**Table S1. The prevalence of stunting, underweight, overweight and obesity among preschool children by province and reference**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Province****Study, setting** | **Year of study** | **Age group** | **Sample size, MF** | **Stunting** | **Under-weight** | **Overweight/ obesity** | **Cut-point reference** | **Prevalence****(%, 95%CI)****All/Male/****Female** | **Reference** |
|  |  | **Reference: NCHS HAZ <-2; WHO2006 WAZ <-2 WHZ >2/ >85th and 95th percentiles** |
| Limpopo R | 1997 | 3-5y | 345 | - | - | Overweight/ obese | NCHS >85th | 1.7 | Monyeki *et al.,* 1999(40) |
| KZN R | 1997 | 4mo-2y | 115 | 15.3 | 3.6 | Overweight | NCHS WHZ >2 | 7.2 | Faber & Benadé, 1999(21) |
| KZN R | 1998 | 6mo-2y | 97;50M, 47F | 16.5 | 8.5 | Overweight | NCHS WHZ >2 | 14.8 | Faber & Benadé, 2000(99) |
| KZN R | 1999 | 2-5y | 164;77M, 87F | 21.0 | 9.0 | Overweight | NCHS WHZ >2 | 3.0 | Faber & Benadé*,* 2001(21) |
| KZN U | 2007 | 3-9mo | 157 | 40.1 | 2.9 | Overweight |  | - | Pillay *et al*., 2021(100) |
| National  | 1999 | 1-3y | 1198 | 25.5 | 12.4 | Overweight | NCHS WHZ >2 | 6.6 (5.2, 8.0) | Labadarios *et al,* 2000(46) |
| WC U | 2000 | 0.5-1y | 113 | 1.8 | 0 | Overweight | NCHS WHZ >2 | 35.0 | Sibeko *et al.,* 2004(38) |
| NWP U | 2001 | 3-4y | 120;58M, 62F | - | - | Overweight | BMI 85-95th ile | 9.2 | Du Toit & Pienaar, 2003(101) |
| NWP U | 2001 | 3-4y | 120;58M, 62F | - | - | Obese | BMI >95th ile | 6.7 | Du Toit & Pienaar, 2003(101) |
| NWP U | 2014 | 1y | 392 | 39.9 | 13.6 | Overweight | WHO WHZ>2 | 5.1 | Rikhotso *et al*., 2022(102) |
| EC R | 2003 | 0.5-2y | 767;384M,383F | 10.7 | - | Overweight | NCHS WHZ >2 | 15.2 | Smuts *et al.,* 2008(65) |
| EC R | 2003 | 2-5y | 765;383M,382F | - | - | Overweight | NCHS WHZ >2 | 5.0 | Smuts *et al.,* 2008(65) |
| Limpopo R | 2006 | <1y | 185;99M, 86F | 18.9 | 7.0 | Overweight | NCHS WHZ>2 | 17.3 | Mushaphi *et al.,* 2008(39) |
| Limpopo R | 2012 | <2y | 221 | 34.7 | 7.3 | Overweight |  | - | Maciel *et al*., 2021(103) |
| Limpopo R | 2016 | <3y | 404 | 30.9 | 8.4 | Overweight | WHO WHZ>2 | N/A | Hill *et al.,* 2020(104) |
| **Table S1. continuing** | **Reference: WHO 2006 HAZ <-2; WHZ/BAZ >2** |
| National | 1999 | 1-3y | 1160 | 25.5 | 12.4 | Overweight | WHZ >2 | 11.3 (9.3, 13.4) | Labadarios *et al*., 2000(44) |
| National  | 1999 | 4-6y | 993 | 23.4 | 11.0 | Overweight | WHZ >2 | 6.6 (4.6, 8.8) | Labadarios *et al*., 2000(46) |
| KZN R | 2008 | <2y | 413 | 17.7 | 1.0 | Overweight | WHZ >2 | 8.7 | Schoeman *et al.,* 2010a(22) |
| EC R | 2008 | <2y | 141 | 19.1 | 1.4 | Overweight | WHZ >2 | 6.4 | Schoeman *et al.,* 2010a(22) |
| EC R | 2008 | 2-5y | 166 | 26.0 | 3.0 | Overweight | WHZ >2 | 1 | Schoeman *et al.,* 2010b(105) |
| EC R | 2013 | <2y | 470 | 8.0 | 3.0 | Overweight |  | - | Stansert Katzen *et al.,* 2020(106) |
| EC U | 2015-6 | <2y | 400;199M,201F | 9.0 | - | Overweight | WHZ >2 | 16.0 | McLaren *et al*., 2018(27) |
| KZN R | 2008 | 2-5y | 245 | 23.7 | 1.5 | Overweight | WHZ >2 | 0.9 | Schoeman *et al.,* 2010b(105) |
| KZN U | 2016 | 4-6y | 627 | - | 12.0 | Overweight |  | - | Gruver *et al*., 2020(66) |
| KZN RU | 2016 | 0-5y | 387 | 39.8 | 7.2 | OverweightObese  | WHZ >2WHZ >3 | 18.122.0 | Drysdale *et al.,* 2021(107) |
| KZN R | 2018 | 0-5y | 567 | 14.0 | 1.9 | OverweightObese | WHZ 2-3WHZ >3 | 11.83.7 | Gate *et al.,* 2020(62) |
| KZN R | 2019 | 2-5y | 116 | 8.6 | - | OverweightObese | WHZ 2-3WHZ >3 | 16.06.9 | Makanjana & Naicker 2020(108) |
| WC R,U | 2009 | <5y | 179 | 10.7 | 8.5 | Overweight | WHZ >2 | 6.3 | Iversen *et al.,* 2011(109) |
| KZN, WC, NC, Mphu RU | 2011 | 1-6y | 747 | 23.5 | 9.8 | Overweight | WHZ >2 | 6.1 | Faber *et al.,* 2015(67) |
| WC R | 2012-5 | <1y | 1076 | - | - | Overweight | BAZ >2 | 9.0 | Budree *et al.,* 2017(68) |
| Limpopo R | 2013 | 3-5y | 349;136M,186F | 18.6 | 0.3 | Overweight | WHZ >2 | 20.9 | Motadi *et al.,* 2019(41) |
| Limpopo U | 2019 | 0-5y | 415 | 45.3 | 29.0 | OverweightObese | WHZ 2-3WHZ >3 | 8.23.7 | Modjadji & Madiba*,* 2019(43) |
| NWP U | 2013-5 | 0.5y | 750;387M,363F | 26.7 | 11.1 | Overweight | BAZ >2 | 10.1 | Matsungo *et al.,* 2017(30) |
| NWP U | 2019 | 3-5y | 379 | 29.0 | 13.0 | Overweight | WHZ >2 | - | Modjadji & Madiba, 2019(76) |
| Gauteng U | 2014 | 1-5y | 1254; 633M,621F | 35.8 | 20.5 | Overweight | BAZ >2 | 14.0 | Madiba *et al.,* 2019(32) |
| Gauteng U | 2019 | 0-1y | 300 | 55.0 | 41.7 | OverweightObese | WHZ 2-3WHZ >3 | 8.020.3 | Modjadji & Pitso, 2021(110) |
| **Table S1. continuing** |  |  |  |  |  |  |  |  |
| Gauteng U | 2019 | 3-5y | 102 | - | - | OverweightObese | WHZ 2-3WHZ >3 | 2.91.0 | Soepnel *et al.,* 2021(111) |
| NC U | 2017 | 6 weeks | 733 | 23.3 | 13.6 | Overweight | WHZ >2 | 11.0 | Le Roux *et al.,* 2020(69) |
| National | 2016 | 1-5y | 1416; 721M,695F | 27.4 | 5.9 | Overweight | WHZ >2 | 13.3 | NDoH, StatsSA & ICF, 2019(5) |
| National SA-NIDS | 2008 | 0.5y | 3254 | 11.0 | 5.2 | Overweight | WHZ >2 | 14.5 | Sartorius *et al*., 2020(70) |
| Gauteng RU | 2018 | 0-5y | 674 | 21.6 | 5.6 | OverweightObese | BAZ 2-3BAZ >3 | 10.37 | Senekal *et al.,* 2019(42) |
|  |  | **Reference: NCHS/WHO 2006 HAZ <-2; International Obesity Task Force (IOTF) cut-points** |
| KZN RU | 1998 | 2-5y | 770;344M,426F | 33.7 | 5.8, 6.8 | Overweight | IOTF | 27.6, 23.9 | Jinabhai *et al.,* 2005(71) |
| KZN RU | 1998 | 2-5y | 770;344M,426F |  |  | Obese | IOTF | 13.9, 12.4 | Jinabhai *et al.,* 2005(71) |
| National  | 1999 | 1-3y | 795 | 25.5 | 12.5 | Overweight | IOTF | 16.0 (13.7,18.2) | Labadarios *et al.,* 2005(35) |
| National  | 1999 | 1-3y | 795 |  |  | Obese | IOTF | 7.8 (6.1, 9.5) | Labadarios *et al.,* 2005(35) |
| National  | 1999 | 4-6y | 861 | 20.7 | 8.8 | Overweight | IOTF | 12.0 (9.6, 14.4) | Labadarios *et al.*, 2005(35) |
| National  | 1999 | 4-6y | 861 |  |  | Obese | IOTF | 3.8 (2.5, 5.1) | Labadarios *et al.,* 2005(35) |
| National  | 2005 | 1-3y | 846 | 23.4 | 11.0 | Overweight | IOTF | 13.0 (10.8, 15.2) | Labadarios *et al.,* 2007(36) |
| National  | 2005 | 1-3y | 846 |  |  | Obese | IOTF | 6.3 (4.7, 7.8) | Labadarios *et al.,* 2007(36) |
| National  | 2005 | 4-6y | 745 | 20.7 | 8.8 | Overweight | IOTF | 8.3 (6.2, 10.4) | Labadarios *et al.,* 2007(36) |
| National  | 2005 | 4-6y | 745 |  |  | Obese | IOTF | 2.6 (1.4, 3.7) | Labadarios *et al.,* 2007(36) |
| National  | 2005 | 1-9y | 2157 | 18.0 |  | Overweight | IOTF | 10.0 (8.7, 11.3) | Labadarios *et al.,* 2007(36) |
| National  | 2005 | 1-9y | 2157 |  |  | Obese | IOTF | 4.0 (3.1, 4.8) | Labadarios *et al.,* 2007(36) |
|  |  |  |  |  |  |  |  |  |  |
| **Table S1. continuing** |  |  |  |  |  |  |  |  |
| Mphu R | 2007 | 1-4y | 671;338M,333F | 18.0 | 10.0 | OverweightObese | IOTF | 71.0 | Kimani-Murage *et al.,* 2010(72) |
| National  | 2012 | 0-3y | 1090; 537M,553F | 26.5 | 8.2 | - | - | - | Shisana *et al.,* 2013(6) |
| National  | 2012 | 2-5y | 1291 | - | - | Overweight | IOTF | 18.1(11.4, 23.7) | Shisana *et al.,* 2013(6) |
| National  | 2012 | 2-5y | 1291 | - | - | Obese | IOTF | 4.6 (2.2, 7.0) | Shisana *et al.,* 2013(6) |
| Mphu R | 2012 | 3-6y | 131 | 4.9 | 3.3 | Overweight Obese | IOTF | 2.52.5 | Draper *et al.,* 2019(112) |

U = urban, R = rural, M = male, F = female, NCHS = National Center for Health Statistics, HAZ = height-for-age z-score, WHZ = weight-for-height z-score, BAZ = body mass index-for-age z-score, EC = Eastern Cape, KZN = KwaZulu-Natal, Mphu = Mphumalanga, NC = Northern Cape, , NWP = North West Province, WC = Western Cape, IOTF = International Obesity Task Force

**Table S2. The prevalence of stunting, overweight and obesity among primary school-age children by province and reference**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Province****Study, setting** | **Year of study** | **Age group** | **Sample size** | **Stunted** | **Under-weight** | **Overweight****Obese** | **Cut-point reference** | **Prevalence** **(%)** | **Reference** |
|  |  | **Reference: NCHS WHZ >2/** **NCHS 85-95th**  |
| National  | 2005 | 7-9y | 582 | 13.9 | 10.7 | Overweight | NCHS WHZ>2 | 5.8 | Labadarios *et al.,* 2005(35) |
|  |  | **Reference: CDC 2000 BMI >85th and 95th percentiles** |
| KZN RU | 2004 | 2-12y | 1758 | 9.6 | 2.1 | OverweightObese | BAZ 1-2BAZ >2 | 19.03.5 | Timaeus*,* 2012(82) |
| Limpopo RU | 2007 | 9-13y | 602 | 8.8 | 4.0 | OverweightObese | 85-95th p>95th p | 10.10.8 | Malongane & Mbhenyane, 2017(73) |
| Limpopo R | 2010 | 10-13y | 964 | - | 5.8 | OverweightObese | 85-95th p>95th p | 10.85.2 | Toriola *et al.,* 2015(74) |
| Limpopo Mphu RU | 2017 | 9-13y | 1361 | - | 4.6 | OverweightObese | 85-95th p>95th p | 10.25.4 | Moselakgomo & Van Staden, 2017(75) |
| Limpopo R | 2017 | 6-15y | 508 | 22.0 | 27.0 | - | - | - | Modjadji & Madiba, 2019(43) |
|  |  | **Reference: WHO 2007 BAZ**  |
| NWP R | 2012 | 6-12y | 167 | 13.2 | 5.4 | OverweightObese | BAZ 1-2BAZ >2 | 3.00.6 | Van der Hoeven *et al.,* 2016(113) |
| WC RU | 2008 | 10-12y | 717 | 19.3 | 2.0 | OverweightObese | BAZ 1-2BAZ >2 | 14.36.7 | Abrahams *et al.,* 2011(45) |
| WC RU | 2009 | 9-13y | 1002 | - | 3.0 | OverweightObese | BAZ 1-2BAZ >2 | 9.518.6 | De Villiers *et al.,* 2016(47) |
| WC U | 2011 | 9-11y | 306 | - | - | Overweight | BAZ >2 | 26.1 | LeBlanc *et al.,* 2015(48) |
| EC R | 2013 | 6-18y | 234 | 4.0 | 8.3 | OverweightObese | BAZ 1-2BAZ >2 | 14.00 | Oldewage-Theron *et al*., 2017(114) |
| EC U | 2015 | 8-12y | 801 | - | 4.9 | OverweightObese | BAZ 1-2BAZ >2 | 13.25.1 | Gerber *et al.,* 2018(77) |
| EC R | 2015 | 6-12y | 1390 | 9.1 | - | Overweight | BAZ >1 | 14.9 | Graham *et al.,* 2018(78) |
| EC U | 2019 | 6-12y | 1277 | 9.1 | - | - | - | - | Beckmann et al. 2021(79) |
| EC U | 2019 | 6-9y | 306 | - | - | Overweight/Obese | BAZ >1 | 19.3 | Matjuda et al., 2020(115) |
| KZN R | 2009 | 6-11y | 321 | 6.2 | 2.2 | OverweightObese | BAZ 1-2BAZ >2 | 21.57.2 | Baumgartner *et al.,* 2012(116) |
| **Table S2. Continuing** |  |  |  |  |  |  |  |  |
| KZN R | 2011 | 7-14y | 959 | 9.2 | 4.0 | OverweightObese | BAZ 1-2BAZ >2 | 9.03.8 | Tathiah *et al.,* 2013(117) |
| KZN R | 2018 | 5-13y | 102 | 6.8 | 2.0 | OverweightObese | BAZ 1-2BAZ >2 | 6.81.0 | Gate *et al*., 2020(62) |
| Gauteng U | 2006 | 7-11y | 113 | 16.8 | 10.0 | OverweightObese | BAZ 1-2BAZ >2 | 10.63.5 | Samuel *et al.,* 2010(118) |
| Gauteng U | 2015 | 5-9y | 220 | 8.6 | 2.7 | Overweight | WHZ >2 | 24.1 | Shiau *et al.,* 2017(49) |
| Gauteng RU | 2018 | 5-9y | 626 | 6.7 | 6.8 | OverweightObese | BAZ 1-2BAZ >2 | 13.46.8 | Senekal *et al.,* 2019(42) |
|  |  | **International Obesity Task Force (IOTF) BMI cut-points** |
| Limpopo U | 2011 | 7-13y | 269 | - | - | Overweight | IOTF | 4.5 | Goon *et al.,* 2013(119) |
| Mphu R | 2007 | 5-9y | 970 | 5.0 | 6.0 | OverweightObese | IOTF | 4.01.0 | Kimani-Murage *et al.,* 2010(72) |
| Mphu R | 2007 | 10-14y | 944 | 7.0 | 7.0 | OverweightObese | IOTF | 6.02.0 | Kimani-Murage *et al.,* 2010(72) |
| NWP RU | 2000 | 10-15y | 1257 | 19.1 | - | OverweightObese | IOTF | 6.31.6 | Mukuddem-Petersen & Kruger, 2004(80) |
| NWP U | 2006 | 11-13y | 277 | - | - | OverweightObese | IOTF | 15.56.5 | Monyeki *et al.,* 2009(50) |
| NWP U | 2009 | 6-7y | 816 | 4.3 | - | OverweightObese | IOTF | 7.83.8 | Kemp *et al.,* 2011(81) |
| KZN RU | 1998 | 6-11y | 942 | 25.9 | 6.8 | OverweightObese | IOTF | 20.47.0 | Jinabhai *et al.,* 2005(71) |
| KZN R | 2010 | 7y | 514 | - | 3.9 | OverweightObese | IOTF | 9.91.4 | Craig *et al.,* 2013(56) |
| KZN R | 2010 | 11y | 503 | - | 3.4 | OverweightObese | IOTF | 8.52.4 | Craig *et al.,* 2013(56) |
| KZN RU | 2012 | 7-11y | 1532 | 2.9 | - | Overweight | IOTF | 13.2 | Houle *et al.,* 2016(83) |
| National  | 1999 | 7-9y | 544 | 13.0 | 10.7 | OverweightObese | IOTF | 6.53.0 | Labadarios*,* 2000(46) |
| 5 Provinces RU | 2005 | 6-13y | 10195 | - | - | OverweightObese | IOTF | 13.83.5 | Armstrong *et al.,* 2006(84) |
| **Table S2. Continuing** |  |  |  |  |  |  |  |  |
| National  | 2012 | 7-9y | 929 | 9.4 | 8.6 | OverweightObese | IOTF | 8.33.4 | Shisana *et al.,* 2014(6) |
| National  | 2012 | 10-14y | 1305 | 12.5 | 0 | OverweightObese | IOTF | 12.34.2 | Shisana *et al.,* 2014(6) |

R = rural, U = urban, M = male, F = female, NCHS = National Center for Health Statistics, CDC = Centers for Disease Control, p = percentile, HAZ = height-for-age z-score, WHZ = weight-for-height z-score, BAZ = body mass index-for-age z-score, EC = Eastern Cape, KZN = KwaZulu-Natal, Mphu = Mphumalanga, NWP = North West province, WC = Western Cape, IOTF = International Obesity Task Force

**Table S3. The prevalence of stunting, underweight, overweight and obesity among adolescents by province and reference**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Province****Study setting** | **Year of study** | **Age group** | **Sample size; M, F** | **Stunted** | **Under-weight** | **Overweight****Obese** | **Cut-point reference** | **Prevalence (%)** | **Reference** |
|  |  | **Reference: NCHS WHZ >2/ NCHS 85-95th NCHS >95th** |
| Limpopo RU  | 1997 | 15y | 50 | 30.0 | 18.0 | - | - | - | MacIntyre *et al.,* 2006(120) |
| WC U | 2000 | 15-18y | 60 F | - | 0 | OverweightObese | 85-95th p>95th p | 19.72.2 | Caradas *et al.,* 2001(121) |
|  |  | **Reference: CDC 2000 BMI >85th and 95th percentiles** |
| Limpopo R | 2010 | 14-16y | 208;122M, 86F | - | 8.0 | OverweightObese | 85-95th p>95th p | 6.73.8 | Toriola *et al.,* 2015(74) |
| EC U | 2015 | 13-17y | 388;116M,276F | - | 1.0 | OverweightObese | 85-95th p>95th p | 21.720.6 | Nkeh-Chungag *et al.,* 2015(61) |
| KZN RU | 2016 | 16-20y | 564;204M,360F | 23.2 | 9.6 | OverweightObese | 85-95th p>95th p | 15.913.3 | Bhimma *et al.,* 2018(122) |
|  |  | **Reference: WHO 2006 WHZ/BAZ**  |
| NWP U | 2004 | 12-16y | 313;134M,179F | 16.3 | - | OverweightObese | BAZ 1-2BAZ >2 | 7.31.3 | Mamabolo *et al.,* 2007(27) |
| FS U | 2006 | 13-15y | 414;174M,240F | 6.8 | 3.4 | OverweightObese | BAZ 1-2BAZ >2 | 16.26.0 | Meko *et al.,* 2015(58) |
| Gauteng U | 2007 | 16-18y | 1172;566M,606F |  | - | OverweightObese | BAZ 1-2BAZ >2 | 12.65.3 | Lundeen *et al.,* 2016(85) |
| EC R | 2013 | 14-18y | 98;48M, 50F | 8.2 | 2.1 | OverweightObese | BAZ 1-2BAZ >2 | 15.32.0 | Oldewage-Theron *et al*., 2014(59) |
| Gauteng U | 2014 | 13-18y | 136 | - | 3.7 | OverweightObese | BAZ 1-2BAZ >2 | 13.28.1 | McVeigh & Meiring, 2014(123) |
| KZN R | 2018 | 14-19y | 31 | - | 3.2 | OverweightObese | BAZ 1-2BAZ >2 | 32.23.2 | Gate *et al.,* 2020(62) |
|  |  | **International Obesity Task Force (IOTF) cut-points** |
| WC U | 2005 | 14-16y | 166;64M, 102F | - | - | OverweightObese | IOTF | 19.34.2 | Somers *et al.,* 2006(60) |
| Mphu | 2007 | 15-20y | 904; 432M,472F | 6.0 | 8.0 | OverweightObese | IOTF | 8.04.0 | Kimani-Murage *et al.,* 2010(72) |
| **Table S3. Continuing** |  |  |  |  |  |  |  |  |
| KZN R | 2013 | 15y | 502;182M,320F | - | 3.4 | OverweightObese | IOTF | 13.15.8 | Craig *et al.,* 2013(56) |
| WC U | 2014 | 13-18y | 689;342M,347F | - | 27.1 | OverweightObese | IOTF | 11.24.8 | Van Niekerk *et al.,* 2013(55) |
| NWP U | 2011 | 15y | 186 | - | 17 | Overweight/Obese | IOTF | 13.0 | Masocha *et al*., 2020(124) |
| NWP RU | 2016 | 11-13y | 381 | - | - | Overweight/Obese | IOTF | 18.9 | De Waal & Pienaar, 2021(20) |
| EC RU | 2016 | 10-14y | 411 | - | - | OverweightObese | IOTF | 9.3,13.4 | Chungag *et al*., 2021(125) |
| EC RU | 2017 | 11-19y | 1360 | - | 8.5 | Overweight/Obese | IOTF | 17.58.6 | Okeyo *et al*., 2020(64) |
| EC U | 2019 | 13-16y | 244 | - | 4.1 | Overweight/Obese | IOTF | 16.815.5 | Letswalo *et al*., 2021(126) |
| National RU YRBS | 2002 | 13-19y | 9442;4870M, 4572F | 11.4 | 9.0 | OverweightObese | IOTF | 16.94.0 | Reddy *et al.,* 2009(53) |
| National RU DHS | 2003 | 15-19y | 1256;625M,634F | - | 20.5 | OverweightObese | IOTF | 12.24.0 | DoH & MRC, 2007(37) |
| National RU YRBS | 2008 | 13-19y | 9965;4870M,5058F | 13.1 | 8.4 | OverweightObese | IOTF | 19.75.3 | Reddy *et al.,* 2009(53) |
| National RU YRBS | 2011 | 13-19y | 9816;4614M,5202F | 12.9 | 7.0 | OverweightObese | IOTF | 23.16.9 | Reddy *et al.,* 2013(54) |
| National RU DHS | 2016 | 15-19y | 1043;499M,544F | 2.1 | 13.4 | OverweightObese | WHO adult BMI | 10.76.6 | NDoH, StatsSA & ICF, 2019(5) |

U = urban, R = rural, M = male, F = female, NCHS = National Center for Health Statistics, CDC = Centers for Disease Control, p = percentile, HAZ = height-for-age z-score, WHZ = weight-for-height z-score, BMIZ = body mass index-for-age z-score, EC = Eastern Cape, FS = Free State, KZN = KwaZulu-Natal, Mphu = Mphumalanga, NWP = North West province, WC = Western Cape, YRBS = Youth Risk Behaviour Survey, DHS = Demographic & Health Survey, IOTF = International Obesity Task Force

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