)	lower 95% CI	upper 95% CI					
Pakistan	Malik, 1984	Rawalpindi and Islamabad	Military recruits; newly enlisted recruits mostly from rural and urban areas of Northern Pakistan; drawn from low middle class and poor socioeconomic group (365)	males	365	10.7%	7.53%	13.87%	1.78%	0.1%	Malik, I. A., L. J. Legters, et al. (1988). "The serological markers of hepatitis A and B in healthy population in northern Pakistan." J Pak Med Assoc 38(3): 69-72.	3133500	552
Pakistan	Abdulla, 1998-2001	Karachi	General population; clients presenting to Dr. Essa's Lab and Diagnostic Center; ; no information on sampling or participation rate; male (15,689)	males	15,689	7.8%	7.41%	8.25%	3.74%	4.1%	Abdulla EM and Abdulla FE (2007) Seropositive HBsAg frequency in Karachi and interior Sindh, Pakistan. Pakistan Journal of Medical Sciences Quarterly 23(2): 157-160	NPM	571
Pakistan	Mirza, 2001-2003	all	Military recruits; prospective study of all young males seeking recruitment in the Pakistani Armed Forces (15,581)	males	15,581	3.2%	2.96%	3.52%	3.79%	9.4%	Mirza IA, Mirza SH, Irfan S, Siddiqi R, Uz W, Tariq Z (2006) Seroprevalence of hepatitis B and C in young adults seeking recruitment in armed forces. Pakistan Armed Forces Medical Journal 56: 192-197	NPM	573
Pakistan	Jafri, 2003-2004	Karachi	Children 0-15 yrs; two-stage cluster sampling of city; targeting low to middle socioeconomic population Karachi males (1,826)	males	1,826	2.1%	1.43%	2.73%	3.64%	1.7%	Jafri, W., N. Jafri, et al. (2006). "Hepatitis B and C: prevalence and risk factors associated with seropositivity among children in Karachi, Pakistan." BMC Infect Dis 6: 101.	16792819	553
Pakistan	Khan, 2003	Abbottabad	Orthopedic surgery patients; Abbottabad; Dept of Orthopedics at Ayub Teaching Hospital; "inclusion was patients of both age and sex who needed surgery"; exclusion was patients who did not need surgery; males (1,205)	males	1,205	2.3%	1.47%	3.17%	3.53%	1.0%	Khan, M. S., M. Jamil, et al. (2007). "Prevalence of hepatitis 'B' and 'C' in orthopaedics patients at Ayub Teaching Hospital Abbottabad." J Ayub Med Coll Abbottabad 19(4): 82-4	18693606	558
Pakistan	Butt, 2004-2005	different districts	Military recruits tested at two military hospitals; from all four provinces of Pakistan; excluded for HBV vaccinated, blood transfusion, IDU, diabetes, HTN, any other systemic dz (5,707)	males	5,707	2.9%	2.49%	3.37%	3.74%	3.8%	Butt, T. and M. S. Amin (2008). "Seroprevalence of hepatitis B and C infections among young adult males in Pakistan." East Mediterr Health J 14(4): 791-7.	19166161	556
Pakistan	Mirza, 2005	12 districts of southern Punjab	Military recruits; all recruits presenting for medical evaluation as prerequisite for recruitment in Armed Forces; males (1,821)	males	1,821	5.9%	4.85%	7.01%	3.37%	0.6%	Mirza, I. A., S. M. Kazmi, et al. (2007). "Frequency of hepatitis B surface antigen and anti- HCV in young adults--experience in Southern Punjab." J Coll Physicians Surg Pak 17(2): 114-5.	17288863	570
Pakistan	Talpur, 2005	Nawabshah	Surgical patients Nawabshah; Surgical Unit of People's Medical College Hospital, a tertiary care hospital of 1100 beds; male (133)	males	133	11.3%	5.92%	16.68%	0.89%	0.0%	Talpur Aa, Ansari AG, Awan MS, Ghumro AA (2006) Prevalence of hepatitis 'B' and 'C' in surgical patients. Pak J Surg 22(3):150-153		574
Pakistan	Chaudhary, 2006	Rawalpindi	Surgical outpatients; all patients reporting in Surgical Outpatients Department of Fauji Foundation Hospital, Rawalpindi were included in the study; 660 bed tertiary care hospital that provides free care to ex-servicemen and families and to private patients; males (1,963)	males	1,963	8.1%	6.86%	9.26%	3.28%	0.5%	Chaudhry IS, Khan SS, Majrooh MS, Alvi AA (2007) Seroprevalence of hepatitis B and C among the patients reporting in surgical OPD at Fauji Foundation Hospital, Rawalpindi: Review of 5 year literature. Pak J Med Sci 23(4): 515		575
Pakistan	Daudpota, 2007	Jacobabad	Surgical patients; all surgical patients screened; excluded patients with known hepatitis B and C; Jacobabad males (83)	males	83	10.8%	4.12%	17.48%	0.63%	0.0%	Daudpota AQ, Soomro AW (2008) Seroprevalence of hepatitis B and C infections in surgical patients. Pak J Med Sci 24(3): 483-484		576
Pakistan	Euler, 1990-1993	migrants to US	Immigrant pregnant women delivering live infants in the US. during 1990-1993; multicenter, retrospective chart review; 4 urban areas (Hartford and New Haven Co CT; DeKalb and Fulton Co GA; Wayne Co MI; Dallas Co TX (366)	females	366	3.2%	1.41%	5.03%	2.78%	0.2%	Euler GL, Wooten KG, Baughman AL, Williams WW. (2003) Hepatitis B surface antigen prevalence among pregnant women in urban areas: implications for testing, reporting, and preventing perinatal transmission. Pediatrics. 2003 May;111(5 Part 2):1192-7	12728137	577

Pakistan	Malik, 1984	Rawalpindi and Islamabad	Pregnant women attending antenatal clinics in Rawalpindi and Islamabad; ; no info on sampling, eligibility or participation rate (205)	females	205	7.8%	4.13%	11.47%	1.51%	0.1%	Malik, I. A., L. J. Legters, et al. (1988). "The serological markers of hepatitis A and B in healthy population in northern Pakistan." <i>J Pak Med Assoc</i> 38(3): 69-72	3133500	552
Pakistan	Zuberi, 1989*	Karachi	Pregnant women admitted to Aga Khan Maternity Home at term; upper and upper-middle socioeconomic class Karachi (1,000)	females	1,000	3.9%	2.70%	5.10%	3.28%	0.5%	Zuberi, S. J., T. Z. Lodi, et al. (1989). "Pattern of HBs/HBe antigenaemia in pregnant women." <i>J Pak Med Assoc</i> 39(6): 160.	2504958	567
Pakistan	Khan, 1994	Lahore	Pregnant women registered Jan-Sep 1994 in Dept ObGyn, Shaik Zayed Hosp, Lahore (710)	females	710	2.1%	1.05%	3.17%	3.39%	0.7%	Khan, N. R. and F. Sadiq (1996). "Prenatal screening for hepatitis B virus." <i>Int J Gynaecol Obstet</i> 55(1): 79-80.	8910090	568
Pakistan	Abdulla, 1998-2001	Karachi	General population; clients presenting to Dr. Essa's Lab and Diagnostic Center; ; no information on sampling or participation rate; female (19,568)	females	19,568	2.6%	2.37%	2.81%	3.80%	14.7%	Abdulla EM and Abdulla FE (2007) Seropositive HBsAg frequency in Karachi and interior Sindh, Pakistan. <i>Pakistan Journal of Medical Sciences Quarterly</i> 23(2): 157-160	NPM	571
Pakistan	Nooralie, 2002-2006	Karachi	Physically healthy female volunteers at two universities in Karachi; referred for health check-up (4,000)	females	4,000	4.5%	3.86%	5.14%	3.65%	1.8%	Noorali, S., S. T. Hakim, et al. (2008). "Prevalence of Hepatitis B virus genotype D in females in Karachi, Pakistan." <i>J Infect Dev Ctries</i> 2(5): 373-8.	19745506	561
Pakistan	Jafri, 2003-2004	Karachi	Children 0-15 yrs; two-stage cluster sampling of city; targeting low to middle socioeconomic population Karachi females (1,707)	females	1,707	1.8%	1.20%	2.48%	3.65%	1.8%	Jafri, W., N. Jafri, et al. (2006). "Hepatitis B and C: prevalence and risk factors associated with seropositivity among children in Karachi, Pakistan." <i>BMC Infect Dis</i> 6: 101.	16792819	553
Pakistan	Khan, 2003	Abbottabad	Orthopedic surgery patients; Abbottabad; Dept of Orthopedics at Ayub Teaching Hospital; "inclusion was patients of both age and sex who needed surgery; exclusion was patients who did not need surgery; females (425)	females	425	1.2%	0.15%	2.19%	3.41%	0.7%	Khan, M. S., M. Jamil, et al. (2007). "Prevalence of hepatitis 'B' and 'C' in orthopaedics patients at Ayub Teaching Hospital Abbottabad." <i>J Ayub Med Coll Abbottabad</i> 19(4): 82-4.	18693606	558
Pakistan	Sami, 2005	Karachi	Pregnant women routine prospective screening over a one year period; Karachi; obstetrical population of 5902 deliveries and 548 major gynecology surgery patients(5,902)	females	5,902	4.7%	4.12%	5.20%	3.70%	2.5%	Sami, S., R. Korejo, et al. (2009). "Prevalence of hepatitis B and C: a Jinnah Postgraduate Medical Centre experience." <i>J Obstet Gynaecol Res</i> 35(3): 533-8.	19527395	557
Pakistan	Talpur, 2005	Nawabshah	Surgical patients Nawabshah; surgical patients at Surgical Unit of People's Medical College Hospital, a tertiary care hospital of 1100 beds;female (167)	females	167	6.6%	2.83%	10.35%	1.46%	0.1%	Talpur Aa, Ansari AG, Awan MS, Ghumro AA (2006) Prevalence of hepatitis 'B' and 'C' in surgical patients. <i>Pak J Surg</i> 22(3):150-153		574
Pakistan	Sami, 2005	Karachi	Pregnant women and OB/GYN surgery patients; routine screening; prospective study over a 1-year period, Department of Obstetrics and Gynecology, Jinnah Postgraduate Medical Centre; Karachi; females (548)	females	548	12.8%	10.00%	15.60%	2.02%	0.1%	Sami, S., R. Korejo, et al. (2009). "Prevalence of hepatitis B and C: a Jinnah Postgraduate Medical Centre experience." <i>J Obstet Gynaecol Res</i> 35(3): 533-8.	19527395	557
Pakistan	Chaudhary, 2006	Rawalpindi	Surgical outpatients; all patients reporting in Surgical Outpatients Department of Fauji Foundation Hospital, Rawalpindi were included in the study; 660 bed tertiary care hospital that provides free care to ex-servicemen and families and to private patients; females (93)	females	93	2.0%	-0.85%	4.81%	2.00%	0.1%	Chaudhry IS, Khan SS, Majrooh MS, Alvi AA (2007) Seroprevalence of hepatitis B and C among the patients reporting in surgical OPD at Fauji Foundation Hospital, Rawalpindi: Review of 5 year literature. <i>Pak J Med Sci</i> 23(4): 515		575
Pakistan	Daudpota, 2007	Jacobabad	Surgical patients; all surgical patients screened; excluded patients with known hepatitis B and C; Jacobabad females (67)	females	67	7.5%	1.17%	13.75%	0.69%	0.0%	Daudpota AQ, Soomro AW (2008) Seroprevalence of hepatitis B and C infections in surgical patients. <i>Pak J Med Sci</i> 24(3): 483-484		576
Pakistan	Khattak, 2008	urban and rural area of district Swat	Pregnant women; chart review women admitted to Labour Room of OBGYN Unit, Saidu Teaching Hospital, Swat (2008)	females	5,607	1.4%	1.07%	1.67%	3.78%	7.9%	Khattak, S. T., M. Ali Marwat, et al. (2009). "Comparison of frequency of hepatitis B and hepatitis C in pregnant women in urban and rural area of district Swat." <i>J Ayub Med Coll Abbottabad</i> 21(2): 12-5.	20524459	569

Pakistan	Khokhar, 1998-2002	from all parts of Pakistan, mostly northern half	Adults seeking work abroad; all adults who presented for medical evaluation as a pre-employment criteria in the Gulf region; Community clinic of Shifa International Hospital, Islamabad (47,538)	both	47,538	2.6%	2.43%	2.71%	3.81%	36.0%	Khokhar, N., M. L. Gill, et al. (2004). "General seroprevalence of hepatitis C and hepatitis B virus infections in population." J Coll Physicians Surg Pak 14(9): 534-6.	15353136	564
Pakistan	Abdulla, 2005-2006	5 cities of interior Sindh (Hyderabad, Khaipur, Larkana, Nawabshah, Sukkur)	Persons seeking testing for travel visas; 5 cities of interior Sindh: Hyderabad, Khaipur, Larkana, Nawabshah, Sukkur (1,776)	both	1,776	2.2%	1.51%	2.87%	3.63%	1.6%	Abdulla EM and Abdulla FE (2007) Seropositive HBsAg frequency in Karachi and interior Sindh, Pakistan. Pakistan Journal of Medical Sciences Quarterly 23(2): 157-160	NPM	571
Pakistan	Luby, 1993	Hafizabad	General population; city-wide serological survey; randomly sought households from each of the town's 27 administrative sectors; number of houses chosen per sector proportional to the population; 64% of individuals selected participated; Hafizabad (291)	both	291	4.1%	1.84%	6.40%	2.40%	0.1%	Luby, S. P., K. Qamruddin, et al. (1997). "The relationship between therapeutic injections and high prevalence of hepatitis C infection in Hafizabad, Pakistan." Epidemiol Infect 119(3): 349-56.	9440439	565
Pakistan	Abbas, 1995-1996	Islamabad	Children 0-12 yrs from schools or attending hospital for minor complaints without hx LD, blood transfusion, or serious illness; Islamabad (664)	both	664	3.6%	2.19%	5.03%	3.11%	0.4%	Abbas, K. A. and A. K. Tanwani (1997). "Prevalence of hepatitis B surface antigenaemia in healthy children." J Pak Med Assoc 47(3): 93-4.	9131862	566
Pakistan	Rabbani, 1998-2001	Karachi	All patients who underwent endoscopy between Dec 1999 and Sep 2001 in Bin Jalawi Hospital, Karachi (230)	both	230	5.7%	2.70%	8.70%	1.89%	0.1%	Rabbani, A. (2005). "Experience with endoscopy at Bin Jalawi Hospital K.S.A." J Ayub Med Coll Abbottabad 17(1): 37-9.	15929525	563
Pakistan	Ali, 2002	all	All young adults reporting for recruitment in Army during 2002; [Pakistani army includes females] (5,371)	both	5,371	3.5%	3.04%	4.02%	3.72%	3.0%	Ali N, et. Al. (2002) Prevalence of hepatitis B surface antigen and hepatitis C antibodies in young healthy adults. Pak J Pathol 13(4): 3-6	NPM	572
Pakistan	Aziz, 2002	Karachi	Children; low socioeconomic communities (squatter settlements); no selection reported (380)	both	106	3.9%	0.21%	7.59%	1.50%	0.1%	Aziz, S., R. Muzaffar, et al. (2007). "HELICOBACTER PYLORI, HEPATITIS VIRUSES A, C, E, ANTIBODIES AND HBsAg - PREVALENCE AND ASSOCIATED RISK FACTORS IN PEDIATRIC COMMUNITIES OF KARACHI." J Coll Physicians Surg Pak 17(4): 195-8.	17462174	560
Pakistan	Abbas, 2003	Karachi, Islamabad, Lahore, Quetta, Peshawar, Multan	General population 6 cities; "after taking informed consent, all visitors were screened for HBsAg..."; no info on sampling, eligibility, or participation rate (11,372)	both	11,372	4.3%	3.89%	4.63%	3.76%	5.3%	Abbas, Z., L. Shazi, et al. (2006). "Prevalence of hepatitis B in individuals screened during a countrywide campaign in Pakistan." J Coll Physicians Surg Pak 16(7): 497-8.	16827971	562
Pakistan	Mahboob, 2003-2005	Lahore	Healthy controls for lichen planus patients; patient with other dermatoses attending the outpatient clinic Lahore (200)	both	200	3.5%	0.95%	6.05%	2.20%	0.1%	Mahboob, A., T. S. Haroon, et al. (2007). "Prevalence of hepatitis B surface antigen carrier state in patients with lichen planus--report of 200 cases from Lahore, Pakistan." J Ayub Med Coll Abbottabad 19(4): 68-70.	18693602	559
Pakistan	Alam, 2005-2006	"from all four of the country"; not specified	General population; Individuals in urban and rural areas "selected on random basis"; no description of recruitment or selection method; four provinces (1,300)	both	1,300	4.0%	2.93%	5.07%	3.38%	0.6%	Alam, M. M., S. Z. Zaidi, et al. (2007). "Serology based disease status of Pakistani population infected with hepatitis B virus." BMC Infect Dis 7: 64.	17597512	554
Pakistan	Abbas, 2008*	Jarwar, Upper Sindh province	General population; systematic random sampling to include every 6th house; first house chosen at random; sampling unit was all families living in the house; Jarwar, Upper Sindh province (873)	both	873	5.0%	3.59%	6.49%	3.08%	0.3%	Abbas, Z., N. L. Jeswani, et al. (2008). "Prevalence and mode of spread of hepatitis B and C in rural Sindh, Pakistan." Trop Gastroenterol 29(4): 210-6.	19323090	555
				total studies	35	154,459				100.00%	100.00%		
				males	10								
				females	14								
				both	11								

* indicates publication year; survey year not reported

Table 16: Summary of Surveys Included in Meta-Analysis: Bangladesh											South Central Asia		
Country	Study (survey year*)	Region	Population and sampling method	Sex	Sample (n)	HBsAg positive (%)	lower 95% CI	upper 95% CI	RE weight (%)	FE weight (%)	Reference	Access No	Ref No.
Bangladesh	Rumi, 1994-1996		Men seeking jobs abroad mainly in Asian countries; persons referred to Health Check centers by different manpower recruiting agencies (42,290)	males	42,290	4.4%	4.20%	4.60%	6.27%	69.3%	Rumi, M. A., M. A. Siddiqui, et al. (2000). "Prevalence of infectious diseases and drug abuse among Bangladeshi workers." Southeast Asian J Trop Med Public Health 31(3): 571-4.	11289023	444
Bangladesh	Islam, 1984*		Healthy adult male recruits for low paid jobs in Dhaka; no selection described (576)	males	576	7.8%	5.61%	9.99%	4.32%	0.6%	Islam, M. N., K. M. Islam, et al. (1984). "Hepatitis-B virus infection in Dhaka, Bangladesh." Bangladesh Med Res Counc Bull 10(1): 1-6.	6466261	452
Bangladesh	Ahmad, 1991		Surgery patients; previously unscreened pts undergoing a major operative procedure at Dhaka Medical College Hospital; no info on sampling, eligibility, or participation rate; male (249)	males	249	10.8%	6.98%	14.70%	2.60%	0.2%	Ahmad, Q., S. G. Chowdhury, et al. (1991). "HBsAg amongst unscreened operated patients." Bangladesh Med Res Counc Bull 17(1): 11-6.	1953592	450
Bangladesh	Rahman, 1994		Villagers; randomly selected village in Satgara union of Rangpur district; 1000 voluntary subjects; no info on sampling, eligibilty, or participation rate; male (661)	males	661	6.7%	4.76%	8.56%	4.68%	0.7%	Rahman, M., Amanullah, et al. (1997). "Sero-epidemiological study of hepatitis B virus infection in a village." Bangladesh Med Res Counc Bull 23(2): 38-41.	9465433	449
Bangladesh	Sabin, 1996		Dhaka slum dwellers; proportional probability sample of households in geographically defined clusters; part of Urban Surveillance System of the Urban Extension Project of the International Center for Diarrheal disease Research male (530)	males	530	5.7%	3.73%	7.67%	4.59%	0.7%	Sabin, K. M., M. Rahman, et al. (2003). "Sexually transmitted infections prevalence rates in slum communities of Dhaka, Bangladesh." Int J STD AIDS 14(9): 614-21.	14511498	439
Bangladesh	Gibney, 1998		Truck drivers; drivers and helpers working out of the Tejgaon truck stand, one of the largest truck stand in Dhaka; two-tiered sampling selected 38 agencies from the list of 185 transport agencies with an office there (388)	males	388	5.9%	3.56%	8.24%	4.13%	0.5%	Gibney, L., N. Saquib, et al. (2001). "Human immunodeficiency virus, hepatitis B, C and D in Bangladesh's trucking industry: prevalence and risk factors." Int J Epidemiol 30(4): 878-84.	11511620	443
Bangladesh	Mahtab, 2007		General population; individuals of different age groups and sex with varied religious, educational and social backgrounds; meetings with local political, social, religious and business leaders; used "mass propaganda to encourage people to participate" male (584)	males	584	6.5%	4.50%	8.50%	4.55%	0.7%	Mahtab, M. A., S. Rahman, et al. (2008). "Epidemiology of hepatitis B virus in Bangladeshi general population." Hepatobiliary Pancreat Dis Int 7(6): 595-600.	19073404	437
Bangladesh	Rumi, 1994-1996		Women seeking jobs abroad mainly in Asian countries; persons referred to Health Check centers by different manpower recruiting agencies females (923)	females	923	2.5%	1.49%	3.51%	5.74%	2.6%	Rumi, M. A., M. A. Siddiqui, et al. (2000). "Prevalence of infectious diseases and drug abuse among Bangladeshi workers." Southeast Asian J Trop Med Public Health 31(3): 571-4.	11289023	444
Bangladesh	Ahmad, 1991		Surgery patients; previously unscreened pts undergoing a major operative procedure at Dhaka Medical College Hospital; no info on sampling, eligibility, or participation rate; female (251)	females	251	6.4%	3.35%	9.39%	3.36%	0.3%	Ahmad, Q., S. G. Chowdhury, et al. (1991). "HBsAg amongst unscreened operated patients." Bangladesh Med Res Counc Bull 17(1): 11-6.	1953592	450
Bangladesh	Rahman, 1994		Villagers; randomly selected village in Satgara union of Rangpur district; 1000 voluntary subjects; no info on sampling, eligibilty, or participation rate; female (339)	females	339	5.9%	3.39%	8.41%	3.93%	0.4%	Rahman, M., Amanullah, et al. (1997). "Sero-epidemiological study of hepatitis B virus infection in a village." Bangladesh Med Res Counc Bull 23(2): 38-41.	9465433	449
Bangladesh	Laskar, 1995		Girls at private school; "of high socioeconomic status"; all at same school; no info on sampling, eligibility, or participation rate (836)	females	836	0.8%	0.22%	1.45%	6.07%	6.9%	Laskar, M. S., N. Harada, et al. (1997). "Prevalence of hepatitis B surface antigen (HBsAg) in Viharunnessa noon girls' school children in Dhaka, Bangladesh." Cent Eur J Public Health 5(4): 202-4.	9457421	448

Bangladesh	Sabin, 1996	Dhaka slum dwellers; proportional probability sample of households in geographically defined clusters; part of Urban Surveillance System of the Urban Extension Project of the International Center for Diarrheal disease Research female (984)	females	984	2.9%	1.85%	3.95%	5.69%	2.4%	Sabin, K. M., M. Rahman, et al. (2003). "Sexually transmitted infections prevalence rates in slum communities of Dhaka, Bangladesh." Int J STD AIDS 14(9): 614-21.	14511498	439
Bangladesh	de Francisco, 1999*	New mothers; infants randomly selected from the demogrpahic surveillance system (4 children form each of 80 areas) and blood collected; also collected maternal samples (330)	females	330	5.5%	3.00%	7.90%	4.00%	0.4%	de Francisco, A., A. J. Hall, et al. (1999). "Hepatitis B infection in Bangladeshi mothers and infants." Southeast Asian J Trop Med Public Health 30(2): 296-8.	10774698	446
Bangladesh	Gibney, 1999	Women living close to one of the largest truck stand in Dhaka; visted homes of 500 women randomly selected from census list; 79% participated (384)	females	384	3.6%	1.74%	5.46%	4.73%	0.8%	Gibney, L., M. Macaluso, et al. (2001). "Prevalence of infectious diseases in Bangladeshi women living adjacent to a truck stand: HIV/STD/hepatitis/genital tract infections." Sex Transm Infect 77(5): 344-50.	11588280	442
Bangladesh	Mahtab, 2007	General population; individuals of different age groups and sex with varied religious, educational and social backgrounds; meetings with local political, social, religious and business leaders; used "mass propaganda" to encourage people to participate. female (434)	females	434	4.1%	2.23%	5.97%	4.72%	0.8%	Zaki, H., G. L. Darmstadt, et al. (2003). "Seroepidemiology of hepatitis B and delta virus infections in Bangladesh." J Trop Pediatr 49(6): 371-4.	14725415	438
Bangladesh	Akhter, 1988-1989	Pregnant women; consecutive admissions during study period (500)	females	500	3.6%	1.97%	5.23%	5.01%	1.0%	Akhter, S., M. Q. Talukder, et al. (1992). "Hepatitis B virus infection in pregnant mothers and its transmission to infants." Indian J Pediatr 59(4): 411-5.	1452257	451
Bangladesh	Bogaerts, 1996-1998	Women attending clinic; consecutive new female clients attending a basic healthcare clinic in Dhaka; vountary; 96% of women approached participated (2,328)	females	2,328	2.7%	2.04%	3.36%	6.04%	6.1%	Bogaerts, J., J. Ahmed, et al. (2001). "Sexually transmitted infections among married women in Dhaka, Bangladesh: unexpected high prevalence of herpes simplex type 2 infection." Sex Transm Infect 77(2): 114-9.	11287690	445
Bangladesh	Rumi, 1995-1996	Pregnant women; women who delivered at largest public hospital in Dhaka; urban hospital where care provided free; voluntary; no participation rate reported (1,800)	females	1,800	3.5%	2.65%	4.35%	5.89%	3.7%	Rumi, M. A., K. Begum, et al. (1998). "Detection of hepatitis B surface antigen in pregnant women attending a public hospital for delivery: implication for vaccination strategy in Bangladesh." Am J Trop Med Hyg 59(2): 318-22.	9715954	447
Bangladesh	Khan, 1999*	Apparently healthy workers seeking jobs abroad; collected at health check up centers in Dhaka (206)	both	206	8.7%	4.88%	12.60%	2.60%	0.2%	Khan, L. A., M. Z. Chowdhury, et al. (1999). "Sexually transmitted diseases among the immigrants seeking jobs abroad." J Prev Soc Med 18(1): 41-5.	12179654	441
Bangladesh	Akbara, 1997*	Apparently healthy persons; no selection in abstract (495)	both	495	9.7%	7.09%	12.31%	3.82%	0.4%	Fazle Akbara SM, Hossain M, Hossain F, et al. (1997) Seroepidemiology of hepatitis viruses of chronic liver diseases in Bangladesh: high prevalence of HCV among blood donors and healthy person. Hepatology Research 7(2):113-120	NPM	453
Bangladesh	Zaki, 1997-1998	Asymptomatic healthy children and adults presenting for pre-vaccination HBV screening at referral centers in Dhakar (534)	both	534	3.0%	1.55%	4.45%	5.24%	1.3%	Zaki, H., G. L. Darmstadt, et al. (2003). "Seroepidemiology of hepatitis B and delta virus infections in Bangladesh." J Trop Pediatr 49(6): 371-4.	14725415	438
Bangladesh	Mollah, 2000-2001	Controls for children with thalassemia; age- and sex-matched children who attended Dhaka Medical College Hospital clinic with minor illness (107)	both	107	6.5%	1.84%	11.20%	2.04%	0.1%	Mollah, A. H., N. Nahar, et al. (2003). "Common transfusion-transmitted infectious agents among thalassaemic children in Bangladesh." J Health Popul Nutr 21(1): 67-71.	12751676	440
				total studies	22	55,729		100.00%	100.00%			
				males	7							

* indicates publication year; survey year not reported

females	11
both	4

Table 17: Summary of Surveys Included in Meta-Analysis: Afghanistan South Central Asia

Country	Study (survey year*)	Region	Population and sampling method	Sex	Sample (n)	HBsAg			RE weight (%)	FE weight (%)	Reference	Access No	Ref No.
						positive (%)	lower 95% CI	upper 95% CI					
Afghanistan	Quddus, 2003	refugees to Pakistan	Afghan refugees in camps; family groups (husband, wife, and one child) were selected at random from register of refugees living in camps male (301)	males	301	12.3%	8.59%	16.01%	14.85%	0.9%	Quddus, A., S. P. Luby, et al. (2006). "Prevalence of hepatitis B among Afghan refugees living in Balochistan, Pakistan." <i>Int J Infect Dis</i> 10(3): 242-7.	16448838	435
Afghanistan	Quddus, 2003	refugees to Pakistan	Afghan refugees in camps; family groups (husband, wife, and one child) were selected at random from register of refugees living in camps; females (903)	females	301	7.0%	4.12%	9.88%	15.44%	1.4%	Quddus, A., S. P. Luby, et al. (2006). "Prevalence of hepatitis B among Afghan refugees living in Balochistan, Pakistan." <i>Int J Infect Dis</i> 10(3): 242-7.	16448838	435
Afghanistan	Todd, 2003	Kabul	Pregnant women; consecutive women admitted to 3 govt maternity hospitals in Kabul; population included "only those women able to access care, likely those of higher socioeconomic status"; "May be an underestimate" (4,452)	females	4,452	1.5%	1.17%	1.89%	16.41%	92.1%	Todd, C. S., M. Ahmadzai, et al. (2008). "Seroprevalence and correlates of HIV, syphilis, and hepatitis B and C virus among intrapartum patients in Kabul, Afghanistan." <i>BMC Infect Dis</i> 8: 119.	18798996	579
Afghanistan	CDC, 1979-1991	immigrants to US	Refugees from Afghanistan to US screened (418)	both	418	4.1%	2.20%	6.00%	15.98%	3.3%	CDC (1991) Screening for hepatitis B virus infection among refugees arriving in the United States, 1979-1991. <i>MMWR</i> 40(45):784-6	1944126	434
Afghanistan	Quddus, 2003	refugees to Pakistan	Children 0-20 yrs old; Afghan refugees in camps, in Pakistan; family groups (husband, wife, and one child) were selected at random from register of refugees living in camps (301)	both	301	5.6%	3.00%	8.20%	15.61%	1.8%	Quddus, A., S. P. Luby, et al. (2006). "Prevalence of hepatitis B among Afghan refugees living in Balochistan, Pakistan." <i>Int J Infect Dis</i> 10(3): 242-7.	16448838	435
Afghanistan	Pourkarim, 2008*	refugees from Afghanistan	Refugees from Afghanistan; 37 Afghan refugee couples who had settled in a camp at Dalaki in the province of Bushehr; no selection described (74)	both	74	60.8%	49.68%	71.92%	8.40%	0.1%	Pourkarim, M. R., K. Zandi, et al. (2008). "An aberrant high prevalence of hepatitis B infection among Afghans residing in one of the Bushehr refugee camps (Dalaki camp) in the southwest of Iran." <i>Int J Infect Dis</i> 12(1): 101-2.	17540600	433
Afghanistan	Rein, 2006-2008	refugees from Afghanistan	Afghan refugees arriving in the US 2006-2008; information from states with an active refugee health coordinator (60)	both	60	5.0%	-0.51%	10.51%	13.30%	0.4%	Rein DB, Lesesne SB, O'Fallon A, Weinbaum CM (2009) Prevalence of hepatitis B surface antigen among refugees entering the United States between 2006 and 2008. <i>Hepatology</i> . 2010 Feb;51(2):431-4	19902482	436
total studies					7	5,907			100.00%	100.00%			
males					1								
females					2								
both					4								

* indicates publication year; survey year not reported

Table 18: Summary of Surveys Included in Meta-Analysis: Uzbekistan

South Central Asia

Country	Study (survey year*)	Region	Population and sampling method	Sex	Sample (n)	HBsAg			RE weight (%)	FE weight (%)	Reference	Access No	Ref No.
						positive (%)	95% CI	upper 95% CI					
Uzbekistan	Kuzin, 1984-1988		Pregnant women; selection in Russian (6,142)	females	6,142	6.9%	6.27%	7.53%	12.11%	39.2%	Kuzin, S. N., V. N. Ikoiev, et al. (1990). "[Patterns in perinatal infection with the hepatitis B virus in areas contrasted by the level of HBsAg and HBeAg carriage]." <i>Vopr Virusol</i> 35(4): 304-6.	2147798	580
Uzbekistan	Vasileva, 1987*	Fergana	Pregnant women in Fergana, selection in Russian (1,760)	females	1,760	5.1%	4.07%	6.13%	11.90%	14.9%	Vasil'eva, V. I., A. A. Sumarov, et al. (1987). "[Frequency of finding hepatitis B viral markers in young children born of mothers carrying the HBs-antigen]." <i>Zh Mikrobiol Epidemiol Immunobiol</i> (2): 32-5.	2953153	581
Uzbekistan	Mikhailov, 1985*	Tashkent	Pregnant women in Tashkent; selection in Russian (318)	females	318	5.4%	2.88%	7.82%	10.49%	2.6%	Mikhailov, M. I., A. A. Ivankin, et al. (1985). "[Frequency of detecting HBsAg among pregnant women living in different regions of the Soviet Union]." <i>Zh Mikrobiol Epidemiol Immunobiol</i> (5): 64-6.	4036411	583
Uzbekistan	Glikberg, 1997*	migrants to Israel	Adult Bukharian Jewish immigrants to Israel from Tajikistan and Uzbekistan; suburb of north Jerusalem where many Bukharian immigrants live attending GP for general medical reasons and w/o known liver disease were asked to participate (102)	both	102	15.7%	8.64%	22.76%	5.19%	0.3%	Glikberg, F., J. Brawer-Ostrovsky, et al. (1997). "Very high prevalence of hepatitis B and C in Bukharian Jewish immigrants to Israel." <i>J Clin Gastroenterol</i> 24(1): 30-3.	9013347	584
Uzbekistan	Rein, 2006-2008	refugees to US	Uzbekistan refugees arriving in the US 2006-2008; information from states with an active refugee health coordinator (122)	both	122	3.3%	0.13%	6.47%	9.61%	1.6%	Rein DB, Lesesne SB, O'Fallon A, Weinbaum CM (2009) Prevalence of hepatitis B surface antigen among refugees entering the United States between 2006 and 2008. <i>Hepatology</i> . 2010 Feb;51(2):431-4.	19902482	587
Uzbekistan	Mikhailov, 1983	Uzbekistan	Residents of Tashkent; selection in Russian--might be blood donors? or volunteers for the study? (1,914)	both	1,914	5.0%	4.04%	6.00%	11.93%	16.5%	Mikhailov, M. I., S. A. Arakelov, et al. (1985). "[HBe antigen and its antibodies in HBsAg carriers in various regions of the USSR]." <i>Zh Mikrobiol Epidemiol Immunobiol</i> (7): 71-4.	3901627	582
Uzbekistan	Kato, 1997*		"Jewish population in Uzbekistan"; no info on sampling, eligibility, or participation rate (92)	both	92	8.7%	2.94%	14.46%	6.43%	0.5%	Kato, T., M. Mizokami, et al. (1997). "High prevalence of GB virus C/hepatitis G virus infection among the Jewish population in Uzbekistan." <i>Virus Res</i> 48(1): 81-7.	9140196	585
Uzbekistan	Ruzibakiev, 1999-2000	Tashkent (north); Fergana (East); Samarkand (Middle); Termez (south); Nukus (west)	General population judged to be at low risk for HBV from questionnaire; four areas of country; no selection described; (929)	both	929	13.3%	11.12%	15.48%	10.84%	3.3%	Ruzibakiev, R., H. Kato, et al. (2001). "Risk factors and seroprevalence of hepatitis B virus, hepatitis C virus, and human immunodeficiency virus infection in Uzbekistan." <i>Intervirology</i> 44(6): 327-32.	11805437	586
Uzbekistan	Avazova, 2008*	Tashkent City and Navoi City	Vaccinated children; all born after launch of vaccination program; no information on selection (329)	both	381	0.8%	-0.09%	1.69%	11.98%	19.7%	Avazova, D., F. Kurbanov, et al. (2008). "Hepatitis B virus transmission pattern and vaccination efficiency in Uzbekistan." <i>J Med Virol</i> 80(2): 217-24.	18098129	578
Uzbekistan	Avazova, 2008*	Tashkent City and Navoi City	Unvaccinated children; all born before launch of vaccination program; no information on selection (186)	both	186	5.4%	2.14%	8.62%	9.52%	1.5%	Avazova, D., F. Kurbanov, et al. (2008). "Hepatitis B virus transmission pattern and vaccination efficiency in Uzbekistan." <i>J Med Virol</i> 80(2): 217-24.	18098129	578
					total studies	10	11,946			100.00%	100.00%		
					males	0							
					females	3							
					both	7							

* indicates publication year; survey year not reported

Table 19: Summary of Surveys Included in Meta-Analysis: Nepal South Central Asia

Country	Study (survey year*)	Region	Population and sampling method	Sex	Sample (n)	HBsAg			RE weight (%)	FE weight (%)	Reference	Access No	Ref No.
						positive (%)	95% CI	upper 95% CI					
Nepal	Henderson, 1987	migrants from mid-hills area	Nepalese Gurkha soldiers in Hong Kong; new recruits tested on their arrival in Hong Kong; males (477)	males	477	1.7%	0.53%	2.83%	6.83%	2.8%	Henderson, A. and A. J. Bowler (1987). "Hepatitis B surface antigen carriage in healthy Nepalese men." <i>Trans R Soc Trop Med Hyg</i> 81(5): 875.	3450015	541
Nepal	Goh, 1993*	migrants from mid-hills area	Nepalese Gurkhas and families stationed in Singapore; men recruited from all major tribes of the mid-hills area in Nepal; Gurkhas and their families stationed in Singapore; every member of community encouraged to participate; males (560)	males	560	3.6%	2.06%	5.14%	5.73%	1.6%	Goh, K. T., K. H. Kong, et al. (1993). "Seroepidemiology of hepatitis A and hepatitis B virus infection in a Gurkha community in Singapore." <i>J Med Virol</i> 41(2): 146-9.	8283176	540
Nepal	Bidya, 1999	all regions	Healthy men who required medical check-ups for employment abroad; from EASTERN region (2,585)	males	2,585	0.9%	0.56%	1.30%	8.75%	27.0%	Bidya, S. (2002). "HBsAg carriers among healthy Nepalese men: a serological survey." <i>J Health Popul Nutr</i> 20(3): 235-8.	12430760	538
Nepal	Joshi, 2003-2004	Katmandu	Healthy men attending medical exams for visa process; medical exam at Baba Medical Centre, Katmandu (627)	males	627	2.7%	1.44%	3.98%	6.49%	2.3%	Joshi, S. K. and G. R. Ghimire (2003). "Serological prevalence of antibodies to human immunodeficiency virus (HIV) and hepatitis B virus (HBV) among healthy Nepalese males--a retrospective study." <i>Kathmandu Univ Med J (KUMJ)</i> 1(4): 251-5.	16388265	542
Nepal	Shrestha, 1984	Surkhet; western Nepal hills	General population of Surkhet; community- and hospital based; selected at random; included 76 students of Latikoeli Middle School, 36 inhabitants of Perseni village and 108 healthy adults who attended the Royal medical camp; males (134)	males	134	4.4%	0.93%	7.87%	2.30%	0.3%	Shrestha SM, (1987) Seroepidemiology of viral hepatitis in Surkhet, Nepal <i>J Institute of Medicine (Nepal)</i> 9:1-10	NPM	550
Nepal	Shrestha, 1984	parts of Nepal outside Surkhet	General population outside Surkhet; persons attending hospital for minor illness in parts of Nepal outside Surkhet; selected at random from different parts of Nepal; males (229)	males	229	9.1%	5.37%	12.83%	2.07%	0.3%	Shrestha SM, (1987) Seroepidemiology of viral hepatitis in Surkhet, Nepal <i>J Institute of Medicine (Nepal)</i> 9:1-10	NPM	550
Nepal	Sawayama, 1996	Bhadrakali (suburban) and Kotyang (rural) villages	Inhabitants of urban and rural Nepalese villages; no selection described; males (229)	males	229	0.4%	-0.42%	1.22%	7.78%	5.5%	Sawayama, Y., J. Hayashi, et al. (1999). "A ten year serological survey of hepatitis A, B and C viruses infections in Nepal." <i>J Epidemiol</i> 9(5): 350-4.	10616269	544
Nepal	Manandhar, 1996-1997	eastern region	Healthy males EASTERN region; "drawn from subjects mostly at Zonal hospitals and some at private pathology labs"; no selection described (100)	males	100	2.0%	-0.74%	4.74%	3.20%	0.5%	Manandhar, K. and B. Shrestha (1998). "Prevalence of hepatitis B virus infection amongst healthy Nepalese males." <i>Trop Gastroenterol</i> 19(4): 145-7.	11210111	551
Nepal	Manandhar, 1996-1997	Central region	Healthy males CENTRAL region; "drawn from subjects mostly at Zonal hospitals and some at private pathology labs"; no selection described (100)	males	100	3.0%	-0.34%	6.34%	2.43%	0.3%	Manandhar, K. and B. Shrestha (1998). "Prevalence of hepatitis B virus infection amongst healthy Nepalese males." <i>Trop Gastroenterol</i> 19(4): 145-7.	11210111	551
Nepal	Manandhar, 1996-1997	Western region	Healthy males WESTERN region; "drawn from subjects mostly at Zonal hospitals and some at private pathology labs"; no selection described (100)	males	100	4.0%	0.16%	7.84%	1.97%	0.3%	Manandhar, K. and B. Shrestha (1998). "Prevalence of hepatitis B virus infection amongst healthy Nepalese males." <i>Trop Gastroenterol</i> 19(4): 145-7.	11210111	551
Nepal	Manandhar, 1996-1997	Mid Western region	Healthy males MIDWESTERN region; "drawn from subjects mostly at Zonal hospitals and some at private pathology labs"; no selection described (97)	males	97	4.1%	0.15%	8.05%	1.89%	0.2%	Manandhar, K. and B. Shrestha (1998). "Prevalence of hepatitis B virus infection amongst healthy Nepalese males." <i>Trop Gastroenterol</i> 19(4): 145-7.	11210111	551
Nepal	Manandhar, 1996-1997	Far Western region	Healthy males FAR WESTERN region; "drawn from subjects mostly at Zonal hospitals and some at private pathology labs"; no selection described (81)	males	81	6.2%	0.95%	11.45%	1.17%	0.1%	Manandhar, K. and B. Shrestha (1998). "Prevalence of hepatitis B virus infection amongst healthy Nepalese males." <i>Trop Gastroenterol</i> 19(4): 145-7.	11210111	551

Nepal	Poudel, 2001	Doti distric; western	Male adults in far western villages; 99 Nepalese migrant-returnees from India and 50 non-migrants were identified; no info on selection, eligibility (149)	males	149	10.7%	5.74%	15.66%	1.29%	0.1%	Poudel, K. C., M. Jimba, et al. (2006). "Emerging co-infection of HIV and hepatitis B virus in far western Nepal." Trop Doct 36(3): 186-7.	16884638	547
Nepal	Goh, 1993*	migrants from mid-hills area	Nepalese Gurkhas and families stationed in Singapore; men recruited from all major tribes of the mid-hills area in Nepal; Gurkhas and their families stationed in Singapore; every member of community encouraged to participate; females (384)	females	384	1.6%	0.34%	2.86%	6.54%	2.3%	Goh, K. T., K. H. Kong, et al. (1993). "Seroepidemiology of hepatitis A and hepatitis B virus infection in a Gurkha community in Singapore." J Med Virol 41(2): 146-9.	8283176	540
Nepal	Shrestha, 1984	Surkhet; western Nepal hills	General population of Surkhet; community- and hospital based; selected at random; included 76 students of Latikoeli Middle School, 36 inhabitants of Perseni village and 108 healthy adults who attended the Royal medical camp; female (91)	females	91	9.8%	3.69%	15.91%	0.90%	0.1%	Shrestha SM, (1987) Seroepidemiology of viral hepatitis in Surkhet, Nepal J Institute of Medicine (Nepal) 9:1-10	NPM	550
Nepal	Shrestha, 1984	parts of Nepal outside Surkhet	General population outside Surkhet; persons attending hospital for minor illness in parts of Nepal outside Surkhet; selected at random from different parts of Nepal; females (73)	females	73	8.2%	1.91%	14.49%	0.85%	0.1%	Shrestha SM, (1987) Seroepidemiology of viral hepatitis in Surkhet, Nepal J Institute of Medicine (Nepal) 9:1-10	NPM	550
Nepal	Sawayama, 1996	Bhadrakali (suburban) and Kotyang (rural) villages	Inhabitants of urban and rural Nepalese villages; no selection described; females (229)	females	229	1.7%	0.03%	3.37%	5.38%	1.3%	Sawayama, Y., J. Hayashi, et al. (1999). "A ten year serological survey of hepatitis A, B and C viruses infections in Nepal." J Epidemiol 9(5): 350-4.	10616269	544
Nepal	Mertens, 1985	Katmandu	Patients at four different hospitals; "representative of the Katmandu population wrt religious, ethnic, and socioeconomic groups" (460)	both	460	1.1%	0.15%	2.05%	7.41%	4.1%	Mertens, T., G. Tondorf, et al. (1989). "Epidemiology of HIV and hepatitis B virus (HBV) in selected African and Asian populations." Infection 17(1): 4-7.	2921088	545
Nepal	Sawayama, 1987	Bhadrakali and Kotyang villages	Inhabitants of urban and rural Nepalese villages; collected from inhabitants; no selection described (676)	both	676	0.3%	-0.11%	0.71%	8.68%	21.7%	Nakashima, K., S. Kashiwagi, et al. (1995). "Human T-lymphotropic virus type-I, and hepatitis A, B and C viruses in Nepal: a serological survey." J Trop Med Hyg 98(5): 347-50.	7563265	543
Nepal	Shrestha, 1990*	different parts of the country	Healthy individuals of different age groups from different parts of the country; no selection in abstract (2,555)	both	2,555	0.9%	0.53%	1.27%	8.76%	27.6%	Shrestha, S. M. (2009). "Liver cirrhosis and hepatocellular carcinoma in hepatic vena cava disease, a liver disease caused by obstruction of inferior vena cava." Hepatol Int 3(2): 392-402.	19669366	546
Nepal	Shrestha, 1997-1998	Baglung district	Healthy young people seeking employment abroad; residents of Baglung selected at random, no details; Surkhet (225)	both	177	5.1%	1.84%	8.32%	2.55%	0.4%	Shrestha B. (2003) Prevalence of hepatitis b carriers in Banlung district Nepal. J Med Assoc Nepal 42(3): 160-162	NPM	549
Nepal	Bhatta, 1998	Dharan	Hospital patients attending Koirala Institute of Health Sciences Dharan; no selection info (300)	both	300	5.0%	2.53%	7.47%	3.65%	0.6%	Bhatta CP (2000) Prevalence of hepatitis B in BPKIHS, Daran, Nepal. J Nepal Med Assoc 39(135):281-282	NPM	548
Nepal	Chiba, 2004*	Lukla (Solukhumbu district),	Apparently healthy Himalayan Sherpas; volunteers; residents regarded as Sherpas based on surnames; no eligibility or selection described (103)	both	103	1.9%	-0.74%	4.54%	3.36%	0.5%	Chiba, H., T. Takezaki, et al. (2004). "An epidemiological study of HBV, HCV and HTLV-I in Sherpas of Nepal." Asian Pac J Cancer Prev 5(4): 370-3.	15546239	539
				total studies	23	10,516			100.00%	100.00%			
				males	13								
				females	4								
				both	6								

* indicates publication year; survey year not reported

Table 20: Summary of Surveys Included in Meta-Analysis: Sri Lanka South Central Asia

Country	Study (survey year*)	Region	Population and sampling method	Sex	Sample (n)	HBsAg			RE weight (%)	FE weight (%)	Reference	Access No	Ref No.
						positive (%)	lower 95% CI	upper 95% CI					
Sri Lanka	Padmasiri, 1995*	Gampaha district	Padmasiri 1995*, community-based survey of Gampaha region; multistage cluster sampling method was used; cluster based on a Public Health Midwife area and consisting of 50 persons; participation rate >97%; males (987)	males	987	4.1%	2.82%	5.28%	48.52%	19.0%	Padmasiri, E., L. Rajapaksa, et al. (1995). "The prevalence of hepatitis B surface antigen in the Gampaha district." Ceylon Med J 40(1): 10-3.	7781086	588
Sri Lanka	Padmasiri, 1995*	Gampaha district	Padmasiri 1995*, community-based survey of Gampaha region; multistage cluster sampling method was used; cluster based on a Public Health Midwife area and consisting of 50 persons; participation rate >97%; females (926)	females	926	0.9%	0.27%	1.45%	51.48%	81.0%	Padmasiri, E., L. Rajapaksa, et al. (1995). "The prevalence of hepatitis B surface antigen in the Gampaha district." Ceylon Med J 40(1): 10-3.	7781086	588
				total studies	2	1,913				100.00%	100.00%		
				males	1								
				females	1								
				both	0								

* indicates publication year; survey year not reported

Table 21: Summary of Surveys Included in Meta-Analysis: Kazakhstan South Central Asia

Country	Study (survey year*)	Region	Population and sampling method	Sex	Sample (n)	HBsAg			RE weight (%)	FE weight (%)	Reference	Access No	Ref No.
						positive (%)	lower 95% CI	upper 95% CI					
Kazakhstan	Nurgalieva, 2007*	Almaty	Volunteers; ethnic Russians and Kazhaks, the two major ethnic groups in Kazakhstan; born in Kazakhstan with no hx hepatitis or liver disease; no selection described; males (134)	males	134	3.7%	0.50%	6.90%	24.7%	25.2%	Nurgalieva, Z. Z., F. B. Hollinger, et al. (2007). "Epidemiology and transmission of hepatitis B and C viruses in Kazakhstan." World J Gastroenterol 13(8): 1204-7.	17451200	590
Kazakhstan	Nurgalieva, 2007*	Almaty	Volunteers; ethnic Russians and Kazhaks; volunteers ethnic Russians and Kazhaks, the two major ethnic groups in Kazakhstan; born in Kazakhstan with no hx hepatitis or liver disease; no selection described; females (156)	females	156	3.8%	0.80%	6.80%	28.6%	28.6%	Nurgalieva, Z. Z., F. B. Hollinger, et al. (2007). "Epidemiology and transmission of hepatitis B and C viruses in Kazakhstan." World J Gastroenterol 13(8): 1204-7.	17451200	590
Kazakhstan	Viazov, 1983	Almaty	Healthy adult population of Almaty, Kazakhstan, selection in Russian (311)	both	311	6.1%	3.45%	8.77%	38.1%	36.4%	Viazov, S. O., A. A. Kompaniets, et al. (1985). "[Detection of HBsAg and anti-HBs in the healthy population of different cities in the USSR]." Vopr Virusol 30(2): 231-3.	4002694	589
Kazakhstan	Viazov, 1983	Almaty	Healthy children age 3-7 yrs in Almaty, Kazakhstan selection in Russian (97)	both	97	7.2%	2.07%	12.37%	8.7%	9.7%	Viazov, S. O., A. A. Kompaniets, et al. (1985). "[Detection of HBsAg and anti-HBs in the healthy population of different cities in the USSR]." Vopr Virusol 30(2): 231-3.	4002694	589
					total studies	4	698			100.00%	100.00%		
					males	1							
					females	1							
					both	2							

* indicates publication year; survey year not reported

NA = Not applicable, random effects tau-squared <0