

KENYA
Last Updated: 2008-01-30

Level	Date	Region and sample descriptor	Sex	Age (years)	Sample size	Haemoglobin (g/L)						Mean	SD	Method	Reference	Notes			
						Proportion (%) of population with haemoglobin below:										General	Line		
						70	100	110	115	120	130								
L	2003 P	Bondo District: SAC: Total	B	9.00- 18.99	746							124		C	3860	*	1		
		Bondo District: SAC by sex	F	9.00- 18.99	387														2
		Bondo District: SAC by sex	M	9.00- 18.99	359														3
D	2002	Kisii District: All: Total	B	0.00-NS	1314				13.8					B	4742	*	4		
		Kisii District: All by area: Lowland villages: Total	B	0.00-NS	921				18.0										
		Kisii District: All by area: Highland villages	B	0.00-NS	393				7.1										
		Kisii District: Lowland villages: Children by sex and a	F	0.00- 5.99	131				28.0										
		Kisii District: Lowland villages: Children by sex and a	M	0.00- 5.99	151				40.0										
		Kisii District: Lowland villages: Children by sex and a	F	6.00- 10.99	74				12.0										
		Kisii District: Lowland villages: Children by sex and a	M	6.00- 10.99	84				13.0										
		Kisii District: Lowland villages: Children by sex and a	F	11.00- 15.99	41				2.0										
		Kisii District: Lowland villages: Children by sex and a	M	11.00- 15.99	79				3.0										
		Kisii District: Lowland villages: Adults by sex and ag	F	16.00- 30.99	132				14.0										
		Kisii District: Lowland villages: Adults by sex and ag	M	16.00- 30.99	61				2.0										
		Kisii District: Lowland villages: Adults by sex and ag	F	31.00-NS	101				18.0										
		Kisii District: Lowland villages: Adults by sex and ag	M	31.00-NS	67				10.0										
		N	1999	NPW: Total	F	NS- 50.99	2735	2.1						122		22		B	3442
PW: Total	F			NS- 50.99	390	4.4		55.1				108	20						
Men: Total	M			15.00- 50.99	1183	1.4						140	22						
Children by age	B			0.17- 0.49	394	13.4		99.5				96	20						
Children by age	B			0.50- 5.99	2734	11.0		69.0				101	22						
NPW by cluster: Osiri	F			NS- 50.99	160	5.0						114	18						
NPW by cluster: Kandiang'a	F			NS- 50.99	156	1.3						115	18						
NPW by cluster: Sisenye	F			NS- 50.99	137	0.7						117	16						
NPW by cluster: Nakhwana	F			NS- 50.99	181	0.6						122	16						
NPW by cluster: Misikhu	F			NS- 50.99	138	2.2						126	18						
NPW by cluster: Mwamosioma	F			NS- 50.99	178	0.6						124	19						
NPW by cluster: Birongo	F			NS- 50.99	151	2.0						135	19						
NPW by cluster: Sirwet	F			NS- 50.99	120	0.0						135	14						
NPW by cluster: Rurii	F			NS- 50.99	122	0.0						142	14						
NPW by cluster: Njabini	F			NS- 50.99	68	0.0						149	14						
NPW by cluster: Kibaranyaki	F			NS- 50.99	137	0.0						142	16						
NPW by cluster: Ng'aratuko	F			NS- 50.99	84	1.2						123	18						
NPW by cluster: Kibureni	F			NS- 50.99	142	0.7						125	19						

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						70	100	110	115	120	130						
N	1999	NPW by cluster: Kyatune	F	NS- 50.99	170	1.2						125	18	B	3442		22
		NPW by cluster: Wii	F	NS- 50.99	125	0.0						131	18			23	
		NPW by cluster: Elan	F	NS- 50.99	34	15.0						95	25			24	
		NPW by cluster: Kikoneni	F	NS- 50.99	180	1.7						112	17			25	
		NPW by cluster: Kifyonzo	F	NS- 50.99	147	2.0						113	18			26	
		NPW by cluster: Miritini	F	NS- 50.99	125	8.0						104	24			27	
		NPW by cluster: Utange	F	NS- 50.99	96	4.2						109	20			28	
		NPW by cluster: Korkora	F	NS- 50.99	88	11.0						90	19			29	
		Children by age and cluster: Osiri	B	0.50- 5.99	150	20.7		93.0				89	18				
		Children by age and cluster: Kandiang'a	B	0.50- 5.99	153	22.2		90.0				91	20				
		Children by age and cluster: Sisenye	B	0.50- 5.99	147	16.3		91.0				91	18				
		Children by age and cluster: Nakhwana	B	0.50- 5.99	193	17.5		91.0				90	19				
		Children by age and cluster: Misikhu	B	0.50- 5.99	151	14.0		74.0				99	20				
		Children by age and cluster: Mwamosioma	B	0.50- 5.99	186	8.6		67.0				104	19				
		Children by age and cluster: Birongo	B	0.50- 5.99	145	2.8		42.0				116	16				
		Children by age and cluster: Sirwet	B	0.50- 5.99	121	0.8		49.0				114	15				
		Children by age and cluster: Rurii	B	0.50- 5.99	117	0.0		17.0				126	13				
		Children by age and cluster: Njabini	B	0.50- 5.99	72	0.0		19.0				126	14				
		Children by age and cluster: Kibaranyaki	B	0.50- 5.99	133	0.0		35.0				122	12				
		Children by age and cluster: Ng'aratuko	B	0.50- 5.99	88	16.0		68.0				97	24				
		Children by age and cluster: Kibureni	B	0.50- 5.99	133	5.3		58.0				106	18				
		Children by age and cluster: Kyatune	B	0.50- 5.99	161	3.1		63.0				106	17				
		Children by age and cluster: Wii	B	0.50- 5.99	129	0.0		46.0				111	14				
		Children by age and cluster: Elan	B	0.50- 5.99	52	31.0		90.0				81	21				
		Children by age and cluster: Kikoneni	B	0.50- 5.99	177	9.4		77.0				96	19				
		Children by age and cluster: Kifyonzo	B	0.50- 5.99	131	9.2		87.0				92	18				
		Children by age and cluster: Miritini	B	0.50- 5.99	122	14.0		86.0				92	20				
		Children by age and cluster: Utange	B	0.50- 5.99	92	7.6		83.0				97	20				
Children by age and cluster: Korkora	B	0.50- 5.99	82	33.0		98.0				78	20						
L	1998 -1999	Asembo: Adolescents: Total	F	12.00- 18.99	634	0.2				21.1	129		C	4548	*		
		Asembo: Adolescents by season: post rainy season	F	12.00- 18.99	298	0.5				11.5							
		Asembo: Adolescents by season: post dry season	F	12.00- 18.99	336	0.0				30.2							
L	1998	Kyeni South location: SAC	B	6.00- 14.99	519	9.0			48.9			B	4122	*			

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						70	100	110	115	120	130						
L	1998 P	Usigu Division: SAC	B	10.00- 18.99	156			7.1				127	13	C	4719	*	30
L	1997	Kilifi District: PW	F	NS	198	16.2	79.8					86	17	B	3729a	*	
D	1996	Bondo District: Rarieda Division: Asembo: Pre-SAC	B	NS- 2.99	440	34.2						80		C	3761	*	31
		Bondo District: Rarieda Division: Asembo: Pre-SAC	B	NS- 2.99	449	25.2						83					32
D	1994 -1995	Kilifi District: PW	F	NS	462	17.5		91.4				87		C	2208	*	33
D	1994 -1995	Kilifi District: PW	F	NS	1787	17.5	77.8					86	18	C	3729b	*	
L	1994	Kisumu District: 3 villages	F	16.00-NS	244					17.2		121	17	B	1753		34
		Kisumu District: 3 villages	M	16.00-NS	186							137	21				
		Kisumu District: 3 villages	F	4.00- 14.99	143							119	16				35
		Kisumu District: 3 villages	M	4.00- 14.99	156							119	13				36
D	1993	Kilifi District: PW	F	NS	275	9.8		75.6						C	2210	*	
L	1990 -1991	Siaya, Nyanza Province: Women	F	15.00- 44.99	2986			55.0				104	26	B	2211	*	37
D	1989 -1991	Kilifi District (communities): Children	B	NS	559							96	21	C	1754	*	38
		Kilifi District Hospital: Children	B	NS	2340							77	27				39
L	1989 -1991	Kilifi: Pre-SAC	B	NS	460			76.3				96		C	2206		40
		Kilifi: Pre-SAC by sex	F	NS	246			71.5									
		Kilifi: Pre-SAC by sex	M	NS	214			81.2									
L	1983 -1984	Saradidi: PW (no malaria prophylaxis)	F	NS	1111							96		D	2565		
		Saradidi: PW (malaria prophylaxis)	F	NS	127		50.3	41.0				100				*	

NOTES

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Reference No: 3860

General Notes: *Facility based study (19 primary schools) on the shores of Lake Victoria in Bondo District; baseline values of intervention study; sampling: 1096 children were identified whose parents consented to participate; exclusion of 119 children who were ill or who were unavailable for baseline examinations; Hb determination only for subsample (n=746); no adjustment for altitude.*

Line note 1 Prevalence of anaemia 41.4% (Hb <115 g/L girls 9-11 yrs, Hb <120 g/L girls 12-18 yrs, boys 12-13 yrs, Hb <130 g/L boys 14-18 yrs); 95% CI: 122.8 g/L, 124.6 g/L; mean age 12.9 yrs.

Line note 2 Prevalence of anaemia 33.3% (Hb <115 g/L 9-11 yrs, Hb <120 g/L 12-18 yrs).

Line note 3 Prevalence of anaemia 50.1% (Hb <120 g/L 12-13 yrs, Hb <130 g/L 14-18 yrs).

Reference No: 4742

General Notes: *Cross-sectional study in 4 lowland villages (1440-1660 m, Riana, Marani, Mosochi and Nyagoto) and 2 highland villages (1960-2040 m, Masimba and Ramasha) located within the Kisii District Hospital catchment area; sampling: random sampling of 1314 subjects of all age groups (414 were <=5 yrs, 404 were 6-15 yrs, 294 were 16-30 yrs and 202 were >30 yrs of age); Hb cut-off levels >5 yrs not according to WHO recommendations (please see 'Key to the data tables').*

Line note 4 Prevalence of severe anaemia 1.5% (Hb <80 g/L).

Reference No: 3442

General Notes: *National survey in all districts with exclusion of Nairobi; separate survey (facility based) for children in Nairobi not included; sample size for women and children from tables reporting mean Hb values used (slightly different from prevalence tables); Hb cut-off level NPW and men not according to WHO recommendations (please see 'Key to the data tables'); adjustment for altitude.*

Line note 5 Prevalence of anaemia 47.9% (Hb <110 g/L).

Line note 6 Disaggregated data by cluster.

Line note 7 Prevalence of anaemia 31.4% (Hb <110 g/L); disaggregated data by cluster.

Line note 8 Disaggregated data by cluster.

Line note 9 Prevalence of anaemia 69.4% (Hb <110 g/L).

Line note 10 Prevalence of anaemia 68.6% (Hb <110 g/L).

Line note 11 Prevalence of anaemia 65.0% (Hb <110 g/L).

Line note 12 Prevalence of anaemia 49.0% (Hb <110 g/L).

Line note 13 Prevalence of anaemia 41.3% (Hb <110 g/L).

Line note 14 Prevalence of anaemia 47.2% (Hb <110 g/L).

Line note 15 Prevalence of anaemia 15.2% (Hb <110 g/L).

Line note 16 Prevalence of anaemia 23.0% (Hb <110 g/L).

Line note 17 Prevalence of anaemia 13.1% (Hb <110 g/L).

Line note 18 Prevalence of anaemia 8.8% (Hb <110 g/L).

Line note 19 Prevalence of anaemia 14.0% (Hb <110 g/L).

Line note 20 Prevalence of anaemia 51.0% (Hb <110 g/L).

Line note 21 Prevalence of anaemia 45.1% (Hb <110 g/L).

Line note 22 Prevalence of anaemia 38.5% (Hb <110 g/L).

Line note 23 Prevalence of anaemia 26.4% (Hb <110 g/L).

Line note 24 Prevalence of anaemia 88.0% (Hb <110 g/L).

Line note 25 Prevalence of anaemia 68.0% (Hb <110 g/L).

Line note 26 Prevalence of anaemia 65.3% (Hb <110 g/L).
Line note 27 Prevalence of anaemia 77.0% (Hb <110 g/L).
Line note 28 Prevalence of anaemia 70.0% (Hb <110 g/L).
Line note 29 Prevalence of anaemia 97.0% (Hb <110 g/L).

Reference No: 4548

General Notes: *Facility based study (58 primary schools) in Asembo, Rarieda Division, Bondo District, Nyanza Province a malaria endemic region of western Kenya; data of two surveys carried out after long rains (October-November 1998) and after dry season (February-March 1999).*

Reference No: 4122

General Notes: *Facility based study (12 elementary schools) within Kyeni South location in Embu District; baseline values of intervention study; sampling: all 554 children enrolled in Standard I classes were selected; Hb determination for subsample only; Hb cut-off levels 12-14 yrs not according to WHO recommendations (please see 'Key to the data tables'); same survey reported in reference No. 4123.*

Reference No: 4719

General Notes: *Facility based study (4 primary schools) in Usigu Division, Siaya District, Byanza Province; sampling: design not explained, 204 children in standards 5 and 6 were recruited; Hb determination only for subsample (n=156); Hb cut-off levels not according to WHO recommendations (please see 'Key to the data tables').*

Line note 30 Prevalence of iron deficiency 14.8% (serum ferritin <12 µg/L; n=135); median age 13 yrs.

Reference No: 3729a

General Notes: *Facility based study (Vipingo health centre); most of the primigravidae had been recruited previously into a trial of antimalarials in pregnancy (reference No. 2208); Hb cut-off levels not according to WHO recommendations (please see 'Key to the data tables'); mean (SD) gestation at the time of blood test: 32 (3.9) wks.*

Reference No: 3761

General Notes: *Cross-sectional survey as part of a large-scale community based trial in 79 villages; baseline values of intervention study (insecticide treated bed net) in 27 villages (out of 60) in non-cohort area; sampling: random cluster-sample design with village as cluster unit.*

Line note 31 95% CI: 75 g/L, 84 g/L.

Line note 32 95% CI: 80 g/L, 86 g/L.

Reference No: 2208

General Notes: *Facility based study (Kilifi District Hospital).*

Line note 33 Primigravidae.

Reference No: 3729b

General Notes: *Facility based study (2 hospitals); women had been recruited into a study accessing effectiveness of insecticide-treated bed nets (reference No. 2569); Hb determination in 3rd trimester or at anytime woman was suspected of being severely anaemic; Hb cut-off levels not according to WHO recommendations (please see 'Key to the data tables'); mean (SD) gestation at the time of blood test: 31 (3.3) wks.*

Reference No: 1753

Line note 34 Prevalence of anaemia 20.1% (Hb <110 g/L NPW, Hb <100 g/L PW).

Line note 35 Prevalence of anaemia 15.4% (Hb <100 g/L <=5 yrs, Hb <110 g/L 6-14 yrs).

Line note 36 Prevalence of anaemia 18.6% (Hb <100 g/L <=5 yrs, Hb <110 g/L 6-14 yrs).

Reference No: 2210

General Notes: *Facility based study (Kilifi District Hospital); disaggregated data for pregnancy number.*

Reference No: 2211

General Notes: *Facility based study (Siaya District Hospital).*

Line note 37 Prevalence of anaemia 6.0% (Hb <60 g/L).

Reference No: 1754

General Notes: *Partly facility based study (hospital).*

Line note 38 Prevalence of anaemia 75.7% (Hb <110 g/L <7 yrs, Hb <120 g/L >=7 yrs); prevalence of anaemia 1.8% (Hb <=50 g/L); disaggregated data by age.

Line note 39 Prevalence of anaemia 12.0% (Hb <=50 g/L); disaggregated data by age.

Reference No: 2206

Line note 40 Prevalence of anaemia 2.6% (Hb <50 g/L); disaggregated data by age.

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