

MALAWI
Last Updated: 2007-10-25

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						
N	2004 -2005	Women: Total	F	15.00- 49.99	2620	1.7								B	5201	*	1
		Children: Total	B	0.50- 4.99	2173	4.8		73.2									
		Women by physiological status: NPNLW	F	15.00- 49.99	1246	1.8				45.8							
		Women by physiological status: PW	F	15.00- 49.99	352	1.9		47.3									
		Women by physiological status: LW	F	15.00- 49.99	1022	1.6				41.5							
		Women by age	F	15.00- 19.99	506	2.7											2
		Women by age	F	20.00- 24.99	649	1.5											3
		Women by age	F	25.00- 29.99	478	0.9											4
		Women by age	F	30.00- 34.99	341	1.9											5
		Women by age	F	35.00- 39.99	265	3.2											6
		Women by age	F	40.00- 44.99	218	0.5											7
		Women by age	F	45.00- 49.99	162	1.1											8
		Women by area: Urban	F	15.00- 49.99	399	1.5											9
		Women by area: Rural	F	15.00- 49.99	2480	1.8											10
		Women by region: Central	F	15.00- 49.99	1035	1.7											11
		Women by region: Northern	F	15.00- 49.99	458	1.6											12
		Women by region: Southern	F	15.00- 49.99	1386	1.9											13
		Women by district: Blantyre	F	15.00- 49.99	198	1.3											14
		Women by district: Kasungu	F	15.00- 49.99	128	2.9											15
		Women by district: Lilongwe	F	15.00- 49.99	215	2.6											16
		Women by district: Machinga	F	15.00- 49.99	110	3.8											17
		Women by district: Mangochi	F	15.00- 49.99	135	2.4											18
		Women by district: Mulanje	F	15.00- 49.99	110	0.5											19
		Women by district: Mzimba	F	15.00- 49.99	203	0.7											20
		Women by district: Salima	F	15.00- 49.99	83	2.4											21
		Women by district: Thyolo	F	15.00- 49.99	144	1.8											22
		Women by district: Zomba	F	15.00- 49.99	132	0.5											23
		Women by district: Other districts	F	15.00- 49.99	1162	1.6											24
		Children by sex	F	0.50- 4.99	1113	4.6		72.5									
		Children by sex	M	0.50- 4.99	1060	5.0		73.9									
		Children by age	B	0.50- 0.82	160	13.0		91.3									
		Children by age	B	0.83- 0.99	82	19.4		88.0									
		Children by age	B	1.00- 1.99	552	7.3		83.8									
		Children by age	B	2.00- 2.99	446	3.0		73.6									
		Children by age	B	3.00- 3.99	471	1.3		62.5									
		Children by age	B	4.00- 4.99	463	1.8		62.2									

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						70	100	110	115	120	130						
N	2004 -2005	Children by area: Urban	B	0.50- 4.99	231	1.8		65.4						B	5201		
		Children by area: Rural	B	0.50- 4.99	1942	5.2		74.1									
		Children by region: Central	B	0.50- 4.99	824	5.3		74.0									
		Children by region: Northern	B	0.50- 4.99	309	3.2		71.7									
		Children by region: Southern	B	0.50- 4.99	1040	4.9		73.0									
		Children by district: Blantyre	B	0.50- 4.99	128	5.6		69.0									
		Children by district: Kasungu	B	0.50- 4.99	116	2.7		74.9									
		Children by district: Lilongwe	B	0.50- 4.99	180	6.7		72.8									
		Children by district: Machinga	B	0.50- 4.99	93	6.1		71.1									
		Children by district: Mangochi	B	0.50- 4.99	131	2.9		73.0									
		Children by district: Mulanje	B	0.50- 4.99	86	2.7		80.3									
		Children by district: Mzimba	B	0.50- 4.99	159	2.9		73.6									
		Children by district: Salima	B	0.50- 4.99	68	6.9		81.9									
		Children by district: Thalo	B	0.50- 4.99	109	7.9		70.0									
		Children by district: Zomba	B	0.50- 4.99	119	5.9		76.4									
		Children by district: Other districts	B	0.50- 4.99	985	4.6		72.5									
L	2000 P	Blantyre: PW	F	NS	265								B	1127	*	25	
L	1999 P	Southern Malawi: PW	F	NS	729			58.1					C	2567	*	26	
S	1998	Mangochi district: SAC: Total	B	7.00- 20.99	1154						121	16	B	5159	*		
		SAC by sex	F	7.00- 20.99	NS						120						
		SAC by sex	M	7.00- 20.99	NS						122						
		SAC by age	B	7.00- 11.99	NS			40.0									
		SAC by age	B	12.00- 20.99	NS				42.0								
R	1997 -1999	Blantyre: PW: Total	F	NS	4646	3.6		57.1			105		B	2224	*	27	
		Namitambo: PW: Total	F	NS	2293	4.0		71.7			101					28	
		Blantyre: PW by age	F	NS- 19.99	1105	3.9		58.5									
		Blantyre: PW by age	F	20.00-NS	3541	3.5		56.8									
		Blantyre: PW by gestational age: 1st trimester	F	NS	316	2.2		45.3									
		Blantyre: PW by gestational age: 2nd trimester	F	NS	3443	3.4		57.7									
		Blantyre: PW by gestational age: 3rd trimester	F	NS	887	4.6		59.9									
		Blantyre: PW by pregnancy number: 1	F	NS	1554	4.7		60.2									
		Blantyre: PW by pregnancy number: 2-4	F	NS	2611	3.0		57.3									

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						70	100	110	115	120	130						
R	1997 -1999	Blantyre: PW by pregnancy number: >=5	F	NS	481	2.9		47.0						B	2224		
		Namitambo: PW by age	F	NS- 19.99	680	5.0		77.5									
		Namitambo: PW by age	F	20.00-NS	1613	3.9		71.2									
		Namitambo: PW by gestational age: 1st trimester	F	NS	613	4.2		73.7									
		Namitambo: PW by gestational age: 2nd trimester	F	NS	1384	4.3		73.5									
		Namitambo: PW by gestational age: 3rd trimester	F	NS	296	0.3		69.9									
		Namitambo: PW by pregnancy number: 1	F	NS	681	6.5		81.8									
		Namitambo: PW pregnancy number: 2-4	F	NS	1137	3.5		69.7									
		Namitambo: PW pregnancy number: >=5	F	NS	475	2.7		68.6									
L	1996	Nchalo: NPW	F	10.00- 19.99	115	4.4			88.7		99	18	D	1994	*	29	
L	1996	Mangochi District: children by intervention: Dietary i	B	2.50- 7.57	NS						108		B	4482	*	30	
		Mangochi District: children by intervention: Control	B	2.50- 7.57	NS						110						31
L	1995 -1996	Blantyre: PW: Total	F	NS	191			50.3						C	3520	*	32
		Blantyre: PW by intervention: Vitamin A	F	NS	100			51.0			108						
		Blantyre: PW by intervention: Control	F	NS	91			49.4			110						
L	1995 P	Blantyre: Newborns: Total	B	0.00	366									C	2229	*	35
		Blantyre: Newborns by sex	F	0.00	189						149	24					
		Blantyre: Newborns by sex	M	0.00	177						150	22					
D	1993 -1994	Chikawa, Monfort: PW: Total	F	NS	3913			91.3			91	16		A	2225	*	38
		Chikawa, Monfort: PW by pregnancy number: 1	F	NS	852			94.3			87	16					
		Chikawa, Monfort: PW by pregnancy number: 2	F	NS	700			91.5			91	15					
		Chikawa, Monfort: PW by pregnancy number: 3	F	NS	557			90.6			92	16					
		Chikawa, Monfort: PW by pregnancy number: 4	F	NS	471			90.5			92	15					
		Chikawa, Monfort: PW by pregnancy number: >=5	F	NS	1333			90.3			92	16					

NOTES

MALAWI

Reference No: 5201

General Notes: *Sampling: Two-stage cluster sampling with probability proportional to size; Ten districts were over sampled to make district level estimates. Hemoglobin determination for a subsample (every third household). Adjustment for altitude and smoking (women only).*

Line note 1 Prevalence of anaemia 44.3% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 2 Prevalence of anaemia 42.2% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 3 Prevalence of anaemia 42.0% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 4 Prevalence of anaemia 41.1% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 5 Prevalence of anaemia 47.7% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 6 Prevalence of anaemia 49.9% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 7 Prevalence of anaemia 47.4% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 8 Prevalence of anaemia 49.5% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 9 Prevalence of anaemia 39.6% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 10 Prevalence of anaemia 45.8% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 11 Prevalence of anaemia 41.9% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 12 Prevalence of anaemia 46.9% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 13 Prevalence of anaemia 46.6% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 14 Prevalence of anaemia 31.5% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 15 Prevalence of anaemia 39.2% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 16 Prevalence of anaemia 44.1% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 17 Prevalence of anaemia 44.8% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 18 Prevalence of anaemia 52.5% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 19 Prevalence of anaemia 47.0% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 20 Prevalence of anaemia 47.2% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 21 Prevalence of anaemia 47.6% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 22 Prevalence of anaemia 43.2% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 23 Prevalence of anaemia 44.0% (Hb <120 g/L NPW, Hb <110 g/L PW)

Line note 24 Prevalence of anaemia 45.6% (Hb <120 g/L NPW, Hb <110 g/L PW)

Reference No: 1127

General Notes: *Facility based study (hospital).*

Line note 25 Prevalence of anaemia 56.6% (Hb <105 g/L).

Reference No: 2567

General Notes: *Facility based study (hospitals, health centers); several methods for anaemia detection.*

Line note 26 Prevalence of anaemia 0.4% (Hb <60 g/L).

Reference No: 5159

General Notes: Facility based study (12 schools) in Mangochi district; mean age: 13.2 years.

Reference No: 2224

General Notes: Facility based study (Hospital Blantyre: semiurban/urban area, date 1997-1998; Namitambo Health Center: rural area, date 1997-1999); Same data for Blantyre reported in referenece 3737.

Line note 27 Prevalence of anaemia 8.5% (Hb <80 g/L).

Line note 28 Prevalence of anaemia 10.5% (Hb <80 g/L).

Reference No: 1994

General Notes: Study in villages within the catchment area of Chikwawa District Hospital and Montfort rural Hospital in Nchalo; method: spectrophotometer; sampling: non-random selection; inclusion only of subjects who were prepared to spend a minimum of five hours in the compound to complete the survey; Hb determination for 115 out of 118 girls screened.

Line note 29 44 girls were 10-13 yrs of age, 59 were 14-16 yrs and 14 were 17-19 yrs; disaggregated data by stunting, low body mass index for age.

Reference No: 4482

General Notes: Baseline values of intervention study; sampling: self-selected sample of 630 children (410 intervention, 220 control) from 412 households born between 1989 and 1993 (30-90 months at baseline) in 2 intervention and 2 control villages in Mangochi District in Southern Malawi during the post-harvest food plenty season; Hb determination at baseline for subsample (n=389 children, 61.7%); Same survey reported in reference 3966.

Line note 30 Prevalence of anaemia 62% (Hb <110 g/L <=60 months, Hb <115 g/L >60 months) 95% CI: 106 g/L, 110 g/L.

Line note 31 Prevalence of anaemia 59% (Hb <110 g/L <=60 months, Hb <115 g/L >60 months) 95% CI: 107 g/L, 112 g/L.

Reference No: 3520

General Notes: Facility based study (Queen Elisabeth Central Hospital, Blantyre); baseline values of intervention study; sampling: 203 women were enrolled; inclusion only of PW from 18 to 28 wks gestation who consented to HIV testing and counselling and were HIV negative; values for other Hb cut-off levels.

Line note 32 Prevalence value calculated.

Line note 33 Prevalence of iron deficiency anaemia 18.2% (Hb <110 g/L+serum ferritin <12 µg/L; n=99); standard error mean: 1.5 g/L; mean (SD) age 23.3 (0.5) yrs, n=109.

Line note 34 Prevalence of iron deficiency anaemia 27.3% (Hb <110 g/L+serum ferritin <12 µg/L; n=88); standard error mean: 1.4 g/L; mean (SD) age 24.2 (0.6) yrs, n=94.

Reference No: 2229

General Notes: Facility based study (hospital).

Line note 35 Prevalence of anaemia 27.3% (Hb <135 g/L).

Line note 36 Prevalence of anaemia 30.2% (Hb <135 g/L).

Line note 37 Prevalence of anaemia 24.3% (Hb <135 g/L).

Reference No: 2225

General Notes: Facility based study (first antenatal visit to district hospitals in Chikwawa and Montfort, southern Malawi); Methods: Cyanmethaemoglobin and haemoglobinometer (information from reference 4278); Same survey reported in reference 4278.

Line note 38 Prevalence of anaemia 21.7% (Hb <80 g/L).

Line note 39 Prevalence of anaemia 29.8% (Hb <80 g/L); disaggregated data by age.

Line note 40 Prevalence of anaemia 21.0% (Hb <80 g/L).

Line note 41 Prevalence of anaemia 20.8% (Hb <80 g/L).

Line note 42 Prevalence of anaemia 19.2% (Hb <80 g/L).

Line note 43 Prevalence of anaemia 18.3% (Hb <80 g/L).

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