World Health Organization

Vitamin and Mineral Nutrition Information System (VMNIS)

WHO Global Database on Anaemia

The database on Anaemia includes data by country on prevalence of anaemia and mean haemoglobin concentration

BRAZIL

Last Updated: 2007-11-22

Level	Date	Region and sample descriptor	Sex	Age (years)	Sample size	Haemoglobin (g/L)									Reference	Notes	
						Proportion (%) of population with haemoglobin below:						Mean	SD	Method		General	Line
						70	100	110	115	120	130						
L	2003 P	São Paulo: Adolescents: Total	B	10.00- 14.99	130					7.7				B	4580	*	
		São Paulo: Adolescents by sex	F	10.00- 14.99	53							133	8				
		São Paulo: Adolescents by sex	M	10.00- 14.99	77							133	11				
L	2001 P	São Paulo: Children	B	0.83- 4.07	93			33.3						D	3558	*	
L	2001 P	São Paulo: Children	B	1.00- 6.07	89			28.0				115		D	3559	*	
L	2001	São Paulo: Adolescents: Total	B	NS	118					11.0				B	4531	*	
		São Paulo: Adolescents by sex	F	NS	79							132	11				1
		São Paulo: Adolescents by sex	M	NS	39							133	12				2
L	2001	Viçosa: Children	B	0.50- 6.07	171			63.2				104	17	B	4543	*	
L	2000	Vitória: Children: Total	B	0.50- 6.99	760									B	3709	*	3
		Vitória: Children: By age	B	0.50- 4.99	440			29.8									
		Vitória: Children: By age	B	5.00- 6.99	320				26.5								
L	2000	Maceió: SAC	B	6.00- 10.99	426	0.0			9.9					C	604	*	
L	1999	Jundiai: PW	F	NS	99			22.3				118	13	B	2709	*	4
		Jundiai: Newborns	B	0.00	95							148	15				
L	1999	Pontal: Pre-SAC	B	1.00- 6.07	115									C	3560	*	5
L	1999	Caruaru: Children: Total	B	0.50- 1.99	293			77.5				101	10	A	3862	*	6
		Caruaru: Children by sex	F	0.50- 1.99	152							101	10				
		Caruaru: Children by sex	M	0.50- 1.99	141							102	10				
		Caruaru: Children by area: Urban	B	0.50- 1.99	107							102	9				
		Caruaru: Children by area: Rural	B	0.50- 1.99	106							101	10				
L	1999	Zona da Mata Meridional: Children: Total	B	1.00- 1.07	245	4.9		73.5				98	16	B	4615	*	
		Zona da Mata Meridional: Children by sex	F	1.00- 1.07	124							99	16				
		Zona da Mata Meridional: Children by sex	M	1.00- 1.07	121							96	16				
L	1998 -2000	12 cities: Infants: Total	B	0.01- 0.99	5973			56.8				105	19	B	759	*	

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						Proportion (%) of population with haemoglobin below:						Mean	SD	Method		General	Line
						70	100	110	115	120	130						
L	1998 -2000	Infants by sex	F	0.01- 0.99	2904			55.2				105	19	B	759		
		Infants by sex	M	0.01- 0.99	3069			58.3				140	20				
		Infants by age	B	0.01- 0.07	356							137	27				
		Infants by age	B	0.08- 0.16	602							110	20				
		Infants by age	B	0.17- 0.24	608							103	17				
		Infants by age	B	0.25- 0.32	598							104	15				
		Infants by age	B	0.33- 0.41	658							104	16				
		Infants by age	B	0.42- 0.49	538							104	16				
		Infants by age	B	0.50- 0.57	563							101	16				
		Infants by age	B	0.58- 0.66	433							101	16				
		Infants by age	B	0.67- 0.74	471							99	16				
		Infants by age	B	0.75- 0.82	460							99	17				
		Infants by age	B	0.83- 0.91	360							99	16				
		Infants by age	B	0.92- 0.99	326							99	16				
		Infants by city: Manaus	B	0.01- 0.99	583			58.0				103	20				
		Infants by city: Rio Branco	B	0.01- 0.99	342			50.3				105	17				
		Infants by city: Teresina	B	0.01- 0.99	378			56.9				104	18				
		Infants by city: Salvador	B	0.01- 0.99	297			62.3				103	21				
		Infants by city: Rio de Janeiro	B	0.01- 0.99	498			57.8				109	25				
		Infants by city: Viçosa	B	0.01- 0.99	365			57.5				104	20				
		Infants by city: São Paulo	B	0.01- 0.99	155			44.5				107	20				
		Infants by city: Santo André	B	0.01- 0.99	1341			60.3				104	21				
		Infants by city: Maringá	B	0.01- 0.99	585			68.2				99	14				
		Infants by city: Porto Alegre	B	0.01- 0.99	433			52.2				104	19				
		Infants by city: Cuiabá	B	0.01- 0.99	385			59.2				102	15				
		Infants by city: Brasília	B	0.01- 0.99	611			41.6				111	17				
L	1998 -1999	Londrina: Children	B	7.00- 14.99	467					41.9				B	3735	*	
L	1998 -1999	Viçosa: Infants: Total	B	0.50- 1.07	204			60.8						B	4692	*	
		Viçosa: Infants by sex	F	0.50- 1.07	98			56.1									
		Viçosa: Infants by sex	M	0.50- 1.07	106			65.1									
L	1998 -1999	Salvador: Infants: Total	B	0.00- 0.99	553			62.8				107	20	B	646	*	
		Salvador: Infants by sex	F	0.00- 0.99	276							109					
		Salvador: Infants by sex	M	0.00- 0.99	277							105					

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						Proportion (%) of population with haemoglobin below:						Mean	SD	Method		General	Line
						70	100	110	115	120	130						
L	1998 -1999	Salvador: Infants by age	B	0.00- 0.49	374			58.0				109		B	646		
		Salvador: Infants by age	B	0.50- 0.99	179			72.6				101					
L	1998	Aracaju: SAC	B	4.00- 24.99	354							129	13	B	611	*	7
S	1998	Sergipe State: Pre-SAC: Total	B	0.50- 4.99	720			31.4				115	15	B	614		8
		Sergipe State: Pre-SAC by sex	F	0.50- 4.99	NS			32.3									
		Sergipe State: Pre-SAC by sex	M	0.50- 4.99	NS			30.5									
		Sergipe State: Pre-SAC by age	B	0.50- 1.99	274			55.1				107	15				9
		Sergipe State: Pre-SAC by age	B	2.00- 4.99	446			16.8				120	13				10
L	1998 P	Matriz da Luz: Children: Total	B	4.00- 18.99	299									D	616	*	11
		Matriz da Luz: Children by sex	F	4.00- 18.99	146												12
		Matriz da Luz: Children by sex	M	4.00- 18.99	153												13
L	1997 -1998	Goiânia: Infants	B	0.50- 1.07	110			60.9						D	4824	*	14
S	1997	Pernambuco State: Pre-SAC: Total	B	0.50- 4.99	777			40.9				109	16	B	2843	*	15
		Pre-SAC by sex	F	0.50- 4.99	382			47.6				109	15				
		Pre-SAC by sex	M	0.50- 4.99	395			45.8				110	16				
		Pre-SAC by age	B	0.50- 0.99	135			67.3				101	14				
		Pre-SAC by age	B	1.00- 1.99	241			58.8				105	15				
		Pre-SAC by age	B	2.00- 2.99	148			38.8				110	15				
		Pre-SAC by age	B	3.00- 3.99	135			22.9				117	14				
		Pre-SAC by age	B	4.00- 4.99	118			25.8				117	13				
		Pre-SAC by region: Recife metropolitan	B	0.50- 4.99	278	1.1		39.6				110	16				
		Pre-SAC by region: Urban interior	B	0.50- 4.99	246	0.0		35.9				112	14				
		Pre-SAC by region: Rural interior	B	0.50- 4.99	253	1.3		51.4				106	16				
L	1997	Porto Alegre: Children: Total	B	0.00- 2.99	557			47.8						B	3241	*	
		Porto Alegre: Children by sex	F	0.00- 1.74	92			46.7									
		Porto Alegre: Children by sex	M	1.75- 2.99	465			48.0									
		Porto Alegre: Children by age	B	0.00- 2.99	246			45.1									
		Porto Alegre: Children by age	B	0.00- 2.99	311			49.8									
L	1997	Cuiabá: Pre-SAC: Total	B	0.17- 2.99	271			63.1						NS	4823	*	16

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						Proportion (%) of population with haemoglobin below:						Mean	SD	Method		General	Line
						70	100	110	115	120	130						
L	1997	Cuiabá: Pre-SAC by sex	F	0.17- 2.99	128			61.7						NS	4823		
		Cuiabá: Pre-SAC by sex	M	0.17- 2.99	143			64.3									
L	1997 P	São Paulo: Infants: Total	B	0.00- 1.07	317			14.5						A	4917	*	17
		São Paulo: Infants by age	B	0.00- 0.5	184			8.7									
		São Paulo: Infants by age	B	0.51- 1.07	133			22.6									
S	1997	Pernambuco State: NPW: Total	F	10.00- 49.99	1196					24.5		130	16	B	619	*	
		NPW by region: Recife metropolitan	F	10.00- 49.99	742					25.5		130	17				
		NPW by region: Urban interior	F	10.00- 49.99	246					19.9		132	16				
		NPW by region: Rural interior	F	10.00- 49.99	208					26.4		127	15				
L	1996	Criciúma: Children	B	0.50- 2.99	385			54.0						D	2879	*	18
L	1996	Santos: SAC: Total	B	7.00- 16.99	697					22.5		128	13	B	3710	*	
		Santos: SAC by sex	F	7.00- 16.99	331					26.6							
		Santos: SAC by sex	M	7.00- 16.99	366					18.8							
		Santos: SAC by age	B	7.00- 8.99	396					30.8		125	11				
		Santos: SAC by age	B	11.00- 12.99	207					13.5		131	12				
		Santos: SAC by age	B	14.00- 16.99	94					7.5		138	14				
L	1996	Recife: PW: Total	F	13.00- 41.99	515			42.2				114	19	D	4697	*	
		Recife: PW by age	F	13.00- 23.99	301			38.5									
		Recife: PW by age	F	24.00- 41.99	214			47.6									
L	1996	Salvador: Pre-SAC	B	0.00- 4.99	606			59.9						B	623		19
L	1996 P	Angatuba: Children	B	0.50- 3.57	269			62.3						B	822	*	20
L	1995 -1996	São Paulo: Children: Total	B	0.00- 4.99	1255			46.9				110	17	B	3649		
		São Paulo: Children by sex	F	0.00- 4.99	599			41.4				112	16				
		São Paulo: Children by sex	M	0.00- 4.99	656			51.9				109	17				
		São Paulo: Children by age	B	0.00- 0.57	123			33.7				117	19				
		São Paulo: Children by age	B	0.58- 0.99	147			71.8				102	17				
		São Paulo: Children by age	B	1.00- 1.99	273			65.3				103	17				
		São Paulo: Children by age	B	2.00- 2.99	244			48.3				109	17				

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						Proportion (%) of population with haemoglobin below:						Mean	SD	Method		General	Line
						70	100	110	115	120	130						
L	1995 -1996	São Paulo: Children by age	B	3.00- 3.99	227			37.7				113	15	B	3649		
		São Paulo: Children by age	B	4.00- 4.99	241			26.0				117	13				
L	1995 P	São Paulo and Ibiúna: Children	B	0.42- 2.07	335			70.7						A	788	*	
		São Paulo: Children	B	0.42- 2.07	107			66.4				103	14				21
		Ibiúna: Children	B	0.42- 1.49	228			72.8				105	9				22
L	1994 P	São Paulo: Children: Total	B	0.33- 3.07	620			38.4						A	2373	*	
		São Paulo: Children by age	B	0.33- 0.49	76			25.0									
		São Paulo: Children by age	B	0.50- 0.74	97			30.9									
		São Paulo: Children by age	B	0.75- 0.99	101			49.5									
		São Paulo: Children by age	B	1.00- 1.99	228			50.4									
		São Paulo: Children by age	B	2.00- 3.07	118			20.3									
L	1993	Sao Paulo: PW	F	13.00- 19.99	155			14.2						A	2372	*	
S	1993	Sao Paulo State: Children: Total	B	0.50- 1.99	2992			59.1						A	2375	*	
		Sao Paulo State: Children by sex	F	0.50- 1.99	NS			55.2									
		Sao Paulo State: Children by sex	M	0.50- 1.99	NS			63.1									
		Children by region: Grande Sao Paulo	B	0.50- 1.99	536			47.8									
		Sao Paulo State: Children by region: Northwest	B	0.50- 1.99	591			58.1									
		Sao Paulo State: Children by region: North	B	0.50- 1.99	629			63.8									
		Sao Paulo State: Children by region: East	B	0.50- 1.99	603			68.7									
		Sao Paulo State: Children by region: Southwest	B	0.50- 1.99	633			56.4									
L	1993	Rio de Janeiro: Children	B	1.00- 1.57	288			50.0						A	2707	*	23
L	1992	Recife: PW at delivery	F	NS	1007			30.9				101	9	A	630	*	24
S	1992	Paraíba: Pre-SAC: Total	B	0.50- 4.99	1287	1.0		36.4						A	647	*	
		Paraíba: Pre-SAC by sex	F	0.50- 4.99	662			32.2				117	16				
		Paraíba: Pre-SAC by sex	M	0.50- 4.99	625			40.8				113	18				
		Paraíba: Pre-SAC by region: Mata	B	0.50- 4.99	377			33.2				116	18				
		Paraíba: Pre-SAC by region: Agreste	B	0.50- 4.99	370			45.4				112	17				
		Paraíba: Pre-SAC by region: Sertão	B	0.50- 4.99	540			32.6				116	17				

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L	1991 -1992	Rio Acima: SAC	B	7.00- 15.99	332							128	8	B	1566	*	
L	1991 -1992	Campinas: Women: Total	F	NS	712			47.0						A	4582	*	
		Campinas: Newborns: Total	B	0.00	712												25
		Campinas: Women by birthweight of newborns: IUG	F	NS	356			43.2									
		Campinas: Women by birthweight of newborns: AB	F	NS	356			50.8									
		Campinas: Newborns by birthweight of newborns: IU	B	0.00	356												26
		Campinas: Newborns by birthweight of newborns: A	B	0.00	356												27
L	1991	Urupá: All	B	NS	130									A	1896	*	28
L	1991 P	Recife: Pre-SAC: Total	B	0.50- 5.99	1161			54.5				106	20	A	2376	*	
		Recife: Pre-SAC by age	B	0.50- 0.99	132			84.8				95	17				
		Recife: Pre-SAC by age	B	1.00- 1.99	327			82.0				95	16				
		Recife: Pre-SAC by age	B	2.00- 2.99	232			54.7				105	19				
		Recife: Pre-SAC by age	B	3.00- 3.99	189			31.7				114	17				
		Recife: Pre-SAC by age	B	4.00- 4.99	155			28.4				116	18				
		Recife: Pre-SAC by age	B	5.00- 5.99	126			17.5				121	18				
L	1991	Osasco: SAC: Total	B	6.00- 10.99	1033			19.2		51.0		118	13	A	3711	*	
		Osasco: SAC by sex	F	6.00- 10.99	512					51.2							
		Osasco: SAC by sex	M	6.00- 10.99	521					50.9							
		Osasco: SAC by age	B	6.00- 8.99	887					49.4							
		Osasco: SAC by age	B	9.00- 10.99	146					60.1							
L	1991 P	São Paulo: PW	F	NS	684			27.6						NS	4985	*	29
S	1991	Piauí State: Women: Total	F	NS	809									A	680	*	30
		Piauí State: Pre-SAC: Total	B	2.00- 5.99	742			33.8									
		Piauí State: Women by area: Teresina	F	NS	NS												31
		Piauí State: Women by area: Interior	F	NS	NS												32
		Piauí State: Pre-SAC by area: Teresina	B	2.00- 5.99	NS			13.4									
		Piauí State: Pre-SAC by area: Interior	B	2.00- 5.99	NS			40.9									
		Piauí State: Pre-SAC by sex	F	2.00- 5.99	NS			30.8									
		Piauí State: Pre-SAC by sex	M	2.00- 5.99	NS			37.2									

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L	1990	Candeias do Jamari: All	B	NS	1068									A	3708	*	33
		Candeias do Jamari: By age	B	NS- 0.49	7			85.7									
		Candeias do Jamari: By age	B	0.50- 1.99	20			70.0									
		Candeias do Jamari: By age	B	2.00- 5.99	279			38.4									
		Candeias do Jamari: By age	B	6.00- 14.99	288					30.9							
		Candeias do Jamari: By age	B	15.00-NS	474												34
L	1989 -1990	Recife: PW antenatal visit: Total	F	13.00- 44.99	710	0.0		30.3				114	12	D	2712	*	35
		Recife: PW at delivery	F	14.00- 42.99	386	0.8		38.3				113	17				36
		Recife: Newborns	B	0.00	267							151	21				
		Recife: PW by gestational age: 1st trimester	F	13.00- 44.99	122			17.2									37
		Recife: PW by gestational age: 2nd trimester	F	13.00- 44.99	437			29.1									38
		Recife: PW by gestational age: 3rd trimester	F	13.00- 44.99	149			44.3									39
L	1989 -1990	Santo André: Infants	B	0.92- 1.07	201			44.3						A	4820	*	
L	1989	Bahia region: Pre-SAC: Total	B	0.08- 6.07	745			22.2				121	17	A	1478	*	
		Bahia region: Pre-SAC by age	B	0.08- 0.99	77			29.9				116	18				
		Bahia region: Pre-SAC by age	B	1.00- 1.99	128			50.0				111	18				
		Bahia region: Pre-SAC by age	B	2.00- 2.99	123							121	18				
		Bahia region: Pre-SAC by age	B	3.00- 3.99	138							124	14				
		Bahia region: Pre-SAC by age	B	4.00- 4.99	169							126	15				
		Bahia region: Pre-SAC by age	B	5.00- 6.99	110							126	15				
L	1988	São Paulo: PW: Total	F	14.00- 46.99	363			12.4						A	2374	*	
		São Paulo: PW by gestational age: 1st trimester	F	14.00- 46.99	196			3.6									
		São Paulo: PW by gestational age: 2nd trimester	F	14.00- 46.99	139			20.9									
		São Paulo: PW by gestational age: 3rd trimester	F	14.00- 46.99	28			32.1									
L	1986 P	Jequitinhonha valley urban: Pre-SAC	B	NS	67									A	2379	*	40
		Jequitinhonha valley urban: SAC	B	NS	90												41
		Jequitinhonha valley rural: Pre-SAC	B	NS	52												42
		Jequitinhonha valley rural: SAC	B	NS	55												43
L	1984 -1985	São Paulo: Children: Total	B	0.00- 4.99	912			35.6						A	815	*	44
		São Paulo: Children by age	B	0.00- 0.49	75			34.7									45

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						Proportion (%) of population with haemoglobin below:						Mean	SD	Method		General	Line
						70	100	110	115	120	130						
L	1984 -1985	São Paulo: Children by age	B	0.50- 0.99	82			53.7						A	815		46
		São Paulo: Children by age	B	1.00- 1.99	186			58.1									47
		São Paulo: Children by age	B	2.00- 2.99	206			32.0									48
		São Paulo: Children by age	B	3.00- 3.99	199			26.1									49
		São Paulo: Children by age	B	4.00- 4.99	164			17.7									50
L	1983 -NS	Belo Horizonte: Pre-SAC	B	NS	130									A	3687	*	51
		Belo Horizonte: Pre-SAC	B	NS	120												52
		Turmalina: Children by area: Urban	B	4.00- 14.99	107												53
		Turmalina: Children by area: Rural	B	4.00- 14.99	105												54
L	1983	Varjão: Children	B	0.00- 5.99	121	0.0		16.5						A	4236	*	
L	1982	Recife: Children: Total	B	0.50- 5.07	1306			42.0						A	4991	*	
		Recife: Children by age	B	0.50- 0.99	258			58.5									55
		Recife: Children by age	B	1.00- 1.99	344			66.0									56
		Recife: Children by age	B	2.00- 2.99	263			37.3									57
		Recife: Children by age	B	3.00- 3.99	228			18.9									58
		Recife: Children by age	B	4.00- 5.07	213			13.6									59
		Recife: Children by health centre: Posto de Assistên	B	0.50- 5.07	642			28.3				121	20				60
		Recife: Children by health centre: Centro de Saúde	B	0.50- 5.07	664			55.1				105	19				61
L	1978 P	São Paulo: Children	B	0.50- 5.99	278			22.7						A	2380		62
L	1977 -1981	São Paulo State: PW: Total	F	NS	4539			35.1				116	15	A	2382	*	63
		São Paulo State: PW by gestational age: 1 month	F	NS	122			27.0				121	16				
		São Paulo State: PW by gestational age: 2 months	F	NS	656			28.0				120	16				
		São Paulo State: PW by gestational age: 3 months	F	NS	773			29.0				119	14				
		São Paulo State: PW by gestational age: 4 months	F	NS	848			37.0				115	14				
		São Paulo State: PW by gestational age: 5 months	F	NS	681			45.0				113	14				
		São Paulo State: PW by gestational age: 6 months	F	NS	520			45.0				112	13				
		São Paulo State: PW by gestational age: 7 months	F	NS	378			46.0				112	14				
		São Paulo State: PW by gestation age: 8 months	F	NS	187			50.0				110	15				
		São Paulo State: PW by gestational age: 9 months	F	NS	43			44.0				113	16				
L	1974 P	São Paulo: PW	F	NS	261					52.3		126	17	A	2384	*	

World Health Organization

Vitamin and Mineral Nutrition Information System (VMNIS)

WHO Global Database on Anaemia

The database on Anaemia includes data by country on prevalence of anaemia and mean haemoglobin concentration

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Last Updated: 2007-11-22

Level	Date	Region and sample descriptor	Sex	Age (years)	Sample size	Haemoglobin (g/L)									Reference	Notes	
						Proportion (%) of population with haemoglobin below:						Mean	SD	Method		General	Line
						70	100	110	115	120	130						
L	1974 P	São Paulo: Newborns	B	0.00	184							151	20	A	2384		64
L	1973 -1974	São Paulo: Children	B	0.50- 5.99	272			23.2						A	2482		65
L	1969 -1970	Iguape: All	B	NS	256					50.0				NS	2385	*	
		Pontal do Ribeira: All	B	NS	86					82.0							
		Icapara: All	B	NS	118					89.0							
		Apial: All	B	NS	68					8.0							
		Ribeira: All	B	NS	70					19.0							
		Barra do Chapéu: All	B	NS	41					0.0							

NOTES

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Reference No: 4580
General Notes: *Facility based survey (Youth center); low socioeconomic status.*

Reference No: 3558
General Notes: *Facility based study (public day care center); baseline values of intervention study; method: Cell-Dyn 3000; exclusion of children with Hb <90 g/L.*

Reference No: 3559
General Notes: *Facility based study (two day nurseries); baseline values of intervention study; low socioeconomic status; method: Cell-Dyn 3000; exclusion of three children with Hb <90 g/L.*

Reference No: 4531
General Notes: *Facility based study (private school); Hb cut-off level not according to WHO recommendations (please see 'Key to the data tables').*
Line note 1 Mean age 12.2 yrs.
Line note 2 Mean age 12.0 yrs.

Reference No: 4543
General Notes: *Facility based study (health centers) in 5 areas of Viçosa; disaggregated data by age; values for other Hb cut-off levels.*

Reference No: 3709
General Notes: *Facility based study (42 child centers).*
Line note 3 Prevalence of anaemia 28.6% (Hb <110 g/L 0.5-4 yrs, Hb <115 g/L 5-6 yrs).

Reference No: 604
General Notes: *Facility based study (schools).*

Reference No: 2709
General Notes: *Facility based study (2 hospitals) in Jundiaí municipality, São Paulo State; Hb determination for PW at delivery and their newborns 48 to 72 hours after delivery; exclusion of women with haemoglobinpathies and complications during pregnancy and delivery.*
Line note 4 Mean age 24 yrs.

Reference No: 3560
General Notes: *Facility based study (2 public day-care institutions); inclusion only of subjects of low socioeconomic status; same study as reference No. 4902.*
Line note 5 Prevalence of anaemia 68.7% (Hb <110 g/L 1-4 yrs, Hb <115 g/L 5 yrs).

Reference No: 3862
General Notes: *Baseline values of intervention study.*
Line note 6 Disaggregated data by age.

Reference No: 4615

General Notes: *Survey in 4 Municipalities (Palmares, Catenda, Agua Preta, Joaquim Nabuco) in Zona da Mata Meridional of Pernambuco.*

Reference No: 759

General Notes: *Facility based study (public health services) in 12 cities of the five Brazilian regions: North: Manaus, Rio Branco; Northeast: Teresina, Salvador; Southeast: Rio de Janeiro, Viçosa, São Paulo, Santo André; South: Maringá, Porto Alegre; Center: Cuiabá, Brasília; additional information (date, disaggregations by sex, age and city) provided by principal investigators.*

Reference No: 3735

General Notes: *Facility based study (9 public educational centers); date of survey from reference No. 4915; baseline values of intervention study; low socioeconomic status.*

Reference No: 4692

General Notes: *Facility based study (health centers) in different areas of Viçosa; values for other Hb cut-off levels.*

Reference No: 646

General Notes: *Facility based study (3 public health care facilities) in Salvador, Bahia State; inclusion only of children attending health care facilities for growth control and/or vaccination.*

Reference No: 611

General Notes: *Facility based study (public schools).*

Line note 7 Prevalence of anaemia 26.7% (Hb <110 g/L both sexes <6 yrs, Hb <120 g/L females >6 yrs, males 6-14 yrs, Hb <130 g/L males >14 yrs).

Reference No: 614

Line note 8 Prevalence of anaemia 9.6% (Hb <95 g/L).

Line note 9 Prevalence of anaemia 19.3% (Hb <95 g/L).

Line note 10 Prevalence of anaemia 3.6% (Hb <95 g/L).

Reference No: 616

General Notes: *Disaggregated data by age; method: CELL-DYN 3000 CS.*

Line note 11 Prevalence of anaemia 43.1% (Hb <110 g/L both sexes 4-5 yrs, Hb <120 g/L boys 6-14 yrs, females 6-18 yrs, Hb <130 g/L males 15-18 yrs).

Line note 12 Prevalence of anaemia 34.6% (Hb <110 g/L both sexes 4-5 yrs, Hb <120 g/L boys 6-14 yrs, females 6-18 yrs, Hb <130 g/L males 15-18 yrs).

Line note 13 Prevalence of anaemia 52.1% (Hb <110 g/L both sexes 4-5 yrs, Hb <120 g/L boys 6-14 yrs, females 6-18 yrs, Hb <130 g/L males 15-18 yrs).

Reference No: 4824

General Notes: *Facility based study (Public Health Unit); method: Cell-Dyn 3000 SL analyzer; sampling: design not explained; exclusion of 10 infants with diarrhoea out of the 120 enrolled; inclusion only of infants aged 6-12 months who were born at term.*

Line note 14 Disaggregated data by age; 54 boys+56 girls.

Reference No: 2843

General Notes: *Sampling: multi-stage cluster sampling; sample representative of the state of Pernambuco and its 3 geographic areas: the metropolitan region of Recife, the urban interior and the rural interior; same survey reported in reference No. 619.*

Line note 15 Weighted prevalence according to population distribution.

Reference No: 3241
General Notes: *Facility based study (public day care centers).*

Reference No: 4823
General Notes: *Facility based study (eight city day-care centers, two full-time child care centers and a philanthropic day care center); sampling: all children aged <3 yrs enrolled in one of the centers were included; value for other Hb cut-off level.*
Line note 16 Disaggregated data by age, anthropometric indicators, day-care center attendance.

Reference No: 4917
General Notes: *Facility based study (4 school health centers); sampling: design not explained; inclusion only of infants who were registered at one of the centers and had set an appointment during the study period.*
Line note 17 Disaggregated data by duration of breastfeeding.

Reference No: 619
General Notes: *Sampling: multi-stage cluster sampling; state of Pernambuco.*

Reference No: 2879
General Notes: *Method: Haemoglobin meter BMS.*
Line note 18 Disaggregated data by age.

Reference No: 3710
General Notes: *Facility based study (public schools); Hb cut-off level 15-16 yrs not according to WHO recommendations (please see 'Key to the data tables').*

Reference No: 4697
General Notes: *Facility based study (Maternity hospital); PW at delivery; data only from women giving singleton, live birth; method: CELL-DYN.*

Reference No: 623
Line note 19 Prevalence of anaemia 13.4% (Hb <95 g/L).

Reference No: 822
General Notes: *Facility based study (children participating in supplementation programme); baseline values of intervention study.*
Line note 20 Prevalence of anaemia 24.7% (Hb <95 g/L); disaggregated data by age.

Reference No: 788
General Notes: *Facility based study (day care centers in 3 municipalities of São Paulo, basic health care units in Ibiúna, 70km from São Paulo); baseline values of intervention study.*
Line note 21 Prevalence of anaemia 29.0% (Hb <95 g/L).
Line note 22 Prevalence of anaemia 8.8% (Hb <95 g/L).

Reference No: 2373
General Notes: *Facility based study (basic health care units Santa Cecília and health units in Pari) in São Paulo; baseline values of intervention study.*

Reference No: 2372
General Notes: *Facility based study (hospital).*

Reference No: 2375
General Notes: *Facility based study (health care units).*

Reference No: 2707
General Notes: *Facility based study (outpatient paediatric clinic); exclusion of children with haemoglobinpathies, haemolytic or megaloblastic anaemia, chronic diseases, receiving blood transfusion in previous three months.*
Line note 23 13.2% Hb <95 g/L.

Reference No: 630
General Notes: *Facility based study (Mother and child health institute Pernambuco); 95% of women from Recife metropolitan area.*
Line note 24 2.6% Hb <90 g/L.

Reference No: 647
General Notes: *Survey in 8 urban municipalities of 3 mid-regions of Paraíba State; sampling: multistage random sampling.*

Reference No: 1566
General Notes: *Facility based study (schools); Rio Acima is a poor municipality in the metropolitan area of Belo Horizonte; Hb cut-off level defined through haemoglobin distribution curves.*

Reference No: 4582
General Notes: *Facility based study (4 hospitals); mother and newborn pairs; newborns with intrauterine growth retardation (IUGR) and appropriate birth weight (ABW) for gestational age; Hb determination women within 12-72 hours after delivery; Hb cut-off level not according to WHO recommendations (please see 'Key to the data tables').*
Line note 25 Prevalence of anaemia 15.0% (Hb <140 g/L).

Line note 26 Prevalence of anaemia 14.6% (Hb <140 g/L).
Line note 27 Prevalence of anaemia 15.4% (Hb <140 g/L).

Reference No: 1896
General Notes: *Baseline values of 3 consecutive survey; rural community in malaria endemic area of Rodonia State.*
Line note 28 Prevalence of anaemia 10.0% (Hb <110 g/L both sexes <6 yrs, PW, Hb <120 g/L both sexes 6-14 yrs, NPW, Hb <130 g/L males >14 yrs).

Reference No: 2376
General Notes: *Facility based study (health center).*

Reference No: 3711
General Notes: *Facility based study (public schools).*

Reference No: 4985

General Notes: *Facility based study (Hospital Maternidade "Leonor Mendes de Barros"); sampling: design not explained, 691 subjects were enrolled; inclusion only of pregnancies resulting in live births; exclusion of twin pregnancies; Hb determination before delivery.*

Line note 29 Disaggregated data by nutritional status, iron supplements use, prenatal visits.

Reference No: 680

General Notes: *Women are mothers of children surveyed.*

Line note 30 Prevalence of anaemia 26.2% (Hb <110 g/L PW, Hb <120 g/L NPW).

Line note 31 Prevalence of anaemia 5.0% (Hb <110 g/L PW, Hb <120 g/L NPW).

Line note 32 Prevalence of anaemia 34.0% (Hb <110 g/L PW, Hb <120 g/L NPW).

Reference No: 3708

General Notes: *Household survey in periurban malaria endemic area.*

Line note 33 Prevalence of anaemia 28.8% (Hb <110 g/L both sexes <6 yrs, PW, Hb <120 g/L male 6-14 yrs, NPW, Hb <130 g/L male >14 yrs).

Line note 34 Prevalence of anaemia 18.8% (Hb <110 g/L PW, Hb <120 g/L NPW, Hb <130 g/L male).

Reference No: 2712

General Notes: *Facility based study (Instituto Materno Infantil Pernambuco); three study groups: PW at first antenatal visit, PW at delivery, newborns of PW at delivery (Hb determination only for subsample); low socioeconomic status; method: Cell counter CELLM.*

Line note 35 Disaggregated data by age.

Line note 36 Disaggregated data by age.

Line note 37 Hb determination at antenatal visit.

Line note 38 Hb determination at antenatal visit.

Line note 39 Hb determination at antenatal visit.

Reference No: 4820

General Notes: *Facility based study (3 health centers) of Santo André in São Paulo State, those centers are attended by 90% of the infants population aged <12 months; sampling: a control group of 201 children of 1 yr old were selected, the intervention group (daily iron) consisted of 308 children aged <3 months; Hb determination when the children were 12 months old, therefore only the results of the control group are presented.*

Reference No: 1478

General Notes: *Survey in urban areas of 7 small towns of the semi-arid region of Bahia; Cansanção, Santa Luz, Queimadas, Valente, Conceição de Coité, Retirolândia, Serrinha.*

Reference No: 2374

General Notes: *Facility based study (health centers); Hb determination at first antenatal visit; adjustment for altitude.*

Reference No: 2379

General Notes: *Survey in 3 municipalities of Jequitinhonha valley: Turmalina, Minas Novas, Capelinha; Hb determination for subsample only; Hb cut-off level not according to WHO recommendations (might be due to correction for altitude), (please see 'Key to the data tables').*

Line note 40 Prevalence of anaemia 23.9% (Hb <113 g/L).

Line note 41 Prevalence of anaemia 20.0% (Hb <113 g/L).
Line note 42 Prevalence of anaemia 34.6% (Hb <113 g/L).
Line note 43 Prevalence of anaemia 18.2% (Hb <113 g/L).

Reference No: 815
General Notes: *Methodology described in reference No. 3666.*
Line note 44 Prevalence of anaemia 14.7% (Hb <95 g/L).
Line note 45 Prevalence of anaemia 16.0% (Hb <95 g/L).
Line note 46 Prevalence of anaemia 26.9% (Hb <95 g/L).
Line note 47 Prevalence of anaemia 28.0% (Hb <95 g/L).
Line note 48 Prevalence of anaemia 11.6% (Hb <95 g/L).
Line note 49 Prevalence of anaemia 6.5% (Hb <95 g/L).
Line note 50 Prevalence of anaemia 6.7% (Hb <95 g/L).

Reference No: 3687
General Notes: *Baseline values of intervention study; study in areas with low socioeconomic status in Minas Gerais: Belo Horizonte and Turmalina (Jequitinhonha Valley); Hb cut-off level not according to WHO recommendations (please see 'Key to the data tables').*
Line note 51 Prevalence of anaemia 21.5% (Hb <113 g/L).
Line note 52 Prevalence of anaemia 17.5% (Hb <113 g/L).
Line note 53 Prevalence of anaemia 26.2% (Hb <113 g/L).
Line note 54 Prevalence of anaemia 15.2% (Hb <113 g/L).

Reference No: 4236
General Notes: *Cohort study in a slum area of Brasilia.*

Reference No: 4991
General Notes: *Facility based study (2 health centers: Centro de Saúde Lessa de Andrade, Posto de Assistência Médica-Areias); sampling: random selection of 1306 subjects.*
Line note 55 Disaggregated data by health centre.
Line note 56 Disaggregated data by health centre.
Line note 57 Disaggregated data by health centre.
Line note 58 Disaggregated data by health centre.
Line note 59 Disaggregated data by health centre.
Line note 60 Disaggregated data by nutritional status, household income.
Line note 61 Disaggregated data by nutritional status, household income.

Reference No: 2380
Line note 62 Disaggregated data by age.

Reference No: 2382
General Notes: *Facility based study (15 health centers).*
Line note 63 Mean Hb value based on 4208 subjects.

Reference No: 2384

General Notes: *Facility based study (maternity hospital); Hb determination PW at delivery; Hb cut-off level PW not according to WHO recommendations (please see 'Key to the data tables').*

Line note 64 Prevalence of anaemia 21.0% (Hb <135 g/L).

Reference No: 2482

Line note 65 Disaggregated data by age.

Reference No: 2385

General Notes: *Survey in 6 municipalities of Vale do Ribeira, southern area of São Paulo State; Hb cut-off level not according to WHO recommendations (same for all age and sex groups), (please see 'Key to the data tables').*

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