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| **Supplementary Table 1. Characteristics of the population and households by categories of socioeconomic position in Colombia (ENSIN 2010)** | | | | |
|  | **All** | **Socioeconomic position category y (terciles)** | | |
|  | **Low** | **Medium** | **High** |
| **Children <5 y (n= 19734)** |  |  |  |  |
| Age, y (95% CI) | 2.1 (2.0, 2.2) | 2.0 (2.0, 2.1) | 2.1 (2.0, 2.1) | 2.1 (1.9, 2.1) |
| Male sex, % (95% CI) | 51.5 (50.1, 52.5) | 51.8 (50.1, 53.1) | 50.4 (48.5, 52.4) | 51.9 (50.0, 53.7) |
| **Women 11 – 19 y (n= 16831)** |  |  |  |  |
| Age, y (95% CI) | 15.5 (15.4, 15.5) | 15.3 (15.2, 15.3) | 15.4 (15.3, 15.5) | 15.8 (15.7, 15.9)\* |
| **Women 20 - 49 y (n= 44051)** |  |  |  |  |
| Age, y (95% CI) | 33.6 (33.5, 33.7) | 33.4 (33.2, 33.5) | 33.6 (33.4, 33.8) | 33.7 (33.4, 33.8) |
| Education level, % (95% CI) |  |  |  |  |
| Low (0-6 y) | 36.5 (35.7, 37.2) | 54.9 (53.7, 56.1) | 36.0 (35.0, 37.1) | 9.1 (8.4, 9.8)\* |
| Medium (7-12 y) | 41.2 (40.5, 41.9) | 35.5 (34.2, 36.7) | 42.7 (41.5, 44.0) | 21.8 (20.7, 23.0) |
| High (>12 y) | 22.3 (21.6, 23.1) | 23.7 (22.7, 24.6) | 44.2 (43.1, 45.2) | 32.2 (31.0, 33.3) |
| **Households (n= 44051)** |  |  |  |  |
| Ethnicity, % (95% CI) |  |  |  |  |
| Indigenous | 4.2 (3.8, 4.6) | 6.3 (5.7, 7.1) | 3.5 (3.1, 4.0) | 2.3 (2.0, 2.7)\* |
| Black/Mulatto/Afro-descent | 10.1 (9.6, 10.7) | 14.2 (13.2, 15.2) | 8.7 (8.0, 9.5) | 6.7 (6.2, 7.3)\* |
| Other ethnicity | 85.7 (85.0, 86.2) | 79.4 (78.3, 80.5) | 87.8 (86.9, 88.6) | 90.8 (90.2, 91.4)\* |
| Household characteristics and goods, % (95% CI) |  |  |  |  |
| Bare-earth floor | 6.8 (6.3, 7.3) | 14.3 (13.2, 15.4) | 3.1 (2.7, 3.7) | 1.1 (0.9, 1.3)\* |
| Use of firewood or carbon for cooking | 15.6 (14.8, 16.3) | 27.1 (25.7, 28.5) | 10.5 (9.6, 11.4) | 6.6 (5.9, 7.4)\* |
| Public sanitary sewer system | 73.6 (72.5, 74.6) | 57.1 (55.4, 58.8) | 80.4 (79.1, 81.6) | 86.6 (85.5, 87.7)\* |
| Public water network connected to household | 87.4 (86.6, 88.1) | 77.1 (75.6, 78.5) | 92.0 (91.1, 92.8) | 95.2 (94.6, 95.8)\* |
| Electricity | 97.2 (96.8, 97.6) | 94.4 (93.6, 95.1) | 98.6 (98.2, 98.9) | 99.3 (99.1, 99.5)\* |
| Motor vehicle (car, van, truck or motorcycle) | 28.2 (27.5, 29.0) | 16.2 (15.4, 17.0) | 29.1 (28.0, 30.3) | 40.4 (39.3, 41.6)\* |
| Television | 92.5 (92.1, 92.9) | 85.3 (84.4, 86.1) | 95.4 (94.9, 95.8) | 98.3 (98.1, 98.5)\* |
| Telephone | 39.9 (38.9, 40.8) | 22.8 (21.6, 24.0) | 41.7 (40.3, 43.2) | 56.7 (55.4, 58.0)\* |
| Cell phone | 92.4 (92.1, 92.7) | 86.5 (85.8, 87.2) | 94.4 (93.9, 95.0) | 97.4 (97.1, 97.6)\* |
| Refrigerator | 77.0 (76.3, 77.7) | 58.7 (57.5, 59.8) | 82.9 (81.9, 83.9) | 92.7 (92.1, 93.2)\* |
| \* Linear trend test p<0.001 |  |  |  |  |

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| **Supplementary Table 2. Prevalence of malnutrition (overnutrition and undernutrition) by SEP category, mother’s education level and ethnicity in Colombia (ENSIN 2010)** | | | | | | | | | |
|  | **Total**  **n (%)1** | | **Overnutrition, % (95% CI)** | | |  | **Undernutrition, % (95% CI)** | | |
|  | **Overweight2** | **Obesity3** | **Overweight/**  **Obesity4** |  | **Wasting/**  **Underweight5** | **Stunting/**  **short stature6** | **Anemia7** |
| **Children <5 y** |  | |  |  |  |  |  |  |  |
| All | 19734 (100.0 %) | | 4.2 (3.9, 4.6) | 1.0 (0.8, 1.2) | 5.2 (4.8, 5.7) |  | 1.2 (0.9, 1.4) | 13.8 (13.0, 14.5) | 27.5 (26.0, 28.8) |
| Socioeconomical position |  | |  |  |  |  |  |  |  |
| Low SEP | 11690 (59.2 %) | | 3.7 (3.2, 4.2) | 0.6 (0.4, 0.8) | 4.4 (3.8, 4.9) |  | 1.5 (1.2, 1.8) | 17.3 (16.2, 18.5) | 30.8 (29.0, 32.7) |
| Medium SEP | 4119 (20.9 %) | | 4.8 (3.9, 5.6)\* | 1.3 (0.8, 1.7)\* | 6.0 (5.1, 7.0)\* |  | 0.6 (0.3, 0.9)\* | 10.1 (8.7, 11.4)\* | 23.6 (21.0, 26.2)\* |
| High SEP | 3925 (19.9 %) | | 4.8 (4.0, 5.7)\* | 1.5 (1.1, 2.0)\* | 6.4 (5.4, 7.3)\* |  | 0.9 (0.5, 1.2)\* | 9.9 (8.6, 11.2)\* | 23.4 (20.7, 26.1)\* |
| Mother’s education level 8 |  | |  |  |  |  |  |  |  |
| Low (0-6 y) | 6059 (30.7%) | | 3.2 (2.6, 3.8) | 0.4 (0.2, 0.6) | 3.6 (2.9, 4.3) |  | 1.6 (1.2, 2.0) | 20.0 (18.4, 21.6) | 28.7 (26.3, 31.2) |
| Medium (7-12 y) | 9345 (47.4%) | | 4.4 (3.8, 5.0)\* | 1.2 (0.9, 1.5)\* | 5.6 (5.0, 6.2)\* |  | 1.1 (0.8, 1.4) | 12.3 (11.3, 13.3)\* | 28.5 (26.6, 30.4) |
| High (>12 y) | 2880 (14.6%) | | 4.8 (3.7, 5.8)\* | 1.5 (0.9, 2.1)\* | 6.3 (5.1, 7.5)\* |  | 0.9 (0.3, 1.4)\* | 8.4 (6.8, 10.0)\*† | 23.8 (20.4, 27.1)\*† |
| Ethnicity |  | |  |  |  |  |  |  |  |
| Indigenous | 2606 (13.2%) | | 6.4 (4.9, 8.4) | 0.2 (0.0, 0.5) | 6.6 (4.9, 8.4) |  | 1.1 (0.5, 1.7) | 30.1 (25.6, 34.5) | 32.7 (26.9, 38.5) |
| Black/Mulatto/Afro-descendant | 2183 (11.1 %) | | 3.4 (3.0, 5.0)\* | 0.6 (0.2, 0.9) | 4.0 (3.0, 5.0)\* |  | 2.0 (1.2, 2.9) | 11.7 (9.8, 13.6)\* | 33.7 (29.9, 37.5) |
| Other ethnicity | 14945 (75.7 %) | | 4.2 (4.9, 5.8) † | 1.1 (0.9, 1.3)\* † | 5.3 (4.9, 5.8) † |  | 1.0 (0.8, 1.3) † | 13.1 (12.3, 13.9)\* | 26.2 (24.7, 27.7)\*† |
| **Women 11 – 19 y** |  | |  |  |  |  |  |  |  |
| All | 16831 (100.0%) | | 13.4 (12.7, 14.1) | 2.8 (2.5, 3.1) | 16.2 (15.4, 16.9) |  | 1.8 (1.5, 2.1) | 11.0 (10.3, 11.8) | 7.8 (6.9, 8.7) |
| Socio economical position |  | |  |  |  |  |  |  |  |
| Low | 9043 (53.7%) | | 14.1 (13.1, 15.1) | 2.9 (2.4, 3.4) | 17.0 (15.9, 18.1) |  | 2.1 (1.7, 2.5) | 13.7 (12.6, 14.8) | 10.3 (8.9, 11.8) |
| Medium | 3567 (21.2%) | | 13.5 (12.1, 14.9) | 2.8 (2.1, 3.4) | 16.3 (14.7, 17.8) |  | 1.4 (0.0, 1.9)\* | 10.0 (8.5, 11.5)\* | 5.9 (4.3, 7.5)\* |
| High | 4221 (25.1%) | | 12.2 (11.0, 13.4)\* | 2.7 (2.1, 3.3) | 14.9 (13.5, 16.3)\* |  | 1.5 (1.0, 2.1) | 7.2 (6.1, 8.3)\*† | 4.3 (2.9, 5.7)\* |
| Mother’s education level 8 |  | |  |  |  |  |  |  |  |
| Low (0-6 y) | 3163 (18.8%) | | 13.5 (11.9, 15.2) | 3.2 (2.3, 4.1) | 16.7 (15.0, 18.5) |  | 2.2 (1.5, 2.9) | 19.7 (17.5, 21.8) | 10.7 (8.0, 13.4) |
| Medium (7-12 y) | 11418 (67.8%) | | 14.2 (13.3, 15.1) | 2.8 (2.4, 3.2) | 17.0 (16.0, 17.9)\* |  | 1.7 (1.4, 2.1) | 9.3 (8.5, 10.0)\* | 7.2 (6.2, 8.2)\* |
| High (>12 y) | 1218 (7.2%) | | 8.9 (7.0, 10.8)\*† | 2.5 (1.4, 3.7) | 11.5 (9.2, 13.7) \*† |  | 0.7 (0.4, 1.4)\*† | 6.3 (4.0, 8.7)\*† | 9.0 (5.0, 13.1) |
| Ethnicity |  | |  |  |  |  |  |  |  |
| Indigenous | 1915 (11.4%) | | 17.2 (14.2, 20.2) | 2.2 (1.1, 3.4) | 19.4 (16.3, 22.6) |  | 0.5 (0,0, 0.1) | 33.8 (28.2, 39.4) | 11.2 (6.7, 15.8) |
| Black/Mulatto/Afro-descendant | 1701 (10.1%) | | 13.9 (11.9, 16.0) | 3.7 (2.7, 4.8) | 17.7 (15.4, 19.9) |  | 2.3 (1.3, 3.3)\* | 7.3 (5.5, 9.1)\* | 13.3 (9.7, 16.8) |
| Other ethnicity | 13215 (78.5%) | | 13.2 (12.3, 13.9)\* | 2.7 (2.4, 3.1) | 15.8 (15.0, 16.6)\* |  | 1.8 (1.5, 2.1)\* | 10.3 (9.5, 11.0)\*† | 6.9 (5.9, 7.8)† |
| **Women 20 – 49 y** |  | |  |  |  |  |  |  |  |
| All | 44051 (100.0%) | | 30.0 (29.4, 30.6) | 15.2 (14.8, 15.6) | 45.2 (44.5, 45.8) |  | 2.9 (2.7, 3.1) | 11.3 (10.9, 11.7) | 12.4 (11.5, 13.3) |
| Socioeconomical position |  |  | |  |  |  |  |  |  |
| Low | 17637 (40.0%) | 30.5 (29.6, 31.4) | | 17.1 (16.3, 17.9) | 47.6 (46.6, 48.6) |  | 3.5 (3.2, 3.9) | 15.1 (14.2, 15.9) | 15.4 (13.9, 17.0) |
| Medium | 10298 (23.4%) | 30.7 (29.6, 31.9) | | 16.1 (15.2, 17.0) | 46.8 (45.5, 48.0) |  | 2.8 (2.4, 3.2)\* | 11.0 (10.2, 11.8)\* | 9.7 (8.1, 11.3)\* |
| High | 16116 (36.6%) | 29.2 (28.4, 30.1)\*† | | 13.3 (12.6, 13.9) \*† | 42.5 (41.5, 43.4) \*† |  | 2.4 (2.1, 2.7)\* | 8.7 (8.1, 9.2)\*† | 11.2 (9.8, 12.7)\* |
| Education level 8 |  |  | |  |  |  |  |  |  |
| Low (0-6 y) | 13779 (31.3%) | 33.8 (32.7, 34.8) | | 21.1 (20.2, 22.0) | 54.8 (53.7, 56.0) |  | 2.4 (2.0, 2.7) | 19.4 (18.4, 20.4) | 14.6 (12.8, 16.3) |
| Medium (7-12 y) | 18393 (41.8%) | 31.3 (30.4, 32.1)\* | | 14.9 (14.2, 15.6)\* | 46.2 (45.3, 47.1)\* |  | 3.1 (2.8, 3.5)\* | 10.0 (9.5, 10.6)\* | 12.4 (11.0, 13.7)\* |
| High (>12 y) | 9707 (22.0%) | 27.0 (25.9, 28.1)\*† | | 10.9 (10.1, 11.6)\*† | 37.9 (36.6, 39.1)\*† |  | 3.0 (2.5, 3.4)\* | 6.0 (5.4, 6.6)\*† | 9.4 (7.8, 11.1)\*† |
| Ethnicity |  |  | |  |  |  |  |  |  |
| Indigenous | 3999 (9.1%) | 34.0 (31.4, 36.6) | | 16.6 (14.6, 18.6) | 50.6 (47.8, 53.3) |  | 1.9 (1.2, 2.6) | 29.3 (26.6, 32.0) | 15.0 (11.7, 18.2) |
| Black/Mulatto/Afro-descendant | 4403 (10.0%) | 30.0 (28.4, 31.6)\* | | 19.0 (17.6, 20.4) | 49.0 (47.1, 50.1) |  | 3.7 (3.0, 4.5)\* | 5.7 (4.9, 6.6)\* | 21.3 (18.0, 24.5)\* |
| Other ethnicity | 35649 (80.9%) | 29.8 (29.2, 30.4)\* | | 14.7 (14.2, 15.1)† | 44.5 (43.8, 45.2)\*† |  | 2.8 (2.6, 3.0)\*† | 11.2 (10.7, 11.6)\*† | 11.1 (10.2, 12.0)\*† |
| 1Weighted % (unadjusted estimates)  2Overweight: BMI-for-age *z* score >2 and ≤3 for children <5 y; BMI-for-age *z* score >1 and ≤2 for women 11—19 y; and BMI ≥25 and <30 for women 20—49 y.  3Obesity: BMI-for-age *z* score >3 for children <5 (less that 1% of children presented obesity) y; BMI-for-age *z* score >2 for women 11—19 y; and BMI ≥30 for women 20—49 y.  4Overweight/obesity: BMI-for-age *z* score >2 for children <5 y; BMI-for-age *z* score >1 for adolescents 11—19 y; and BMI ≥25 kg/m2 for women 20—49 y.  5Wasting: Weight-for-height *z* score <-2 for children <5 y; underweight: BMI-for-age *z* score <-2 for women 11—19 y; and BMI <18.5 for women 20—49 y.  6Stunting: Height-for-age <-2 for children <5 y; height-for-age *z* score <-2 for women 11—19 y; and short stature: height <1.49m for women 20—49 y.  7Anemia: Hemoglobin adjusted using the Cohen and Haas equation <110 g/L for children <5 y; and <120 g/L for women 11—49 y. The sample size for anemia was 2155 for children <5 y; 453 for women 11—19 y; and 1050 among women 20—49 y.  8 Missing data: there is a lack of information in mother´s education level in 7.3%, and 6.1%, of the sample in children < 5y and women 11-19, respectively. Also lack of information about level education in 4.9% of women 20 -49 y.  \*p<0.05 vs. low category/low education/indigenous; †p<0.05 vs medium category/medium education/Black/Mulatto/Afro-descendant | | | | | | | | | |

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| **C. Ethnicity** |

Supplementary Figure 1. Prevalence of overweight or obesity, and stunting or short stature by socioeconomical position (A), education level (B), and (C) ethnicity among age groups in Colombia. Education level is based on years of education and is based on mother’s education level for children <5 y and women 11-19 y. Data are from the Colombian National Nutrition Survey 2010 (n=80,616).