Appendix

1 Introduction

The purpose of this Appendix is to provide technical details on our data sources and methodology. Section 2 includes information on all data sources. Section 3 describes how we constructed personal wealth indices for our analysis. Section 4 discusses the use of self-reported data. Section 5 reports details on all fixed-effects regression results. Section 6 reports robustness checks to our estimation of the wealth-obesity and wealth-overweight transition zones. Section 7 describes an alternate meta-regression specification. Section 8 describes the forecasting methodology and out-of-sample validation.
2 Data

2.1 Data Identification

We searched the Global Health Data Exchange, a catalog of health-related data maintained by the Institute for Health Metrics and Evaluation, for individual-level data from surveys, censuses, and other data collection efforts containing personal wealth and body mass measures. Of 2,272 records identified via the Global Health Data Exchange, 1,018 records are not publicly available, with no application available, including reports and research papers. 463 records are cluster-level tabulations of individual data. 689 records require registration and applications (236 of which are the Demographic and Health Surveys and 233 are Multiple Indicator Cluster Surveys). 75 records are available for download (Living Standards Measurement Study, Reproductive Health Survey, United States National Health and Nutrition Examination Survey, etc). 634 records explicitly include individual height and weight measurements.

Data extraction efforts were focused on surveys that has cross-country comparable asset indicators and height and weight measurements. The Demographic and Health Surveys and World Health Surveys are cross-country surveys with consistent asset indicators, thus we focused on these surveys. Height and weight measurements were not administered for every Living Standards Measurement Study, and geographic variability was not improved by their inclusion. Eurobarometer and International Social Survey Programme surveys are self-reported height and weight data and do not improve the scope of the study significantly beyond the World Health Surveys. The Survey of Health, Aging, and Retirement in Europe includes individuals 50 and older which does not overlap with the Demographic and Health Surveys.

2.2 Demographic Health Surveys

The Demographic and Health Survey is a household-based, cross-sectional survey that is available for 90 countries, with over 200 country-years of data. Households are selected via multi-stage, stratified, probabilistic sampling design. Since 1984, the survey has collated data on individual and household attributes in low- and middle-income countries via standardized questionnaires. Most individual questionnaires restrict data collection to women, aged 15-49 years old, however there are also questionnaires for men and children. Since 1986, the survey has included anthropometric measurements, and since 1999, it has formally included a country wealth index. Although surveys in earlier years did not include as many questions as in subsequent years, the surveys provide cross-country comparable measurements of household attributes including, wealth asset indicators and anthropometric measurements.
2.3 World Health Surveys

The World Health Survey is a household-based, cross-sectional survey that is available for 70 countries, in the time period 2002-2004. Households are selected via a probabilistic sampling design. There are questionnaires specifically for low- and middle-income countries, and a similar but distinct questionnaire for high-income countries. Height and weight information are self-reported, but collected via a face-to-face interview. Wealth assets are standardized across low- and middle-income countries, with substantial overlap of wealth asset questions in high-income countries.

2.4 Institute for Health Metrics and Evaluation Gross Domestic Product (GDP) per capita

GDP per capita data were extracted from the Institute for Health Metrics and Evaluation. All data are in purchasing power parity 2017 dollars, and span 188 countries over 1950 to 2040. The Institute for Health Metrics and Evaluation uses four GDP per capita series to construct their estimates: (1) The International Monetary Fund’s World Economic Outlook; (2) The World Bank’s World Development Indicators; (3) The University of Pennsylvania Center for International Comparisons of Production, Income, and Prices GDP per capita series; and (4) Angus Madison’s GDP per capita series hosted at the University of Groningen. The Institute for Health Metrics and Evaluation’s methodology for combining these sources to produce one series is described in Spencer et al (2012) cited in the main text. Their methodology for projecting GDP per capita to 2040 is described in Dieleman et al (2018) also cited in the main text.

We use these data for the following reasons. First, it is estimated in purchasing power parity dollars, which are preferable over US dollars for estimating the effects of within-country wealth on obesity. Second, in addition to compiling four data sources to estimate past GDP per capita, the Institute for Health Metrics and Evaluation also incorporates uncertainty in the forecast, producing 1,000 "draws", or possible GDP per capita forecasts based on past data volatility and trends. We use these draws in our projections as well to capture uncertainty in future economic growth.

It is worth noting our choice of metrics for personal and national wealth. First, we intentionally chose a relative measure of personal wealth because we believe that is relevant for national policymakers, who are considering the health of the poor within their own countries. We estimate how obesity changes for a single wealth decile in a single country as that country’s GDP changes. The focus is on the ordinal ordering rather than finding a measure of distance in personal wealth space. Second, we conduct additional analyses in the Supplementary Appendix Section 5 using an absolute measure of personal wealth, constructed with commonly found assets across the surveys. This measure would capture the distance between households that a Gini coefficient would also capture. The results from this analysis in the Supplementary Appendix, Tables S7-S12, reinforce the findings of the main text.
2.5 United Nations World Population Prospects

The UN Population World Population Prospect produces population estimates dis-aggregated by five-year age bins, sex, country, and year from 1950 until 2100. The World Population Prospect uses country-reported demographic data to complete its estimates from 1950-2015. To project population estimates to 2100, their models consider overall life-expectancy, migration flows, and fertility transitions. They consider the following fertility transition scenarios: medium-fertility assumption; high-fertility assumption; low-fertility assumption; constant-fertility assumption; instant-replacement assumption.

For this analysis, we extracted the medium-fertility variant. This means that future populations were projected with the following assumptions. In countries with high total fertility rates, fertility will continue to decline, stabilizing at two children per woman. Stated government policies and past trends of migration will continue into the future. Past trends in mortality rates will continue to into the future.

2.6 Construction of the Sample for Analysis

On the next page is a graphical representation of how potential survey respondents were excluded from the analysis. It displays how we arrived at a sample size of 2.24 million respondents.
2.7 Descriptive Statistics

Descriptive statistics of all variables are summarized in Tables A, B, and C.

Table A: Full Sample Summary Statistics

| Statistic | N      | Mean   | St. Dev. | Min   | Pctl(25) | Pctl(75) | Max   |
|-----------|--------|--------|----------|-------|----------|----------|-------|
| Year      | 2,244,008 | 2010.29 | 4.667    | 1995  | 2005     | 2015     | 2016  |
| Sex       | 2,241,991 | 1.958   | 0.199    | 1.000 | 2.000    | 2.000    | 2.000 |
| BMI       | 2,244,008 | 25.032  | 4.779    | 12.010| 19.710   | 25.440   | 59.950|
| Obese     | 2,244,008 | 0.085   | 0.278    | 0     | 0        | 0        | 1     |
| Overweight| 2,244,008 | 0.276   | 0.447    | 0     | 0        | 1        | 1     |
| GDP per capita | 2,244,008 | 5,385.910 | 4,743.620 | 460.565 | 2,606.510 | 5,616.000 | 96,907.200 |

Table B: Full sample Age Group Frequencies

| Age Group | Frequency |
|-----------|-----------|
| 1 (15,20] | 0.191     |
| 2 (20,25] | 0.183     |
| 3 (25,30] | 0.172     |
| 4 (30,35] | 0.142     |
| 5 (35,40] | 0.131     |
| 6 (40,45] | 0.108     |
| 7 (45,50] | 0.073     |

Table C: Full Sample Educational Attainment Frequency

| Educational Attainment | Frequency |
|------------------------|-----------|
| 0 No Education        | 0.243     |
| 1 Primary Education   | 0.247     |
| 2 Secondary Education | 0.406     |
| 3 Tertiary Education  | 0.104     |

In Tables D, E, and F, we provide survey specific information. Table D details the survey country and year, as well as the number of subjects, and the age frequency breakdown for the survey by 4 groups: $age < 20$; $20 \leq age < 30$; $30 \leq age < 40$; $age > 40$. Table E provides information on the unadjusted means of obesity by wealth quintile for each survey (where wealth = 1 is the poorest quintile and wealth = 5 is the richest quintile). Table F provides information on the unadjusted means of overweight by wealth quintile for each survey. Additionally, we graphically display survey coverage in Figures A and B. Figure A is a map which displays the number of surveys per country included in the analysis. Figure B is a heatmap which, for each country over time, displays if a survey is available, and if so what the mean, unadjusted overweight prevalence was.
| Location | Year | N     | % Women | a < 20 | 20 ≤ a < 30 | 30 ≤ a < 40 | a > 40 |
|----------|------|-------|---------|--------|-------------|-------------|--------|
| Albania  | 2008 | 7,520 | 1       | 0.200  | 0.234       | 0.263       | 0.303  |
| Armenia  | 2005 | 6,301 | 1       | 0.173  | 0.299       | 0.220       | 0.309  |
| Armenia  | 2015 | 5,898 | 1       | 0.121  | 0.326       | 0.308       | 0.245  |
| Austria  | 2003 | 879   | 0.377   | 0.036  | 0.135       | 0.256       | 0.572  |
| Azerbaijan| 2006 | 8,147 | 1       | 0.177  | 0.291       | 0.258       | 0.274  |
| Bangladesh| 2004 | 11,306| 1       | 0.148  | 0.370       | 0.285       | 0.197  |
| Bangladesh| 2007 | 10,833| 1       | 0.122  | 0.374       | 0.296       | 0.207  |
| Bangladesh| 2011 | 17,400| 1       | 0.113  | 0.383       | 0.280       | 0.224  |
| Bangladesh| 2014 | 17,683| 1       | 0.113  | 0.364       | 0.300       | 0.223  |
| Belgium  | 2003 | 892   | 0.447   | 0.038  | 0.178       | 0.196       | 0.587  |
| Benin    | 2006 | 16,717| 1       | 0.167  | 0.381       | 0.281       | 0.171  |
| Benin    | 2011 | 16,117| 1       | 0.175  | 0.359       | 0.296       | 0.170  |
| Bolivia  | 2003 | 17,277| 1       | 0.218  | 0.332       | 0.262       | 0.188  |
| Bolivia  | 2008 | 16,453| 1       | 0.207  | 0.328       | 0.265       | 0.200  |
| Bosnia and Herzegovina| 2003 | 1,015 | 0.421   | 0.022  | 0.173       | 0.184       | 0.621  |
| Brazil   | 2003 | 4,389 | 0.461   | 0.049  | 0.223       | 0.251       | 0.476  |
| Burkina Faso| 2003 | 13,913| 0.942   | 0.203  | 0.346       | 0.253       | 0.198  |
| Burkina Faso| 2010 | 8,451 | 1       | 0.196  | 0.364       | 0.272       | 0.169  |
| Burundi  | 2010 | 4,580 | 1       | 0.252  | 0.368       | 0.226       | 0.154  |
| Burundi  | 2016 | 8,580 | 1       | 0.230  | 0.362       | 0.250       | 0.158  |
| Cambodia | 2005 | 8,350 | 1       | 0.211  | 0.303       | 0.256       | 0.229  |
| Cambodia | 2010 | 9,327 | 1       | 0.210  | 0.343       | 0.227       | 0.220  |
| Cambodia | 2014 | 11,480| 1       | 0.169  | 0.345       | 0.264       | 0.222  |
| Cameroon | 2004 | 5,181 | 1       | 0.249  | 0.373       | 0.232       | 0.146  |
| Cameroon | 2011 | 7,884 | 1       | 0.235  | 0.379       | 0.231       | 0.156  |
| Chad     | 2003 | 3,296 | 0.489   | 0.063  | 0.328       | 0.257       | 0.352  |
| Chad     | 2014 | 11,201| 1       | 0.107  | 0.487       | 0.303       | 0.102  |
| Colombia | 2010 | 49,637| 1       | 0.253  | 0.279       | 0.242       | 0.226  |
| Comoros  | 2003 | 197   | 0.457   | 0.056  | 0.228       | 0.173       | 0.543  |
| Comoros  | 2012 | 5,157 | 1       | 0.240  | 0.360       | 0.256       | 0.143  |
| Congo    | 2003 | 1,547 | 0.485   | 0.063  | 0.360       | 0.266       | 0.311  |
| Congo    | 2005 | 6,858 | 1       | 0.220  | 0.388       | 0.253       | 0.139  |
| Congo    | 2011 | 5,644 | 1       | 0.204  | 0.349       | 0.274       | 0.173  |
| Cote d’Ivoire| 2003 | 2,646 | 0.589   | 0.073  | 0.339       | 0.288       | 0.300  |
| Cote d’Ivoire| 2011 | 4,814 | 1       | 0.206  | 0.383       | 0.253       | 0.158  |
| Croatia  | 2003 | 969   | 0.407   | 0.025  | 0.083       | 0.152       | 0.741  |
| Czech Republic| 2003 | 879   | 0.448   | 0.023  | 0.171       | 0.195       | 0.612  |
| Dem. Rep. of the Congo| 2007 | 4,726 | 1       | 0.203  | 0.391       | 0.246       | 0.160  |
| Dem. Rep. of the Congo| 2013 | 9,362 | 1       | 0.212  | 0.380       | 0.251       | 0.158  |
| Denmark  | 2003 | 939   | 0.480   | 0.020  | 0.098       | 0.184       | 0.698  |
| Dominican Republic| 2003 | 2,945 | 0.508   | 0.044  | 0.252       | 0.247       | 0.457  |
| Dominican Republic| 2013 | 10,874| 1       | 0.206  | 0.323       | 0.253       | 0.217  |
| Ecuador  | 2003 | 2,037 | 0.448   | 0.056  | 0.222       | 0.262       | 0.460  |
| Egypt    | 2005 | 19,280| 1       | 0.444  | 0.348       | 0.327       | 0.280  |
| Egypt    | 2008 | 16,410| 1       | 0.038  | 0.360       | 0.318       | 0.283  |
| Egypt    | 2014 | 21,554| 1       | 0.034  | 0.358       | 0.349       | 0.259  |
| Estonia  | 2003 | 951   | 0.360   | 0.022  | 0.131       | 0.152       | 0.694  |
| Ethiopia | 2003 | 869   | 0.716   | 0.136  | 0.371       | 0.255       | 0.238  |
| Location     | Year | N   | % Women | $a < 20$ | $20 \leq a < 30$ | $30 \leq a < 40$ | $a > 40$ |
|--------------|------|-----|---------|---------|------------------|------------------|---------|
| Ethiopia     | 2005 | 6,643 | 1       | 0.233   | 0.370            | 0.238            | 0.159   |
| Ethiopia     | 2011 | 15,970 | 1       | 0.232   | 0.376            | 0.245            | 0.147   |
| Ethiopia     | 2016 | 14,855 | 1       | 0.220   | 0.367            | 0.266            | 0.147   |
| Finland      | 2003 | 992   | 0.450   | 0.021   | 0.100            | 0.123            | 0.756   |
| France       | 2003 | 900   | 0.406   | 0.031   | 0.180            | 0.239            | 0.550   |
| Gabon        | 2012 | 5,539 | 1       | 0.220   | 0.333            | 0.253            | 0.195   |
| Georgia      | 2003 | 2,725 | 0.423   | 0.033   | 0.159            | 0.159            | 0.649   |
| Germany      | 2003 | 1,091 | 0.411   | 0.029   | 0.120            | 0.160            | 0.690   |
| Ghana        | 2003 | 8,613 | 0.792   | 0.138   | 0.309            | 0.261            | 0.292   |
| Ghana        | 2008 | 4,814 | 1       | 0.207   | 0.345            | 0.261            | 0.187   |
| Ghana        | 2014 | 4,750 | 1       | 0.187   | 0.332            | 0.277            | 0.204   |
| Greece       | 2003 | 912   | 0.509   | 0.020   | 0.136            | 0.184            | 0.660   |
| Guatemala    | 2003 | 2,747 | 0.438   | 0.053   | 0.290            | 0.234            | 0.423   |
| Guatemala    | 2014 | 24,193 | 1       | 0.223   | 0.330            | 0.259            | 0.188   |
| Guinea       | 2005 | 3,962 | 1       | 0.205   | 0.308            | 0.292            | 0.195   |
| Guinea       | 2012 | 4,715 | 1       | 0.232   | 0.342            | 0.251            | 0.175   |
| Guyana       | 2009 | 4,736 | 1       | 0.201   | 0.289            | 0.273            | 0.238   |
| Haiti        | 2005 | 5,254 | 1       | 0.255   | 0.351            | 0.216            | 0.178   |
| Haiti        | 2012 | 9,422 | 1       | 0.245   | 0.357            | 0.226            | 0.171   |
| Honduras     | 2005 | 19,246 | 1       | 0.228   | 0.352            | 0.246            | 0.175   |
| Honduras     | 2011 | 22,346 | 1       | 0.230   | 0.338            | 0.257            | 0.175   |
| Hungary      | 2003 | 1,366 | 0.424   | 0.021   | 0.165            | 0.136            | 0.678   |
| India        | 2003 | 6,401 | 0.531   | 0.062   | 0.255            | 0.258            | 0.425   |
| India        | 2005 | 118,722 | 1      | 0.192   | 0.348            | 0.275            | 0.185   |
| India        | 2015 | 687,156 | 1      | 0.178   | 0.340            | 0.268            | 0.214   |
| Ireland      | 2003 | 772   | 0.448   | 0.063   | 0.177            | 0.189            | 0.570   |
| Israel       | 2003 | 1,035 | 0.432   | 0.021   | 0.219            | 0.227            | 0.532   |
| Italy        | 2003 | 851   | 0.429   | 0.032   | 0.155            | 0.176            | 0.637   |
| Jordan       | 2007 | 5,196 | 1       | 0.021   | 0.308            | 0.391            | 0.280   |
| Jordan       | 2009 | 4,730 | 1       | 0.025   | 0.307            | 0.393            | 0.275   |
| Jordan       | 2012 | 7,187 | 1       | 0.022   | 0.291            | 0.385            | 0.302   |
| Kazakhstan   | 2003 | 4,073 | 0.348   | 0.014   | 0.177            | 0.276            | 0.533   |
| Kenya        | 2003 | 11,550 | 0.808   | 0.166   | 0.359            | 0.245            | 0.229   |
| Kenya        | 2008 | 8,308 | 1       | 0.208   | 0.377            | 0.250            | 0.165   |
| Kenya        | 2014 | 14,422 | 1       | 0.192   | 0.368            | 0.270            | 0.169   |
| Kyrgyzstan   | 2012 | 8,098 | 1       | 0.194   | 0.342            | 0.242            | 0.222   |
| Laos         | 2003 | 4,835 | 0.470   | 0.056   | 0.259            | 0.281            | 0.404   |
| Latvia       | 2003 | 728   | 0.349   | 0.041   | 0.140            | 0.159            | 0.659   |
| Lesotho      | 2004 | 3,414 | 1       | 0.250   | 0.342            | 0.222            | 0.186   |
| Lesotho      | 2009 | 3,960 | 1       | 0.244   | 0.353            | 0.231            | 0.172   |
| Lesotho      | 2014 | 3,388 | 1       | 0.236   | 0.353            | 0.246            | 0.164   |
| Liberia      | 2007 | 6,914 | 1       | 0.189   | 0.359            | 0.273            | 0.180   |
| Liberia      | 2013 | 4,595 | 1       | 0.201   | 0.350            | 0.262            | 0.187   |
| Luxembourg   | 2003 | 684   | 0.494   | 0.048   | 0.146            | 0.227            | 0.579   |
| Madagascar   | 2003 | 7,806 | 1       | 0.190   | 0.348            | 0.266            | 0.195   |
| Madagascar   | 2008 | 8,375 | 1       | 0.230   | 0.330            | 0.261            | 0.178   |
| Malawi       | 2003 | 4,741 | 0.410   | 0.084   | 0.394            | 0.210            | 0.312   |
| Malawi       | 2004 | 11,127 | 1       | 0.205   | 0.424            | 0.226            | 0.146   |
| Malawi       | 2010 | 7,601 | 1       | 0.223   | 0.382            | 0.247            | 0.149   |
| Malawi       | 2015 | 8,048 | 1       | 0.214   | 0.377            | 0.263            | 0.146   |
| Malaysia     | 2003 | 4,805 | 0.466   | 0.036   | 0.225            | 0.276            | 0.464   |
Table D: Survey Respondent Demographics

| Location             | Year  | N     | % Women | $a < 20$ | $20 \leq a < 30$ | $30 \leq a < 40$ | $a > 40$ |
|----------------------|-------|-------|---------|----------|------------------|------------------|----------|
| Maldives             | 2009  | 5,666 | 1       | 0.017    | 0.405            | 0.336            | 0.242    |
| Mali                 | 2003  | 467   |         | 0.086    | 0.206            | 0.257            | 0.452    |
| Mali                 | 2006  | 14,271| 1       | 0.211    | 0.361            | 0.255            | 0.173    |
| Mali                 | 2012  | 5,251 | 1       | 0.176    | 0.384            | 0.279            | 0.160    |
| Mauritania           | 2003  | 2,785 |         | 0.076    | 0.245            | 0.246            | 0.433    |
| Mauritius            | 2003  | 2,326 | 0.613   | 0.041    | 0.210            | 0.260            | 0.489    |
| Mexico               | 2003  | 23,450| 0.422   | 0.053    | 0.243            | 0.243            | 0.461    |
| Moldova              | 2005  | 7,245 |         | 1        | 0.191            | 0.284            | 0.237    |
| Morocco              | 1995  | 7,245 |         | 1        | 0.191            | 0.284            | 0.237    |
| Morocco              | 2003  | 18,619| 0.961   | 0.184    | 0.327            | 0.253            | 0.236    |
| Mozambique           | 2003  | 11,705| 1       | 0.210    | 0.376            | 0.246            | 0.168    |
| Mozambique           | 2011  | 13,599| 1       | 0.223    | 0.350            | 0.267            | 0.160    |
| Myanmar              | 2003  | 5,851 | 0.436   | 0.043    | 0.225            | 0.251            | 0.481    |
| Myanmar              | 2015  | 12,657| 1       | 0.143    | 0.292            | 0.302            | 0.263    |
| Namibia              | 2003  | 3,632 | 0.401   | 0.061    | 0.319            | 0.268            | 0.352    |
| Namibia              | 2006  | 9,533 |         | 1        | 0.224            | 0.352            | 0.255    |
| Namibia              | 2013  | 5,155 |         | 1        | 0.168            | 0.298            | 0.225    |
| Nepal                | 2003  | 2,784 | 0.652   | 0.078    | 0.324            | 0.269            | 0.330    |
| Nepal                | 2006  | 10,738| 1       | 0.226    | 0.354            | 0.239            | 0.182    |
| Nepal                | 2011  | 6,144 |         | 1        | 0.221            | 0.350            | 0.248    |
| Nepal                | 2016  | 6,457 |         | 1        | 0.205            | 0.343            | 0.264    |
| Netherlands          | 2003  | 1,041 | 0.320   | 0.137    | 0.169            | 0.109            | 0.585    |
| Niger                | 2006  | 4,542 |         | 1        | 0.197            | 0.367            | 0.268    |
| Niger                | 2012  | 5,109 |         | 1        | 0.169            | 0.375            | 0.300    |
| Nigeria              | 2003  | 7,444 |         | 1        | 0.227            | 0.371            | 0.230    |
| Nigeria              | 2008  | 32,358| 1       | 0.195    | 0.372            | 0.254            | 0.178    |
| Nigeria              | 2013  | 38,334| 1       | 0.202    | 0.354            | 0.259            | 0.185    |
| Norway               | 2003  | 946   | 0.495   | 0.031    | 0.153            | 0.214            | 0.603    |
| Pakistan             | 2003  | 3,110 | 0.632   | 0.081    | 0.264            | 0.264            | 0.391    |
| Pakistan             | 2012  | 4,676 |         | 1        | 0.045            | 0.351            | 0.344    |
| Paraguay             | 2003  | 4,641 | 0.487   | 0.062    | 0.262            | 0.230            | 0.446    |
| Peru                 | 2004  | 27,197|         | 1        | 0.192            | 0.304            | 0.277    |
| Peru                 | 2007  | 27,197|         | 1        | 0.192            | 0.304            | 0.277    |
| Peru                 | 2009  | 23,336|         | 1        | 0.190            | 0.305            | 0.279    |
| Peru                 | 2010  | 22,530|         | 1        | 0.191            | 0.296            | 0.285    |
| Peru                 | 2011  | 22,246|         | 1        | 0.187            | 0.295            | 0.283    |
| Peru                 | 2012  | 23,672|         | 1        | 0.188            | 0.293            | 0.282    |
| Philippines          | 2003  | 8,143 | 0.486   | 0.045    | 0.260            | 0.288            | 0.407    |
| Portugal             | 2003  | 862   | 0.414   | 0.037    | 0.167            | 0.188            | 0.608    |
| Russia               | 2003  | 3,437 | 0.356   | 0.024    | 0.138            | 0.165            | 0.672    |
| Rwanda               | 2005  | 5,642 |         | 1        | 0.233            | 0.349            | 0.240    |
| Rwanda               | 2010  | 6,952 |         | 1        | 0.223            | 0.383            | 0.231    |
| Rwanda               | 2014  | 6,698 |         | 1        | 0.208            | 0.360            | 0.272    |
| Sao Tome and Principe| 2008  | 2,386 |         | 1        | 0.205            | 0.342            | 0.259    |
| Senegal              | 2003  | 790   |         | 0.075    | 0.299            | 0.234            | 0.392    |
| Senegal              | 2005  | 4,580 |         | 1        | 0.257            | 0.356            | 0.231    |
| Senegal              | 2010  | 5,745 |         | 1        | 0.237            | 0.366            | 0.243    |
| Sierra Leone         | 2008  | 3,501 |         | 1        | 0.166            | 0.379            | 0.293    |
| Sierra Leone         | 2013  | 7,983 |         | 1        | 0.230            | 0.325            | 0.281    |
| Slovakia             | 2003  | 1,667 |         | 0.047    | 0.347            | 0.179            | 0.427    |
| Slovenia             | 2003  | 561   | 0.469   | 0.036    | 0.185            | 0.164            | 0.615    |
| Location              | Year | N   | % Women | a < 20 | 20 ≤ a < 30 | 30 ≤ a < 40 | a > 40 |
|-----------------------|------|-----|---------|--------|-------------|-------------|--------|
| South Africa          | 2003 | 350 | 0.443   | 0.051  | 0.266       | 0.309       | 0.374  |
| Spain                 | 2003 | 5,979 | 0.417   | 0.017  | 0.104       | 0.172       | 0.707  |
| Sri Lanka             | 2003 | 4,040 | 0.502   | 0.048  | 0.219       | 0.244       | 0.488  |
| Swaziland             | 2003 | 1,756 | 0.428   | 0.085  | 0.305       | 0.246       | 0.364  |
| Swaziland             | 2006 | 4,856 | 1       | 0.256  | 0.352       | 0.227       | 0.165  |
| Sweden                | 2003 | 936  | 0.422   | 0.028  | 0.128       | 0.162       | 0.682  |
| Tajikistan            | 2012 | 9,627 | 1       | 0.207  | 0.359       | 0.234       | 0.200  |
| Tanzania              | 2004 | 10,232 | 1       | 0.222  | 0.367       | 0.251       | 0.160  |
| Tanzania              | 2010 | 10,038 | 1       | 0.219  | 0.342       | 0.261       | 0.178  |
| Tanzania              | 2015 | 13,158 | 1       | 0.221  | 0.346       | 0.254       | 0.179  |
| Timor-Leste           | 2009 | 12,851 | 1       | 0.244  | 0.320       | 0.246       | 0.190  |
| Timor-Leste           | 2016 | 12,443 | 1       | 0.247  | 0.315       | 0.235       | 0.203  |
| Togo                  | 2013 | 4,827  | 1       | 0.188  | 0.343       | 0.280       | 0.189  |
| Tunisia               | 2003 | 4,111  | 0.506   | 0.052  | 0.236       | 0.256       | 0.456  |
| Turkey                | 2003 | 3,288  | 1       | 0.035  | 0.565       | 0.347       | 0.053  |
| Uganda                | 2006 | 2,860  | 1       | 0.223  | 0.367       | 0.261       | 0.149  |
| Uganda                | 2011 | 2,704  | 1       | 0.234  | 0.375       | 0.250       | 0.141  |
| Uganda                | 2016 | 6,049  | 1       | 0.228  | 0.369       | 0.247       | 0.155  |
| Ukraine               | 2003 | 1,293  | 0.339   | 0.026  | 0.162       | 0.184       | 0.028  |
| United Arab Emirates  | 2003 | 1,022  | 0.525   | 0.044  | 0.248       | 0.321       | 0.387  |
| United Kingdom        | 2003 | 995    | 0.371   | 0.030  | 0.124       | 0.222       | 0.624  |
| Uruguay               | 2003 | 2,913  | 0.487   | 0.024  | 0.188       | 0.203       | 0.585  |
| Vietnam               | 2003 | 3,143  | 0.448   | 0.050  | 0.192       | 0.286       | 0.472  |
| Zambia                | 2003 | 2,162  | 0.464   | 0.075  | 0.351       | 0.269       | 0.305  |
| Zambia                | 2007 | 7,046  | 1       | 0.223  | 0.390       | 0.248       | 0.140  |
| Zambia                | 2013 | 16,231 | 1       | 0.225  | 0.355       | 0.269       | 0.151  |
| Zimbabwe              | 2003 | 2,285  | 0.414   | 0.091  | 0.353       | 0.240       | 0.316  |
| Zimbabwe              | 2005 | 8,717  | 1       | 0.240  | 0.379       | 0.231       | 0.150  |
| Zimbabwe              | 2010 | 8,789  | 1       | 0.215  | 0.384       | 0.253       | 0.148  |
| Zimbabwe              | 2015 | 9,650  | 1       | 0.218  | 0.346       | 0.281       | 0.156  |
Table E: Unadjusted Obesity by Wealth Quintile

| Location                          | Year | Wealth=1 | Wealth=2 | Wealth=3 | Wealth=4 | Wealth=5 |
|-----------------------------------|------|----------|----------|----------|----------|----------|
| Albania                           | 2008 | 0.070    | 0.107    | 0.118    | 0.102    | 0.091    |
| Armenia                           | 2005 | 0.123    | 0.175    | 0.167    | 0.176    | 0.179    | 0.125    |
| Armenia                           | 2015 | 0.162    | 0.167    | 0.163    | 0.143    | 0.127    |
| Austria                           | 2003 | 0.097    | 0.101    | 0.109    | 0.153    | 0.109    |
| Azerbaijan                        | 2006 | 0.113    | 0.148    | 0.172    | 0.213    | 0.211    |
| Bangladesh                        | 2004 | 0.003    | 0.003    | 0.005    | 0.014    | 0.057    |
| Bangladesh                        | 2007 | 0.002    | 0.001    | 0.011    | 0.018    | 0.071    |
| Bangladesh                        | 2011 | 0.004    | 0.008    | 0.014    | 0.032    | 0.098    |
| Bangladesh                        | 2014 | 0.008    | 0.015    | 0.027    | 0.049    | 0.119    |
| Belgium                           | 2003 | 0.101    | 0.128    | 0.123    | 0.140    | 0.096    |
| Benin                             | 2006 | 0.012    | 0.017    | 0.030    | 0.065    | 0.144    |
| Benin                             | 2011 | 0.022    | 0.038    | 0.053    | 0.084    | 0.133    |
| Bolivia                           | 2003 | 0.072    | 0.142    | 0.170    | 0.202    | 0.171    |
| Bolivia                           | 2008 | 0.100    | 0.163    | 0.201    | 0.239    | 0.163    |
| Bosnia and Herzegovina            | 2003 | 0.138    | 0.118    | 0.099    | 0.069    | 0.109    |
| Brazil                            | 2003 | 0.118    | 0.108    | 0.097    | 0.108    | 0.096    |
| Burkina Faso                      | 2003 | 0.004    | 0.001    | 0.003    | 0.015    | 0.112    |
| Burkina Faso                      | 2010 | 0.005    | 0.006    | 0.006    | 0.029    | 0.104    |
| Burundi                           | 2010 | 0.002    | 0.003    | 0.009    | 0.012    | 0.082    |
| Burundi                           | 2016 | 0.001    | 0.003    | 0.006    | 0.010    | 0.089    |
| Cambodia                          | 2005 | 0.001    | 0.006    | 0.005    | 0.009    | 0.031    |
| Cambodia                          | 2010 | 0.003    | 0.007    | 0.010    | 0.025    | 0.023    |
| Cambodia                          | 2014 | 0.013    | 0.025    | 0.025    | 0.038    | 0.040    |
| Cameroon                          | 2004 | 0.015    | 0.032    | 0.079    | 0.115    | 0.154    |
| Cameroon                          | 2011 | 0.019    | 0.050    | 0.097    | 0.161    | 0.186    |
| Chad                              | 2003 | 0.129    | 0.094    | 0.136    | 0.132    | 0.089    |
| Chad                              | 2004 | 0.007    | 0.005    | 0.010    | 0.028    | 0.067    |
| Chad                              | 2014 | 0.011    | 0.008    | 0.011    | 0.013    | 0.070    |
| Colombia                          | 2005 | 0.096    | 0.119    | 0.117    | 0.124    | 0.117    |
| Colombia                          | 2010 | 0.133    | 0.163    | 0.157    | 0.140    | 0.127    |
| Comoros                           | 2003 | 0.024    | 0.053    | 0.025    | 0.026    | 0.026    |
| Comoros                           | 2012 | 0.094    | 0.111    | 0.134    | 0.128    | 0.142    |
| Congo                             | 2003 | 0.068    | 0.045    | 0.039    | 0.026    | 0.045    |
| Congo                             | 2005 | 0.020    | 0.038    | 0.067    | 0.085    | 0.162    |
| Congo                             | 2011 | 0.020    | 0.026    | 0.056    | 0.083    | 0.130    |
| Cote d’Ivoire                     | 2003 | 0.058    | 0.040    | 0.040    | 0.040    | 0.032    |
| Cote d’Ivoire                     | 2011 | 0.009    | 0.031    | 0.068    | 0.100    | 0.104    |
| Croatia                           | 2003 | 0.155    | 0.119    | 0.179    | 0.222    | 0.156    |
| Czech Republic                    | 2003 | 0.215    | 0.206    | 0.199    | 0.193    | 0.171    |
| Democratic Republic of the Congo  | 2007 | 0.010    | 0.012    | 0.010    | 0.024    | 0.064    |
| Democratic Republic of the Congo  | 2013 | 0.005    | 0.005    | 0.010    | 0.026    | 0.097    |
| Denmark                           | 2003 | 0.149    | 0.138    | 0.106    | 0.160    | 0.102    |
| Dominican Republic                | 2003 | 0.166    | 0.171    | 0.160    | 0.126    | 0.127    |
| Dominican Republic                | 2013 | 0.161    | 0.204    | 0.216    | 0.222    | 0.205    |
| Ecuador                           | 2003 | 0.135    | 0.118    | 0.074    | 0.108    | 0.108    |
| Egypt                             | 2005 | 0.302    | 0.370    | 0.443    | 0.521    | 0.562    |
| Egypt                             | 2008 | 0.278    | 0.344    | 0.402    | 0.420    | 0.428    |
| Egypt                             | 2014 | 0.430    | 0.463    | 0.464    | 0.502    | 0.460    |
| Estonia                           | 2003 | 0.178    | 0.215    | 0.221    | 0.136    | 0.166    |
| Ethiopia                          | 2003 | 0.034    | 0.011    | 0.017    | 0.006    | 0.029    |
| Ethiopia                          | 2005 | 0.008    | 0.004    | 0.002    | 0.005    | 0.037    |
| Location     | Year | Wealth=1 | Wealth=2 | Wealth=3 | Wealth=4 | Wealth=5 |
|--------------|------|----------|----------|----------|----------|----------|
| Ethiopia     | 2011 | 0.004    | 0.004    | 0.002    | 0.011    | 0.047    |
| Ethiopia     | 2016 | 0.003    | 0.003    | 0.002    | 0.016    | 0.086    |
| Finland      | 2003 | 0.146    | 0.167    | 0.186    | 0.192    | 0.121    |
| France       | 2003 | 0.061    | 0.100    | 0.086    | 0.057    | 0.061    |
| Gabon        | 2012 | 0.064    | 0.115    | 0.172    | 0.209    | 0.223    |
| Georgia      | 2003 | 0.106    | 0.095    | 0.118    | 0.103    | 0.114    |
| Germany      | 2003 | 0.105    | 0.170    | 0.174    | 0.142    | 0.138    |
| Ghana        | 2003 | 0.005    | 0.021    | 0.065    | 0.148    | 0.188    |
| Ghana        | 2008 | 0.018    | 0.031    | 0.051    | 0.117    | 0.203    |
| Ghana        | 2014 | 0.016    | 0.048    | 0.109    | 0.190    | 0.294    |
| Greece       | 2003 | 0.142    | 0.172    | 0.184    | 0.185    | 0.177    |
| Guatemala    | 2003 | 0.120    | 0.110    | 0.118    | 0.120    | 0.064    |
| Guatemala    | 2014 | 0.100    | 0.150    | 0.220    | 0.244    | 0.272    |
| Guinea       | 2005 | 0.010    | 0.008    | 0.015    | 0.031    | 0.074    |
| Guinea       | 2012 | 0.008    | 0.010    | 0.040    | 0.060    | 0.106    |
| Guyana       | 2009 | 0.162    | 0.228    | 0.204    | 0.242    | 0.226    |
| Haiti        | 2005 | 0.011    | 0.020    | 0.039    | 0.073    | 0.133    |
| Haiti        | 2012 | 0.013    | 0.037    | 0.051    | 0.086    | 0.155    |
| Honduras     | 2005 | 0.072    | 0.110    | 0.193    | 0.236    | 0.237    |
| Honduras     | 2011 | 0.096    | 0.155    | 0.234    | 0.265    | 0.272    |
| Hungary      | 2003 | 0.212    | 0.194    | 0.223    | 0.198    | 0.198    |
| India        | 2003 | 0.014    | 0.018    | 0.021    | 0.020    | 0.027    |
| India        | 2005 | 0.003    | 0.008    | 0.019    | 0.051    | 0.095    |
| India        | 2015 | 0.008    | 0.018    | 0.036    | 0.069    | 0.107    |
| Ireland      | 2003 | 0.160    | 0.201    | 0.175    | 0.155    | 0.098    |
| Israel       | 2003 | 0.043    | 0.106    | 0.106    | 0.130    | 0.198    |
| Italy        | 2003 | 0.099    | 0.094    | 0.053    | 0.106    | 0.059    |
| Jordan       | 2007 | 0.291    | 0.276    | 0.293    | 0.319    | 0.302    |
| Jordan       | 2009 | 0.432    | 0.334    | 0.400    | 0.419    | 0.336    |
| Jordan       | 2012 | 0.392    | 0.405    | 0.347    | 0.374    | 0.365    |
| Kazakhstan   | 2003 | 0.091    | 0.130    | 0.123    | 0.113    | 0.150    |
| Kenya        | 2003 | 0.005    | 0.018    | 0.048    | 0.094    | 0.154    |
| Kenya        | 2008 | 0.014    | 0.032    | 0.067    | 0.110    | 0.136    |
| Kenya        | 2014 | 0.015    | 0.046    | 0.063    | 0.114    | 0.193    |
| Kyrgyzstan   | 2012 | 0.140    | 0.128    | 0.113    | 0.112    | 0.097    |
| Laos         | 2003 | 0.008    | 0.010    | 0.008    | 0.010    | 0.028    |
| Latvia       | 2003 | 0.199    | 0.240    | 0.213    | 0.185    | 0.200    |
| Lesotho      | 2004 | 0.075    | 0.111    | 0.149    | 0.197    | 0.250    |
| Lesotho      | 2009 | 0.071    | 0.133    | 0.139    | 0.168    | 0.297    |
| Lesotho      | 2014 | 0.078    | 0.160    | 0.182    | 0.267    | 0.262    |
| Liberia      | 2007 | 0.019    | 0.023    | 0.036    | 0.079    | 0.103    |
| Liberia      | 2013 | 0.030    | 0.047    | 0.050    | 0.064    | 0.130    |
| Luxembourg   | 2003 | 0.153    | 0.182    | 0.124    | 0.109    | 0.125    |
| Madagascar   | 2003 | 0.004    | 0.004    | 0.010    | 0.024    | 0.023    |
| Madagascar   | 2008 | 0.003    | 0.001    | 0.003    | 0.013    | 0.041    |
| Malawi       | 2003 | 0.084    | 0.093    | 0.077    | 0.056    | 0.036    |
| Malawi       | 2004 | 0.006    | 0.006    | 0.018    | 0.021    | 0.061    |
| Malawi       | 2010 | 0.013    | 0.027    | 0.012    | 0.023    | 0.098    |
| Malawi       | 2015 | 0.016    | 0.026    | 0.035    | 0.065    | 0.140    |
| Malaysia     | 2003 | 0.102    | 0.117    | 0.118    | 0.117    | 0.107    |
| Maldives     | 2009 | 0.120    | 0.125    | 0.117    | 0.129    | 0.143    |
Table E: Unadjusted Obesity by Wealth Quintile

| Location           | Year | Wealth=1 | Wealth=2 | Wealth=3 | Wealth=4 | Wealth=5 |
|--------------------|------|----------|----------|----------|----------|----------|
| Mali               | 2003 | 0.289    | 0.227    | 0.200    | 0.140    | 0.168    |
| Mali               | 2006 | 0.009    | 0.019    | 0.028    | 0.070    | 0.123    |
| Mali               | 2012 | 0.012    | 0.022    | 0.020    | 0.073    | 0.144    |
| Mauritania         | 2003 | 0.109    | 0.110    | 0.102    | 0.114    | 0.129    |
| Mauritius          | 2003 | 0.077    | 0.080    | 0.084    | 0.078    | 0.086    |
| Mexico             | 2003 | 0.130    | 0.154    | 0.168    | 0.177    | 0.170    |
| Moldova            | 2005 | 0.178    | 0.206    | 0.189    | 0.180    | 0.135    |
| Morocco            | 1995 | 0.178    | 0.206    | 0.189    | 0.180    | 0.135    |
| Morocco            | 2003 | 0.043    | 0.074    | 0.095    | 0.149    | 0.161    |
| Mozambique         | 2003 | 0.005    | 0.007    | 0.009    | 0.047    | 0.141    |
| Mozambique         | 2011 | 0.003    | 0.007    | 0.020    | 0.059    | 0.169    |
| Myanmar            | 2003 | 0.029    | 0.021    | 0.011    | 0.010    | 0.006    |
| Myanmar            | 2015 | 0.028    | 0.039    | 0.053    | 0.062    | 0.093    |
| Namibia            | 2003 | 0.088    | 0.084    | 0.116    | 0.128    | 0.154    |
| Namibia            | 2006 | 0.027    | 0.060    | 0.113    | 0.161    | 0.196    |
| Namibia            | 2013 | 0.021    | 0.077    | 0.114    | 0.192    | 0.227    |
| Nepal              | 2003 | 0.023    | 0.013    | 0.012    | 0.031    | 0.059    |
| Nepal              | 2006 | 0        | 0.002    | 0.001    | 0.010    | 0.030    |
| Nepal              | 2011 | 0.007    | 0.005    | 0.013    | 0.023    | 0.067    |
| Nepal              | 2016 | 0.006    | 0.021    | 0.019    | 0.047    | 0.130    |
| Netherlands        | 2003 | 0.129    | 0.115    | 0.139    | 0.130    | 0.135    |
| Niger              | 2006 | 0.008    | 0.005    | 0.018    | 0.039    | 0.133    |
| Niger              | 2012 | 0.012    | 0.019    | 0.014    | 0.038    | 0.151    |
| Nigeria            | 2003 | 0.018    | 0.027    | 0.049    | 0.059    | 0.129    |
| Nigeria            | 2008 | 0.018    | 0.022    | 0.041    | 0.069    | 0.127    |
| Nigeria            | 2013 | 0.021    | 0.030    | 0.059    | 0.095    | 0.167    |
| Norway             | 2003 | 0.074    | 0.105    | 0.101    | 0.063    | 0.079    |
| Pakistan           | 2003 | 0.077    | 0.087    | 0.103    | 0.121    | 0.132    |
| Pakistan           | 2012 | 0.040    | 0.081    | 0.135    | 0.213    | 0.255    |
| Paraguay           | 2003 | 0.070    | 0.099    | 0.117    | 0.105    | 0.165    |
| Peru               | 2004 | 0.053    | 0.129    | 0.168    | 0.177    | 0.154    |
| Peru               | 2007 | 0.053    | 0.129    | 0.168    | 0.177    | 0.154    |
| Peru               | 2009 | 0.077    | 0.131    | 0.183    | 0.198    | 0.172    |
| Peru               | 2010 | 0.074    | 0.126    | 0.179    | 0.193    | 0.183    |
| Peru               | 2011 | 0.073    | 0.152    | 0.207    | 0.215    | 0.169    |
| Peru               | 2012 | 0.087    | 0.156    | 0.212    | 0.223    | 0.191    |
| Philippines        | 2003 | 0.029    | 0.037    | 0.050    | 0.047    | 0.061    |
| Portugal           | 2003 | 0.098    | 0.174    | 0.191    | 0.211    | 0.176    |
| Russia             | 2003 | 0.129    | 0.149    | 0.170    | 0.174    | 0.149    |
| Rwanda             | 2005 | 0.006    | 0.004    | 0.007    | 0.007    | 0.034    |
| Rwanda             | 2010 | 0.006    | 0.006    | 0.012    | 0.022    | 0.069    |
| Rwanda             | 2014 | 0.004    | 0.023    | 0.015    | 0.038    | 0.132    |
| Sao Tome and Principe| 2008 | 0.096    | 0.099    | 0.084    | 0.148    | 0.144    |
| Senegal            | 2003 | 0.044    | 0.057    | 0.070    | 0.063    | 0.045    |
| Senegal            | 2005 | 0.018    | 0.024    | 0.058    | 0.106    | 0.109    |
| Senegal            | 2010 | 0.027    | 0.027    | 0.042    | 0.060    | 0.092    |
| Sierra Leone       | 2008 | 0.097    | 0.053    | 0.060    | 0.118    | 0.140    |
| Sierra Leone       | 2013 | 0.022    | 0.018    | 0.030    | 0.057    | 0.115    |
| Slovenia           | 2003 | 0.168    | 0.143    | 0.134    | 0.125    | 0.134    |
| Location       | Year | Wealth=1 | Wealth=2 | Wealth=3 | Wealth=4 | Wealth=5 |
|----------------|------|----------|----------|----------|----------|----------|
| South Africa   | 2003 | 0.211    | 0.191    | 0.310    | 0.254    | 0.435    |
| Spain          | 2003 | 0.180    | 0.167    | 0.185    | 0.149    | 0.131    |
| Sri Lanka      | 2003 | 0.032    | 0.044    | 0.031    | 0.038    | 0.051    |
| Swaziland      | 2003 | 0.353    | 0.294    | 0.249    | 0.305    | 0.248    |
| Swaziland      | 2006 | 0.140    | 0.191    | 0.226    | 0.265    | 0.339    |
| Sweden         | 2003 | 0.085    | 0.111    | 0.125    | 0.102    | 0.102    |
| Tajikistan     | 2012 | 0.057    | 0.086    | 0.096    | 0.109    | 0.131    |
| Tanzania       | 2010 | 0.008    | 0.016    | 0.037    | 0.073    | 0.167    |
| Tanzania       | 2015 | 0.018    | 0.034    | 0.061    | 0.144    | 0.229    |
| Timor-Leste    | 2009 | 0.003    | 0.005    | 0.004    | 0.007    | 0.017    |
| Timor-Leste    | 2016 | 0.007    | 0.007    | 0.010    | 0.021    | 0.033    |
| Togo           | 2013 | 0.024    | 0.036    | 0.065    | 0.145    | 0.219    |
| Tunisia        | 2003 | 0.053    | 0.085    | 0.073    | 0.106    | 0.103    |
| Turkey         | 2003 | 0.201    | 0.237    | 0.255    | 0.242    | 0.194    |
| Uganda         | 2006 | 0        | 0.006    | 0.014    | 0.037    | 0.118    |
| Uganda         | 2011 | 0.014    | 0.015    | 0.028    | 0.058    | 0.110    |
| Uganda         | 2016 | 0.006    | 0.024    | 0.039    | 0.078    | 0.175    |
| Ukraine        | 2003 | 0.158    | 0.202    | 0.197    | 0.143    | 0.178    |
| United Arab Emirates | 2003 | 0.200    | 0.221    | 0.146    | 0.207    | 0.162    |
| United Kingdom | 2003 | 0.156    | 0.181    | 0.186    | 0.146    | 0.236    |
| Uruguay        | 2003 | 0.122    | 0.125    | 0.143    | 0.171    | 0.139    |
| Vietnam        | 2003 | 0.003    | 0.002    | 0        | 0        | 0.003    |
| Zambia         | 2003 | 0.111    | 0.063    | 0.062    | 0.030    | 0.066    |
| Zambia         | 2007 | 0.007    | 0.008    | 0.036    | 0.067    | 0.134    |
| Zambia         | 2013 | 0.010    | 0.021    | 0.040    | 0.104    | 0.141    |
| Zimbabwe       | 2003 | 0.138    | 0.115    | 0.103    | 0.077    | 0.072    |
| Zimbabwe       | 2005 | 0.030    | 0.030    | 0.052    | 0.091    | 0.140    |
| Zimbabwe       | 2010 | 0.040    | 0.075    | 0.084    | 0.138    | 0.178    |
| Zimbabwe       | 2015 | 0.039    | 0.075    | 0.126    | 0.183    | 0.239    |
Table F: Unadjusted Overweight by Wealth Quintile

| Location                        | Year | Wealth=1 | Wealth=2 | Wealth=3 | Wealth=4 | Wealth=5 |
|---------------------------------|------|----------|----------|----------|----------|----------|
| Albania                         | 2008 | 0.331    | 0.433    | 0.430    | 0.399    | 0.375    |
| Armenia                         | 2005 | 0.427    | 0.450    | 0.431    | 0.421    | 0.393    |
| Armenia                         | 2015 | 0.447    | 0.459    | 0.438    | 0.454    | 0.447    |
| Austria                         | 2003 | 0.455    | 0.449    | 0.414    | 0.455    | 0.451    |
| Azerbaijan                      | 2006 | 0.379    | 0.406    | 0.456    | 0.551    | 0.534    |
| Bangladesh                      | 2004 | 0.021    | 0.030    | 0.059    | 0.105    | 0.290    |
| Bangladesh                      | 2007 | 0.033    | 0.047    | 0.088    | 0.146    | 0.364    |
| Bangladesh                      | 2011 | 0.049    | 0.078    | 0.128    | 0.215    | 0.384    |
| Kazakhstan                      | 2014 | 0.089    | 0.142    | 0.197    | 0.286    | 0.474    |
| Belgium                         | 2003 | 0.433    | 0.458    | 0.475    | 0.444    | 0.388    |
| Benin                           | 2006 | 0.079    | 0.105    | 0.140    | 0.236    | 0.370    |
| Benin                           | 2011 | 0.149    | 0.205    | 0.249    | 0.321    | 0.391    |
| Bolivia                         | 2003 | 0.360    | 0.487    | 0.506    | 0.506    | 0.470    |
| Bolivia                         | 2008 | 0.431    | 0.516    | 0.555    | 0.546    | 0.474    |
| Bosnia and Herzegovina          | 2003 | 0.409    | 0.438    | 0.458    | 0.402    | 0.455    |
| Brazil                          | 2003 | 0.417    | 0.453    | 0.394    | 0.359    | 0.338    |
| Burkina Faso                    | 2003 | 0.023    | 0.028    | 0.043    | 0.094    | 0.328    |
| Burkina Faso                    | 2010 | 0.040    | 0.054    | 0.049    | 0.134    | 0.288    |
| Burundi                         | 2010 | 0.038    | 0.050    | 0.061    | 0.086    | 0.269    |
| Burundi                         | 2016 | 0.027    | 0.028    | 0.056    | 0.097    | 0.267    |
| Cambodia                        | 2005 | 0.041    | 0.051    | 0.066    | 0.127    | 0.183    |
| Cambodia                        | 2010 | 0.059    | 0.082    | 0.102    | 0.168    | 0.158    |
| Cambodia                        | 2014 | 0.120    | 0.164    | 0.179    | 0.232    | 0.232    |
| Cameroon                        | 2004 | 0.135    | 0.204    | 0.308    | 0.365    | 0.457    |
| Cameroon                        | 2011 | 0.121    | 0.229    | 0.362    | 0.421    | 0.483    |
| Chad                            | 2003 | 0.359    | 0.324    | 0.365    | 0.422    | 0.351    |
| Chad                            | 2004 | 0.043    | 0.049    | 0.064    | 0.118    | 0.260    |
| Chad                            | 2014 | 0.086    | 0.085    | 0.083    | 0.087    | 0.246    |
| Colombia                        | 2005 | 0.348    | 0.389    | 0.404    | 0.412    | 0.386    |
| Colombia                        | 2010 | 0.404    | 0.450    | 0.440    | 0.440    | 0.442    |
| Comoros                         | 2003 | 0.244    | 0.289    | 0.150    | 0.179    | 0.179    |
| Comoros                         | 2012 | 0.283    | 0.369    | 0.371    | 0.416    | 0.446    |
| Congo                           | 2003 | 0.265    | 0.239    | 0.165    | 0.197    | 0.205    |
| Congo                           | 2005 | 0.131    | 0.210    | 0.260    | 0.309    | 0.404    |
| Congo                           | 2011 | 0.112    | 0.129    | 0.174    | 0.227    | 0.395    |
| Cote d’Ivoire                   | 2003 | 0.254    | 0.211    | 0.244    | 0.298    | 0.230    |
| Cote d’Ivoire                   | 2011 | 0.124    | 0.169    | 0.236    | 0.348    | 0.370    |
| Croatia                         | 2003 | 0.562    | 0.546    | 0.533    | 0.572    | 0.510    |
| Czech Republic                  | 2003 | 0.610    | 0.611    | 0.580    | 0.528    | 0.497    |
| Democratic Republic of the Congo| 2007 | 0.058    | 0.067    | 0.061    | 0.154    | 0.248    |
| Democratic Republic of the Congo| 2013 | 0.075    | 0.086    | 0.101    | 0.171    | 0.321    |
| Denmark                         | 2003 | 0.468    | 0.527    | 0.471    | 0.492    | 0.380    |
| Dominican Republic              | 2003 | 0.513    | 0.487    | 0.467    | 0.435    | 0.409    |
| Dominican Republic              | 2013 | 0.418    | 0.483    | 0.506    | 0.532    | 0.528    |
| Ecuador                         | 2003 | 0.429    | 0.452    | 0.395    | 0.423    | 0.376    |
| Egypt                           | 2005 | 0.643    | 0.739    | 0.793    | 0.849    | 0.890    |
| Egypt                           | 2008 | 0.637    | 0.722    | 0.795    | 0.834    | 0.831    |
| Estonia                         | 2014 | 0.797    | 0.821    | 0.833    | 0.881    | 0.876    |
| Ethiopia                        | 2003 | 0.524    | 0.492    | 0.505    | 0.495    | 0.486    |
| Location    | Year | Wealth=1 | Wealth=2 | Wealth=3 | Wealth=4 | Wealth=5 |
|-------------|------|----------|----------|----------|----------|----------|
| Ethiopia    | 2005 | 0.020    | 0.030    | 0.019    | 0.055    | 0.184    |
| Ethiopia    | 2011 | 0.024    | 0.024    | 0.024    | 0.072    | 0.237    |
| Ethiopia    | 2016 | 0.033    | 0.037    | 0.034    | 0.099    | 0.296    |
| Finland     | 2003 | 0.497    | 0.606    | 0.573    | 0.561    | 0.515    |
| France      | 2003 | 0.300    | 0.311    | 0.323    | 0.310    | 0.222    |
| Gabon       | 2012 | 0.244    | 0.341    | 0.427    | 0.478    | 0.505    |
| Georgia     | 2003 | 0.451    | 0.433    | 0.476    | 0.456    | 0.500    |
| Germany     | 2003 | 0.457    | 0.555    | 0.587    | 0.518    | 0.459    |
| Ghana       | 2003 | 0.052    | 0.130    | 0.238    | 0.404    | 0.502    |
| Ghana       | 2008 | 0.116    | 0.159    | 0.247    | 0.416    | 0.485    |
| Ghana       | 2014 | 0.116    | 0.229    | 0.348    | 0.509    | 0.612    |
| Greece      | 2003 | 0.552    | 0.554    | 0.547    | 0.598    | 0.629    |
| Guatemala   | 2003 | 0.434    | 0.418    | 0.393    | 0.373    | 0.321    |
| Guatemala   | 2014 | 0.392    | 0.457    | 0.532    | 0.594    | 0.606    |
| Guinea      | 2005 | 0.074    | 0.076    | 0.094    | 0.157    | 0.293    |
| Guinea      | 2012 | 0.058    | 0.118    | 0.171    | 0.277    | 0.344    |
| Guyana      | 2009 | 0.461    | 0.460    | 0.433    | 0.513    | 0.518    |
| Haiti       | 2005 | 0.091    | 0.130    | 0.172    | 0.246    | 0.356    |
| Haiti       | 2012 | 0.116    | 0.162    | 0.247    | 0.282    | 0.391    |
| Honduras    | 2005 | 0.289    | 0.387    | 0.477    | 0.541    | 0.540    |
| Honduras    | 2011 | 0.368    | 0.462    | 0.540    | 0.555    | 0.571    |
| Hungary     | 2003 | 0.562    | 0.527    | 0.634    | 0.542    | 0.538    |
| India       | 2003 | 0.075    | 0.096    | 0.115    | 0.123    | 0.190    |
| India       | 2005 | 0.024    | 0.060    | 0.121    | 0.214    | 0.342    |
| India       | 2015 | 0.059    | 0.113    | 0.180    | 0.273    | 0.356    |
| Ireland     | 2003 | 0.519    | 0.455    | 0.519    | 0.471    | 0.444    |
| Israel      | 2003 | 0.382    | 0.391    | 0.435    | 0.430    | 0.440    |
| Italy       | 2003 | 0.368    | 0.424    | 0.380    | 0.418    | 0.385    |
| Jordan      | 2007 | 0.595    | 0.677    | 0.665    | 0.676    | 0.673    |
| Jordan      | 2009 | 0.715    | 0.686    | 0.724    | 0.717    | 0.736    |
| Jordan      | 2012 | 0.691    | 0.728    | 0.698    | 0.706    | 0.709    |
| Kazakhstan  | 2003 | 0.365    | 0.442    | 0.482    | 0.436    | 0.474    |
| Kenya       | 2003 | 0.086    | 0.108    | 0.205    | 0.347    | 0.444    |
| Kenya       | 2008 | 0.093    | 0.145    | 0.246    | 0.356    | 0.423    |
| Kenya       | 2014 | 0.113    | 0.202    | 0.267    | 0.395    | 0.504    |
| Kyrgyzstan  | 2012 | 0.395    | 0.397    | 0.353    | 0.368    | 0.309    |
| Laos        | 2003 | 0.062    | 0.077    | 0.077    | 0.121    | 0.188    |
| Latvia      | 2003 | 0.555    | 0.627    | 0.518    | 0.493    | 0.483    |
| Lesotho     | 2004 | 0.295    | 0.357    | 0.405    | 0.478    | 0.576    |
| Lesotho     | 2009 | 0.260    | 0.369    | 0.394    | 0.444    | 0.565    |
| Lesotho     | 2014 | 0.270    | 0.402    | 0.475    | 0.503    | 0.558    |
| Liberia     | 2007 | 0.104    | 0.119    | 0.178    | 0.264    | 0.323    |
| Liberia     | 2013 | 0.177    | 0.200    | 0.227    | 0.247    | 0.345    |
| Luxembourg  | 2003 | 0.489    | 0.467    | 0.445    | 0.460    | 0.390    |
| Madagascar  | 2003 | 0.035    | 0.049    | 0.097    | 0.129    | 0.156    |
| Madagascar  | 2008 | 0.024    | 0.024    | 0.031    | 0.076    | 0.178    |
| Malawi      | 2003 | 0.376    | 0.326    | 0.297    | 0.263    | 0.177    |
| Malawi      | 2004 | 0.100    | 0.086    | 0.120    | 0.150    | 0.250    |
| Malawi      | 2010 | 0.101    | 0.145    | 0.139    | 0.174    | 0.293    |
| Malawi      | 2015 | 0.122    | 0.151    | 0.199    | 0.223    | 0.406    |
| Malaysia    | 2003 | 0.305    | 0.360    | 0.368    | 0.396    | 0.392    |
Table F: Unadjusted Overweight by Wealth Quintile

| Location                  | Year | Wealth=1 | Wealth=2 | Wealth=3 | Wealth=4 | Wealth=5 |
|---------------------------|------|----------|----------|----------|----------|----------|
| Maldives                  | 2009 | 0.413    | 0.428    | 0.425    | 0.461    | 0.496    |
| Mali                      | 2003 | 0.578    | 0.477    | 0.463    | 0.376    | 0.396    |
| Mali                      | 2006 | 0.088    | 0.095    | 0.138    | 0.232    | 0.323    |
| Mali                      | 2012 | 0.111    | 0.107    | 0.116    | 0.234    | 0.355    |
| Mauritania                | 2003 | 0.360    | 0.381    | 0.354    | 0.361    | 0.393    |
| Mauritius                 | 2003 | 0.324    | 0.344    | 0.341    | 0.334    | 0.340    |
| Mexico                    | 2003 | 0.465    | 0.516    | 0.542    | 0.551    | 0.561    |
| Moldova                   | 2005 | 0.425    | 0.430    | 0.424    | 0.414    | 0.370    |
| Morocco                   | 1995 | 0.425    | 0.299    | 0.369    | 0.368    | 0.456    |
| Mozambique                | 2003 | 0.061    | 0.073    | 0.099    | 0.213    | 0.338    |
| Mozambique                | 2011 | 0.063    | 0.092    | 0.143    | 0.264    | 0.417    |
| Myanmar                   | 2003 | 0.171    | 0.134    | 0.094    | 0.101    | 0.084    |
| Myanmar                   | 2015 | 0.150    | 0.206    | 0.240    | 0.288    | 0.346    |
| Namibia                   | 2003 | 0.269    | 0.260    | 0.317    | 0.325    | 0.385    |
| Namibia                   | 2006 | 0.099    | 0.197    | 0.288    | 0.363    | 0.437    |
| Namibia                   | 2013 | 0.137    | 0.238    | 0.314    | 0.444    | 0.445    |
| Nepal                     | 2003 | 0.106    | 0.101    | 0.091    | 0.165    | 0.257    |
| Nepal                     | 2006 | 0.028    | 0.035    | 0.049    | 0.082    | 0.236    |
| Nepal                     | 2011 | 0.032    | 0.055    | 0.093    | 0.181    | 0.309    |
| Nepal                     | 2016 | 0.093    | 0.155    | 0.131    | 0.225    | 0.420    |
| Netherlands               | 2003 | 0.340    | 0.433    | 0.490    | 0.481    | 0.418    |
| Niger                     | 2006 | 0.051    | 0.048    | 0.100    | 0.189    | 0.406    |
| Niger                     | 2012 | 0.102    | 0.115    | 0.111    | 0.226    | 0.433    |
| Nigeria                   | 2003 | 0.111    | 0.125    | 0.193    | 0.234    | 0.381    |
| Nigeria                   | 2008 | 0.100    | 0.133    | 0.191    | 0.254    | 0.387    |
| Nigeria                   | 2013 | 0.112    | 0.160    | 0.231    | 0.319    | 0.430    |
| Norway                    | 2003 | 0.368    | 0.479    | 0.473    | 0.365    | 0.386    |
| Pakistan                  | 2003 | 0.256    | 0.286    | 0.300    | 0.349    | 0.411    |
| Pakistan                  | 2012 | 0.174    | 0.273    | 0.388    | 0.531    | 0.624    |
| Paraguay                  | 2003 | 0.295    | 0.374    | 0.412    | 0.408    | 0.492    |
| Peru                      | 2004 | 0.356    | 0.475    | 0.536    | 0.542    | 0.494    |
| Peru                      | 2007 | 0.356    | 0.475    | 0.536    | 0.542    | 0.494    |
| Peru                      | 2009 | 0.396    | 0.496    | 0.549    | 0.551    | 0.525    |
| Peru                      | 2010 | 0.396    | 0.495    | 0.538    | 0.562    | 0.522    |
| Peru                      | 2011 | 0.412    | 0.512    | 0.574    | 0.583    | 0.520    |
| Peru                      | 2012 | 0.437    | 0.545    | 0.587    | 0.593    | 0.554    |
| Philippines               | 2003 | 0.163    | 0.198    | 0.215    | 0.204    | 0.267    |
| Portugal                  | 2003 | 0.422    | 0.581    | 0.566    | 0.589    | 0.509    |
| Russia                    | 2003 | 0.516    | 0.525    | 0.539    | 0.548    | 0.505    |
| Rwanda                    | 2005 | 0.095    | 0.085    | 0.110    | 0.112    | 0.241    |
| Rwanda                    | 2010 | 0.121    | 0.116    | 0.152    | 0.190    | 0.311    |
| Rwanda                    | 2014 | 0.123    | 0.166    | 0.179    | 0.261    | 0.419    |
| Sao Tome and Principe     | 2008 | 0.268    | 0.309    | 0.341    | 0.402    | 0.395    |
| Senegal                   | 2003 | 0.239    | 0.220    | 0.247    | 0.266    | 0.250    |
| Senegal                   | 2005 | 0.108    | 0.112    | 0.203    | 0.290    | 0.296    |
| Senegal                   | 2010 | 0.116    | 0.134    | 0.164    | 0.228    | 0.305    |
| Sierra Leone              | 2008 | 0.268    | 0.213    | 0.278    | 0.374    | 0.395    |
| Sierra Leone              | 2013 | 0.110    | 0.133    | 0.168    | 0.226    | 0.309    |
| Slovakia                  | 2003 | 0.469    | 0.379    | 0.386    | 0.441    | 0.377    |
| Slovenia                  | 2003 | 0.540    | 0.473    | 0.491    | 0.482    | 0.464    |
Table F: Unadjusted Overweight by Wealth Quintile

| Location       | Year | Wealth=1 | Wealth=2 | Wealth=3 | Wealth=4 | Wealth=5 |
|----------------|------|----------|----------|----------|----------|----------|
| South Africa   | 2003 | 0.479    | 0.471    | 0.493    | 0.493    | 0.638    |
| Spain          | 2003 | 0.577    | 0.566    | 0.601    | 0.530    | 0.513    |
| Sri Lanka      | 2003 | 0.133    | 0.164    | 0.190    | 0.162    | 0.204    |
| Swaziland      | 2003 | 0.681    | 0.686    | 0.599    | 0.610    | 0.623    |
| Swaziland      | 2006 | 0.403    | 0.460    | 0.524    | 0.556    | 0.617    |
| Sweden         | 2003 | 0.434    | 0.481    | 0.495    | 0.406    | 0.396    |
| Tajikistan     | 2012 | 0.230    | 0.283    | 0.312    | 0.323    | 0.391    |
| Tanzania       | 2004 | 0.093    | 0.106    | 0.124    | 0.209    | 0.374    |
| Tanzania       | 2010 | 0.092    | 0.126    | 0.162    | 0.289    | 0.420    |
| Tanzania       | 2015 | 0.129    | 0.184    | 0.250    | 0.383    | 0.492    |
| Timor-Leste    | 2009 | 0.024    | 0.027    | 0.034    | 0.061    | 0.103    |
| Timor-Leste    | 2016 | 0.053    | 0.063    | 0.087    | 0.144    | 0.160    |
| Togo           | 2013 | 0.105    | 0.190    | 0.262    | 0.388    | 0.496    |
| Tunisia        | 2003 | 0.303    | 0.330    | 0.380    | 0.427    | 0.438    |
| Turkey         | 2003 | 0.533    | 0.574    | 0.623    | 0.616    | 0.546    |
| Uganda         | 2006 | 0.059    | 0.078    | 0.149    | 0.202    | 0.334    |
| Uganda         | 2011 | 0.056    | 0.097    | 0.181    | 0.269    | 0.380    |
| Uganda         | 2016 | 0.077    | 0.145    | 0.215    | 0.277    | 0.434    |
| Ukraine        | 2003 | 0.514    | 0.550    | 0.560    | 0.547    | 0.568    |
| United Arab Emirates | 2003 | 0.556    | 0.608    | 0.549    | 0.665    | 0.613    |
| United Kingdom | 2003 | 0.503    | 0.467    | 0.497    | 0.487    | 0.528    |
| Uruguay        | 2003 | 0.433    | 0.503    | 0.487    | 0.514    | 0.472    |
| Vietnam        | 2003 | 0.029    | 0.024    | 0.021    | 0.025    | 0.051    |
| Zambia         | 2003 | 0.336    | 0.255    | 0.235    | 0.158    | 0.206    |
| Zambia         | 2007 | 0.099    | 0.101    | 0.165    | 0.258    | 0.368    |
| Zambia         | 2013 | 0.099    | 0.137    | 0.188    | 0.320    | 0.386    |
| Zimbabwe       | 2003 | 0.416    | 0.465    | 0.338    | 0.326    | 0.283    |
| Zimbabwe       | 2005 | 0.143    | 0.163    | 0.217    | 0.314    | 0.403    |
| Zimbabwe       | 2010 | 0.188    | 0.260    | 0.297    | 0.394    | 0.441    |
| Zimbabwe       | 2015 | 0.217    | 0.279    | 0.381    | 0.460    | 0.511    |
Figure A: Number of Surveys per Country
Figure B: Survey Coverage over Time and Countries for Demographic and Health Surveys. There is one survey in Morocco in 1995, and all World Health Surveys are representative of 2003.
3 Wealth Harmonization

In order to estimate the effect of wealth on obesity, we must standardize asset indicators found in the Demographic and Health Survey as well as the World Health Survey. We approach this problem with two methods: (1) the construction of a survey-specific wealth index and (2) the construction of a survey-standardized wealth index.

3.1 Survey-specific Wealth Index

To construct a survey-specific wealth index, we leverage the unique wealth assets available in each survey. From 1999 to present, the Demographic and Health Surveys contain a survey-specific wealth index that is based on the first principal component of wealth assets relevant to standard of living within the country. Similarly, the World Health Surveys have survey-specific wealth questions meant to capture standard of living within the country. For example, while the survey for a low-income country may ask about electricity access, the survey in a high-income country does not. Unlike the Demographic and Health Survey, the World Health Survey does not provide a principal components analysis. So we perform a principal components analysis of all wealth questions in each World Health Survey (section 700) to produce an index. This measure captures the relative wealth of the individual with respect to others in the country during the survey-year.

3.2 Survey-standardized Wealth Index

To construct a survey-standardized wealth index, we identified the following variables present in most surveys back to 1995: water access, sanitation, floor material, electricity, radio, refrigerator, motorcycle, car, phone, rooms per person. We performed a principal components analysis of all of these variables jointly, across all survey-years and countries, in order to calculate the first principal component. Survey-standardized wealth index is restricted to the Demographic and Health Survey, because the World Health Survey asks different wealth questions in section 700 for high-income countries versus all other countries. High-income country surveys did not ask respondents about access to safe water, sanitation, electricity, or floor material.
4 Self-report bias

Multiple studies have shown that self-reported height and weight data can be biased. In women, weight data are typically under-reported, and in men, height and weight data are over-reported. The World Health Surveys are utilized in this study due to cross-country comparable data on both anthropometric measures and wealth assets. Four World Health Surveys were conducted via telephone: Australia, Israel, Luxembourg, and Norway. The rest were conducted in-person, where the survey proctor could see the person when reporting height and weight information. We consider bias in the data in two ways.

First, we examine the crude, national obesity rates of all World Health Surveys compared to the Global Burden of Disease national obesity estimates. The Global Burden of Disease estimates age-specific and all-age national obesity prevalence. As part of their modeling process, the Global Burden of Disease incorporates multiple data sources as well as a data-driven cross-walk to correct for self-report bias in surveys that use self-reported data. The results are in the below histogram, Figure C, which displays the distribution of the difference between these two sources. Negative values indicate that the World Health Surveys estimate a lower obesity rate than the Global Burden of Disease project. Positive differences indicate that the World Health Survey has a greater obesity rates than the estimated Global Burden of Disease obesity prevalence for that country. Slightly more World Health Surveys under-estimate obesity than over-estimate, but on average the difference is centered at zero.
Figure C

Density

Difference between IHME and WHS obesity rates
Second, we run a regression using Equation (1) in the manuscript, with an indicator for self-reported data, and replicate our analysis only using Demographic and Health Surveys. The results using the self-report indicator for the outcomes of BMI and obesity are reported in Section 5, in Tables 5 and 9. Table 5 indicates that individuals self-reporting their weight are less likely to report a BMI that classifies as obese, which is significant at the 1% level. Table 9 indicates that self-reported BMIs are on average 0.015 units lower, which is significant at the 1% level. Thus controlling for other factors, self-reporting the data does result in a downward bias. However, replication of the regression analysis in the Demographic and Health Surveys, which only include anthropometric data, is much more encouraging. The results are in Table 7 (column 3), Table 8 (column 4), Table 9 (column 3), Table 10 (column 3), Table 11 (column 3), and Table 12 (column 4). We see that the coefficient direction and magnitude remain very similar.
5 Statistical Analysis

This section presents regression tables underlying Figures 2, 3, and 4 of the main text for each of three outcome variables: BMI, a binary indicator for obesity, and a binary indicator for overweight. Below are descriptions of the Tables G - L included in this section.

*Table G:* This table presents our regression results using individual obesity as the outcome variable. Because the outcome is a binary variable, we use logistic regression, with country and year fixed effects. Column (1) displays the results using the full data set and survey-specific personal wealth deciles. The reference group is the wealthiest decile. Column (2) displays the results using just the Demographic and Health Surveys and our survey-standardized wealth index. Column (3) displays the results using just the Demographic and Health Surveys and survey-specific personal wealth deciles. The reference group is the wealthiest decile.

*Table H:* This table continues using a binary obesity variable and logistic regression. Column (1) mirrors Table G, column 1 and additionally includes 3 indicator variables for educational attainment. Column (2) mirrors Table G, column 1 and additionally includes an indicator for self-reported data. Column (3) mirrors Table G, column 2 and additionally includes 3 indicator variables for educational attainment. Column (4) mirrors Table G, column 3 and additionally includes 3 indicator variables for educational attainment.

*Table I:* Follows the same structure as Table G, but now uses a binary overweight outcome variable.

*Table J:* Follows the same structure as Table H, using a binary overweight outcome variable.

*Table K:* Follows the same structure as Table G, but now using linear regression and \( \log(BMI) \) as the outcome variable.

*Table L:* Follows the same structure as Table H, using linear regression and \( \log(BMI) \) as the outcome variable.
Table G: Obese

| Dependent variable: | obese |
|---------------------|-------|
|                     | (1)   | (2)   | (3)   |
| log(GDP per capita) | -0.875*** | -0.306* | -1.088*** |
|                     | (0.049) | (0.161) | (0.159) |
| Wealth Decile 1     | -9.616*** | -15.473*** | -14.360*** |
|                     | (0.174) | (0.445) | (0.377) |
| Wealth Decile 2     | -9.724*** | -14.260*** |
|                     | (0.164) | (0.159) |
| Wealth Decile 3     | -9.203*** | -13.071*** |
|                     | (0.154) | (0.325) |
| Wealth Decile 4     | -8.746*** | -12.948*** |
|                     | (0.146) | (0.301) |
| Wealth Decile 5     | -7.641*** | -11.644*** |
|                     | (0.136) | (0.273) |
| Wealth Decile 6     | -6.793*** | -9.839*** |
|                     | (0.129) | (0.247) |
| Wealth Decile 7     | -5.334*** | -8.168*** |
|                     | (0.121) | (0.230) |
| Wealth Decile 8     | -3.943*** | -6.181*** |
|                     | (0.115) | (0.215) |
| Wealth Decile 9     | -1.883*** | -3.392*** |
|                     | (0.108) | (0.203) |
| Survey-standardized Wealth | 1.442*** |          |
|                     | (0.037) |          |
| Age                 | 0.060*** | 0.059*** | 0.061*** |
|                     | (0.002) | (0.001) | (0.001) |
| Female              | -0.225*** |          |
|                     | (0.016) |          |
| log(GDP per capita) | -0.138*** |          |
| Wealth Decile 1     | -0.211*** |          |
|                     | (0.013) | (0.024) |
| log(GDP per capita) | 0.946*** | 1.602*** |
| Wealth Decile 2     | (0.020) | (0.050) |
| log(GDP per capita) | 0.985*** | 1.516*** |
| Wealth Decile 3     | (0.019) | (0.043) |
| log(GDP per capita) | 0.949*** | 1.404*** |
| Wealth Decile 4     | (0.018) | (0.037) |
| log(GDP per capita) | 0.917*** | 1.418*** |
| Wealth Decile 5     | (0.017) | (0.034) |
| log(GDP per capita) | 0.808*** | 1.288*** |
| Wealth Decile 6     | (0.016) | (0.031) |
| log(GDP per capita) | 0.729*** | 1.101*** |
| Wealth Decile 7     | (0.015) | (0.029) |
| log(GDP per capita) | 0.576*** | 0.918*** |
| Wealth Decile 8     | (0.014) | (0.027) |
| log(GDP per capita) | 0.434*** | 0.701*** |
| Wealth Decile 9     | (0.013) | (0.025) |
| log(GDP per capita) | 0.211*** | 0.389*** |
| wealth              | (0.013) | (0.024) |
| Constant            | 4.208*** | -1.634 | 6.277*** |
|                     | (0.430) | (1.362) | (1.350) |

| Countries | Yes | Yes | Yes |
|-----------|-----|-----|-----|
| Years     | Yes | Yes | Yes |
| Observations | 2,243,991 | 388,609 | 388,609 |
| Log Likelihood | -529,499,000 | -134,776,000 | -132,355,000 |
| Akaike Inf. Crit. | 1,059,274,000 | 269,652,000 | 264,842,000 |

Note: *p<0.1, **p<0.05, ***p<0.01
| Table H: Obese |
|----------------|
| **Dependent variable:** obese |
| **(1)** | **(2)** | **(3)** | **(4)** |
| log(GDP per capita) | −0.853*** | −0.796*** | −0.223 | −1.023*** |
| Wealth Decile 1 | (0.049) | (0.050) | (0.161) | (0.160) |
| Wealth Decile 2 | −9.010*** | −9.587*** | −14.758*** | |
| Wealth Decile 3 | −9.204*** | −9.771*** | −13.726*** | (0.479) |
| Wealth Decile 4 | −8.743*** | −9.308*** | −12.466*** | (0.327) |
| Wealth Decile 5 | −8.346*** | −8.844*** | −12.407*** | (0.203) |
| Wealth Decile 6 | −7.283*** | −7.748*** | −11.161*** | (0.275) |
| Wealth Decile 7 | −6.491*** | −6.904*** | −9.441*** | (0.249) |
| Wealth Decile 8 | −5.906*** | −5.420*** | −7.840*** | (0.211) |
| Wealth Decile 9 | −3.770*** | −4.019*** | −5.954*** | (0.216) |
| Survey-standardized Wealth | 1.310*** | | | (0.037) |
| Primary School | 0.439*** | 0.416*** | 0.204*** | (0.020) |
| Secondary Education | 0.357*** | 0.526*** | 0.174*** | (0.020) |
| Tertiary Education | 0.112*** | 0.235*** | −0.116*** | (0.024) |
| Age | 0.062*** | 0.061*** | 0.062*** | (0.001) |
| Female | −0.240*** | −0.419*** | | (0.018) |
| Self-Reported | | | | |
| log(GDP per capita) Wealth Decile 1 | 0.880*** | 0.943*** | 1.507*** | (0.050) |
| log(GDP per capita) Wealth Decile 2 | 0.926*** | 0.990*** | 1.429*** | (0.043) |
| log(GDP per capita) Wealth Decile 3 | 0.895*** | 0.960*** | 1.321*** | (0.037) |
| log(GDP per capita) Wealth Decile 4 | 0.869*** | 0.928*** | 1.342*** | (0.035) |
| log(GDP per capita) Wealth Decile 5 | 0.765*** | 0.820*** | 1.220*** | (0.032) |
| log(GDP per capita) Wealth Decile 6 | 0.691*** | 0.741*** | 1.043*** | (0.029) |
| log(GDP per capita) Wealth Decile 7 | 0.546*** | 0.586*** | 0.870*** | (0.027) |
| log(GDP per capita) Wealth Decile 8 | 0.411*** | 0.442*** | 0.666*** | (0.025) |
| log(GDP per capita) Wealth Decile 9 | 0.199*** | 0.218*** | 0.370*** | (0.024) |
| log(GDP per capita) Wealth | | | −0.123*** | (0.004) |
| Constant | 3.579*** | 3.945*** | −2.761*** | 5.748*** |
| | (0.431) | (0.433) | (1.603) | (1.51) |
| Countries | Yes | Yes | Yes | Yes |
| Years | Yes | Yes | Yes | Yes |
| Observations | 2,243,991 | 2,243,991 | 388,609 | 388,609 |
| Log Likelihood | −528,403,000 | 288,964,000 | −134,267,000 | −132,103,000 |
| Akaike Inf. Crit. | 1,057,088,000 | 1,058,206,000 | 268,640,000 | 264,340,000 |

Note: * p<0.1; ** p<0.05; *** p<0.01
Table I: Overweight

| Dependent variable: overweight | (1) | (2) | (3) |
|-------------------------------|-----|-----|-----|
| log(GDP per capita)           | $-0.410^{***}$ | $-0.179^{*}$ | $-0.768^{***}$ |
|                               | (0.029) | (0.007) | (0.099) |
| Wealth Decile 1               | $-6.710^{***}$ | $-10.436^{***}$ | $-10.154^{***}$ |
|                               | (0.005) | (0.207) | (0.199) |
| Wealth Decile 2               | $-6.772^{***}$ | $-10.518^{***}$ | $-10.154^{***}$ |
|                               | (0.093) | (0.197) | (0.199) |
| Wealth Decile 3               | $-6.711^{***}$ | $-10.437^{***}$ | $-10.154^{***}$ |
|                               | (0.091) | (0.197) | (0.199) |
| Wealth Decile 4               | $-6.369^{***}$ | $-8.184^{***}$ | $-9.148^{***}$ |
|                               | (0.088) | (0.178) | (0.183) |
| Wealth Decile 5               | $-5.797^{***}$ | $-6.886^{***}$ | $-9.148^{***}$ |
|                               | (0.086) | (0.173) | (0.183) |
| Wealth Decile 6               | $-5.086^{***}$ | $-5.339^{***}$ | $-9.148^{***}$ |
|                               | (0.083) | (0.170) | (0.183) |
| Wealth Decile 7               | $-4.124^{***}$ | $-2.909^{***}$ | $-9.148^{***}$ |
|                               | (0.080) | (0.168) | (0.183) |
| Wealth Decile 8               | $-2.923^{***}$ | $-2.909^{***}$ | $-9.148^{***}$ |
|                               | (0.078) | (0.168) | (0.183) |
| Wealth Decile 9               | $-1.341^{***}$ | $-2.909^{***}$ | $-9.148^{***}$ |
|                               | (0.077) | (0.168) | (0.183) |
| Survey-standardized Wealth    | $1.263^{***}$ | $1.263^{***}$ | $1.263^{***}$ |
|                               | (0.025) | (0.025) | (0.025) |
| Age                           | $0.060^{***}$ | $0.052^{***}$ | $0.053^{***}$ |
|                               | (0.0002) | (0.0004) | (0.0004) |
| Female                        | $0.100^{***}$ | $0.100^{***}$ | $0.100^{***}$ |
|                               | (0.011) | (0.011) | (0.011) |
| log(GDP per capita): Wealth Decile 1 | $0.615^{***}$ | $1.040^{***}$ | $0.760^{***}$ |
|                               | (0.011) | (0.024) | (0.024) |
| log(GDP per capita): Wealth Decile 2 | $0.646^{***}$ | $1.040^{***}$ | $0.760^{***}$ |
|                               | (0.011) | (0.023) | (0.023) |
| log(GDP per capita): Wealth Decile 3 | $0.661^{***}$ | $1.106^{***}$ | $0.760^{***}$ |
|                               | (0.011) | (0.023) | (0.023) |
| log(GDP per capita): Wealth Decile 4 | $0.641^{***}$ | $1.124^{***}$ | $0.760^{***}$ |
|                               | (0.010) | (0.023) | (0.023) |
| log(GDP per capita): Wealth Decile 5 | $0.592^{***}$ | $0.992^{***}$ | $0.594^{***}$ |
|                               | (0.010) | (0.022) | (0.020) |
| log(GDP per capita): Wealth Decile 6 | $0.528^{***}$ | $0.992^{***}$ | $0.594^{***}$ |
|                               | (0.010) | (0.021) | (0.020) |
| log(GDP per capita): Wealth Decile 7 | $0.435^{***}$ | $0.760^{***}$ | $0.594^{***}$ |
|                               | (0.010) | (0.021) | (0.020) |
| log(GDP per capita): Wealth Decile 8 | $0.313^{***}$ | $0.594^{***}$ | $0.594^{***}$ |
|                               | (0.009) | (0.020) | (0.020) |
| log(GDP per capita): Wealth Decile 9 | $0.145^{***}$ | $0.322^{***}$ | $0.594^{***}$ |
|                               | (0.009) | (0.020) | (0.020) |
| log(GDP per capita): wealth   | $-0.120^{***}$ | $-0.120^{***}$ | $-0.120^{***}$ |
|                               | (0.003) | (0.003) | (0.003) |
| Constant                      | $1.596^{***}$ | $0.586$ | $5.384^{***}$ |
|                               | (0.252) | (0.824) | (0.838) |

| Countries Year Observations | Yes | Yes | Yes |
|----------------------------|-----|-----|-----|
| Log Likelihood             | $-1,069,654.000$ | $-216,965.000$ | $-212,449.000$ |
| Akaike Inf. Crit.          | $2,139,383.000$ | $434,030.000$ | $425,029.000$ |

Note:

* p<0.1; ** p<0.05; *** p<0.01
| Dependent variable: overweight | (1)     | (2)     | (3)     |
|------------------------------|---------|---------|---------|
| log(GDP per capita)          | -0.372 *** | -0.104 | -0.673 *** |
|                              | (0.029)  | (0.097) | (0.099) |
| Wealth Decile 1              | -6.112 *** |         | -9.366 *** |
|                              | (0.095)  |         | (0.209) |
| Wealth Decile 2              | -6.222 *** |         | -9.184 *** |
|                              | (0.093)  |         | (0.201) |
| Wealth Decile 3              | -6.209 *** |         | -9.602 *** |
|                              | (0.091)  |         | (0.199) |
| Wealth Decile 4              | -5.921 *** |         | -9.607 *** |
|                              | (0.088)  |         | (0.193) |
| Wealth Decile 5              | -5.394 *** |         | -8.411 *** |
|                              | (0.086)  |         | (0.185) |
| Wealth Decile 6              | -4.739 *** |         | -7.555 *** |
|                              | (0.083)  |         | (0.180) |
| Wealth Decile 7              | -3.846 *** |         | -6.367 *** |
|                              | (0.081)  |         | (0.175) |
| Wealth Decile 8              | -2.724 *** |         | -4.987 *** |
|                              | (0.079)  |         | (0.171) |
| Wealth Decile 9              | -1.253 *** |         | -2.726 *** |
|                              | (0.077)  |         | (0.168) |
| Survey-standardized Wealth   |         | 1.107 *** |         |
|                              |         | (0.026)  |         |
| Primary School               | 0.408 *** | 0.510 *** | 0.325 *** |
|                              | (0.006)  | (0.013)  | (0.013) |
| Secondary Education          | 0.403 *** | 0.695 *** | 0.337 *** |
|                              | (0.006)  | (0.014)  | (0.014) |
| Tertiary Education           | 0.310 *** | 0.468 *** | 0.044 ** |
|                              | (0.007)  | (0.016)  | (0.018) |
| Age                         | 0.063 *** | 0.056 *** | 0.055 *** |
|                              | (0.0002) | (0.0004) | (0.0005) |
| Female                      | 0.084 *** |         |         |
|                              | (0.011)  |         |         |
| log(GDP per capita) Wealth Decile 1 | 0.559 *** |         | 0.910 *** |
|                              | (0.011)  |         | (0.024) |
| log(GDP per capita) Wealth Decile 2 | 0.502 *** |         | 0.920 *** |
|                              | (0.011)  |         | (0.024) |
| log(GDP per capita) Wealth Decile 3 | 0.610 *** |         | 0.991 *** |
|                              | (0.011)  |         | (0.023) |
| log(GDP per capita) Wealth Decile 4 | 0.595 *** |         | 1.019 *** |
|                              | (0.010)  |         | (0.023) |
| log(GDP per capita) Wealth Decile 5 | 0.550 *** |         | 0.898 *** |
|                              | (0.010)  |         | (0.022) |
| log(GDP per capita) Wealth Decile 6 | 0.491 *** |         | 0.812 *** |
|                              | (0.010)  |         | (0.021) |
| log(GDP per capita) Wealth Decile 7 | 0.404 *** |         | 0.692 *** |
|                              | (0.010)  |         | (0.021) |
| log(GDP per capita) Wealth Decile 8 | 0.291 *** |         | 0.547 *** |
|                              | (0.009)  |         | (0.020) |
| log(GDP per capita) Wealth Decile 9 | 0.135 *** |         | 0.296 *** |
|                              | (0.009)  |         | (0.020) |
| log(GDP per capita) wealth   |         | -0.104 *** |         |
|                              |         | (0.003)  |         |
| Constant                    | 0.562 ** | -2.195 *** | 4.341 *** |
|                              | (0.252)  | (0.823)  | (0.840) |

Note: *p<0.1; **p<0.05; ***p<0.01
Table K: BMI

|                      | (1)       | (2)       | (3)       |
|----------------------|-----------|-----------|-----------|
| log(GDP per capita)  | \(-0.022^{***}\) | 0.005     | \(-0.044^{***}\) |
|                      | (0.002)   | (0.006)   | (0.006)   |
| Wealth Decile 1      | \(-0.369^{***}\) |          | \(-0.760^{***}\) |
|                      | (0.006)   |          | (0.012)   |
| Wealth Decile 2      | \(-0.381^{***}\) |          | \(-0.755^{***}\) |
|                      | (0.006)   |          | (0.013)   |
| Wealth Decile 3      | \(-0.405^{***}\) |          | \(-0.799^{***}\) |
|                      | (0.006)   |          | (0.013)   |
| Wealth Decile 4      | \(-0.408^{***}\) |          | \(-0.843^{***}\) |
|                      | (0.006)   |          | (0.013)   |
| Wealth Decile 5      | \(-0.390^{***}\) |          | \(-0.781^{***}\) |
|                      | (0.006)   |          | (0.013)   |
| Wealth Decile 6      | \(-0.371^{***}\) |          | \(-0.734^{***}\) |
|                      | (0.006)   |          | (0.013)   |
| Wealth Decile 7      | \(-0.313^{***}\) |          | \(-0.642^{***}\) |
|                      | (0.006)   |          | (0.013)   |
| Wealth Decile 8      | \(-0.240^{***}\) |          | \(-0.511^{***}\) |
|                      | (0.006)   |          | (0.012)   |
| Wealth Decile 9      | \(-0.119^{***}\) |          | \(-0.306^{***}\) |
|                      | (0.006)   |          | (0.013)   |
| Survey-standardized Wealth |          | 0.096^{***} |          |
|                      |           | (0.002)   |           |
| Age                  | 0.005^{***} | 0.004^{***} | 0.004^{***} |
|                      | (0.00001) | (0.00003) | (0.00003) |
| Female               | 0.007^{***} |          |           |
|                      | (0.001)   |          |           |
| log(GDP per capita)/Wealth Decile 1 | 0.029^{***} |          | 0.074^{***} |
|                      | (0.001)   |          | (0.001)   |
| log(GDP per capita)/Wealth Decile 2 | 0.032^{***} |          | 0.076^{***} |
|                      | (0.001)   |          | (0.002)   |
| log(GDP per capita)/Wealth Decile 3 | 0.037^{***} |          | 0.083^{***} |
|                      | (0.001)   |          | (0.002)   |
| log(GDP per capita)/Wealth Decile 4 | 0.039^{***} |          | 0.090^{***} |
|                      | (0.001)   |          | (0.002)   |
| log(GDP per capita)/Wealth Decile 5 | 0.038^{***} |          | 0.084^{***} |
|                      | (0.001)   |          | (0.002)   |
| log(GDP per capita)/Wealth Decile 6 | 0.037^{***} |          | 0.080^{***} |
|                      | (0.001)   |          | (0.001)   |
| log(GDP per capita)/Wealth Decile 7 | 0.032^{***} |          | 0.071^{***} |
|                      | (0.001)   |          | (0.002)   |
| log(GDP per capita)/Wealth Decile 8 | 0.025^{***} |          | 0.057^{***} |
|                      | (0.001)   |          | (0.001)   |
| log(GDP per capita)/Wealth Decile 9 | 0.012^{***} |          | 0.034^{***} |
|                      | (0.001)   |          | (0.002)   |
| log(GDP per capita)/wealth |          | \(-0.009^{***}\) |           |
|                      |           | (0.0002)  |           |
| Constant             | 3.292^{***} | 2.998^{***} | 3.528^{***} |
|                      | (0.015)   | (0.054)   | (0.053)   |

| Countries | Yes | Yes | Yes |
|-----------|-----|-----|-----|
| Year      | Yes | Yes | Yes |

| Observations | 2,243,991 | 388,609 | 388,609 |
| Log Likelihood | 867,384,000 | 146,718,000 | 152,333,000 |
| Akaike Inf. Crit. | -1,734,492,000 | -293,335,000 | -304,535,000 |

Note: *p<0.1; **p<0.05; ***p<0.01
### Table L: BMI

| Dependent variable: | (1) | (2) | (3) | (4) |
|---------------------|-----|-----|-----|-----|
| log(GDP per capita) | −0.020*** | −0.023*** | 0.008 | −0.037*** |
| (0.002)             | (0.002) | (0.006) | (0.006) |
| Wealth Decile 1     | −0.334*** | −0.369*** | −0.673*** | (0.013) |
| (0.006)             | (0.006) | (0.013) |
| Wealth Decile 2     | −0.346*** | −0.383*** | −0.676*** | (0.013) |
| (0.006)             | (0.006) | (0.013) |
| Wealth Decile 3     | −0.371*** | −0.407*** | −0.723*** | (0.013) |
| (0.006)             | (0.006) | (0.013) |
| Wealth Decile 4     | −0.377*** | −0.410*** | −0.773*** | (0.013) |
| (0.006)             | (0.006) | (0.013) |
| Wealth Decile 5     | −0.360*** | −0.391*** | −0.719*** | (0.013) |
| (0.006)             | (0.006) | (0.013) |
| Wealth Decile 6     | −0.346*** | −0.373*** | −0.681*** | (0.013) |
| (0.006)             | (0.006) | (0.013) |
| Wealth Decile 7     | −0.292*** | −0.314*** | −0.599*** | (0.013) |
| (0.006)             | (0.006) | (0.013) |
| Wealth Decile 8     | −0.226*** | −0.241*** | −0.481*** | (0.012) |
| (0.006)             | (0.006) | (0.012) |
| Wealth Decile 9     | −0.113*** | −0.120*** | −0.291*** | (0.013) |
| (0.006)             | (0.006) | (0.013) |
| Survey-standardized Wealth | 0.081*** | 0.008*** | (0.002) | (0.002) |
| (0.003)             | (0.003) | (0.003) |
| Primary School      | 0.032*** | 0.044*** | 0.031*** | (0.001) | (0.001) |
| (0.0003)            | (0.0003) | (0.0001) |
| Secondary Education | 0.031*** | 0.058*** | 0.030*** | (0.001) | (0.001) |
| (0.0003)            | (0.0003) | (0.0009) |
| Tertiary Education  | 0.026*** | 0.040*** | 0.005*** | (0.001) | (0.001) |
| (0.0005)            | (0.0005) | (0.0005) |
| Self-Reported       | −0.015*** | −0.015*** | −0.015*** | (0.001) | (0.001) |
| (0.0001)            | (0.0001) | (0.0001) |
| Age                 | 0.005*** | 0.005*** | 0.005*** | 0.004*** | (0.0001) | (0.0001) | (0.00003) | (0.00003) |
| (0.00001)           | (0.00001) | (0.00003) |
| Female              | 0.006*** | 0.003*** | 0.003*** | (0.001) | (0.001) |
| (0.001)             | (0.001) |
| log(GDP per capita) | Wealth Decile 1 | 0.026*** | 0.029*** | 0.063*** | (0.001) | (0.001) |
| (0.001)             | (0.001) | (0.002) |
| log(GDP per capita) | Wealth Decile 2 | 0.029*** | 0.033*** | 0.066*** | (0.001) | (0.001) |
| (0.001)             | (0.001) | (0.002) |
| log(GDP per capita) | Wealth Decile 3 | 0.034*** | 0.037*** | 0.073*** | (0.001) | (0.001) |
| (0.001)             | (0.001) | (0.002) |
| log(GDP per capita) | Wealth Decile 4 | 0.036*** | 0.039*** | 0.081*** | (0.001) | (0.001) |
| (0.001)             | (0.001) | (0.002) |
| log(GDP per capita) | Wealth Decile 5 | 0.035*** | 0.038*** | 0.076*** | (0.001) | (0.001) |
| (0.001)             | (0.001) | (0.002) |
| log(GDP per capita) | Wealth Decile 6 | 0.035*** | 0.037*** | 0.073*** | (0.001) | (0.001) |
| (0.001)             | (0.001) | (0.002) |
| log(GDP per capita) | Wealth Decile 7 | 0.030*** | 0.032*** | 0.065*** | (0.001) | (0.001) |
| (0.001)             | (0.001) | (0.002) |
| log(GDP per capita) | Wealth Decile 8 | 0.024*** | 0.025*** | 0.053*** | (0.001) | (0.001) |
| (0.001)             | (0.001) | (0.001) |
| log(GDP per capita) | Wealth Decile 9 | 0.012*** | 0.013*** | 0.032*** | (0.001) | (0.001) |
| (0.001)             | (0.001) | (0.002) |
| log(GDP per capita) | wealth     | −0.007*** | −0.007*** | (0.0002) | (0.0008) |
| (0.0003)            | (0.0003) |
| Constant            | 3.214***   | 3.306***   | 2.915***   | 3.444***   | (0.015) | (0.015) | (0.053) | (0.053) |

| Countries Year | Yes | Yes | Yes | Yes | Yes |
|----------------|-----|-----|-----|-----|-----|
| Observations   | 2,243,991 | 2,243,991 | 385,009 | 385,009 |
| Log Likelihood | 872,602,000 | 872,602,000 | 148,801,000 | 153,362,000 |
| Akaike Inf. Crit. | −1,744,923,000 | −1,734,662,000 | −297,495,000 | −306,587,000 |

Note: *p<0.1; **p<0.05; ***p<0.01
6 Robustness Checks

In this section, we examine how sensitive our main result – the existence of a transition of overweight and obesity to being relatively concentrated amongst the rich to the poor – is to only using Demographic and Health Surveys (Figure D); using country-specific age and sex trends (Figure E); and using wealth quintiles as opposed to wealth deciles (Figure F). These figures are presented in the following pages.

For Figure D, the result does not change. This is unsurprising, as most of our data in the main analysis is from the Demographic and Health surveys. There is more uncertainty in the higher GDP per capita ranges, which also is to be expected as the Demographic and Health Surveys only capture low- and middle- income countries.

Using country-specific age and sex trends, we see that the effect of wealth slightly attenuates, suggesting that country-specific age and sex trends were slightly biasing the wealth effects. This specification, however, does not change that there is a clear gradient reversal across the GDP per capita range.

Finally, we see that using wealth quintiles also exhibits a similar trend as our main results with wealth deciles.

![Average Marginal Effects with 95% CIs](image)

Figure D: Only Demographic and Health Surveys
Average Marginal Effects with 95% CIs

Wealth Decile Legend
0 - 10
10 - 20
20 - 30
30 - 40
40 - 50
50 - 60
60 - 70
70 - 80
80 - 90

Figure E: Country-specific age and sex trends

Average Marginal Effects with 95% CIs

Wealth Quintile Legend
0-20
20-40
40-60
60-80

Figure F: Wealth Quintiles
7 Meta-regression

As an alternate modeling strategy to fixed effects regression, we employ a meta-analytic technique to compare within country wealth gradients across GDP per capita. We implemented this methodology and found that our results still hold, using both an absolute measure of wealth (using just the Demographic and Health Survey sample) and a relative measure of wealth (using the Demographic and Health Surveys and World Health Surveys).

For absolute wealth, the regression equations that we estimated were, separately for each survey, for individual $i$:

*Equation A:*

\[ outcome_i = \alpha + \beta \text{wealth}_i + \delta \text{age}_i + \gamma \text{sex}_i + \theta \text{education}_i + \epsilon_i \]

For the absolute wealth measure, this produces 182 $\beta$ coefficients which then enter the following equation, for country $c$:

*Equation B:*

\[ \beta_c = \xi + \pi \log (GDPpc) + \nu_c \]

For relative wealth, the regression equations that we estimated were, separately for each survey, for individual $i$:

*Equation C:*

\[ outcome_i = \alpha + \beta_1 1(\text{wealth}_i = \text{Poorest}) + \beta_2 1(\text{wealth}_i = \text{Poorer}) + \beta_3 1(\text{wealth}_i = \text{Middle}) + \beta_4 1(\text{wealth}_i = \text{Richer}) + \delta \text{age}_i + \gamma \text{sex}_i + \theta \text{education}_i + \epsilon_i \]

The richest wealth group is the reference category, and 1() denotes a 0/1 variable that indicates to which wealth group an individual belongs. For the relative wealth measure, this produces 784 $\beta$ coefficients which then enter the following equation, separately for each wealth quintile $w$, for country $c$:

*Equation D:*

\[ \beta_{cw} = \xi + \pi \log (GDPpc) + \nu_c \]
To display our results, we take two approaches. First, using the Equations A and C on this page, we graph the $\beta$ coefficients as a function of GDP per capita. This is meant to give a sense of how the within-country estimate of the effect of wealth on BMI, overweight, and obesity, varies with GDP per capita. Each dot represents a coefficient from a within country regression. We fit a lowess curve through these dots to show how the coefficients on wealth vary with GDP per capita. The vertical lines show where the point estimates become positive. Note that the shaded confidence intervals can give a sense of the variance, but do not incorporate the sample size or standard errors of the point estimates, as we do in the second approach (Described after the graphs).

![Figure G: Effect of Wealth Quintile on Overweight, across GDP per capita](image)

Figure G: Effect of Wealth Quintile on Overweight, across GDP per capita
Obesity regression results

Figure H: Effect of Wealth Quintile on Obesity, across GDP per capita

BMI regression results

Figure I: Effect of Wealth Quintile on BMI, across GDP per capita
Figure J: Effect of DHS Absolute Wealth on Overweight, across GDP per capita

Figure K: Effect of DHS Absolute Wealth on Obesity, across GDP per capita
Second, we report the meta-regression results of Equations B and D. We use the R package metafor to perform the meta-regression analysis. Some notation for the statistics reported in the table:

- $\tau^2$: Estimated amount of residual heterogeneity
- $\tau$: square root of estimated $\tau^2$ value
- $I^2$: residual heterogeneity / unaccounted variability
- $H^2$: unaccounted variability / sampling variability
- $R^2$: amount of heterogeneity accounted for

Now the results for wealth quintiles.
Table N: Effect of DHS Absolute Wealth on BMI, across GDP per capita

|                  | Estimate | SE     | Z-value | p-value | Lower CI  | Upper CI  |
|------------------|----------|--------|---------|---------|-----------|-----------|
| Intercept        | -0.9093  | 0.1671 | -5.4419 | <.0001  | -1.2369   | -0.5818   |
| log(GDPpc)       | 0.0650   | 0.0209 | 3.1081  | 0.0019  | 0.0240    | 0.1059    |
| $\tau^2$        | 0.0203   |        |         |         |           |           |
| $\tau$          | 0.1425   |        |         |         |           |           |
| $I^2$           | 98.00%   |        |         |         |           |           |
| $H^2$           | 49.94    |        |         |         |           |           |
| $R^2$           | 10.66%   |        |         |         |           |           |

Table O: Effect of DHS Absolute Wealth on Overweight, across GDP per capita

|                  | Estimate | SE     | Z-value | p-value | Lower CI  | Upper CI  |
|------------------|----------|--------|---------|---------|-----------|-----------|
| Intercept        | -0.0814  | 0.0140 | -5.8275 | <.0001  | -0.1088   | -0.0541   |
| log(GDPpc)       | 0.0060   | 0.0017 | 3.4104  | 0.0006  | 0.0025    | 0.0094    |
| $\tau^2$        | 0.0001   |        |         |         |           |           |
| $\tau$          | 0.0118   |        |         |         |           |           |
| $I^2$           | 97.26%   |        |         |         |           |           |
| $H^2$           | 36.45    |        |         |         |           |           |
| $R^2$           | 12.99%   |        |         |         |           |           |

Table P: Effect of DHS Absolute Wealth on Obesity, across GDP per capita

|                  | Estimate | SE     | Z-value | p-value | Lower CI  | Upper CI  |
|------------------|----------|--------|---------|---------|-----------|-----------|
| Intercept        | -0.0175  | 0.0100 | -1.7541 | 0.0794  | -0.0370   | 0.0021    |
| log(GDPpc)       | 0.0001   | 0.0012 | 0.0431  | 0.9657  | -0.0024   | 0.0025    |
| $\tau^2$        | 0.0001   |        |         |         |           |           |
| $\tau$          | 0.0084   |        |         |         |           |           |
| $I^2$           | 97.97%   |        |         |         |           |           |
| $H^2$           | 49.27    |        |         |         |           |           |
| $R^2$           | 0.00%    |        |         |         |           |           |
### Table Q: Effect of Wealth Quintiles on Overweight, across GDP per capita

|                          | Estimate | SE    | Z-value | p-value | Lower CI  | Upper CI  |
|--------------------------|----------|-------|---------|---------|-----------|-----------|
| Intercept for Poorest    | -0.6090  | 0.0655| -9.2945 | <.0001  | -0.7374   | -0.4806   |
| log(GDPpc) for Poorest   | 0.0557   | 0.0078| 7.1109  | <.0001  | 0.0404    | 0.0711    |
| $R^2$ for Poorest        | 22.57%   |       |         |         |           |           |
| Intercept for Poorer     | -0.6514  | 0.0558| -11.6643| <.0001  | -0.7609   | -0.5420   |
| log(GDPpc) for Poorer    | 0.0646   | 0.0067| 9.6508  | <.0001  | 0.0514    | 0.0777    |
| $R^2$ for Poorer         | 35.72%   |       |         |         |           |           |
| Intercept for Middle     | -0.5907  | 0.0451| -13.1026| <.0001  | -0.6791   | -0.5023   |
| log(GDPpc) for Middle    | 0.0605   | 0.0054| 11.7711 | <.0001  | 0.0499    | 0.0711    |
| $R^2$ for Middle         | 43.24%   |       |         |         |           |           |
| Intercept for Richer     | -0.4106  | 0.0317| -12.9634| <.0001  | -0.4727   | -0.3486   |
| log(GDPpc) for Richer    | 0.0437   | 0.0038| 11.4054 | <.0001  | 0.0362    | 0.0512    |
| $R^2$ for Richer         | 46.05%   |       |         |         |           |           |

### Table R: Effect of Wealth Quintiles on Obesity, across GDP per capita

|                          | Estimate | SE    | Z-value | p-value | Lower CI  | Upper CI  |
|--------------------------|----------|-------|---------|---------|-----------|-----------|
| Intercept for Poorest    | -0.2013  | 0.0387| -5.2048 | <.0001  | -0.2771   | -0.1255   |
| log(GDPpc) for Poorest   | 0.0159   | 0.0046| 3.4352  | 0.0006  | 0.0068    | 0.0250    |
| $R^2$ for Poorest        | 5.47%    |       |         |         |           |           |
| Intercept for Poorer     | -0.2468  | 0.0320| -7.7225 | <.0001  | -0.3094   | -0.1841   |
| log(GDPpc) for Poorer    | 0.0232   | 0.0038| 6.0253  | <.0001  | 0.0156    | 0.0307    |
| $R^2$ for Poorer         | 16.83%   |       |         |         |           |           |
| Intercept for Middle     | -0.2430  | 0.0266| -9.1391 | <.0001  | -0.2951   | -0.1909   |
| log(GDPpc) for Middle    | 0.0243   | 0.0032| 7.5690  | <.0001  | 0.0180    | 0.0306    |
| $R^2$ for Middle         | 25.77%   |       |         |         |           |           |
| Intercept for Richer     | -0.1936  | 0.0195| -9.9176 | <.0001  | -0.2319   | -0.1553   |
| log(GDPpc) for Richer    | 0.0206   | 0.0024| 8.6447  | <.0001  | 0.0159    | 0.0252    |
| $R^2$ for Richer         | 34.73%   |       |         |         |           |           |
Table S: Effect of Wealth Quintiles on BMI, across GDP per capita

| Quintile       | Coefficient     | SE       | Z-value  | p-value   | Lower CI  | Upper CI  |
|----------------|-----------------|----------|----------|-----------|-----------|-----------|
| Poorest        | Intercept       | -7.0088  | 0.7554   | <.0001    | -8.4893   | -5.5284   |
|                | log(GDPpc)      | 0.6431   | 0.0901   | <.0001    | 0.4664    | 0.8198    |
|                | R$^2$           | 22.89%   |          |           |           |           |
| Poorer         | Intercept       | -7.2780  | 0.6261   | <.0001    | -8.5052   | -6.0508   |
|                | log(GDPpc)      | 0.7188   | 0.0748   | <.0001    | 0.5721    | 0.8654    |
|                | R$^2$           | 35.73%   |          |           |           |           |
| Middle         | Intercept       | -6.3942  | 0.5040   | <.0001    | -7.3821   | -5.4064   |
|                | log(GDPpc)      | 0.6517   | 0.0603   | <.0001    | 0.5335    | 0.7700    |
|                | R$^2$           | 41.33%   |          |           |           |           |
| Richer         | Intercept       | -4.2432  | 0.3495   | <.0001    | -4.9283   | -3.5581   |
|                | log(GDPpc)      | 0.4455   | 0.0421   | <.0001    | 0.3631    | 0.5280    |
|                | R$^2$           | 42.08%   |          |           |           |           |
8 Forecasting and Out-of-Sample Validation

Our forecasting methodology uses a fixed effects regression to project overweight and obesity prevalence rates by age, sex, and personal wealth decile to 2040. First, we estimate the fixed effects model using all available survey data (ranging from 1995 to 2016). We store the coefficient estimates and the associated variance-covariance matrix. Second, we use the Institute for Health Metrics and Evaluation’s GDP per capita series (specifically, the 1,000 draws described in the Data section) to estimate 1,000 versions of country-age-sex-wealth specific obesity prevalence rates. Additionally, to propagate model uncertainty, we use the coefficient means and variance-covariance matrix to draw parameter estimates to be used for each of the 1,000 forecast draws. Finally, we use the World Population Prospects to aggregate our estimates to the country-year-wealth level.

8.1 Forecasted Prevalence of Overweight

In the Table T, we report the estimated prevalence of overweight by country, wealth quintile, and year (2000, 2020, and 2040).
Table T: Appendix Projections by Country (2000, 2020, 2040)

| ISO3 | Quintile | Mean (2000) | Up (2000) | Low (2000) | Mean (2020) | Up (2020) | Low (2020) | Mean (2040) | Up (2040) | Low (2040) |
|------|----------|-------------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| ALB  | 1        | 24          | 24        | 24         | 38          | 38        | 38         | 58          | 59        | 58         |
| ALB  | 2        | 29          | 29        | 29         | 44          | 44        | 44         | 63          | 64        | 63         |
| ALB  | 3        | 33          | 33        | 33         | 47          | 47        | 47         | 67          | 67        | 67         |
| ALB  | 4        | 38          | 38        | 38         | 50          | 50        | 49         | 66          | 69        | 64         |
| ALB  | 5        | 44          | 44        | 44         | 48          | 50        | 47         | 61          | 67        | 57         |
| ARE  | 1        | 51          | 51        | 51         | 70          | 71        | 70         | 84          | 84        | 83         |
| ARE  | 2        | 55          | 55        | 55         | 74          | 74        | 74         | 86          | 87        | 86         |
| ARE  | 3        | 55          | 55        | 55         | 75          | 75        | 74         | 86          | 87        | 85         |
| ARE  | 4        | 50          | 50        | 50         | 72          | 73        | 71         | 85          | 86        | 82         |
| ARE  | 5        | 34          | 34        | 34         | 59          | 62        | 57         | 81          | 69        | 69         |
| ARM  | 1        | 29          | 29        | 29         | 44          | 45        | 44         | 63          | 63        | 62         |
| ARM  | 2        | 34          | 34        | 34         | 50          | 51        | 50         | 68          | 68        | 67         |
| ARM  | 3        | 39          | 39        | 39         | 54          | 54        | 54         | 70          | 72        | 69         |
| ARM  | 4        | 47          | 47        | 47         | 58          | 59        | 57         | 72          | 75        | 70         |
| ARM  | 5        | 57          | 57        | 57         | 59          | 61        | 57         | 71          | 76        | 66         |
| AUT  | 1        | 33          | 33        | 33         | 51          | 51        | 51         | 68          | 68        | 68         |
| AUT  | 2        | 38          | 38        | 38         | 56          | 56        | 55         | 72          | 72        | 72         |
| AUT  | 3        | 39          | 39        | 39         | 57          | 57        | 56         | 73          | 73        | 73         |
| AUT  | 4        | 38          | 38        | 38         | 55          | 55        | 54         | 71          | 72        | 72         |
| AUT  | 5        | 30          | 30        | 30         | 43          | 44        | 43         | 60          | 62        | 58         |
| AZE  | 1        | 35          | 35        | 35         | 52          | 52        | 52         | 69          | 69        | 69         |
| AZE  | 2        | 41          | 41        | 41         | 57          | 58        | 57         | 73          | 74        | 73         |
| AZE  | 3        | 46          | 46        | 46         | 60          | 61        | 59         | 76          | 76        | 74         |
| AZE  | 4        | 53          | 53        | 53         | 61          | 63        | 60         | 78          | 78        | 74         |
| AZE  | 5        | 61          | 61        | 61         | 58          | 60        | 55         | 72          | 77        | 67         |
| BDI  | 1        | 3           | 3         | 3          | 6           | 6         | 6          | 12          | 13        | 12         |
| BDI  | 2        | 4           | 4         | 4          | 8           | 8         | 8          | 16          | 16        | 16         |
| BDI  | 3        | 6           | 6         | 6          | 11          | 11        | 11         | 21          | 22        | 20         |
| BDI  | 4        | 9           | 9         | 9          | 17          | 18        | 17         | 31          | 33        | 29         |
| BDI  | 5        | 20          | 20        | 20         | 32          | 34        | 31         | 51          | 56        | 46         |
| BEL  | 1        | 34          | 34        | 34         | 51          | 51        | 51         | 68          | 68        | 68         |
| BEL  | 2        | 39          | 39        | 39         | 56          | 56        | 56         | 72          | 72        | 72         |
| BEL  | 3        | 40          | 40        | 40         | 57          | 57        | 57         | 73          | 73        | 72         |
| BEL  | 4        | 39          | 39        | 39         | 55          | 56        | 55         | 71          | 72        | 70         |
| BEL  | 5        | 31          | 31        | 31         | 45          | 45        | 44         | 61          | 63        | 58         |
Table T: Appendix Projections by Country (2000, 2020, 2040)

| ISO3 | Quintile | Mean (2000) | Up (2000) | Low (2000) | Mean (2020) | Up (2020) | Low (2020) | Mean (2040) | Up (2040) | Low (2040) |
|------|----------|-------------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| BEN  | 1        | 9           | 9         | 9          | 17          | 17        | 17         | 30          | 30        | 30         |
| BEN  | 2        | 11          | 11        | 11         | 21          | 21        | 21         | 36          | 36        | 35         |
| BEN  | 3        | 14          | 14        | 14         | 25          | 25        | 25         | 41          | 42        | 40         |
| BEN  | 4        | 20          | 20        | 20         | 33          | 33        | 32         | 48          | 50        | 47         |
| BEN  | 5        | 31          | 31        | 31         | 45          | 46        | 44         | 58          | 61        | 54         |
| BFA  | 1        | 2           | 2         | 2          | 5           | 5         | 5          | 10          | 10        | 10         |
| BFA  | 2        | 3           | 3         | 3          | 7           | 7         | 7          | 13          | 13        | 12         |
| BFA  | 3        | 4           | 4         | 4          | 8           | 8         | 8          | 15          | 16        | 15         |
| BFA  | 4        | 7           | 7         | 7          | 12          | 12        | 12         | 19          | 21        | 18         |
| BFA  | 5        | 13          | 13        | 13         | 19          | 20        | 18         | 25          | 29        | 21         |
| BGD  | 1        | 5           | 5         | 5          | 10          | 10        | 10         | 20          | 20        | 20         |
| BGD  | 2        | 7           | 7         | 7          | 13          | 13        | 13         | 24          | 24        | 24         |
| BGD  | 3        | 8           | 8         | 8          | 15          | 15        | 15         | 27          | 28        | 26         |
| BGD  | 4        | 12          | 12        | 12         | 19          | 19        | 19         | 30          | 32        | 28         |
| BGD  | 5        | 20          | 20        | 20         | 24          | 25        | 24         | 30          | 35        | 27         |
| BIH  | 1        | 24          | 24        | 24         | 40          | 40        | 40         | 58          | 59        | 58         |
| BIH  | 2        | 29          | 29        | 29         | 46          | 46        | 45         | 64          | 64        | 63         |
| BIH  | 3        | 33          | 33        | 33         | 49          | 49        | 49         | 66          | 67        | 65         |
| BIH  | 4        | 38          | 38        | 38         | 52          | 53        | 51         | 68          | 70        | 66         |
| BIH  | 5        | 42          | 42        | 42         | 51          | 53        | 50         | 65          | 71        | 60         |
| BOL  | 1        | 35          | 35        | 35         | 53          | 53        | 53         | 71          | 71        | 70         |
| BOL  | 2        | 41          | 41        | 41         | 59          | 59        | 59         | 75          | 76        | 75         |
| BOL  | 3        | 46          | 46        | 46         | 63          | 63        | 63         | 78          | 78        | 77         |
| BOL  | 4        | 53          | 53        | 53         | 67          | 67        | 67         | 80          | 81        | 79         |
| BOL  | 5        | 60          | 60        | 60         | 70          | 70        | 69         | 80          | 82        | 77         |
| BRA  | 1        | 21          | 21        | 21         | 36          | 36        | 36         | 55          | 55        | 55         |
| BRA  | 2        | 25          | 25        | 25         | 41          | 41        | 41         | 60          | 61        | 60         |
| BRA  | 3        | 27          | 27        | 27         | 44          | 44        | 44         | 63          | 64        | 62         |
| BRA  | 4        | 30          | 30        | 30         | 46          | 47        | 45         | 65          | 67        | 63         |
| BRA  | 5        | 30          | 30        | 30         | 46          | 46        | 42         | 62          | 66        | 58         |
| CIV  | 1        | 13          | 13        | 13         | 23          | 23        | 23         | 38          | 39        | 38         |
| CIV  | 2        | 16          | 16        | 16         | 28          | 28        | 28         | 45          | 45        | 44         |
| CIV  | 3        | 19          | 19        | 19         | 32          | 32        | 32         | 49          | 50        | 47         |
| CIV  | 4        | 25          | 25        | 25         | 38          | 39        | 37         | 55          | 58        | 51         |
| CIV  | 5        | 34          | 34        | 34         | 46          | 47        | 44         | 60          | 66        | 53         |
### Table T: Appendix Projections by Country (2000, 2020, 2040)

| ISO3 | Quintile | Mean (2000) | Up (2000) | Low (2000) | Mean (2020) | Up (2020) | Low (2020) | Mean (2040) | Up (2040) | Low (2040) |
|------|----------|-------------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| CMR  | 1        | 16          | 16        | 16         | 29          | 29        | 29         | 46          | 46        | 46         |
| CMR  | 2        | 20          | 20        | 20         | 34          | 34        | 34         | 52          | 53        | 52         |
| CMR  | 3        | 24          | 24        | 24         | 39          | 39        | 39         | 57          | 58        | 56         |
| CMR  | 4        | 31          | 31        | 31         | 47          | 47        | 46         | 62          | 64        | 61         |
| CMR  | 5        | 42          | 42        | 42         | 56          | 57        | 55         | 68          | 72        | 64         |
| COD  | 1        | 4           | 4         | 4          | 7           | 7         | 7          | 14          | 14        | 14         |
| COD  | 2        | 5           | 5         | 5          | 9           | 9         | 9          | 18          | 19        | 18         |
| COD  | 3        | 7           | 7         | 7          | 12          | 12        | 12         | 23          | 24        | 22         |
| COD  | 4        | 12          | 12        | 12         | 19          | 19        | 18         | 33          | 36        | 30         |
| COD  | 5        | 25          | 25        | 25         | 33          | 35        | 31         | 51          | 57        | 44         |
| COG  | 1        | 13          | 13        | 13         | 24          | 24        | 24         | 40          | 41        | 39         |
| COG  | 2        | 16          | 16        | 16         | 29          | 29        | 29         | 46          | 47        | 45         |
| COG  | 3        | 19          | 19        | 19         | 33          | 33        | 32         | 51          | 52        | 49         |
| COG  | 4        | 24          | 24        | 24         | 38          | 39        | 37         | 57          | 60        | 53         |
| COG  | 5        | 30          | 30        | 30         | 43          | 46        | 41         | 63          | 69        | 56         |
| COL  | 1        | 29          | 29        | 29         | 46          | 46        | 46         | 65          | 65        | 65         |
| COL  | 2        | 34          | 34        | 34         | 52          | 52        | 51         | 70          | 70        | 69         |
| COL  | 3        | 38          | 38        | 38         | 54          | 55        | 54         | 72          | 73        | 71         |
| COL  | 4        | 42          | 42        | 42         | 57          | 57        | 56         | 73          | 74        | 72         |
| COL  | 5        | 44          | 44        | 44         | 55          | 56        | 54         | 70          | 73        | 68         |
| COM  | 1        | 17          | 17        | 17         | 30          | 30        | 30         | 48          | 48        | 48         |
| COM  | 2        | 21          | 21        | 21         | 37          | 37        | 36         | 55          | 56        | 55         |
| COM  | 3        | 26          | 26        | 26         | 43          | 43        | 42         | 61          | 62        | 61         |
| COM  | 4        | 34          | 34        | 34         | 53          | 53        | 53         | 71          | 72        | 69         |
| COM  | 5        | 49          | 49        | 49         | 68          | 69        | 67         | 82          | 84        | 80         |
| CZE  | 1        | 32          | 32        | 32         | 50          | 50        | 50         | 66          | 66        | 66         |
| CZE  | 2        | 36          | 36        | 36         | 55          | 56        | 55         | 70          | 71        | 70         |
| CZE  | 3        | 39          | 39        | 39         | 57          | 57        | 57         | 71          | 72        | 70         |
| CZE  | 4        | 39          | 39        | 39         | 56          | 57        | 56         | 69          | 71        | 68         |
| CZE  | 5        | 35          | 35        | 35         | 47          | 48        | 47         | 58          | 62        | 55         |
| DEU  | 1        | 31          | 31        | 31         | 48          | 48        | 47         | 66          | 66        | 65         |
| DEU  | 2        | 36          | 36        | 36         | 52          | 52        | 52         | 70          | 70        | 69         |
| DEU  | 3        | 37          | 37        | 37         | 53          | 54        | 53         | 70          | 71        | 70         |
| DEU  | 4        | 36          | 36        | 36         | 51          | 52        | 51         | 68          | 69        | 67         |
| DEU  | 5        | 28          | 28        | 28         | 40          | 41        | 40         | 56          | 58        | 54         |
Table T: Appendix Projections by Country (2000, 2020, 2040)

| ISO3 | Quintile | Mean (2000) | Up (2000) | Low (2000) | Mean (2020) | Up (2020) | Low (2020) | Mean (2040) | Up (2040) | Low (2040) |
|------|----------|-------------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| DNK  | 1        | 29          | 29        | 29         | 45          | 45        | 45         | 64          | 64        | 63         |
| DNK  | 2        | 33          | 33        | 33         | 50          | 50        | 50         | 68          | 68        | 68         |
| DNK  | 3        | 35          | 35        | 35         | 51          | 51        | 51         | 69          | 69        | 68         |
| DNK  | 4        | 33          | 33        | 33         | 49          | 49        | 49         | 67          | 68        | 66         |
| DNK  | 5        | 25          | 25        | 25         | 38          | 39        | 37         | 55          | 57        | 53         |
| DOM  | 1        | 30          | 30        | 30         | 46          | 47        | 46         | 65          | 65        | 64         |
| DOM  | 2        | 35          | 35        | 35         | 52          | 52        | 52         | 69          | 70        | 69         |
| DOM  | 3        | 38          | 38        | 38         | 55          | 55        | 54         | 71          | 72        | 70         |
| DOM  | 4        | 43          | 43        | 43         | 57          | 57        | 56         | 70          | 72        | 68         |
| DOM  | 5        | 45          | 45        | 45         | 54          | 55        | 52         | 63          | 68        | 58         |
| ECU  | 1        | 23          | 23        | 23         | 39          | 39        | 39         | 58          | 58        | 58         |
| ECU  | 2        | 28          | 28        | 28         | 45          | 45        | 45         | 63          | 64        | 63         |
| ECU  | 3        | 32          | 32        | 32         | 48          | 48        | 48         | 66          | 67        | 66         |
| ECU  | 4        | 36          | 36        | 36         | 51          | 52        | 51         | 69          | 70        | 68         |
| ECU  | 5        | 40          | 40        | 40         | 52          | 53        | 50         | 68          | 71        | 65         |
| EGY  | 1        | 68          | 68        | 68         | 82          | 82        | 82         | 90          | 90        | 90         |
| EGY  | 2        | 73          | 73        | 73         | 85          | 85        | 85         | 92          | 92        | 92         |
| EGY  | 3        | 76          | 76        | 76         | 86          | 87        | 86         | 93          | 93        | 93         |
| EGY  | 4        | 79          | 79        | 79         | 88          | 88        | 88         | 93          | 94        | 93         |
| EGY  | 5        | 81          | 81        | 81         | 87          | 88        | 87         | 92          | 93        | 91         |
| ESP  | 1        | 31          | 31        | 31         | 50          | 50        | 50         | 66          | 66        | 65         |
| ESP  | 2        | 35          | 35        | 35         | 55          | 55        | 55         | 70          | 70        | 70         |
| ESP  | 3        | 37          | 37        | 37         | 56          | 56        | 56         | 71          | 71        | 70         |
| ESP  | 4        | 37          | 37        | 37         | 55          | 56        | 55         | 69          | 70        | 67         |
| ESP  | 5        | 30          | 30        | 30         | 46          | 47        | 45         | 58          | 61        | 54         |
| EST  | 1        | 28          | 28        | 28         | 44          | 45        | 44         | 61          | 61        | 60         |
| EST  | 2        | 32          | 32        | 32         | 50          | 50        | 49         | 66          | 66        | 65         |
| EST  | 3        | 35          | 35        | 35         | 51          | 52        | 51         | 67          | 68        | 66         |
| EST  | 4        | 37          | 37        | 37         | 51          | 52        | 50         | 65          | 68        | 63         |
| EST  | 5        | 35          | 35        | 35         | 43          | 45        | 42         | 56          | 61        | 50         |
| ETH  | 1        | 2           | 2         | 2          | 5           | 5         | 5          | 10          | 10        | 9          |
| ETH  | 2        | 3           | 3         | 3          | 6           | 6         | 6          | 12          | 13        | 12         |
| ETH  | 3        | 5           | 5         | 5          | 8           | 8         | 8          | 14          | 15        | 13         |
| ETH  | 4        | 8           | 8         | 8          | 11          | 11        | 10         | 18          | 20        | 15         |
| ETH  | 5        | 17          | 17        | 17         | 18          | 18        | 16         | 21          | 28        | 16         |
Table T: Appendix Projections by Country (2000, 2020, 2040)

| ISO3 | Quintile | Mean (2000) | Up (2000) | Low (2000) | Mean (2020) | Up (2020) | Low (2020) | Mean (2040) | Up (2040) | Low (2040) |
|------|----------|-------------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| FIN  | 1        | 30          | 30        | 30         | 45          | 45        | 45         | 63          | 64        | 63         |
| FIN  | 2        | 34          | 34        | 34         | 50          | 50        | 50         | 68          | 68        | 67         |
| FIN  | 3        | 35          | 35        | 35         | 52          | 52        | 52         | 69          | 70        | 68         |
| FIN  | 4        | 35          | 35        | 35         | 50          | 50        | 51         | 67          | 69        | 65         |
| FIN  | 5        | 27          | 27        | 27         | 40          | 41        | 39         | 56          | 60        | 53         |
| FRA  | 1        | 28          | 28        | 28         | 44          | 44        | 44         | 62          | 62        | 62         |
| FRA  | 2        | 32          | 32        | 32         | 49          | 49        | 49         | 66          | 67        | 66         |
| FRA  | 3        | 34          | 34        | 34         | 50          | 50        | 50         | 67          | 68        | 67         |
| FRA  | 4        | 33          | 33        | 33         | 49          | 49        | 49         | 66          | 67        | 65         |
| FRA  | 5        | 26          | 26        | 26         | 39          | 40        | 38         | 55          | 58        | 53         |
| GAB  | 1        | 25          | 25        | 25         | 41          | 41        | 41         | 60          | 61        | 60         |
| GAB  | 2        | 29          | 29        | 29         | 47          | 47        | 47         | 65          | 66        | 65         |
| GAB  | 3        | 32          | 32        | 32         | 49          | 50        | 49         | 68          | 69        | 67         |
| GAB  | 4        | 34          | 34        | 34         | 51          | 52        | 50         | 69          | 71        | 67         |
| GAB  | 5        | 31          | 31        | 31         | 48          | 50        | 46         | 66          | 70        | 61         |
| GBR  | 1        | 28          | 28        | 28         | 45          | 45        | 45         | 62          | 63        | 62         |
| GBR  | 2        | 33          | 33        | 33         | 50          | 50        | 50         | 67          | 67        | 67         |
| GBR  | 3        | 34          | 34        | 34         | 51          | 51        | 51         | 68          | 68        | 67         |
| GBR  | 4        | 34          | 34        | 34         | 50          | 50        | 49         | 66          | 67        | 65         |
| GBR  | 5        | 26          | 26        | 26         | 40          | 40        | 39         | 55          | 57        | 53         |
| GEO  | 1        | 21          | 21        | 21         | 35          | 35        | 35         | 52          | 52        | 51         |
| GEO  | 2        | 26          | 26        | 26         | 40          | 40        | 40         | 57          | 58        | 56         |
| GEO  | 3        | 30          | 30        | 30         | 44          | 44        | 43         | 60          | 61        | 59         |
| GEO  | 4        | 37          | 37        | 37         | 47          | 48        | 46         | 62          | 64        | 59         |
| GEO  | 5        | 46          | 46        | 46         | 48          | 50        | 46         | 60          | 65        | 54         |
| GHA  | 1        | 13          | 13        | 13         | 24          | 24        | 24         | 39          | 40        | 39         |
| GHA  | 2        | 17          | 17        | 17         | 29          | 29        | 29         | 45          | 46        | 44         |
| GHA  | 3        | 20          | 20        | 20         | 33          | 33        | 33         | 49          | 50        | 48         |
| GHA  | 4        | 26          | 26        | 26         | 39          | 39        | 38         | 53          | 55        | 51         |
| GHA  | 5        | 36          | 36        | 36         | 45          | 47        | 44         | 55          | 60        | 50         |
| GIN  | 1        | 8           | 8         | 8          | 14          | 14        | 14         | 26          | 26        | 26         |
| GIN  | 2        | 10          | 10        | 10         | 18          | 18        | 18         | 32          | 32        | 31         |
| GIN  | 3        | 13          | 13        | 13         | 22          | 22        | 22         | 37          | 37        | 36         |
| GIN  | 4        | 18          | 18        | 18         | 30          | 30        | 29         | 45          | 46        | 42         |
| GIN  | 5        | 29          | 29        | 29         | 43          | 44        | 42         | 55          | 59        | 51         |
## Table T: Appendix Projections by Country (2000, 2020, 2040)

| ISO3 | Quintile | Mean (2000) | Up (2000) | Low (2000) | Mean (2020) | Up (2020) | Low (2020) | Mean (2040) | Up (2040) | Low (2040) |
|------|----------|-------------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| GRC  | 1        | 30          | 30        | 30         | 49          | 49        | 48         | 66          | 66        | 66         |
| GRC  | 2        | 35          | 35        | 35         | 54          | 54        | 54         | 71          | 71        | 70         |
| GRC  | 3        | 37          | 37        | 37         | 56          | 56        | 56         | 72          | 73        | 71         |
| GRC  | 4        | 37          | 37        | 37         | 56          | 57        | 55         | 72          | 74        | 71         |
| GRC  | 5        | 31          | 31        | 31         | 49          | 51        | 48         | 66          | 69        | 63         |
| GTM  | 1        | 27          | 27        | 27         | 44          | 44        | 44         | 63          | 63        | 63         |
| GTM  | 2        | 32          | 32        | 32         | 50          | 50        | 50         | 68          | 69        | 68         |
| GTM  | 3        | 36          | 36        | 36         | 54          | 54        | 53         | 71          | 72        | 71         |
| GTM  | 4        | 41          | 41        | 41         | 58          | 58        | 58         | 74          | 75        | 73         |
| GTM  | 5        | 46          | 46        | 46         | 61          | 61        | 60         | 75          | 77        | 73         |
| GUY  | 1        | 31          | 31        | 31         | 47          | 47        | 47         | 67          | 67        | 66         |
| GUY  | 2        | 37          | 37        | 37         | 53          | 53        | 52         | 72          | 73        | 71         |
| GUY  | 3        | 42          | 42        | 42         | 57          | 57        | 56         | 74          | 76        | 73         |
| GUY  | 4        | 49          | 49        | 49         | 61          | 62        | 60         | 77          | 79        | 75         |
| GUY  | 5        | 56          | 56        | 56         | 64          | 66        | 62         | 76          | 81        | 72         |
| HND  | 1        | 32          | 32        | 32         | 50          | 50        | 50         | 69          | 70        | 69         |
| HND  | 2        | 38          | 38        | 38         | 56          | 56        | 56         | 74          | 75        | 74         |
| HND  | 3        | 43          | 43        | 43         | 61          | 61        | 60         | 78          | 78        | 77         |
| HND  | 4        | 50          | 50        | 50         | 66          | 67        | 66         | 81          | 82        | 80         |
| HND  | 5        | 59          | 59        | 59         | 71          | 72        | 71         | 83          | 85        | 81         |
| HRV  | 1        | 27          | 27        | 27         | 43          | 43        | 43         | 61          | 61        | 61         |
| HRV  | 2        | 32          | 32        | 32         | 48          | 49        | 48         | 66          | 66        | 65         |
| HRV  | 3        | 34          | 34        | 34         | 51          | 51        | 50         | 67          | 68        | 66         |
| HRV  | 4        | 36          | 36        | 36         | 51          | 52        | 50         | 67          | 69        | 65         |
| HRV  | 5        | 34          | 34        | 34         | 45          | 47        | 44         | 59          | 64        | 55         |
| HTI  | 1        | 9           | 9         | 9          | 17          | 17        | 17         | 32          | 32        | 31         |
| HTI  | 2        | 11          | 11        | 11         | 22          | 22        | 21         | 38          | 38        | 37         |
| HTI  | 3        | 14          | 14        | 14         | 26          | 26        | 26         | 44          | 45        | 43         |
| HTI  | 4        | 19          | 19        | 19         | 35          | 35        | 34         | 54          | 56        | 51         |
| HTI  | 5        | 30          | 30        | 30         | 48          | 47        | 47         | 67          | 71        | 63         |
| HUN  | 1        | 30          | 30        | 30         | 48          | 48        | 48         | 65          | 65        | 65         |
| HUN  | 2        | 35          | 35        | 35         | 53          | 53        | 53         | 69          | 70        | 69         |
| HUN  | 3        | 38          | 38        | 38         | 55          | 55        | 55         | 70          | 71        | 70         |
| HUN  | 4        | 39          | 39        | 39         | 55          | 55        | 55         | 69          | 70        | 68         |
| HUN  | 5        | 36          | 36        | 36         | 48          | 49        | 47         | 59          | 62        | 57         |
| IND  | 1        | 6           | 6         | 6          | 11          | 12        | 11         | 22          | 22        | 21         |
| IND  | 2        | 8           | 8         | 8          | 14          | 14        | 14         | 26          | 26        | 25         |
| IND  | 3        | 10          | 10        | 10         | 16          | 17        | 16         | 28          | 29        | 27         |
| IND  | 4        | 13          | 13        | 13         | 19          | 19        | 19         | 29          | 31        | 27         |
| IND  | 5        | 20          | 20        | 20         | 21          | 22        | 20         | 25          | 30        | 22         |
| ISO3 | Quintile | Mean (2000) | Up (2000) | Low (2000) | Mean (2020) | Up (2020) | Low (2020) | Mean (2040) | Up (2040) | Low (2040) |
|------|----------|-------------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| IRL  | 1        | 35          | 35        | 35         | 54          | 55        | 54         | 70          | 70        | 69         |
| IRL  | 2        | 40          | 40        | 40         | 59          | 59        | 59         | 73          | 74        | 73         |
| IRL  | 3        | 42          | 42        | 42         | 59          | 60        | 59         | 73          | 74        | 72         |
| IRL  | 4        | 40          | 40        | 40         | 56          | 57        | 56         | 68          | 70        | 66         |
| IRL  | 5        | 32          | 32        | 32         | 42          | 44        | 41         | 49          | 55        | 45         |
| ISR  | 1        | 28          | 28        | 28         | 45          | 45        | 45         | 62          | 62        | 62         |
| ISR  | 2        | 32          | 32        | 32         | 50          | 50        | 50         | 67          | 67        | 66         |
| ISR  | 3        | 34          | 34        | 34         | 51          | 51        | 51         | 68          | 68        | 67         |
| ISR  | 4        | 34          | 34        | 34         | 50          | 50        | 50         | 66          | 66        | 65         |
| ISR  | 5        | 28          | 28        | 28         | 41          | 42        | 41         | 56          | 59        | 54         |
| ITA  | 1        | 29          | 29        | 29         | 46          | 46        | 46         | 64          | 64        | 63         |
| ITA  | 2        | 33          | 33        | 33         | 51          | 51        | 51         | 68          | 68        | 68         |
| ITA  | 3        | 34          | 34        | 34         | 53          | 53        | 53         | 69          | 69        | 69         |
| ITA  | 4        | 34          | 34        | 34         | 52          | 52        | 52         | 68          | 69        | 67         |
| ITA  | 5        | 26          | 26        | 26         | 43          | 43        | 42         | 58          | 61        | 56         |
| JOR  | 1        | 51          | 51        | 51         | 70          | 70        | 70         | 83          | 83        | 83         |
| JOR  | 2        | 57          | 57        | 57         | 74          | 75        | 74         | 86          | 86        | 86         |
| JOR  | 3        | 61          | 61        | 61         | 77          | 77        | 77         | 88          | 88        | 87         |
| JOR  | 4        | 66          | 66        | 66         | 79          | 80        | 79         | 89          | 90        | 88         |
| JOR  | 5        | 70          | 70        | 70         | 80          | 81        | 78         | 88          | 90        | 86         |
| KAZ  | 1        | 26          | 26        | 26         | 42          | 42        | 42         | 58          | 59        | 58         |
| KAZ  | 2        | 31          | 31        | 31         | 47          | 47        | 47         | 63          | 64        | 63         |
| KAZ  | 3        | 34          | 34        | 34         | 49          | 50        | 49         | 65          | 66        | 64         |
| KAZ  | 4        | 38          | 38        | 38         | 49          | 50        | 48         | 64          | 66        | 61         |
| KAZ  | 5        | 40          | 40        | 40         | 43          | 45        | 41         | 55          | 60        | 50         |
| KEN  | 1        | 9           | 9         | 9          | 18          | 18        | 18         | 31          | 32        | 31         |
| KEN  | 2        | 12          | 12        | 12         | 22          | 22        | 22         | 37          | 37        | 36         |
| KEN  | 3        | 14          | 14        | 14         | 26          | 26        | 26         | 41          | 43        | 41         |
| KEN  | 4        | 20          | 20        | 20         | 32          | 32        | 31         | 48          | 50        | 46         |
| KEN  | 5        | 29          | 29        | 29         | 41          | 42        | 39         | 54          | 59        | 50         |
| KGZ  | 1        | 20          | 20        | 20         | 34          | 34        | 34         | 51          | 51        | 51         |
| KGZ  | 2        | 24          | 24        | 24         | 40          | 40        | 40         | 57          | 58        | 57         |
| KGZ  | 3        | 29          | 29        | 29         | 45          | 45        | 44         | 62          | 63        | 61         |
| KGZ  | 4        | 37          | 37        | 37         | 52          | 53        | 51         | 68          | 70        | 66         |
| KGZ  | 5        | 49          | 49        | 49         | 61          | 62        | 59         | 75          | 77        | 71         |
| KHM  | 1        | 5           | 5         | 5          | 9           | 9         | 9          | 18          | 19        | 18         |
| KHM  | 2        | 6           | 6         | 6          | 12          | 12        | 12         | 22          | 23        | 22         |
| KHM  | 3        | 8           | 8         | 8          | 14          | 14        | 14         | 25          | 26        | 24         |
| KHM  | 4        | 12          | 12        | 12         | 18          | 18        | 18         | 28          | 31        | 26         |
| KHM  | 5        | 21          | 21        | 21         | 23          | 24        | 22         | 29          | 35        | 25         |
Table T: Appendix Projections by Country (2000, 2020, 2040)

| ISO3 | Quintile | Mean (2000) | Up (2000) | Low (2000) | Mean (2020) | Up (2020) | Low (2020) | Mean (2040) | Up (2040) | Low (2040) |
|------|----------|-------------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| LAO  | 1        | 6           | 6         | 6          | 11          | 11        | 21         | 21          | 21        | 21         |
| LAO  | 2        | 7           | 7         | 7          | 13          | 13        | 25         | 25          | 25        | 25         |
| LAO  | 3        | 9           | 9         | 9          | 15          | 16        | 27         | 27          | 28        | 26         |
| LAO  | 4        | 12          | 12        | 12         | 18          | 18        | 27         | 30          | 26        | 26         |
| LAO  | 5        | 19          | 19        | 19         | 20          | 21        | 24         | 29          | 21        | 21         |
| LBR  | 1        | 7           | 7         | 7          | 14          | 14        | 25         | 26          | 25        | 25         |
| LBR  | 2        | 9           | 9         | 9          | 18          | 18        | 32         | 32          | 31        | 31         |
| LBR  | 3        | 12          | 12        | 12         | 22          | 23        | 39         | 40          | 37        | 37         |
| LBR  | 4        | 19          | 19        | 19         | 32          | 33        | 51         | 54          | 48        | 48         |
| LBR  | 5        | 35          | 35        | 35         | 51          | 54        | 71         | 76          | 65        | 65         |
| LKA  | 1        | 10          | 10        | 10         | 18          | 18        | 31         | 31          | 30        | 30         |
| LKA  | 2        | 12          | 12        | 12         | 21          | 22        | 35         | 36          | 35        | 35         |
| LKA  | 3        | 14          | 14        | 14         | 24          | 24        | 37         | 38          | 36        | 36         |
| LKA  | 4        | 17          | 17        | 17         | 26          | 26        | 37         | 39          | 35        | 35         |
| LKA  | 5        | 21          | 21        | 21         | 24          | 26        | 30         | 35          | 27        | 27         |
| LSO  | 1        | 24          | 24        | 24         | 39          | 39        | 57         | 58          | 57        | 57         |
| LSO  | 2        | 29          | 29        | 29         | 45          | 45        | 64         | 64          | 63        | 63         |
| LSO  | 3        | 34          | 34        | 34         | 50          | 51        | 68         | 68          | 67        | 67         |
| LSO  | 4        | 44          | 44        | 44         | 58          | 58        | 72         | 74          | 71        | 71         |
| LSO  | 5        | 57          | 57        | 57         | 66          | 67        | 79         | 79          | 73        | 73         |
| LUX  | 1        | 36          | 36        | 36         | 53          | 53        | 73         | 74          | 72        | 72         |
| LUX  | 2        | 40          | 40        | 40         | 57          | 58        | 74         | 74          | 73        | 73         |
| LUX  | 3        | 41          | 41        | 41         | 57          | 58        | 73         | 74          | 72        | 72         |
| LUX  | 4        | 37          | 37        | 37         | 53          | 53        | 68         | 70          | 66        | 66         |
| LUX  | 5        | 25          | 25        | 25         | 36          | 35        | 55         | 55          | 46        | 46         |
| LVA  | 1        | 27          | 27        | 27         | 44          | 44        | 61         | 61          | 60        | 60         |
| LVA  | 2        | 32          | 32        | 32         | 49          | 49        | 65         | 66          | 65        | 65         |
| LVA  | 3        | 35          | 35        | 35         | 51          | 52        | 67         | 68          | 66        | 66         |
| LVA  | 4        | 38          | 38        | 38         | 51          | 52        | 66         | 68          | 64        | 64         |
| LVA  | 5        | 38          | 38        | 38         | 45          | 47        | 57         | 62          | 53        | 53         |
| MAR  | 1        | 26          | 26        | 26         | 43          | 44        | 61         | 62          | 61        | 61         |
| MAR  | 2        | 32          | 32        | 32         | 49          | 50        | 67         | 67          | 66        | 66         |
| MAR  | 3        | 36          | 36        | 36         | 53          | 54        | 69         | 70          | 68        | 68         |
| MAR  | 4        | 42          | 42        | 42         | 57          | 58        | 71         | 73          | 69        | 69         |
| MAR  | 5        | 49          | 49        | 49         | 59          | 61        | 74         | 74          | 65        | 65         |
| MDA  | 1        | 26          | 26        | 26         | 42          | 42        | 61         | 62          | 61        | 61         |
| MDA  | 2        | 32          | 32        | 32         | 48          | 49        | 67         | 67          | 66        | 66         |
| MDA  | 3        | 37          | 37        | 37         | 53          | 53        | 70         | 71          | 69        | 69         |
| MDA  | 4        | 46          | 46        | 46         | 59          | 59        | 74         | 76          | 72        | 72         |
| MDA  | 5        | 58          | 58        | 58         | 64          | 66        | 77         | 81          | 72        | 72         |
| ISO3 | Quintile | Mean (2000) | Up (2000) | Low (2000) | Mean (2020) | Up (2020) | Low (2020) | Mean (2040) | Up (2040) | Low (2040) |
|------|-----------|-------------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| MDG  | 1         | 3           | 3         | 3          | 6           | 6         | 6          | 13          | 13        | 13         |
| MDG  | 2         | 4           | 4         | 4          | 8           | 8         | 8          | 16          | 16        | 16         |
| MDG  | 3         | 5           | 5         | 5          | 11          | 11        | 10         | 20          | 20        | 19         |
| MDG  | 4         | 8           | 8         | 8          | 15          | 16        | 15         | 27          | 28        | 25         |
| MDG  | 5         | 15          | 15        | 15         | 25          | 26        | 25         | 39          | 42        | 35         |
| MDV  | 1         | 27          | 27        | 27         | 46          | 46        | 46         | 65          | 65        | 64         |
| MDV  | 2         | 33          | 33        | 33         | 51          | 52        | 51         | 69          | 70        | 69         |
| MDV  | 3         | 36          | 36        | 36         | 54          | 54        | 54         | 71          | 72        | 71         |
| MDV  | 4         | 40          | 40        | 40         | 56          | 57        | 55         | 72          | 74        | 70         |
| MDV  | 5         | 43          | 43        | 43         | 53          | 54        | 52         | 67          | 71        | 64         |
| MEX  | 1         | 29          | 29        | 29         | 47          | 47        | 47         | 66          | 66        | 65         |
| MEX  | 2         | 32          | 32        | 32         | 50          | 50        | 49         | 68          | 68        | 67         |
| MEX  | 3         | 34          | 34        | 34         | 51          | 52        | 51         | 68          | 70        | 67         |
| MEX  | 4         | 32          | 32        | 32         | 47          | 48        | 47         | 64          | 67        | 61         |
| MLI  | 1         | 8           | 8         | 8          | 15          | 15        | 15         | 27          | 27        | 27         |
| MLI  | 2         | 10          | 10        | 10         | 19          | 19        | 19         | 32          | 33        | 32         |
| MLI  | 3         | 13          | 13        | 13         | 23          | 24        | 23         | 37          | 39        | 36         |
| MLI  | 4         | 19          | 19        | 19         | 31          | 31        | 30         | 45          | 48        | 42         |
| MLI  | 5         | 31          | 31        | 31         | 43          | 44        | 41         | 54          | 60        | 49         |
| MMR  | 1         | 7           | 7         | 7          | 13          | 13        | 13         | 24          | 25        | 24         |
| MMR  | 2         | 9           | 9         | 9          | 16          | 17        | 16         | 29          | 29        | 28         |
| MMR  | 3         | 12          | 12        | 12         | 19          | 19        | 18         | 31          | 32        | 29         |
| MMR  | 4         | 17          | 17        | 17         | 22          | 23        | 21         | 32          | 35        | 29         |
| MMR  | 5         | 28          | 28        | 28         | 24          | 26        | 23         | 28          | 34        | 23         |
| MOZ  | 1         | 6           | 6         | 6          | 10          | 10        | 10         | 20          | 20        | 20         |
| MOZ  | 2         | 8           | 8         | 8          | 14          | 14        | 13         | 25          | 25        | 24         |
| MOZ  | 3         | 10          | 10        | 10         | 17          | 17        | 17         | 30          | 31        | 29         |
| MOZ  | 4         | 16          | 16        | 16         | 24          | 25        | 24         | 38          | 41        | 36         |
| MOZ  | 5         | 32          | 32        | 32         | 38          | 40        | 37         | 51          | 57        | 46         |
| MRT  | 1         | 17          | 17        | 17         | 30          | 30        | 30         | 48          | 48        | 47         |
| MRT  | 2         | 21          | 21        | 21         | 36          | 36        | 36         | 54          | 55        | 53         |
| MRT  | 3         | 26          | 26        | 26         | 41          | 41        | 40         | 59          | 60        | 58         |
| MRT  | 4         | 32          | 32        | 32         | 47          | 48        | 46         | 65          | 68        | 62         |
| MRT  | 5         | 43          | 43        | 43         | 55          | 57        | 53         | 71          | 76        | 66         |
| MUS  | 1         | 23          | 23        | 23         | 38          | 38        | 38         | 57          | 57        | 57         |
| MUS  | 2         | 27          | 27        | 27         | 43          | 43        | 43         | 62          | 62        | 61         |
| MUS  | 3         | 30          | 30        | 30         | 45          | 45        | 45         | 63          | 64        | 62         |
| MUS  | 4         | 32          | 32        | 32         | 46          | 46        | 45         | 62          | 63        | 60         |
| MUS  | 5         | 32          | 32        | 32         | 41          | 42        | 40         | 52          | 56        | 48         |
| ISO3 | Quintile | Mean (2000) | Up (2000) | Low (2000) | Mean (2020) | Up (2020) | Low (2020) | Mean (2040) | Up (2040) | Low (2040) |
|------|----------|-------------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| MWI  | 1        | 7           | 7         | 7          | 13          | 13        | 13         | 25          | 26        | 25         |
| MWI  | 2        | 9           | 9         | 9          | 17          | 17        | 17         | 31          | 32        | 31         |
| MWI  | 3        | 12          | 12        | 12         | 22          | 22        | 21         | 37          | 38        | 36         |
| MWI  | 4        | 18          | 18        | 18         | 31          | 31        | 30         | 48          | 50        | 46         |
| MWI  | 5        | 33          | 33        | 33         | 47          | 49        | 46         | 65          | 69        | 60         |
| MYS  | 1        | 21          | 21        | 21         | 35          | 35        | 35         | 54          | 54        | 54         |
| MYS  | 2        | 25          | 25        | 25         | 40          | 40        | 40         | 59          | 59        | 59         |
| MYS  | 3        | 27          | 27        | 27         | 42          | 42        | 42         | 60          | 61        | 59         |
| MYS  | 4        | 29          | 29        | 29         | 42          | 42        | 41         | 59          | 60        | 57         |
| MYS  | 5        | 27          | 27        | 27         | 35          | 36        | 34         | 48          | 52        | 45         |
| NAM  | 1        | 17          | 17        | 17         | 30          | 30        | 30         | 48          | 53        | 53         |
| NAM  | 2        | 21          | 21        | 21         | 35          | 35        | 35         | 53          | 54        | 53         |
| NAM  | 3        | 24          | 24        | 24         | 38          | 38        | 38         | 56          | 57        | 56         |
| NAM  | 4        | 28          | 28        | 28         | 41          | 42        | 40         | 59          | 61        | 57         |
| NAM  | 5        | 31          | 31        | 31         | 41          | 42        | 40         | 58          | 62        | 54         |
| NER  | 1        | 7           | 7         | 7          | 13          | 13        | 13         | 23          | 23        | 23         |
| NER  | 2        | 9           | 9         | 9          | 16          | 17        | 16         | 29          | 29        | 28         |
| NER  | 3        | 12          | 12        | 12         | 21          | 21        | 21         | 34          | 36        | 33         |
| NER  | 4        | 19          | 19        | 19         | 30          | 30        | 29         | 45          | 47        | 42         |
| NER  | 5        | 35          | 35        | 35         | 47          | 49        | 45         | 61          | 66        | 56         |
| NGA  | 1        | 11          | 11        | 11         | 20          | 20        | 20         | 34          | 35        | 34         |
| NGA  | 2        | 14          | 14        | 14         | 24          | 24        | 24         | 40          | 41        | 39         |
| NGA  | 3        | 17          | 17        | 17         | 27          | 28        | 27         | 44          | 46        | 43         |
| NGA  | 4        | 23          | 23        | 23         | 32          | 33        | 31         | 50          | 53        | 47         |
| NGA  | 5        | 33          | 33        | 33         | 37          | 39        | 34         | 55          | 61        | 49         |
| NLD  | 1        | 31          | 31        | 31         | 47          | 47        | 47         | 65          | 65        | 65         |
| NLD  | 2        | 36          | 36        | 36         | 52          | 52        | 52         | 69          | 70        | 69         |
| NLD  | 3        | 37          | 37        | 37         | 53          | 53        | 53         | 70          | 70        | 69         |
| NLD  | 4        | 36          | 36        | 36         | 51          | 51        | 50         | 67          | 68        | 66         |
| NLD  | 5        | 27          | 27        | 27         | 39          | 40        | 39         | 54          | 57        | 52         |
| NOR  | 1        | 30          | 30        | 30         | 47          | 47        | 47         | 64          | 65        | 64         |
| NOR  | 2        | 34          | 34        | 34         | 51          | 51        | 51         | 69          | 69        | 68         |
| NOR  | 3        | 35          | 35        | 35         | 52          | 52        | 52         | 69          | 69        | 68         |
| NOR  | 4        | 33          | 33        | 33         | 49          | 49        | 48         | 66          | 67        | 65         |
| NOR  | 5        | 23          | 23        | 23         | 35          | 36        | 35         | 52          | 54        | 50         |
| NPL  | 1        | 5           | 5         | 5          | 10          | 10        | 10         | 21          | 21        | 21         |
| NPL  | 2        | 7           | 7         | 7          | 13          | 13        | 13         | 26          | 26        | 25         |
| NPL  | 3        | 9           | 9         | 9          | 16          | 16        | 16         | 30          | 30        | 29         |
| NPL  | 4        | 13          | 13        | 13         | 21          | 21        | 21         | 35          | 37        | 34         |
| NPL  | 5        | 22          | 22        | 22         | 29          | 30        | 28         | 42          | 46        | 38         |
| ISO3 | Quintile | Mean (2000) | Up (2000) | Low (2000) | Mean (2020) | Up (2020) | Low (2020) | Mean (2040) | Up (2040) | Low (2040) |
|------|----------|-------------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| PAK  | 1        | 17          | 17        | 17         | 29          | 29        | 29         | 47          | 47        | 46         |
| PAK  | 2        | 21          | 21        | 21         | 35          | 35        | 35         | 53          | 53        | 52         |
| PAK  | 3        | 24          | 24        | 24         | 39          | 39        | 39         | 56          | 57        | 56         |
| PAK  | 4        | 30          | 30        | 30         | 45          | 45        | 44         | 60          | 62        | 59         |
| PAK  | 5        | 39          | 39        | 39         | 50          | 51        | 49         | 61          | 65        | 59         |
| PER  | 1        | 36          | 36        | 36         | 54          | 54        | 54         | 71          | 72        | 71         |
| PER  | 2        | 42          | 42        | 42         | 60          | 60        | 59         | 76          | 76        | 75         |
| PER  | 3        | 46          | 46        | 46         | 63          | 63        | 62         | 77          | 78        | 76         |
| PER  | 4        | 51          | 51        | 51         | 65          | 66        | 64         | 78          | 80        | 76         |
| PER  | 5        | 56          | 56        | 56         | 64          | 66        | 62         | 75          | 79        | 71         |
| PHL  | 1        | 9           | 9         | 9          | 16          | 16        | 16         | 29          | 30        | 29         |
| PHL  | 2        | 11          | 11        | 11         | 20          | 20        | 20         | 34          | 35        | 34         |
| PHL  | 3        | 13          | 13        | 13         | 23          | 23        | 23         | 37          | 38        | 36         |
| PHL  | 4        | 16          | 16        | 16         | 26          | 26        | 25         | 38          | 41        | 36         |
| PHL  | 5        | 21          | 21        | 21         | 27          | 28        | 26         | 35          | 40        | 31         |
| PRT  | 1        | 29          | 29        | 29         | 48          | 48        | 47         | 65          | 65        | 65         |
| PRT  | 2        | 34          | 34        | 34         | 53          | 53        | 53         | 69          | 70        | 69         |
| PRT  | 3        | 36          | 36        | 36         | 55          | 55        | 54         | 71          | 71        | 70         |
| PRT  | 4        | 36          | 36        | 36         | 54          | 55        | 54         | 70          | 71        | 68         |
| PRT  | 5        | 31          | 31        | 31         | 47          | 48        | 46         | 60          | 64        | 57         |
| PRY  | 1        | 19          | 19        | 19         | 32          | 32        | 32         | 51          | 51        | 50         |
| PRY  | 2        | 23          | 23        | 23         | 37          | 37        | 37         | 56          | 57        | 56         |
| PRY  | 3        | 26          | 26        | 26         | 41          | 41        | 40         | 59          | 60        | 58         |
| PRY  | 4        | 31          | 31        | 31         | 44          | 45        | 44         | 61          | 62        | 59         |
| PRY  | 5        | 36          | 36        | 36         | 45          | 46        | 44         | 58          | 62        | 54         |
| RUS  | 1        | 29          | 29        | 29         | 45          | 46        | 45         | 62          | 62        | 61         |
| RUS  | 2        | 34          | 34        | 34         | 51          | 51        | 51         | 67          | 67        | 66         |
| RUS  | 3        | 36          | 36        | 36         | 53          | 53        | 52         | 68          | 69        | 67         |
| RUS  | 4        | 39          | 39        | 39         | 53          | 54        | 52         | 68          | 70        | 66         |
| RUS  | 5        | 38          | 38        | 38         | 47          | 48        | 45         | 62          | 66        | 57         |
| RWA  | 1        | 7           | 7         | 7          | 13          | 13        | 13         | 24          | 25        | 24         |
| RWA  | 2        | 9           | 9         | 9          | 17          | 17        | 17         | 29          | 30        | 29         |
| RWA  | 3        | 12          | 12        | 12         | 20          | 21        | 20         | 33          | 35        | 32         |
| RWA  | 4        | 18          | 18        | 18         | 27          | 28        | 26         | 39          | 43        | 36         |
| RWA  | 5        | 33          | 33        | 33         | 38          | 40        | 36         | 46          | 53        | 39         |
| SEN  | 1        | 11          | 11        | 11         | 20          | 20        | 20         | 34          | 35        | 34         |
| SEN  | 2        | 14          | 14        | 14         | 25          | 25        | 25         | 40          | 41        | 39         |
| SEN  | 3        | 17          | 17        | 17         | 29          | 30        | 29         | 45          | 46        | 43         |
| SEN  | 4        | 23          | 23        | 23         | 37          | 37        | 36         | 51          | 53        | 49         |
| SEN  | 5        | 34          | 34        | 34         | 47          | 49        | 46         | 58          | 62        | 53         |
Table T: Appendix Projections by Country (2000, 2020, 2040)

| ISO3 | Quintile | Mean (2000) | Up (2000) | Low (2000) | Mean (2020) | Up (2020) | Low (2020) | Mean (2040) | Up (2040) | Low (2040) |
|------|----------|-------------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| SLE  | 1        | 10          | 10        | 10         | 19          | 18        | 18         | 33          | 33        | 33         |
| SLE  | 2        | 13          | 13        | 13         | 23          | 23        | 23         | 40          | 40        | 39         |
| SLE  | 3        | 17          | 17        | 17         | 28          | 28        | 28         | 46          | 47        | 45         |
| SLE  | 4        | 25          | 25        | 25         | 37          | 38        | 36         | 56          | 58        | 54         |
| SLE  | 5        | 41          | 41        | 41         | 52          | 54        | 50         | 73          | 70        | 65         |
| STP  | 1        | 18          | 18        | 18         | 31          | 31        | 31         | 50          | 49        | 49         |
| STP  | 2        | 22          | 22        | 22         | 37          | 37        | 37         | 55          | 56        | 54         |
| STP  | 3        | 26          | 26        | 26         | 42          | 42        | 42         | 59          | 60        | 58         |
| STP  | 4        | 34          | 34        | 34         | 49          | 50        | 48         | 65          | 67        | 62         |
| STP  | 5        | 47          | 47        | 47         | 58          | 60        | 56         | 74          | 70        | 65         |
| SVK  | 1        | 31          | 29        | 29         | 36          | 47        | 37         | 63          | 54        | 65         |
| SVK  | 2        | 34          | 34        | 34         | 52          | 52        | 52         | 68          | 68        | 67         |
| SVK  | 3        | 36          | 36        | 36         | 53          | 54        | 53         | 69          | 69        | 68         |
| SVK  | 4        | 38          | 38        | 38         | 53          | 53        | 53         | 67          | 68        | 65         |
| SVK  | 5        | 36          | 36        | 36         | 45          | 45        | 44         | 56          | 60        | 52         |
| SVN  | 1        | 33          | 29        | 29         | 36          | 46        | 46         | 62          | 62        | 62         |
| SVN  | 2        | 35          | 33        | 33         | 51          | 51        | 51         | 66          | 67        | 66         |
| SVN  | 3        | 35          | 35        | 35         | 53          | 53        | 53         | 67          | 68        | 67         |
| SVN  | 4        | 36          | 36        | 36         | 52          | 53        | 52         | 66          | 67        | 64         |
| SVN  | 5        | 31          | 31        | 31         | 44          | 45        | 43         | 55          | 59        | 51         |
| SWE  | 1        | 28          | 28        | 28         | 44          | 44        | 44         | 61          | 62        | 61         |
| SWE  | 2        | 32          | 32        | 32         | 49          | 49        | 49         | 66          | 66        | 65         |
| SWE  | 3        | 34          | 34        | 34         | 50          | 50        | 49         | 66          | 67        | 66         |
| SWE  | 4        | 33          | 33        | 33         | 48          | 48        | 47         | 64          | 65        | 62         |
| SWE  | 5        | 25          | 25        | 25         | 37          | 37        | 36         | 51          | 55        | 47         |
| SWZ  | 1        | 39          | 39        | 39         | 56          | 56        | 56         | 74          | 75        | 74         |
| SWZ  | 2        | 44          | 44        | 44         | 62          | 62        | 62         | 79          | 79        | 78         |
| SWZ  | 3        | 49          | 49        | 49         | 66          | 66        | 65         | 81          | 81        | 80         |
| SWZ  | 4        | 54          | 54        | 54         | 69          | 70        | 69         | 83          | 84        | 82         |
| SWZ  | 5        | 57          | 57        | 57         | 71          | 72        | 70         | 83          | 86        | 81         |
| TCD  | 1        | 8           | 8         | 8          | 15          | 15        | 14         | 27          | 27        | 27         |
| TCD  | 2        | 10          | 10        | 10         | 18          | 19        | 18         | 33          | 34        | 32         |
| TCD  | 3        | 13          | 13        | 13         | 22          | 23        | 22         | 38          | 40        | 37         |
| TCD  | 4        | 20          | 20        | 20         | 30          | 31        | 29         | 47          | 51        | 44         |
| TCD  | 5        | 33          | 33        | 33         | 42          | 44        | 39         | 60          | 66        | 53         |
| TGO  | 1        | 11          | 11        | 11         | 20          | 21        | 20         | 35          | 36        | 35         |
| TGO  | 2        | 14          | 14        | 14         | 25          | 26        | 25         | 41          | 42        | 41         |
| TGO  | 3        | 17          | 17        | 17         | 31          | 31        | 30         | 47          | 49        | 46         |
| TGO  | 4        | 25          | 25        | 25         | 40          | 41        | 39         | 56          | 59        | 53         |
| TGO  | 5        | 39          | 39        | 39         | 55          | 57        | 53         | 68          | 73        | 62         |
### Table T: Appendix Projections by Country (2000, 2020, 2040)

| ISO3 | Quintile | Mean (2000) | Up (2000) | Low (2000) | Mean (2020) | Up (2020) | Low (2020) | Mean (2040) | Up (2040) | Low (2040) |
|------|----------|-------------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| TJK  | 1        | 14          | 14        | 14         | 26          | 26        | 25         | 42          | 42        | 42         |
| TJK  | 2        | 18          | 18        | 18         | 31          | 31        | 31         | 48          | 49        | 48         |
| TJK  | 3        | 23          | 23        | 23         | 36          | 36        | 35         | 53          | 54        | 52         |
| TJK  | 4        | 31          | 31        | 31         | 43          | 44        | 43         | 60          | 62        | 58         |
| TJK  | 5        | 46          | 46        | 46         | 53          | 55        | 52         | 68          | 72        | 64         |
| TLS  | 1        | 3           | 3         | 3          | 5           | 5         | 5          | 11          | 11        | 10         |
| TLS  | 2        | 4           | 4         | 4          | 7           | 7         | 7          | 13          | 14        | 13         |
| TLS  | 3        | 5           | 5         | 5          | 8           | 9         | 8          | 16          | 17        | 15         |
| TLS  | 4        | 7           | 7         | 7          | 11          | 12        | 11         | 21          | 23        | 19         |
| TLS  | 5        | 12          | 12        | 12         | 17          | 18        | 15         | 28          | 32        | 24         |
| TUN  | 1        | 19          | 19        | 19         | 34          | 34        | 34         | 52          | 52        | 52         |
| TUN  | 2        | 23          | 23        | 23         | 40          | 40        | 40         | 58          | 58        | 57         |
| TUN  | 3        | 26          | 26        | 26         | 43          | 43        | 43         | 61          | 61        | 60         |
| TUN  | 4        | 30          | 30        | 30         | 46          | 46        | 46         | 63          | 64        | 62         |
| TUN  | 5        | 32          | 32        | 32         | 46          | 47        | 45         | 62          | 65        | 60         |
| TUR  | 1        | 50          | 50        | 50         | 68          | 68        | 67         | 81          | 82        | 81         |
| TUR  | 2        | 55          | 55        | 55         | 72          | 72        | 72         | 84          | 85        | 84         |
| TUR  | 3        | 58          | 58        | 58         | 74          | 74        | 73         | 85          | 86        | 84         |
| TUR  | 4        | 61          | 61        | 61         | 74          | 75        | 73         | 84          | 86        | 82         |
| TUR  | 5        | 60          | 60        | 60         | 69          | 70        | 67         | 77          | 81        | 72         |
| TZA  | 1        | 8           | 8         | 8          | 16          | 16        | 16         | 28          | 28        | 27         |
| TZA  | 2        | 11          | 11        | 11         | 20          | 20        | 20         | 33          | 34        | 32         |
| TZA  | 3        | 14          | 14        | 14         | 23          | 24        | 23         | 37          | 38        | 36         |
| TZA  | 4        | 20          | 20        | 20         | 30          | 30        | 29         | 42          | 45        | 40         |
| TZA  | 5        | 32          | 32        | 32         | 38          | 40        | 37         | 47          | 53        | 42         |
| UGA  | 1        | 9           | 9         | 9          | 17          | 17        | 16         | 30          | 30        | 29         |
| UGA  | 2        | 11          | 11        | 11         | 21          | 21        | 21         | 36          | 36        | 35         |
| UGA  | 3        | 15          | 15        | 15         | 25          | 25        | 25         | 41          | 42        | 40         |
| UGA  | 4        | 21          | 21        | 21         | 32          | 33        | 32         | 49          | 51        | 47         |
| UGA  | 5        | 35          | 35        | 35         | 44          | 46        | 43         | 59          | 63        | 56         |
| UKR  | 1        | 28          | 28        | 28         | 45          | 45        | 45         | 62          | 62        | 61         |
| UKR  | 2        | 33          | 33        | 33         | 51          | 51        | 50         | 67          | 68        | 66         |
| UKR  | 3        | 37          | 37        | 37         | 54          | 55        | 54         | 70          | 71        | 69         |
| UKR  | 4        | 43          | 43        | 43         | 58          | 59        | 57         | 74          | 76        | 72         |
| UKR  | 5        | 49          | 49        | 49         | 60          | 62        | 58         | 76          | 79        | 72         |
| URY  | 1        | 25          | 25        | 25         | 41          | 41        | 41         | 60          | 60        | 59         |
| URY  | 2        | 30          | 30        | 30         | 46          | 47        | 46         | 64          | 65        | 64         |
| URY  | 3        | 33          | 33        | 33         | 49          | 49        | 48         | 66          | 67        | 65         |
| URY  | 4        | 35          | 35        | 35         | 49          | 50        | 48         | 65          | 67        | 63         |
| URY  | 5        | 35          | 35        | 35         | 44          | 45        | 42         | 57          | 62        | 52         |
Table T: Appendix Projections by Country (2000, 2020, 2040)

| ISO3 | Quintile | Mean (2000) | Up (2000) | Low (2000) | Mean (2020) | Up (2020) | Low (2020) | Mean (2040) | Up (2040) | Low (2040) |
|------|----------|-------------|-----------|------------|-------------|-----------|------------|-------------|-----------|------------|
| VNM  | 1        | 6           | 6         | 6          | 12          | 12        | 12         | 21          | 22        | 21         |
| VNM  | 2        | 7           | 7         | 7          | 14          | 15        | 14         | 25          | 26        | 25         |
| VNM  | 3        | 9           | 9         | 9          | 17          | 17        | 17         | 27          | 28        | 27         |
| VNM  | 4        | 13          | 13        | 13         | 19          | 20        | 19         | 29          | 31        | 27         |
| VNM  | 5        | 19          | 19        | 19         | 22          | 22        | 21         | 26          | 30        | 23         |
| ZAF  | 1        | 34          | 34        | 34         | 52          | 52        | 52         | 70          | 71        | 70         |
| ZAF  | 2        | 40          | 40        | 40         | 58          | 58        | 58         | 75          | 75        | 75         |
| ZAF  | 3        | 43          | 43        | 43         | 61          | 61        | 61         | 77          | 78        | 77         |
| ZAF  | 4        | 47          | 47        | 47         | 64          | 64        | 63         | 79          | 80        | 78         |
| ZAF  | 5        | 48          | 48        | 48         | 63          | 64        | 62         | 78          | 81        | 76         |
| ZMB  | 1        | 10          | 10        | 10         | 19          | 20        | 19         | 34          | 34        | 33         |
| ZMB  | 2        | 13          | 13        | 13         | 24          | 24        | 24         | 40          | 40        | 39         |
| ZMB  | 3        | 17          | 17        | 17         | 28          | 28        | 27         | 44          | 45        | 43         |
| ZMB  | 4        | 23          | 23        | 23         | 34          | 34        | 33         | 50          | 53        | 48         |
| ZMB  | 5        | 34          | 34        | 34         | 41          | 42        | 40         | 56          | 62        | 51         |
| ZWE  | 1        | 14          | 14        | 14         | 27          | 27        | 27         | 45          | 45        | 44         |
| ZWE  | 2        | 18          | 18        | 18         | 33          | 33        | 33         | 52          | 53        | 51         |
| ZWE  | 3        | 22          | 22        | 22         | 39          | 39        | 38         | 58          | 59        | 56         |
| ZWE  | 4        | 28          | 28        | 28         | 48          | 49        | 47         | 67          | 69        | 64         |
| ZWE  | 5        | 37          | 37        | 37         | 61          | 63        | 59         | 77          | 82        | 72         |
To understand the performance of the mean estimate, we randomly withheld survey-years and estimated those country-years using a regression based on the remaining data. Specifically we withheld 10 countries randomly from our sample (about 10% of the sample). This means that the estimation will not include information from any time points observed from that country (be it 1 year of observation or 6 years of observation). We did this because we wish to see how accurately GDP per capita predicts the wealth-obesity gradient shift without information about that country. We estimated the projections for those withheld countries and compared the estimates to what was actually observed (and withheld). The vast majority of our data is from low and middle income countries, so this table displays information mostly about those countries. We see that the model under-estimated the wealth-obesity gradient shift in these countries. The results presented below display the average relative error of those predictions to the data in the held-out country-years in the obesity forecast.

### Table U: Out-of-Sample Cross Validation for Obesity Prevalence

| Personal Wealth Decile | Relative Error | Predicted Fraction | Actual Fraction |
|------------------------|----------------|--------------------|-----------------|
| 1                      | .6031641       | .0679341           | .0405114        |
| 2                      | .6533905       | .0734711           | .0475292        |
| 3                      | .5727391       | .0868214           | .0495829        |
| 4                      | .6191857       | .0920583           | .0568844        |
| 5                      | .6342006       | .0999395           | .0632354        |
| 6                      | .8046303       | .1046064           | .0842451        |
| 7                      | .9070861       | .1137974           | .1032994        |
| 8                      | 1.173965       | .1171718           | .1374058        |
| 9                      | 1.485211       | .1227564           | .1816984        |
| 10                     | 1.953695       | .1214436           | .2356081        |