

SOUTH AFRICA

Last Updated: 2006-11-02

| 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 | | | | | | |
| LR | 2001 P | Ndunakazi: Women | F | NS | 126 | | | | | | | 120 | 12 | C | 4191 | * | 1 |
| | | Ndunakazi: Pre-SAC | B | 2.00- 5.99 | 164 | | | 54.0 | | | 44.0 | 106 | 13 | | | 2 | |
| L | 1999 P | Ndunakazi: Women | F | NS | 119 | | | | | | | | | C | 1360 | * | 3 |
| | | Ndunakazi: Pre-SAC | B | NS | 105 | | | 23.8 | | | 21.8 | | | | | | |
| | | Ndunakazi: SAC | B | NS | 123 | | | | | | 22.0 | | | | | | |
| L | 1997 P | Hlabisa: PW | F | NS | 449 | | 10.5 | | | | | | | D | 1915 | * | |
| L | 1996 P | Worcester Region: SAC | B | 6.00- 8.99 | 179 | | | | | 42.5 | | | | D | 2577 | * | |
| N | 1994 | Pre-SAC: Total | B | 0.50- 5.99 | 4494 | 0.2 | 7.2 | 21.4 | | | | 118 | | C | 48 | | 4 |
| | | Pre-SAC by province: Northern Cape | B | 0.50- 5.99 | 486 | | | 21.5 | | | | 117 | | | | | |
| | | Pre-SAC by province: Western Cape | B | 0.50- 5.99 | 395 | | | 28.6 | | | | 114 | | | | | |
| | | Pre-SAC by province: Eastern Cape | B | 0.50- 5.99 | 498 | | | 20.6 | | | | 117 | | | | | |
| | | Pre-SAC by province: KwaZulu-Natal | B | 0.50- 5.99 | 500 | | | 10.4 | | | | 123 | | | | | |
| | | Pre-SAC by province: Eastern Transvaal | B | 0.50- 5.99 | 500 | | | 27.7 | | | | 116 | | | | | |
| | | Pre-SAC by province: Northern Province | B | 0.50- 5.99 | 562 | | | 34.2 | | | | 113 | | | | | |
| | | Pre-SAC by province: Gauteng | B | 0.50- 5.99 | 390 | | | 16.3 | | | | 121 | | | | | |
| | | Pre-SAC by province: North West | B | 0.50- 5.99 | 553 | | | 24.5 | | | | 115 | | | | | |
| | | Pre-SAC by province: Free State | B | 0.50- 5.99 | 610 | | | 17.1 | | | | 119 | | | | | |
| | | Pre-SAC by area: Urban | B | 0.50- 5.99 | 2169 | | | 20.7 | | | | 118 | | | | 5 | |
| | | Pre-SAC by area: Rural | B | 0.50- 5.99 | 2251 | | | 21.1 | | | | 118 | | | | | |
| | | Pre-SAC by sex | F | 0.50- 5.99 | NS | | | 19.9 | | | | | | | | | |
| | | Pre-SAC by sex | M | 0.50- 5.99 | NS | | | 22.1 | | | | | | | | | |
| | | Pre-SAC by age | B | 0.50- 0.99 | 215 | | | 48.2 | | | | 110 | | | | 6 | |
| | | Pre-SAC by age | B | 1.00- 1.99 | 634 | | | 36.5 | | | | 113 | | | | | |
| | | Pre-SAC by age | B | 2.00- 2.99 | 796 | | | 28.7 | | | | 115 | | | | | |
| Pre-SAC by age | B | 3.00- 3.99 | 964 | | | 18.9 | | | | 118 | | | | | | | |
| Pre-SAC by age | B | 4.00- 4.99 | 988 | | | 12.3 | | | | 121 | | | | | | | |
| Pre-SAC by age | B | 5.00- 5.99 | 807 | | | 8.0 | | | | 122 | | | | | | | |
| D | 1992 P | Richtersveld: SAC | B | 7.00- 14.99 | 379 | | | | | | | | | D | 1916 | * | 7 |
| L | 1989 P | Chatsworth: Indian women | F | 11.00-NS | 455 | | | | | | | 124 | 17 | C | 849 | * | 8 |
| | | Chatsworth: Indian men by age | M | 10.00- 17.99 | 112 | | | | | | | 135 | 13 | | | 9 | |

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| 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 | 1989 P | Chatsworth: Indian men by age | M | 19.00- NS | 251 | | | | | | 3.6 | 153 | 18 | C | 849 | | |
| L | 1986 | Johannesburg: PW by gestational age: 1st trimester | F | NS | 40 | | | 4.0 | | | | 131 | 13 | C | 1764 | * | |
| | | Johannesburg: PW by gestational age: 2nd trimester | F | NS | 118 | | | 17.4 | | | | 121 | 12 | | | | |
| | | Johannesburg: PW by gestational age: 3rd trimester | F | NS | 66 | | | 18.9 | | | | 117 | 12 | | | | |
| L | 1985 P | Mseleni, Northern Natal: All by sex | F | NS | 223 | 4.0 | | 52.5 | | 62.3 | | 107 | 21 | A | 1759 | * | 10 |
| | | Mseleni, Northern Natal: All by sex | M | NS | 121 | 3.3 | | 42.1 | | | 71.1 | 115 | 22 | | | | 11 |
| S | 1985 | Western Cape: SAC: Total | B | 11.00- 11.99 | 610 | | | | | | | 130 | 12 | A | 1919 | * | |
| | | Western Cape: SAC: Coloured: Urban | B | 11.00- 11.99 | 83 | | | | | 18.4 | | 126 | 10 | | | | |
| | | Western Cape: SAC: Coloured: Rural | B | 11.00- 11.99 | 156 | | | | | 16.7 | | 129 | 12 | | | | |
| | | Western Cape: SAC: Black: Urban | B | 11.00- 11.99 | 50 | | | | | 36.0 | | 123 | 12 | | | | |
| | | Western Cape: SAC: Black: Rural | B | 11.00- 11.99 | 104 | | | | | 15.5 | | 130 | 13 | | | | |
| | | Western Cape: SAC: White: Urban | B | 11.00- 11.99 | 72 | | | | | 11.3 | | 133 | 12 | | | | |
| | | Western Cape: SAC: White: Rural | B | 11.00- 11.99 | 145 | | | | | 4.1 | | 134 | 8 | | | | |
| | | | | | | | | | | | | | | | | | |
| D | 1985 | Tzaneen: Black pre-SAC | B | 3.00- 5.07 | 140 | | | | | | | 113 | 8 | D | 2404 | * | 12 |
| L | 1984 | Gazankulu: Black PW: Total | F | NS | 229 | | | 33.0 | | | | | | C | 1922 | * | 13 |
| L | 1981 P | Durban: PW: Total | F | NS | 1046 | | 7.3 | 35.3 | | | | | | NS | 2575 | * | |
| | | Durban: PW by pregnancy number: 1 | F | NS | 261 | | 9.6 | 37.6 | | | | | | | | | |
| | | Durban: PW by pregnancy number: 2 | F | NS | 273 | | 5.5 | 35.2 | | | | | | | | | |
| | | Durban: PW by pregnancy number: 3 | F | NS | 185 | | 6.5 | 32.4 | | | | | | | | | |
| | | Durban: PW by pregnancy number: 4 | F | NS | 121 | | 8.7 | 37.3 | | | | | | | | | |
| | | Durban: PW by pregnancy number: 5 | F | NS | 96 | | 7.3 | 33.3 | | | | | | | | | |
| | | Durban: PW by pregnancy number: >=6 | F | NS | 110 | | 6.4 | 34.6 | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| L | 1978 P | Nqutu: Black Pre-SAC by age | B | 2.00- 2.99 | 104 | | | 9.4 | | | | 120 | 10 | C | 1761 | | |
| | | Nqutu: Black Pre-SAC by age | B | 3.00- 3.99 | 105 | | | 0.0 | | | | 125 | 8 | | | | |
| | | Nqutu: Black Pre-SAC by age | B | 4.00- 4.99 | 53 | | | 0.0 | | | | 130 | 9 | | | | |
| L | 1977 P | Johannesburg: Children by age | B | 1.00- 1.99 | 85 | 12.4 | | 40.7 | | 65.4 | | | | C | 853 | * | 14 |
| | | Johannesburg: Children by age | B | 2.00- 4.99 | 64 | | | 3.4 | | 17.0 | | | | | | | |
| | | Johannesburg: Children by age | B | 5.00- 8.99 | 59 | | | 3.7 | | 7.4 | | | | | | | |

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| 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 | 1977 P | Johannesburg: Children by age | B | 9.00- 12.99 | 79 | | | 1.4 | | | | | 853 | | | | |
| | | Johannesburg: Children by sex and age | F | 13.00- 16.99 | 32 | | | 3.1 | | | | | | | | | |
| | | Johannesburg: Children by sex and age | M | 13.00- 16.99 | 25 | | | 0.0 | | | | | | | | | |
| L | 1976 P | Durban: Indian: All | B | 0.50-NS | 2500 | | | | | 33.0 | 128 | 18 | NS | 1924 | 15 | | |
| | | Durban: Indian by sex | F | 0.50-NS | 1611 | | 9.5 | | | 38.1 | | | | | 16 | | |
| | | Durban: Indian by sex | M | 0.50-NS | 889 | | | 10.1 | | 44.3 | | | | | 17 | | |
| | | Durban: Indian children by sex | F | 0.50- 10.99 | 370 | | | 7.8 | | 38.6 | | | | | | | |
| | | Durban: Indian children by sex | M | 0.50- 10.99 | 411 | | | 7.1 | | 41.6 | | | | | | | |

NOTES

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Reference No: 4191

General Notes: *Study in a rural area, Ndunakazi, in KwaZulu-Natal; sampling: all children (n=200) between 2-5 years old who attended community based growth monitoring posts in the area were recruited as well as their mother or principal caretaker (n=143); Hb determination only for 164 children and 126 caregivers; see also reference No. 1360.*

Line note 1 Prevalence of iron deficiency 19.0% (serum ferritin <12 µg/L); mean (SD) age 29.2 (9.7) yrs (n=143).

Line note 2 Prevalence of iron deficiency 33.0% (serum ferritin <10 µg/L); 77 boys+87 girls.

Reference No: 1360

General Notes: *Rural community in KwaZulu; see also reference No. 4191.*

Line note 3 Mothers of children surveyed.

Reference No: 1915

General Notes: *Facility based study (mobile clinic) in health district in Northern KwaZulu-Natal; method: Sysmex analyzer; Hb cut-off level not according to WHO recommendations (please see 'Key to the data tables').*

Reference No: 2577

General Notes: *Facility based study (schools); method: Technicon H2.*

Reference No: 48

Line note 4 Disaggregated data by socioeconomic status.

Line note 5 Total sample size 4420 (areas).

Line note 6 Total sample size 4404 (age).

Reference No: 1916

General Notes: *Study in 4 villages in remote area in Cape Province; method: Sysmex microcellcounter; inclusion only of subjects with low socioeconomic status.*

Line note 7 Prevalence of anaemia 6.3% (Hb <115 g/L both sexes 7-9 yrs; Hb <120 g/L both sexes 9-11 yrs, girls 11-15 yrs, boys 11-12 yrs; Hb <125 g/L boys 12-15yrs); disaggregated data by age, village.

Reference No: 849

General Notes: *Subeconomic housing area near Durban.*

Line note 8 Prevalence of anaemia 30.6% (different Hb cut-off levels).

Line note 9 Prevalence of anaemia 14.3% (different Hb cut-off levels).

Reference No: 1764

General Notes: *Facility based study (antenatal clinic); coloured women.*

Reference No: 1759

General Notes: *Facility based study for children (school) in rural area.*

Line note 10 Black population.

Line note 11 Black population.

Reference No: 1919

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

Reference No: 2404

General Notes: *Study in 5 villages near Tzaneen, North Transvaal; sampling design and dates of survey adapted from reference No. 2442; method: Sysmex Microcellcounter; sampling: cluster sample design, 34 villages were divided into 162 clusters of approximately 91 households in each cluster, first five clusters were randomly selected for inclusion, majority of children aged 36-60 months in these clusters were assessed; values for other Hb cut-off levels.*

Line note 12 Prevalence of anaemia 39.2% (Hb <111 g/L).

Reference No: 1922

General Notes: *Facility based study (antenatal clinic).*

Line note 13 Disaggregated data by gestational age.

Reference No: 2575

General Notes: *Facility based study (antenatal clinic); inclusion only of black PW.*

Reference No: 853

General Notes: *Western Township near Johannesburg.*

Line note 14 Prevalence of anaemia 3.7% (Hb <90 g/L).

Reference No: 1924

Line note 15 Same Hb cut-off level applied to different age groups.

Line note 16 Disaggregated data by age; prevalence of anaemia 2.4% (Hb <80 g/L).

Line note 17 Disaggregated data by age; prevalence of anaemia 1.0% (Hb <80 g/L).

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