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The 2016 Global Burden of Kidney Disease Attributable to Fine Particulate Matter Air Pollution

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Abstract:

Objective: To quantitate the 2016 global and national burden of chronic kidney disease (CKD) attributable to fine particulate matter air pollution ($PM_{2.5}$).

Design: We used the Global Burden of Disease (GBD) study data and methodologies to estimate the 2016 burden of CKD attributable to $PM_{2.5}$ in 194 countries and territories. Population weighted $PM_{2.5}$ levels and incident rates of CKD for each country were curated from the GBD study publicly available data sources.

Setting: GBD global and national data on $PM_{2.5}$ and CKD

Participants: 194 countries and territories.

Main outcome measures: We estimated the attributable burden of disease (ABD), years living with disability (YLD), years of life lost (YLL), and disability-adjusted life-years (DALYs).

Results: The 2016 global burden of incident CKD attributable to $PM_{2.5}$ was 6,950,514 (95% Uncertainty Interval: 5,061,533-8,914,745). Global YLD, YLL, and DALYs of CKD attributable to $PM_{2.5}$ were 2,849,311 (1,875,219-3,983,941), 8,587,735 (6,355,784-10,772,239), and 11,445,397 (8,380,246-14,554,091), respectively. Age-standardized ABD, YLL, YLD, and DALY rates varied substantially among geographies. Populations in Mesoamerica, Northern Africa, several countries in the Eastern Mediterranean region, Afghanistan, Pakistan, India, and several countries in Southeast Asia were amongst those with highest age-standardized DALY rates. For example, age-standardized DALYs per 100,000 were 543.35 (391.16-707.96) in El Salvador, 455.29 (332.51-577.97) in Mexico, 408.41 (283.82-551.84) in Guatemala, 238.25 (173.90-303.98) in India, and 178.26 (125.31-238.47) in Sri Lanka, compared to 5.52 (0.82-11.48) in Sweden, 6.46 (0.00-14.49) in Australia, and 12.13 (4.95-21.82) in Canada. Frontier analyses showed that Mesoamerican countries had significantly higher CKD DALY rates relative to other countries with comparable socio-demographic development.

Conclusions: Our results demonstrate that the global toll of CKD attributable to air pollution is significant, and identify several endemic geographies where air pollution may be a significant driver of CKD burden. Air pollution may need to be considered in the discussion of the global epidemiology of CKD.

Strengths and limitation of this study:

- The study leveraged the availability of the Global Burden of Disease study data which is the most comprehensive compilation and analysis of global health information available.
- The study quantitated the burden of CKD attributable to air pollution using the combined measure of disability-adjusted-life-years (DALYs) which comprehensively captures the years of healthy life lost due to dying prematurely and to the years living with disability.
- For each estimate reported in this study, we also provide a measure of uncertainty (Uncertainty Intervals) to reflect how much is known, but more importantly how much is not known.
- The burden was quantitated at the country level, the study does not provide subnational estimates of CKD burden.
- Global burden of disease estimates while considered robust and reliable, are necessarily limited by the quality of the available data.

Introduction:

Several studies described substantial geographic variation in the burden of chronic kidney disease (CKD) that cannot be explained by traditional drivers including diabetes, and hypertension[1-3]. It was suggested that other risk factors including environmental pollution may explain these geographic variations[4]. We recently characterized fine particulate matter of <2.5 μm in aerodynamic diameter ($PM_{2.5}$) as a novel risk factor for development and progression of kidney disease and described a linear relationship between exposure to levels of $PM_{2.5}$ and risk of incident CKD, kidney disease progression, and end stage renal disease[5].

The global burden of kidney disease attributable to air pollution has not been previously described. A quantitative assessment of the global burden of kidney disease attributable to air pollution might explain some of the geographic variation in burden of kidney disease, help identify endemic areas, and contribute to the global and national discussions about the effect of environmental pollution on non-communicable disease in general, and more specifically on the potential impact of air pollution on the global epidemiology of CKD. In this work, we used the Global Burden of Disease (GBD) study methodologies to estimate the burden of CKD attributable to fine particulate matter air pollution in 194 countries and territories using the following measures: attributable burden of disease (ABD), years living with disability (YLD), years of life lost (YLL), and disability-adjusted life years (DALYs).

Methods:

Global Data Sources:

National $PM_{2.5}$ exposure levels were obtained from the Global Burden of Disease (GBD)[6 7]. The GBD $PM_{2.5}$ values are derived from the integration of satellite data, surface measurements, geographic data, and a chemical transport model, at an 11 by 11 km resolution, and then aggregated to national level population weighted means to produce a national exposure estimate[6 7]. Estimates of global and national incident rates, YLDs, YLLs, DALYs of chronic kidney disease, and their uncertainty levels were obtained from the 2016 GBD[8 9]. The GBD aims to use all accessible information on disease occurrence, natural history, and severity that meets inclusion criteria, drawing on a large network collaborators for subject matter expertise on disease and injury to generate internally consistent, comprehensive global health statistics on the burden of disease[10]. GBD

uses an integrative Bayesian meta-regression method which estimates a generalized negative binomial model for all epidemiological data through DisMod-MR 2.1 to compute GBD estimates of disease burden including YLDs, YLLs, and DALYs[10]. Estimates are generated using hierarchical modeling methodology that accounts for temporal, geospatial, gender, age, and cause specific variance to establish attributable burden of kidney disease across all levels of the GBD framework[8 11-14]. Key to GBD estimates are the propagation of uncertainty through the modeling process, which incorporates uncertainty due to diversity in data sources, sparsity of data for some parts of the world, modeling choices, and other factors which impact estimation such as the determination of disability weights. Detailed descriptions of overall GBD 2016 methodologies and specific CKD methodology have been provided elsewhere[8 10-15]. Population size was obtained from the GBD Population Estimates dataset[16]. Country income classifications were obtained from the World Bank[17].

$PM_{2.5}$ Risk Estimation:

$PM_{2.5}$ risk estimation was obtained from prior work assessing the association of $PM_{2.5}$ with kidney disease outcomes[5]. Department of Veterans Affairs datasets were linked with the Center for Disease Control's (CDC) National Environmental Public Health Tracking Network annual particulate matter estimates for the contiguous United States, which originates from Community Multiscale Air Quality (CMAQ) modeled output[18]. Time dependent adjusted Cox Proportional Hazard survival models, where cohort participants' exposure was updated annually and upon movement in residence, were used to investigate the association between $PM_{2.5}$ and time until incident eGFR <60 ml/min/1.73m^2. Models were adjusted for age, race, sex, cancer, cardiovascular disease, chronic lung disease, diabetes mellitus, hyperlipidemia, hypertension, eGFR at time of cohort entry, BMI, smoking status, angiotensin-converting enzyme inhibitor/angiotensin receptor blocker use, county population density, number of outpatient eGFR measurements, number of hospitalizations, and county percent in poverty. Alternate analyses using time zero exposure values, and using NASA data as an alternate exposure source produced consistent results[19 20]. Ambient sodium levels were investigated as a negative control, where there existed no biologic bases to support an association with risk of incident CKD. Results for every IQR (0.046 μg/m^3) increase in sodium showed a vanishingly weak association, 0.99 (0.99-0.99).

To estimate risk in each country, we relied on the $PM_{2.5}$ pollution and risk relationship characterized in the prior study described above[21] where $PM_{2.5}$ levels ranged from 5.0 to 22.1 μg/m^3 [21.] In this study, we took a conservative approach where we considered annual average $PM_{2.5}$ exposure greater than 22.1 μg/m^3 to contribute the same amount of risk as an exposure of 22.1 μg/m^3 [6 22]. This approach is supported by findings from GBD and several other studies where integrated exposure response functions suggest that risk of adverse health outcomes of $PM_{2.5}$ pollution levels off (follows a near plateau morphology) at $PM_{2.5}$ concentrations exceeding 20-25 μg/m^3 [6 7 23].

Population Attributable Fraction (PAF) and Attributable Burden of Disease (ABD):

The PAF of CKD due to $PM_{2.5}$ exposure above the theoretical minimum risk exposure level (TMREL) was calculated using an adapted Global Burden of Disease equation[14]. This PAF can be interpreted as the proportion of incident CKD attributable to $PM_{2.5}$ exposure that exceeds the TMREL. The Proportional Hazards based equation for PAF in a country is:

$$PAF = \frac{HR(x) - HR(TMREL)}{HR(x)}$$

where HR(x) is the hazard ratio for $PM_{2.5}$ at the national exposure level, and HR(TMREL) is the hazard ratio for $PM_{2.5}$ at the TMREL. The TMREL was defined according to the Global Burden of Disease (GBD) study methodologies[7 24 25]. The TMREL was assigned as a uniform distribution of $PM_{2.5}$ from 2.4 to 5.9 μg/m^3, which represents exposure values between the minimum and fifth percentiles of exposure distributions from outdoor air pollution cohort studies included in the GBD anlayses[7 24 25]. Levels under the TMREL were treated as contributing no risk[7]. Results were repeated utilizing the World Health Organization (WHO) Air Quality Guidelines for annual average of $PM_{2.5}$ concentration of 10 μg/m^3 as the TMREL[26].

Burden of CKD attributable to $PM_{2.5}$ above the TMREL, as the number of incident CKD per year attributable to $PM_{2.5}$ above the TMREL, was calculated using estimates from the 2016 GBD[11], from the equation:

$$ABD = PAF * IR * population$$

where PAF is the population attributable fraction, IR is the incident rate of CKD, and population those in which the burden is being assessed[2]. Results were repeated utilizing the WHO TMREL.

Years Living with Disability (YLD), Years of Life Lost (YLL), and Disability Adjusted Life years (DALYs):

YLD, YLL, and DALY values were estimated by multiplying the CKD specific GBD values of the corresponding burden measure by the PAF[11 15], resulting in YLD, YLL, and DALY values due to CKD attributable to $PM_{2\cdot5}$. YLD, YLL, and DALY estimates due to chronic kidney disease were obtained from the GBD results tool[8 9]. The basis of their calculation is presented below, further information has been described elsewhere[11 15]. Results were repeated utilizing the WHO TMREL.

YLD due to CKD is calculated as:

$$YLD = I * DW * R$$

where I is the incident cases of CKD in the population, DW is the disability weight for CKD representative of the severity of its impact on a person's life (0, no impact, to 1, the same as death), and R is the average duration of CKD until remission or death. YLD due to CKD is a measure of the burden placed on a population due to the ill-effects of living with CKD[27].

Years of Life Lost due to CKD is calculated using the equation:

$$YLL = N * L$$

where N is the number of deaths due to CKD, and L is the difference between age of death and average life expectancy due to CKD. YLL due to CKD is a measure of the burden placed on a population due to dying prematurely from CKD. Estimates of the difference between average life expectancy and age of death from CKD come from a GBD set of age and location-year specific life tables[8 11-14].

Disability Adjusted Life Years due to CKD is calculated using the equation:

$$DALY = YLD + YLL$$

The DALY due to CKD is a summary measure of YLD and YLL and represents the total years of healthy life lost due to ill-health, disability, or early death due to CKD.

Measure Estimation and Uncertainty:

In order to incorporate the uncertainty in measurements used in our estimation, all measures were generated from a distribution of 10,000 predictions, where the median (UI: 2.5th-97.5th percentile) are reported. Predictions

incorporated uncertainty by randomly sampling from, unless otherwise specified, constructed normal distributions of the relevant measures. Uncertainty was derived from the TMREL distribution, the standard error of the $PM_{2.5}$ beta estimate, and the uncertainty of the incident rates, YLD, YLL and DALY from the GBD data. While accounting for variability in measures, measures sampled under zero were set to zero. Values of zero thus represent instances of estimated zero burden, reflective of areas where the corresponding $PM_{2.5}$ levels are below the TMREL distribution, or where uncertainty was enough to result in such estimates. Maps of age-standardized rates are presented. All analyses were performed in SAS Enterprise Guide version 7.1 (SAS Institute, Cary, NC). Maps were generated using Arc Map 10 (ESRI, Redlands, CA). The circular layout image was generated using the Circos software package[28].

Frontier Analysis:

Frontier analysis was conducted as a quantitative methodology to identify the lowest potentially achievable age standardized DALYs on the basis of development status as measured by the Socio-demographic Index (SDI). SDI is a summary measure of a country or territory's socio-demographic development; it is a composite measure of average income per person, educational attainment, and total fertility rate in any given country. The minimum possible SDI is zero, maximum is 100; it is comparable across geography and over time[29]. The DALYs frontier delineates the minimum DALY that could be achieved for every geography (country or territory) given its SDI. Distance from the frontier is termed effective difference; if a country or territory exhibits a large effective difference from the frontier given its SDI, then this likely suggests unrealized opportunities for gains or improvement (reduction in DALYs) that should be possible based on the country or territory's state on the development spectrum. A data envelope analysis, which allows for non-linear frontiers, utilizing the free disposal hull method was developed to produce a frontier for age adjusted DALYs[29-31]. In order to account for uncertainty, we used 1,000 bootstrapped samples of the data, randomly sampling with replacement from all countries and territories. LOESS regression was then used on this result to produce a smoothed frontier[29]. Super-efficient countries were excluded, to remove the influence of outliers, in the generation of the frontier[29]. Absolute distances from the frontier of each country are reported as effective difference, where any countries with lower DALYs than the frontier were assigned a zero distance.

In order to account the effect of variation in prevalence of primary drivers of CKD (hypertension and diabetes) on differences in overall DALY rates, we repeated the frontier analysis following a decomposition analysis to generate risk deleted cause-specific age standardized DALY rates of CKD attributable to $PM_{2.5}$[15], where risks deleted were hypertension and diabetes. Diabetes and Hypertension cause specific CKD rates were obtained from the 2016 GBD, which were then subtracted from overall rates and then multiplied by the PAF[9]. The risk deleted DALY can be conceptualized by the formula:

$$DALY_O = DALY_{DHO} * (1 - PAF_{DH})$$

Where $DALY_O$ is the DALY due to other causes, $DALY_{DHO}$ is the DALY due to all three causes, and PAF_{DH} is the population attributable fraction due to diabetes and hypertension.

Patient involvement:

No patients were involved in developing the aims, design, or implementation of this study. No patients were involved in the interpretation of study results, or write up of the manuscript.

Results:

Global burden of kidney disease attributable to air pollution:

In 2016, the global annual burden of incident CKD attributable to elevated $PM_{2.5}$ was, in 1000s, 6,950.51 (95% Uncertainty Interval: 5,061.53-8,914.74). ABD rate per 100,000 people was 94.29 (68.67, 120.94), and age standardized ABD rate per 100,000 was 101.39 (74.49, 129.69) (table 1).

The 2016 global YLD, YLL, and DALYs of CKD attributable to elevated $PM_{2.5}$ are reported in table 2 as absolute values in 1000s, rates per 100,000 population, and age standardized rates per 100,000. Age standardized rates for YLD, YLL, and DALYs were 40.97 (26.84, 57.11), 122.71 (90.36, 153.52), and 163.69 (120.58, 207.28), respectively (table 2).

Burden of kidney disease attributable to air pollution at the national level:

ABD, YLD, YLL, and DALYs reported as absolute values, as rates per 100,000 population, and as age standardized rates per 100,000 population for 10 most populated countries (table 1 and 2), and for 194 countries and territories are provided in supplemental table 1 and supplemental table 2.

Among the 10 most populated countries in the world, India followed by China had the highest attributable burden of incident CKD due to air pollution globally (ABD=1,092.52, UI=791.38-1407.28, and 766.73, 558.72-985.14, in 1000s, respectively). India also outranked China in estimates standardized by population size, and age distribution (table 1). Age standardized ABD in the 10 most populated countries showed Nigeria, Bangladesh, and India having high burden exceeding 100 incident cases of CKD per 100,000 population (table 1). Age standardized ABD per 100,000 population varied substantially among geographies; where it was highest in Guinea-Bissau, El Salvador, Senegal, Togo, Benin, Mauritania, Chad, Ghana, Niger, and Mali (supplemental table 1, figure 1a)). Mapping the geographic distribution of age standardized ABD rates showed high burden in Mesoamerica, several countries in Central and South Africa, Mongolia, and several countries in the Far East and the Eastern Mediterranean region (figure 1a). Countries with the lowest age standardized ABD per 100,000 population included Canada, Greenland, several countries in Scandinavia, Brunei, New Zealand, and Australia (supplemental table 1, figure 1a).

Years Living with Disability:

Estimates for YLD in absolute terms, rates per 100,000 population, and age standardized YLL rates are provided in table 2 for the 10 most populated countries, and in supplemental table 2 for 194 countries and territories. Among the 10 most populated countries, Nigeria had the highest age standardized YLD rate per 100,000 population (YLD=71.93, UI=45.61-103.27), followed by Bangladesh (45.58, 28.89-64.56), and then India (45.40, 29.19-64.54). Among all countries, Iraq, Afghanistan, Guinea-Bissau, Senegal, Chad, Turkey, Mali, Niger, and Yemen had the highest age standardized YLD rate per 100,000 population (supplemental table 2, figure1b).

Years of Life Lost:

Estimates for YLL in absolute numbers, rates per 100,000 population, and age standardized rates per 100,000 population for 10 most populated countries and for 194 countries and territories are provided in table 2 and supplemental table 2, respectively. Among the 10 most populated countries, Pakistan had the highest age standardized YLL per 100,000 population (YLL=215.59, UI=123.95-322.52), followed by India (192.55, 138.73-249.04), and then Bangladesh (137.57, 98.14-179.69). Among all countries and territories, Afghanistan, El Salvador, Nicaragua, Mexico, Honduras, Philippines, Guatemala, Iraq, Palestine, and Belize had the highest age standardized YLL per 100,000 population (supplemental table 2, figure 1c).

Disability-Adjusted Life-Years:

Among the 10 most populated countries, India had the highest DALY (DALY=2,502.15, UI=1,827.96-3,204.77 in 1000s), followed by China (1,651.72, 1,212.35-2,103.21), and then Pakistan (342.45, 213.87-492.17) (table 2). DALY rates per 100,000 population showed that India remained on top with DALY rate of 190.77 (UI=139.37-244.33), followed by Pakistan with DALY rate of 181.14 (UI=113.12-260.33), then Bangladesh with DALY rate of 136.84 (UI=99.13-176.20) (table 2). Age standardized DALY rates showed Pakistan leading, followed by India, then Bangladesh with age adjusted DALY rates of 254.25 (UI=157.33-365.23), 238.25 (UI=173.90-303.98), and 183.21 (132.76-236.87), respectively.

Among all countries and territories, those with the highest age standardized DALY rates included Afghanistan, El Salvador, Nicaragua, Mexico, Honduras, Iraq, Guatemala, Philippines, Palestine, and Belize (supplemental table 2). Mapping the geographic distribution of age standardized DALY rates across the globe showed populations in Mesoamerica, Northern Africa, South Africa, several countries in the Eastern Mediterranean Region, Afghanistan, Pakistan, India, and several countries in Southeast Asia were amongst those with highest age standardized DALY rates (figure 1d). For example, age standardized DALYs per 100,000 were 543.35 (391.16-707.96) in El Salvador, 455.29 (332.51-577.97) in Mexico, 408.41 (283.82-551.84) in Guatemala, 295.39 (203.17-401.39) in Jordan, 273.55 (184.84-379.35) in Egypt, 264.23 (181.58-360.76) in Morocco, 259.46 (189.72-330.98) in South Africa, 205.12 (148.73-264.89) in Thailand, 183.21 (132.76-236.87) in Bangladesh, and 178.26 (125.31-238.47) in Sri Lanka. The map identified Canada, several northern European and Scandinavian countries, New Zealand, and Australia as having lowest estimates of age standardized

DALY rates. For example, age standardized DALY rates were 5.52 (0.82-11.48) in Sweden, 6.46 (0.00-14.49) in Australia, and 12.13 (4.95-21.82) in Canada (figure 1d).

Frontier analysis:

We developed a frontier analysis to identify countries and territories which exhibited the least burden of kidney disease attributable to particulate matter air pollution given their SDI. The analysis provides a comparative quantitative assessment of the potential reduction in CKD burden that might be achievable in each country given their social and economic development. Most importantly, for each SDI, this analysis identifies exemplar countries at the frontier (with lowest DALYs for their SDI), and countries with the highest DALYs for their SDI. The effective difference between the frontier and the highest DALYs given an SDI represents a hypothetical magnitude of potential improvement in impact of air pollution on burden of CKD in a given country. Frontier analysis of age adjusted DALYs are presented in figure 2. Supplemental table 3 provides the effective difference from the frontier for each country given that country SDI; countries with the largest effective difference were El Salvador, Afghanistan, Mexico, Nicaragua, Honduras, Philippines, Iraq, Guatemala, and Palestine. Among countries with an SDI<0.3, Somalia, Niger, Liberia, the Democratic Republic of Congo, Mozambique, and Burundi had age standardized DALY rates that are close to the frontier with an effective difference of less than 10. Afghanistan, Guinea-Bissau, and Chad also had an SDI <0.3; however, they exhibited relatively high age standardized DALY rates and effective difference from the frontier which exceeded 100 representing a large gap in performance vis-à-vis other countries with comparable resources. Among reasonably well-resourced countries with an SDI>0.7, Mexico, Mauritius, The United Arab Emirates, Saudi Arabia, Turkmenistan, Venezuela, South Africa, Bahrain, and Mongolia had an effective difference from the frontier of more than 200 representing potential unrealized opportunities for progress in those countries given their resources.

To further evaluate the frontier independent of potential contamination by other strong drivers of CKD such as diabetes—where it is a major driver in Mexico[32]—and hypertension, we rebuilt the entire frontier following a decomposition analysis of risk-deleted cause-specific DALYs where we risk deleted DALYs caused by diabetes and hypertension. This analysis yielded consistent results (supplemental figure 1); specifically, that

several countries including Mesoamerica exhibited significant effective difference from the frontier suggesting a disproportionally higher $PM_{2.5}$ attributable DALYs than would be expected by their SDI (supplemental figure 1).

Burden of CKD attributable to PM2.5 levels above the WHO limit of 10 µg/m^3:

All the primary analyses were developed considering risk attributable to exposure levels of $PM_{2.5}$ above a uniform distribution between 2.4-5.9 µg/m^3 representing exposure values between the minimum and fifth percentiles of exposure distributions from outdoor air pollution studies[6 7].

We repeated all the analyses where we considered risk attributable to exposure levels of $PM_{2.5}$ above the WHO limit of 10 µg/m^3 (using the alternate scenario where the theoretical minimal risk exposure level was set at 10 µg/m^3)[5]. The estimates describe the burden of kidney disease —globally and at the national level— that is attributable to $PM_{2.5}$ concentrations in excess of the WHO limit. The geographic distribution of burden was consistent with the primary results (supplemental table 4 and 5). The results from this analysis necessarily underestimate the true burden as they—by definition—ignore $PM_{2.5}$ related risk below the WHO limit, but might be informative to policy makers and relevant stakeholders in estimating the burden of CKD that could be avoided should targeting the WHO limit become a policy goal.

Discussion:

In this work, we provide a quantitative analysis of the global burden of CKD attributable to air pollution in 194 countries and territories. The results describe the annual incidence of kidney disease attributable to air pollution globally and at the national level, and provide a quantitative assessment of the years living with disability due to kidney disease, years of life lost due to early mortality from kidney disease, and the combined comprehensive measure of DALYs (years of healthy life lost, due to dying prematurely, and to the years living with disability) of kidney disease attributable to air pollution. The global toll of CKD attributable to air pollution is significant with 6.9 million incident cases of CKD per year, 101 cases per 100,000 population per year, and 11.4 million DALYs per year. The findings suggest substantial geographic variation and identify geographies where the toll of air pollution may be a significant driver of the epidemiology of kidney disease. Our analyses also suggest disproportionately higher $PM_{2.5}$ DALYs from kidney disease in several countries including Mesoamerica than would be expected for their SDI.

According to the GBD study, global age standardized DALY rates attributable to $PM_{2.5}$ are 1,521 per 100,000[33]. Our estimates of $PM_{2.5}$ CKD DALYs were 164, representing 10.7% of the total global DALYs -years of healthy life lost- attributable to air pollution[33]. Our analyses suggest that the overall burden of kidney disease attributable to air pollution is shaped by the epidemiologic transition[34]. Among countries that are poor with a high burden of communicable diseases and reduced life expectancy (for example several countries in the African continent), we observed a lower global ranking for years of life lost than years of living with disability (figures 1b, and 1c), reflecting increased probability of early loss of life from other diseases not related to air pollution. The corollary observation is that in countries that are relatively more developed including Mesoamerica, South America (including Venezuela, Gynae, Surinam, and Bolivia), Pakistan, India, and several countries in southeast Asia ranked in the highest decile for YLL, but not in YLD reflecting much earlier loss of life attributable to air pollution related kidney disease (figures 1b and 1c). The results suggest that as countries journey forward along the path of the epidemiologic transition, the contribution of air pollution to non-communicable disease mortality in general, and more specifically CKD becomes more pronounced. Unfortunately, CKD has been largely ignored in the global and WHO discussion of non-communicable diseases[35-38]; CKD and its environmental drivers should feature on the national, international development, and global health agendas[38-40] and should be assigned a priority commensurate with its ascending rank among the global burden of diseases[2 8 11-14 41-46].

Our results show substantial geographic variation in the global burden of CKD attributable to air pollution (figure 1d), where low and lower-middle income countries are most affected (figure 3, and supplemental figure 2). Air pollution is a significant global problem with well documented transboundary health impacts due to international trade, and atmospheric pollutant transport[47]; it results in an estimated 4.2 million deaths per year, and is worsening especially in low-income, and middle-income countries[13 33 39 48]. This is consistent with findings from the State of Global Air 2017 report where the largest increases in air pollution related death were in rapidly industrializing low and middle income countries[33 39].The global burden of CKD is increasing and its rank as a contributor to disability and death is ascending[45]; it disproportionately impacts low-income and middle-income countries[1 38 45 49] which are least equipped to provide costly but life-saving CKD care[35 36]. While

diabetes mellitus and hypertension are the leading causes of CKD in high and upper middle-income countries, a significant proportion of CKD cannot be explained by these traditional causes in low and lower middle-income countries where environmental exposures loom prominently as potential drivers of non-communicable diseases including CKD[38 39 50-52]. In an elegant recent editorial Jha and colleagues[53] reflected on the rise of kidney failure death in India, and suggested that a sizable portion of kidney failure is not due to traditional drivers (diabetes mellitus), and advocated for a research agenda to identify the drivers of this increased incidence of kidney failure and kidney failure death. Others have also advocated for greater understanding and larger emphasis of the role of environmental air pollution in non-communicable diseases, and specifically kidney disease[39 51]. The rise of CKD-of unknown origin in Mesoamerica and other geographies including India, and Sri Lanka illustrates the need for a broader and more comprehensive evaluation of potential risk factors for development and progression of kidney disease[38 54].

Our frontier analysis provides a blueprint to comparatively evaluate the CKD DALYs attributable to air pollution in countries with similar resources. The analysis identifies a cluster of countries with substantially higher CKD DALYs than would be expected for their place on the development spectrum. The clustering of countries including Mesoamerican countries with a high CKD DALYs gap attributable to air pollution is likely not random; and (a) supports the prescient hypothesis put forth by Orantes-Navarro et al.[54] for inclusion of environmental air pollution—among others--as a potential risk factor for CKD of unknown cause—a so far elusive disease entity, vibrantly discussed among luminaries in the field[38 44 55-64]—, and (b) potentially represents unrealized opportunity for improved performance through interventions in the form of laws, health and economic policy measures, reprioritization and alignment of resources, technological transition, and other devices that would ultimately close the DALYs gap. Similarly, our analysis identifies exemplar countries where performance for the county's level of development is considered leading (at the frontier pushing the envelope), the identification of these exemplars provides a window for better understanding of the potential drivers for success[36] and determination whether advocacy and wider adoption of these drivers by other countries might yield decreased CKD burden[40].

While our analyses described the global and national burden of kidney disease attributable to $PM_{2.5}$ air pollution, consideration of the impact of other air pollutants (i.e. nitrogen oxides, ozone, carbon monoxide, PM_{10}, and others)[50], a higher spatial resolution analysis at the subnational level, and a greater understanding of temporal trends over the years (e.g. an annual global CKD burden report which would track the contributions of all risk factors over time) are certainly needed to develop a better understanding of the epidemiology of CKD driven by air pollution.

This study has several limitations. Our analyses do not account for the composition and toxic content of $PM_{2.5}$; however, studies have shown that estimates using non-specific $PM_{2.5}$ biomass alone will underestimate the burden of kidney disease attributable to air pollution[6 7 48]. Furthermore, we considered that risk plateaued for $PM_{2.5}$ concentrations above 22 $\mu g/m^3$, this likely yielded conservative estimate of the true burden of CKD attributable to air pollution. Our analyses were performed at the global and national level where we assigned $PM_{2.5}$ exposure, and generated incident rate of CKD for every country and territory; thus, our analyses do not provide further insight into the subnational level. We relied on estimates for incident CKD generated by the Global Burden of Disease study group, and while those Bayesian estimates are considered reliable, and robust, they are necessarily limited by the quality of the available data[65]. Furthermore, variability and inconsistency of data collection methods and tools across the countries could influence geographic variations[65]. Key strengths include leveraging the availability of the 2016 Global Burden of Disease data which is the most comprehensive compilation and analysis of global health information available; we also employed GBD methodologies including the concept of DALY to capture the burden of disease across the globe and a measure of uncertainty (to reflect how much we know, and how much we don't know). We also developed a frontier analysis to enable comparative evaluation among countries with similar SDI, and finally, we repeated all analyses using an alternative scenario where we considered the WHO air quality standards as counterfactual.

In sum, our results show that the global toll of CKD attributable to air pollution is significant. The burden varies substantially by geography. Air pollution might be a contributing risk factor and might partially explain the rise in the incidence of CKD of unknown cause in some geographies around the world. As countries further develop

and industrialize and travel along the path of the epidemiologic transition, the rise in air pollution related non-communicable disease and specifically kidney disease should be reflected on the global health agendas.

Footnotes

Acknowledgment:

In this report, we used the publicly available Global Burden of Disease studies data and methodologies. The Global Burden of Disease Collaborator Network is comprised of more than 2,700 collaborators worldwide and is headquartered at the Institute for Health Metrics and Evaluation (IHME) in Seattle, Washington. The estimates used in generating this manuscript relied on the GBD data and methodologies, we acknowledge the visionary global health leadership of IHME, and the contribution of all collaborators without whom this report would not be possible.

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Contributors: Research area and study design: BB, YX, ZAA; data acquisition: BB, YX, ZAA; data analysis: BB, YX, ZAA; interpretation of study results: BB. YX, TL, YY, HX, ZAA; statistical analysis: BB, YX; drafting the manuscript BB, ZAA; revision and comment on manuscript YX, TL, YY, HX; supervision or mentorship: ZAA. Each author contributed important intellectual content during manuscript drafting or revision and accepts accountability for the overall work by ensuring that questions pertaining to the accuracy or integrity of any portion of the work are appropriately investigated and resolved. ZAA takes responsibility that this study has been reported honestly, accurately, and transparently; that no important aspects of the study have been omitted.

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Ethical approval: This research project was reviewed and approved by the Institutional Review Board of the VA Saint Louis Health Care System.

Data sharing: Data is available through the Global Burden of Disease Results Portal. http://ghdx.healthdata.org/gbd-results-tool

Transparency: The lead authors affirm that the manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned have been explained.

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Tables:

Table 1: Attributable burden of chronic kidney disease (ABD) associated with $PM_{2.5}$ exposure globally, and for the top 10 most populous countries.

Country	$PM_{2.5}$	Attributable Burden of Disease (in 1000s)	Attributable Burden of Disease (per 100,000)	Age Standardized Attributable Burden of Disease (per 100,000)
Global	42.27	6,950.51 (5,061.53, 8,914.74)	94.29 (68.67, 120.94)	101.39 (74.49, 129.69)
China	57.2	766.73 (558.72, 985.14)	55.42 (40.39, 71.21)	48.98 (35.52, 63.01)
India	72.6	1,092.52 (791.38, 1,407.28)	83.30 (60.34, 107.29)	108.21 (77.99, 139.22)
US	8.3	163.49 (88.76, 262.78)	50.53 (27.44, 81.22)	35.44 (19.39, 57.44)
Indonesia	15	76.81 (53.66, 103.42)	29.81 (20.83, 40.15)	37.38 (26.05, 50.06)
Brazil	11.1	69.03 (45.11, 99.44)	33.21 (21.70, 47.84)	36.57 (23.68, 52.72)
Pakistan	63	107.43 (78.85, 137.04)	56.83 (41.71, 72.49)	89.17 (64.66, 114.14)
Nigeria	36.9	195.23 (141.44, 250.95)	106.98 (77.51, 137.52)	200.28 (145.24, 261.20)
Bangladesh	87	136.17 (99.56, 174.46)	84.60 (61.86, 108.39)	121.08 (88.55, 156.18)
Russia	15.8	170.89 (118.90, 229.76)	115.38 (80.27, 155.12)	82.87 (57.99, 111.67)
Japan	13.1	134.56 (91.13, 186.81)	104.88 (71.03, 145.60)	44.79 (30.61, 61.70)

$PM_{2.5}$, Fine particulate matter <2.5 μm

Table 2: Years living with disability (YLD), years of life lost (YLL), and disability adjusted life years (DALY) of chronic kidney disease associated with $PM_{2.5}$ for the top 10 most populous countries.

Country	Years Living with Disability (in 1000s)	Years Living with Disability (per 100,000)	Age Standardized Years Living with Disability (per 100,000)	Years of Life Lost (in 1000s)	Years of Life Lost (per 100,000)	Age Standardized Years of Life Lost (per 100,000)	Disability Adjusted Life Years (in 1000s)	Disability Adjusted Life Years (per 100,000)	Age Standardized Disability Adjusted Life Years (per 100,000)
Global	2,849.31 (1,875.22, 3,983.94)	38.66 (25.44, 54.05)	40.97 (26.84, 57.11)	8,587.74 (6,355.78, 10,772.24)	116.51 (86.23, 146.14)	122.71 (90.36, 153.52)	11,445.40 (8,380.25, 14,554.09)	155.27 (113.69, 197.45)	163.69 (120.58, 207.28)
China	462.21 (304.57, 647.27)	33.41 (22.01, 46.79)	29.12 (19.36, 41.01)	1,188.22 (870.96, 1,501.83)	85.89 (62.95, 108.56)	76.18 (55.93, 96.49)	1,651.72 (1,212.35, 2,103.21)	119.39 (87.63, 152.02)	105.79 (77.30, 133.98)
India	447.47 (289.00, 638.28)	34.12 (22.03, 48.66)	45.40 (29.19, 64.54)	2,048.91 (1,471.02, 2,662.61)	156.21 (112.15, 203.00)	192.55 (138.73, 249.04)	2,502.15 (1,827.96, 3,204.77)	190.77 (139.37, 244.33)	238.25 (173.90, 303.98)
US	61.54 (32.36, 105.07)	19.02 (10.00, 32.48)	14.51 (7.59, 24.72)	104.78 (58.14, 165.08)	32.39 (17.97, 51.03)	23.30 (12.96, 36.77)	166.61 (91.84, 264.98)	51.50 (28.39, 81.90)	37.92 (20.91, 60.47)
Indonesia	40.67 (25.55, 60.13)	15.79 (9.92, 23.34)	20.02 (12.80, 29.32)	224.57 (158.94, 297.66)	87.17 (61.70, 115.54)	102.00 (72.07, 134.72)	265.23 (186.14, 351.41)	102.95 (72.25, 136.41)	122.19 (86.18, 162.36)
Brazil	25.72 (15.29, 39.59)	12.38 (7.36, 19.05)	13.55 (8.11, 20.94)	98.88 (65.54, 139.27)	47.57 (31.53, 67.01)	51.17 (34.05, 72.01)	124.85 (82.57, 176.65)	60.07 (39.72, 84.99)	64.76 (42.92, 91.88)
Pakistan	47.74 (30.60, 68.12)	25.25 (16.19, 36.03)	39.99 (25.77, 56.99)	292.68 (174.43, 434.38)	154.81 (92.27, 229.76)	215.59 (123.95, 322.52)	342.45 (213.87, 492.17)	181.14 (113.12, 260.33)	254.25 (157.33, 365.23)
Nigeria	61.22 (38.09, 88.68)	33.55 (20.87, 48.59)	71.93 (45.61, 103.27)	57.66 (37.92, 80.13)	31.60 (20.78, 43.91)	44.94 (29.23, 62.98)	119.40 (82.97, 161.55)	65.43 (45.47, 88.52)	117.66 (81.05, 158.12)
Bangladesh	51.45 (33.04, 72.84)	31.96 (20.53, 45.25)	45.58 (28.89, 64.56)	168.36 (121.18, 220.47)	104.60 (75.28, 136.98)	137.57 (98.14, 179.69)	220.26 (159.56, 283.60)	136.84 (99.13, 176.20)	183.21 (132.76, 236.87)
Russia	45.31 (27.94, 67.45)	30.59 (18.86, 45.54)	22.99 (14.08, 34.08)	54.05 (32.23, 81.33)	36.49 (21.76, 54.91)	28.25 (16.88, 42.28)	100.14 (66.26, 140.14)	67.61 (44.74, 94.61)	51.29 (34.08, 72.60)
Japan	57.64 (36.80, 84.54)	44.92 (28.68, 65.89)	21.97 (13.83, 32.50)	72.08 (49.89, 97.36)	56.18 (38.88, 75.88)	23.15 (16.00, 31.22)	129.79 (88.75, 178.70)	101.16 (69.17, 139.27)	45.26 (30.63, 62.55)

Figure Legends:

Figure 1a: Age standardized burden (ABD) of incident chronic kidney disease attributable to $PM_{2.5}$ per 100,000 population. ATG, Antigua and Barbuda; FSM, Federated States of Micronesia; Isl, Island; LCA, Saint Lucia; TLS, Timor-Leste; TTO, Trinidad and Tobago; VCT, Saint Vincent and the Grenadines.

Figure 1b: Age standardized years living with disability (YLD) due to incident chronic kidney disease attributable to $PM_{2.5}$ per 100,000 population. ATG, Antigua and Barbuda; FSM, Federated States of Micronesia; Isl, Island; LCA, Saint Lucia; TLS, Timor-Leste; TTO, Trinidad and Tobago; VCT, Saint Vincent and the Grenadines.

Figure 1c: Age standardized years of life lost (YLL) due to incident chronic kidney disease attributable to $PM_{2.5}$ per 100,000 population. ATG, Antigua and Barbuda; FSM, Federated States of Micronesia; Isl, Island; LCA, Saint Lucia; TLS, Timor-Leste; TTO, Trinidad and Tobago; VCT, Saint Vincent and the Grenadines.

Figure 1d: Age standardized disability adjust life years (DALYs) due to incident chronic kidney disease attributable to $PM_{2.5}$ per 100,000 population. ATG, Antigua and Barbuda; FSM, Federated States of Micronesia; Isl, Island; LCA, Saint Lucia; TLS, Timor-Leste; TTO, Trinidad and Tobago; VCT, Saint Vincent and the Grenadines.

Figure 2: Frontier analysis of age standardized disability adjusted life years (DALY) rate per 100,000 population by socio-demographic index (SDI). Countries with the top 10% effective difference are labelled. Countries are colored by region.

Figure 3: Plot showing burden of CKD attributable to $PM_{2.5}$ in 194 countries and territories. Heat map tracks show percentiles, which from inside to outside represent the YLL, YLD, ABD, effective difference, and DALY. Scatter plot represents the DALYs (in open circles) and effective difference (in closed circles) percentile, with a reference line at the median. Values are graded, from low to high, as blue to red (on the Brewer palette). Countries are represented by their 3-character country code. Regions are ordered from low to high burden clockwise. NA=North America.

Supplemental Figure 1: Frontier analysis of risk deleted cause specific age standardized disability adjusted life years (DALY) rate per 100,000 population by socio-demographic index (SDI). Countries with the top 10% effective difference are labelled. Countries are colored by region.

Supplemental Figure 2: Age-standardized CKD DALYs (per 100,000) attributable to $PM_{2.5}$ by World Bank income classification.

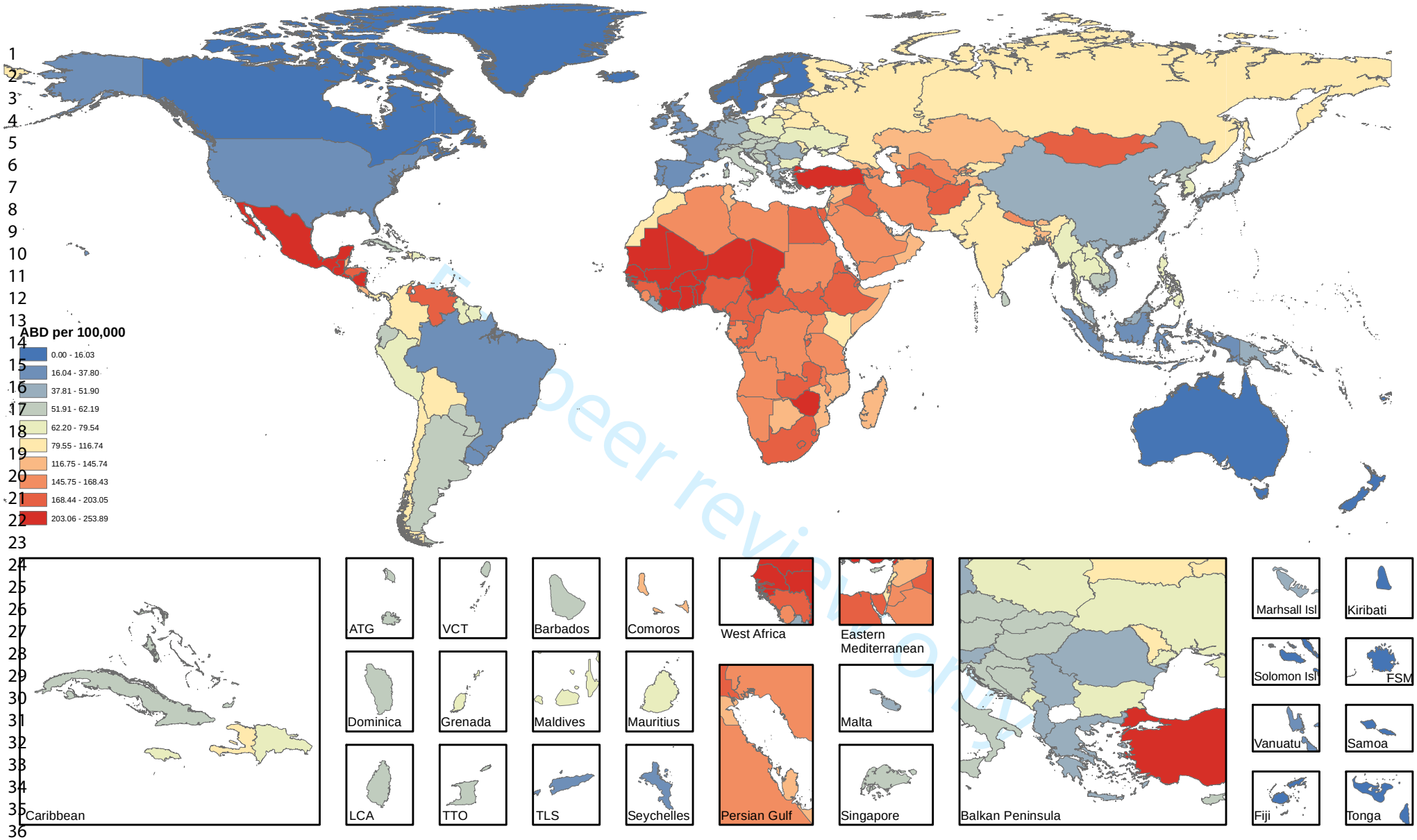


Figure 1a

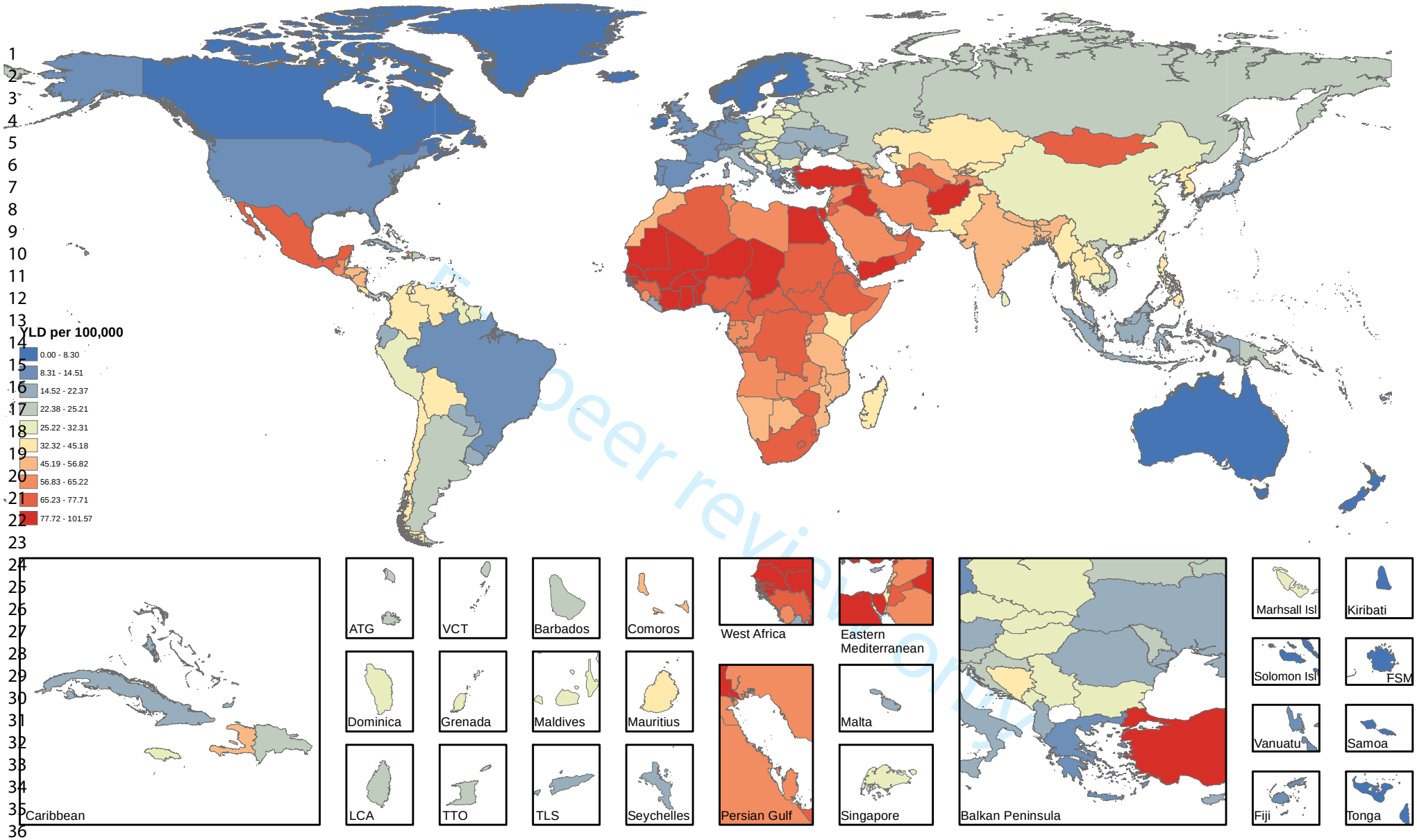


Figure 1b

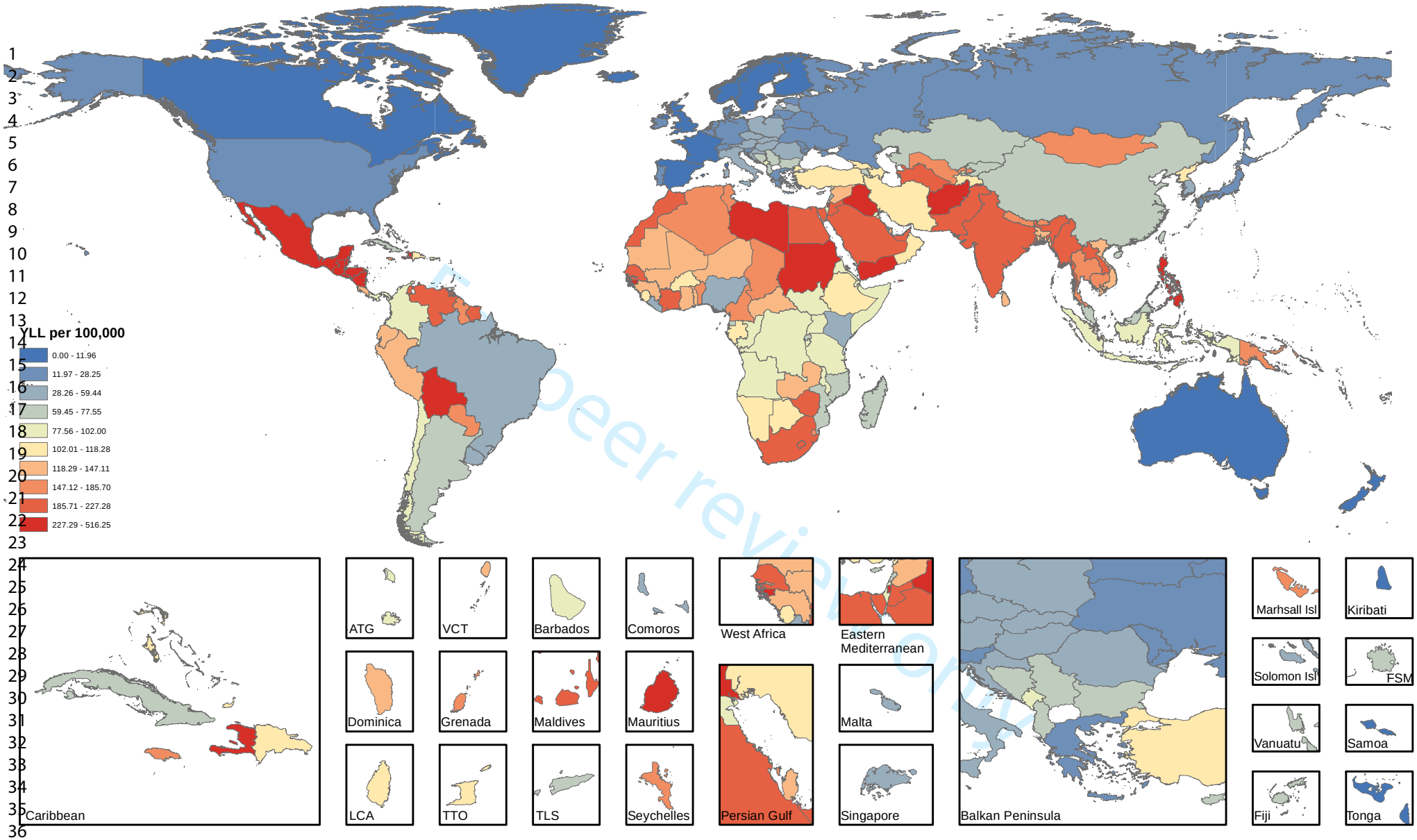


Figure 1c

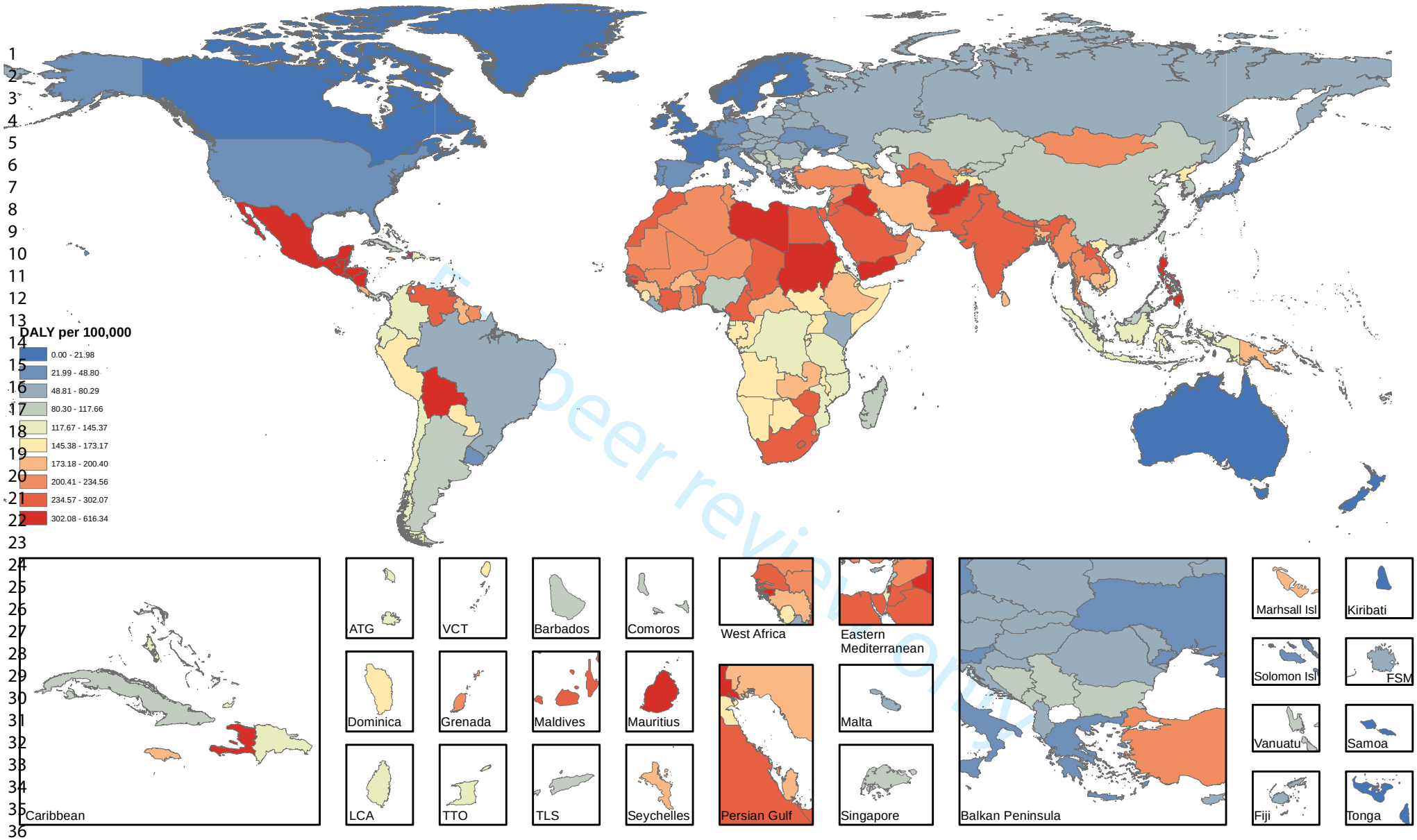


Figure 1d

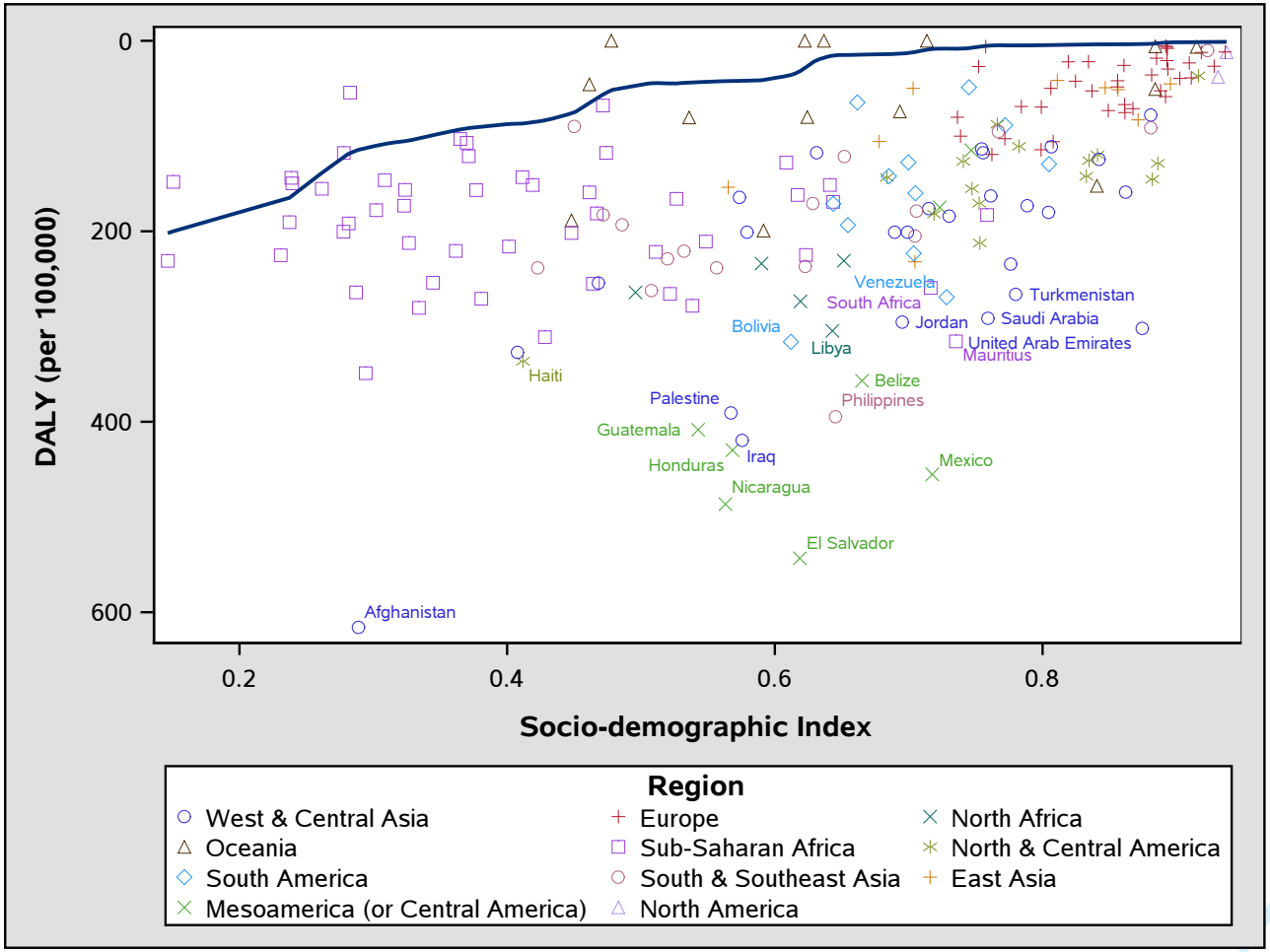
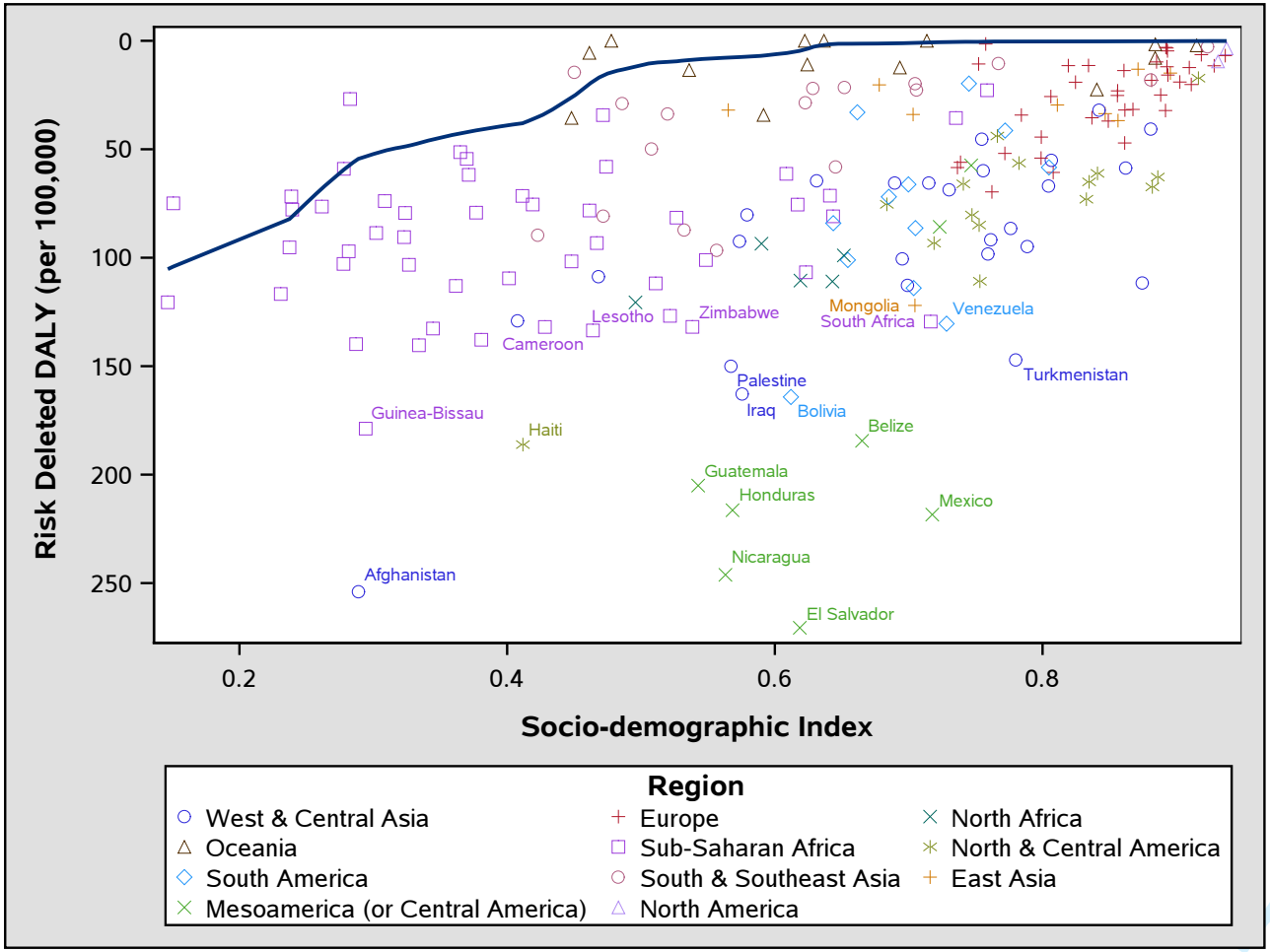

DALY (per 100,000)
0
200
400
600
0.2
0.4
0.6
0.8
Socio-demographic Index
Afghanistan
Haiti
Palestine
Guatemala
Honduras
Iraq
Nicaragua
El Salvador
Mexico
Belize
Philippines
Bolivia
Libya
Venezuela
South Africa
Jordan
Saudi Arabia
United Arab Emirates
Mauritius
Turkmenistan
Region
West & Central Asia
Oceania
South America
Mesoamerica (or Central America)
Europe
Sub-Saharan Africa
South & Southeast Asia
North America
North Africa
North & Central America
East Asia

Figure 2

Figure 3

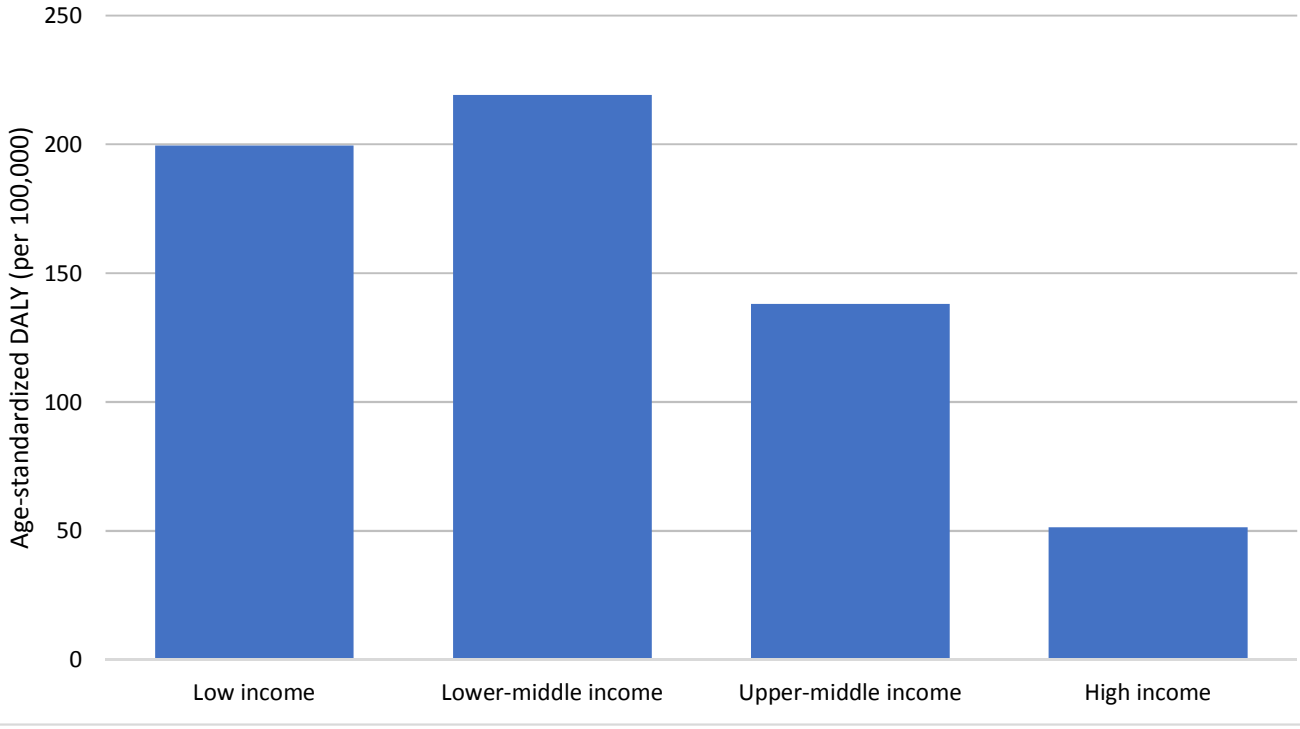

percentile
100
50
0
DIFF
DALY
100
50
0
DALY
DIFF
ABD
YLD
YLL
NA
CAN
USA
OCEANIA
ASM
AUS
FSM
FJI
GUM
KIR
MHL
NZL
MNP
PNG
WSM
SLB
TON
VUT
EUROPE
ALB
AND
AUT
BEL
BIH
BGR
HRV
CZE
DNK
EST
FIN
FRA
DEU
GRC
GRL
HUN
ISL
IRL
ITA
LVA
LTU
LUX
MKD
MLT
MNE
NLD
NOR
POL
PRT
ROU
SRB
SVK
SVN
ESP
SWE
CHE
GBR
EAST ASIA
BLR
CHN
JPN
MDA
MNG
PRK
RUS
KOR
UKR
NORTH & CENTRAL AMERICA
ATG
BRB
BMU
CUB
DMA
DOM
GRD
HTI
JAM
PRI
LCA
VCT
BHS
TTO
VIR
SOUTH AMERICA
ARG
BOL
BRA
CHL
COL
ECU
GUY
PRY
PER
SUR
URY
VEN
SOUTH ASIA
BGD
BTN
BRN
KHM
IND
IDN
LAO
MYS
MDV
MMR
NPL
PHL
SGP
LKA
THA
TLS
VNM
AGO
BEN
BWA
BFA
BDI
CMR
CPV
CAF
TCD
COM
COG
CIV
COD
DJI
ERI
GNQ
ETH
GAB
GHA
GIN
GNB
KEN
LSO
LBR
MDG
MWI
MLI
MRT
MUS
MOZ
NAM
NER
NGA
RWA
STP
SEN
SYC
SLE
SOM
ZAF
SSD
SDN
SWZ
TZA
GMB
TGO
UGA
ZMB
ZWE
AFG
ARM
AZE
BHR
CYP
GEO
IRN
IRQ
ISR
JOR
KAZ
KWT
KGZ
LBN
OMN
PAK
PSE
QAT
SAU
SYR
TJK
TKM
TUR
ARE
UZB
YEM
DZA
EGY
LBY
MAR
TUN
SUB-SAHARAN AFRICA
WEST & CENTRAL ASIA
N AFRICA
MESOAMERICA
BLZ
CRI
SLV
GTM
HND
MEX
NIC
PAN



Supplemental Figure 1

Supplemental Figure 2

$PM_{2.5}$ Attributable DALYs by World Bank Income Classification



Supplemental Material:

Supplemental table 1: Country characteristics and attributable burden of incident chronic kidney disease attributable to $PM_{2.5}$

Country	Population (in 100,000s)	$PM_{2.5}$ ($\mu g/m^3$)	ABD (in 1000s)	ABD (per 100,000)	Age Standardized ABD (per 100,000)
Global	73710.68	42.27353	6,950.51 (5,061.53, 8,914.74)	94.29 (68.67, 120.94)	101.39 (74.49, 129.69)
Afghanistan	326.08	46.1	30.62 (22.13, 39.33)	93.91 (67.87, 120.62)	191.88 (138.69, 250.09)
Albania	28.96	17.1	1.65 (1.17, 2.18)	56.86 (40.23, 75.34)	46.27 (32.73, 60.97)
Algeria	396.35	30.9	46.28 (33.81, 59.58)	116.77 (85.31, 150.32)	148.29 (108.18, 191.08)
American Samoa	0.83	3.7	0.00 (0.00, 0.00)	0.00 (0.00, 5.89)	0.00 (0.00, 10.24)
Andorra	0.79	9.7	0.03 (0.02, 0.04)	33.65 (20.56, 51.06)	18.26 (11.18, 27.50)
Angola	252.51	29.1	18.63 (13.45, 23.93)	73.78 (53.28, 94.77)	167.03 (120.40, 218.54)
Antigua and Barbuda	0.92	12.8	0.05 (0.03, 0.07)	52.16 (35.28, 72.37)	56.86 (38.55, 78.89)
Argentina	434.13	13	25.33 (17.07, 35.06)	58.35 (39.31, 80.76)	54.36 (37.06, 75.23)
Armenia	30.08	21.2	5.14 (3.62, 6.79)	170.82 (120.49, 225.62)	146.08 (104.36, 192.99)
Australia	243.22	5.8	3.00 (0.00, 6.77)	12.32 (0.00, 27.83)	8.58 (0.00, 19.34)
Austria	86.70	16.7	8.46 (5.94, 11.25)	97.63 (68.55, 129.71)	55.12 (38.79, 72.98)
Azerbaijan	97.82	25.6	13.61 (9.72, 17.82)	139.17 (99.35, 182.22)	162.21 (116.83, 212.80)
Bahrain	13.67	54.4	1.18 (0.86, 1.53)	86.54 (62.67, 112.18)	134.55 (97.69, 173.40)
Bangladesh	1609.58	87	136.17 (99.56, 174.46)	84.60 (61.86, 108.39)	121.08 (88.55, 156.18)
Barbados	2.84	14.1	0.23 (0.16, 0.31)	80.43 (55.70, 110.22)	58.71 (40.65, 79.70)
Belarus	96.12	17.9	12.27 (8.63, 16.39)	127.67 (89.75, 170.57)	90.45 (63.46, 120.31)
Belgium	113.33	15.3	8.55 (5.98, 11.60)	75.47 (52.75, 102.36)	43.74 (30.54, 59.11)
Belize	3.59	23.2	0.25 (0.18, 0.32)	69.68 (50.71, 89.18)	119.56 (86.74, 154.56)
Benin	109.14	29.1	13.03 (9.45, 16.83)	119.42 (86.55,	221.80 (158.67,

				154.23)	288.49)
Bermuda	0.67	8.5	0.02 (0.01, 0.03)	23.70 (13.38, 37.60)	24.27 (13.58, 38.49)
Bhutan	7.75	54.1	0.63 (0.46, 0.81)	81.62 (59.15, 105.14)	117.58 (85.02, 151.93)
Bolivia	107.67	27.1	7.88 (5.73, 10.12)	73.15 (53.26, 93.97)	103.87 (75.28, 133.54)
Bosnia and Herzegovina	38.11	45.3	3.47 (2.50, 4.50)	91.07 (65.52, 118.05)	61.29 (44.32, 79.04)
Botswana	22.59	15.4	2.05 (1.42, 2.76)	90.88 (62.78, 122.29)	141.70 (98.19, 191.81)
Brazil	2078.47	11.1	69.03 (45.11, 99.44)	33.21 (21.70, 47.84)	36.57 (23.68, 52.72)
Brunei	4.23	5	0.01 (0.00, 0.05)	3.42 (0.00, 11.43)	5.19 (0.00, 17.16)
Bulgaria	72.68	27.5	7.64 (5.50, 9.91)	105.13 (75.64, 136.35)	62.62 (45.69, 80.52)
Burkina Faso	180.94	33.6	18.04 (13.04, 23.17)	99.72 (72.06, 128.05)	207.57 (150.31, 269.84)
Burundi	112.47	37.1	9.66 (7.00, 12.41)	85.85 (62.26, 110.31)	177.62 (128.26, 231.63)
Cambodia	155.92	23.9	5.78 (4.23, 7.39)	37.07 (27.10, 47.42)	56.89 (41.44, 72.76)
Cameroon	234.01	64	24.23 (17.60, 31.15)	103.53 (75.22, 133.13)	198.36 (144.84, 256.55)
Canada	361.46	7	8.34 (3.40, 15.08)	23.07 (9.40, 41.72)	15.02 (6.10, 27.17)
Cape Verde	5.20	35.2	0.75 (0.54, 0.96)	143.34 (104.72, 184.95)	214.86 (154.68, 277.73)
Central African Republic	49.03	38.3	4.79 (3.47, 6.14)	97.60 (70.67, 125.21)	171.43 (124.31, 223.21)
Chad	140.63	39.6	14.46 (10.50, 18.54)	102.83 (74.64, 131.86)	220.58 (157.76, 287.17)
Chile	179.48	20.6	18.72 (13.36, 24.39)	104.29 (74.42, 135.90)	91.45 (65.70, 118.71)
China	13834.71	57.2	766.73 (558.72, 985.14)	55.42 (40.39, 71.21)	48.98 (35.52, 63.01)
Colombia	482.64	17.6	49.09 (34.74, 65.16)	101.71 (71.98, 135.00)	116.74 (82.49, 155.15)
Comoros	7.92	16.1	0.50 (0.35, 0.67)	63.64 (44.53, 84.92)	117.38 (81.93, 157.82)
Congo	46.29	42.3	4.48 (3.28, 5.75)	96.77 (70.88, 124.13)	176.51 (127.77, 229.52)
Costa Rica	48.09	19.7	6.86 (4.89, 9.01)	142.69 (101.73, 187.28)	143.54 (102.27, 187.39)

Cote d'Ivoire	226.88	19.8	26.91 (19.33, 35.11)	118.62 (85.19, 154.73)	214.13 (152.49, 280.67)
Croatia	42.41	21.2	4.09 (2.91, 5.35)	96.50 (68.56, 126.11)	57.30 (41.40, 74.38)
Cuba	113.93	16.4	8.51 (5.99, 11.35)	74.69 (52.60, 99.60)	54.54 (38.26, 72.87)
Cyprus	8.92	17.9	0.75 (0.52, 0.99)	83.56 (58.73, 111.25)	61.89 (43.91, 82.30)
Czech Republic	106.97	21	9.13 (6.57, 11.84)	85.32 (61.46, 110.71)	53.89 (39.00, 69.54)
Democratic Republic of the Congo	774.14	38.7	59.51 (43.52, 76.68)	76.87 (56.22, 99.06)	160.32 (115.41, 208.74)
Denmark	57.11	10.7	2.62 (1.68, 3.83)	45.79 (29.35, 67.00)	27.06 (17.47, 39.28)
Djibouti	8.90	39.1	0.90 (0.65, 1.16)	101.59 (73.49, 130.67)	168.86 (121.39, 218.42)
Dominica	0.72	12.5	0.04 (0.03, 0.06)	58.81 (39.96, 82.15)	60.71 (41.15, 84.09)
Dominican Republic	105.30	18.3	6.27 (4.47, 8.19)	59.57 (42.47, 77.75)	75.11 (53.80, 98.40)
Ecuador	161.54	12.5	6.81 (4.60, 9.48)	42.14 (28.51, 58.65)	54.52 (36.79, 75.88)
Egypt	911.48	99.5	115.58 (84.09, 148.52)	126.81 (92.26, 162.95)	172.28 (124.99, 221.03)
El Salvador	61.37	35.5	12.72 (9.33, 16.10)	207.27 (152.01, 262.25)	243.44 (178.28, 309.30)
Equatorial Guinea	8.45	34	0.88 (0.63, 1.15)	103.85 (74.40, 135.90)	168.82 (121.56, 218.53)
Eritrea	52.42	35.3	4.44 (3.22, 5.72)	84.61 (61.49, 109.10)	174.25 (125.86, 225.66)
Estonia	13.54	9.1	1.00 (0.58, 1.55)	73.50 (42.99, 114.07)	44.54 (26.14, 69.71)
Ethiopia	994.32	30.1	91.51 (66.04, 117.62)	92.04 (66.42, 118.29)	175.10 (126.30, 227.38)
Federated States of Micronesia	1.05	6.1	0.01 (0.00, 0.02)	9.86 (1.48, 20.72)	15.19 (2.27, 31.50)
Fiji	8.92	6	0.12 (0.01, 0.26)	13.54 (1.36, 29.07)	16.03 (1.64, 34.27)
Finland	55.50	7.2	1.05 (0.46, 1.85)	19.00 (8.29, 33.37)	10.38 (4.56, 18.38)
France	652.32	12.1	33.11 (21.98, 46.89)	50.76 (33.69, 71.89)	28.24 (18.87, 39.78)
Gabon	17.26	31.3	1.82 (1.32, 2.34)	105.61 (76.30, 135.79)	168.43 (121.79, 218.50)
Georgia	40.04	19.7	6.69 (4.78, 8.74)	167.15 (119.41, 218.39)	132.27 (93.99, 172.71)
Germany	836.28	13.7	70.93 (47.89, 98.80)	84.82 (57.26, 118.14)	42.05 (28.94, 57.72)

Ghana	274.17	21.7	35.82 (26.00, 46.10)	130.65 (94.84, 168.16)	219.77 (158.78, 286.91)
Greece	109.22	13.2	8.16 (5.53, 11.34)	74.69 (50.68, 103.84)	38.26 (26.00, 52.72)
Greenland	0.54	5.2	0.00 (0.00, 0.01)	5.33 (0.00, 15.58)	6.07 (0.00, 17.59)
Grenada	1.07	14	0.06 (0.04, 0.08)	58.26 (40.14, 79.38)	70.08 (47.80, 96.05)
Guam	1.70	6.8	0.03 (0.01, 0.05)	15.82 (5.83, 29.24)	16.30 (5.94, 29.82)
Guatemala	163.55	33.9	19.67 (14.34, 25.39)	120.29 (87.70, 155.27)	209.74 (152.42, 272.81)
Guinea	125.74	19.3	13.72 (9.81, 17.89)	109.14 (78.05, 142.26)	195.33 (139.44, 258.00)
Guinea-Bissau	18.48	26	2.72 (1.98, 3.50)	147.24 (107.14, 189.25)	253.89 (183.23, 327.77)
Guyana	7.70	14.8	0.42 (0.29, 0.57)	54.46 (37.90, 73.60)	69.92 (48.64, 94.71)
Haiti	107.21	22.1	7.40 (5.39, 9.51)	69.04 (50.28, 88.68)	112.63 (81.88, 145.09)
Honduras	80.96	36.2	9.80 (7.08, 12.66)	120.98 (87.47, 156.34)	201.06 (144.40, 263.01)
Hungary	101.68	22.6	9.99 (7.20, 12.89)	98.26 (70.81, 126.78)	60.80 (44.16, 78.35)
Iceland	3.26	7.5	0.05 (0.02, 0.09)	15.35 (7.31, 26.30)	11.32 (5.40, 19.37)
India	13116.32	72.6	1,092.52 (791.38, 1,407.28)	83.30 (60.34, 107.29)	108.21 (77.99, 139.22)
Indonesia	2576.21	15	76.81 (53.66, 103.42)	29.81 (20.83, 40.15)	37.38 (26.05, 50.06)
Iran	790.34	42	91.01 (65.99, 117.28)	115.16 (83.50, 148.39)	149.19 (108.02, 191.81)
Iraq	364.21	45.2	34.71 (25.24, 44.66)	95.31 (69.31, 122.62)	188.02 (137.00, 243.23)
Ireland	47.90	9.6	1.35 (0.83, 2.04)	28.24 (17.35, 42.64)	21.79 (13.38, 32.85)
Israel	80.49	20.7	7.79 (5.61, 10.15)	96.73 (69.68, 126.13)	87.85 (62.89, 113.70)
Italy	627.97	19.5	72.58 (51.77, 95.43)	115.58 (82.44, 151.96)	56.46 (40.37, 73.98)
Jamaica	28.30	16.6	2.02 (1.43, 2.69)	71.31 (50.64, 94.92)	75.34 (53.45, 100.21)
Japan	1283.06	13.1	134.56 (91.13, 186.81)	104.88 (71.03, 145.60)	44.79 (30.61, 61.70)
Jordan	75.71	38	6.94 (5.06, 8.91)	91.72 (66.84, 117.67)	158.36 (114.70, 206.05)

Kazakhstan	175.37	17	18.92 (13.23, 25.33)	107.86 (75.47, 144.46)	125.62 (88.13, 168.39)
Kenya	461.90	15.6	22.91 (16.02, 30.63)	49.61 (34.68, 66.30)	99.34 (69.68, 134.28)
Kiribati	1.13	3.4	0.00 (0.00, 0.01)	0.00 (0.00, 4.53)	0.00 (0.00, 7.19)
Kuwait	39.01	65.7	2.99 (2.16, 3.87)	76.55 (55.33, 99.19)	128.44 (93.49, 165.90)
Kyrgyzstan	58.94	16.1	4.19 (2.93, 5.63)	71.15 (49.79, 95.51)	103.57 (72.70, 139.25)
Laos	67.99	27.9	2.60 (1.90, 3.30)	38.18 (27.97, 48.59)	64.96 (47.36, 83.09)
Latvia	22.12	19.8	4.22 (2.98, 5.57)	190.58 (134.74, 251.78)	114.09 (81.29, 150.57)
Lebanon	57.62	31.8	6.04 (4.39, 7.77)	104.81 (76.23, 134.81)	112.01 (81.21, 144.48)
Lesotho	21.29	18.6	2.38 (1.69, 3.13)	111.68 (79.43, 146.90)	195.68 (137.71, 258.63)
Liberia	45.08	7.4	1.17 (0.54, 2.03)	25.96 (12.07, 44.95)	46.88 (21.90, 81.55)
Libya	62.95	69.4	6.90 (5.00, 8.86)	109.60 (79.50, 140.70)	149.84 (107.92, 192.76)
Lithuania	31.53	18.6	4.98 (3.52, 6.62)	157.85 (111.58, 209.91)	96.99 (68.86, 127.38)
Luxembourg	5.56	16.2	0.37 (0.26, 0.49)	65.91 (46.31, 88.37)	46.84 (32.97, 62.57)
Macedonia	20.78	39.4	1.59 (1.15, 2.05)	76.57 (55.11, 98.54)	60.24 (43.70, 77.65)
Madagascar	241.92	18.7	16.14 (11.53, 21.02)	66.71 (47.66, 86.88)	129.22 (91.66, 171.24)
Malawi	172.14	21.4	12.44 (9.00, 16.02)	72.25 (52.30, 93.06)	155.47 (111.87, 203.05)
Malaysia	302.96	15.1	9.37 (6.58, 12.70)	30.91 (21.73, 41.93)	38.23 (26.77, 51.34)
Maldives	3.63	28.5	0.16 (0.12, 0.21)	44.47 (32.46, 56.71)	65.13 (47.34, 82.98)
Mali	175.68	37.2	17.90 (13.06, 22.97)	101.91 (74.36, 130.73)	215.28 (154.81, 278.99)
Malta	4.18	15.4	0.35 (0.24, 0.47)	83.52 (57.98, 113.42)	48.42 (33.48, 65.19)
Marshall Islands	0.72	9.1	0.02 (0.01, 0.03)	27.01 (16.13, 41.20)	46.11 (27.31, 71.02)
Mauritania	40.85	68.5	5.39 (3.89, 6.93)	131.84 (95.23, 169.69)	221.28 (159.05, 287.45)
Mauritius	12.74	14.4	0.95 (0.66, 1.28)	74.40 (51.72, 100.81)	64.63 (44.84, 86.96)
Mexico	1270.43	19.7	205.87 (147.95, 269.30)	162.05 (116.46, 211.98)	206.44 (147.97, 269.37)
Moldova	40.65	16.7	3.99 (2.77, 5.36)	98.14 (68.25, 131.75)	82.08 (57.78, 110.01)

Mongolia	29.53	22.9	3.53 (2.55, 4.58)	119.47 (86.18, 155.07)	182.35 (130.58, 237.33)
Montenegro	6.26	22.7	0.57 (0.41, 0.74)	91.15 (65.81, 118.31)	68.28 (49.58, 88.70)
Morocco	343.73	22.4	28.75 (20.79, 37.13)	83.65 (60.47, 108.03)	97.08 (70.31, 125.02)
Mozambique	279.91	17	18.20 (12.87, 24.04)	65.02 (45.96, 85.87)	130.12 (91.54, 172.57)
Myanmar	540.27	53	28.44 (20.70, 36.47)	52.64 (38.32, 67.51)	65.80 (47.73, 84.55)
Namibia	24.53	18.6	2.10 (1.50, 2.76)	85.72 (61.13, 112.35)	147.88 (104.50, 196.98)
Nepal	285.51	70.9	33.03 (23.92, 42.72)	115.68 (83.79, 149.62)	163.61 (118.20, 211.43)
Netherlands	171.91	14.3	9.73 (6.73, 13.38)	56.63 (39.12, 77.82)	33.72 (23.31, 46.04)
New Zealand	45.63	5.4	0.45 (0.00, 1.16)	9.76 (0.00, 25.40)	6.86 (0.00, 17.63)
Nicaragua	60.89	23	8.80 (6.38, 11.37)	144.51 (104.85, 186.69)	212.72 (153.46, 276.70)
Niger	198.54	53	20.96 (15.19, 27.02)	105.56 (76.52, 136.07)	215.31 (154.91, 278.75)
Nigeria	1824.90	36.9	195.23 (141.44, 250.95)	106.98 (77.51, 137.52)	200.28 (145.24, 261.20)
North Korea	251.59	27.7	15.12 (10.90, 19.59)	60.11 (43.32, 77.88)	61.34 (44.58, 78.87)
Northern Mariana Islands	1.16	11.3	0.02 (0.02, 0.03)	20.67 (13.49, 29.40)	47.95 (31.41, 68.33)
Norway	51.64	8.9	1.11 (0.65, 1.74)	21.54 (12.50, 33.61)	13.87 (8.09, 21.62)
Oman	44.81	46.7	3.36 (2.44, 4.29)	74.90 (54.42, 95.71)	131.54 (95.01, 170.75)
Pakistan	1890.55	63	107.43 (78.85, 137.04)	56.83 (41.71, 72.49)	89.17 (64.66, 114.14)
Palestine	46.73	20.1	3.83 (2.75, 4.94)	81.87 (58.75, 105.74)	165.02 (118.93, 215.20)
Panama	39.29	12.6	2.89 (1.94, 4.05)	73.68 (49.45, 103.06)	85.49 (57.25, 120.64)
Papua New Guinea	76.33	10.4	1.86 (1.19, 2.72)	24.39 (15.57, 35.63)	43.51 (27.83, 63.68)
Paraguay	66.53	14.3	2.90 (1.99, 3.95)	43.61 (29.95, 59.33)	61.17 (41.81, 82.87)
Peru	313.93	27.1	19.31 (14.05, 24.91)	61.52 (44.75, 79.35)	79.54 (57.72, 103.29)
Philippines	1008.03	22.8	54.04 (39.68, 68.69)	53.61 (39.36, 68.14)	74.76 (54.64, 94.99)
Poland	389.13	23.8	40.53 (29.17, 52.81)	104.15 (74.95, 135.72)	70.38 (51.26, 90.87)
Portugal	108.00	9.5	3.85 (2.33, 5.84)	35.69 (21.59, 54.08)	18.78 (11.47, 28.35)

Puerto Rico	36.84	16.7	3.73 (2.64, 4.96)	101.27 (71.69, 134.66)	76.26 (53.86, 101.30)
Qatar	22.21	104.2	1.46 (1.06, 1.89)	65.88 (47.52, 84.97)	128.63 (92.66, 166.35)
Romania	195.27	19.2	15.83 (11.38, 20.56)	81.06 (58.28, 105.29)	51.90 (37.43, 67.35)
Russia	1481.18	15.8	170.89 (118.90, 229.76)	115.38 (80.27, 155.12)	82.87 (57.99, 111.67)
Rwanda	116.31	41.3	8.71 (6.31, 11.23)	74.88 (54.22, 96.59)	151.70 (109.39, 196.85)
Saint Lucia	1.85	13.1	0.11 (0.07, 0.15)	57.56 (39.30, 79.12)	57.71 (39.45, 80.03)
Saint Vincent and the Grenadines	1.10	13.2	0.06 (0.04, 0.08)	54.25 (36.90, 74.94)	60.38 (40.98, 83.45)
Samoa	1.94	3.7	0.00 (0.00, 0.01)	0.00 (0.00, 6.72)	0.00 (0.00, 10.11)
Sao Tome and Principe	1.91	12.6	0.15 (0.10, 0.21)	80.10 (54.07, 111.56)	150.88 (101.15, 210.56)
Saudi Arabia	314.35	102.9	30.70 (22.09, 39.58)	97.66 (70.26, 125.92)	150.52 (109.32, 194.82)
Senegal	151.09	36.4	18.32 (13.34, 23.49)	121.23 (88.29, 155.47)	232.28 (166.70, 300.78)
Serbia	88.56	20.8	6.93 (4.96, 9.08)	78.30 (56.00, 102.53)	50.81 (36.59, 66.12)
Seychelles	0.97	12.7	0.03 (0.02, 0.04)	32.68 (22.05, 45.29)	34.25 (23.23, 47.29)
Sierra Leone	64.62	15	5.21 (3.60, 7.02)	80.61 (55.73, 108.68)	150.18 (103.40, 203.74)
Singapore	39.24	17.7	2.96 (2.09, 3.91)	75.44 (53.39, 99.60)	60.15 (42.54, 79.62)
Slovakia	55.55	20.1	4.34 (3.10, 5.65)	78.13 (55.88, 101.78)	56.44 (40.57, 73.37)
Slovenia	20.63	19.9	1.58 (1.12, 2.06)	76.60 (54.28, 99.90)	45.64 (32.80, 59.31)
Solomon Islands	5.86	5.2	0.03 (0.00, 0.08)	4.78 (0.00, 13.86)	8.83 (0.00, 25.48)
Somalia	108.49	16.7	7.39 (5.20, 9.81)	68.15 (47.95, 90.38)	133.98 (93.74, 179.48)
South Africa	537.24	28.9	83.45 (60.96, 107.82)	155.34 (113.48, 200.68)	203.05 (146.97, 262.13)
South Korea	502.83	28.1	42.98 (31.24, 55.16)	85.48 (62.13, 109.71)	62.81 (46.10, 80.28)
South Sudan	122.88	28.4	10.34 (7.48, 13.34)	84.15 (60.87, 108.54)	168.75 (121.86, 219.39)
Spain	487.51	9.6	28.19 (17.24, 42.67)	57.82 (35.37, 87.52)	33.08 (20.25, 49.77)
Sri Lanka	207.48	26.4	13.44 (9.77, 17.25)	64.80 (47.07, 83.15)	62.19 (45.41, 79.45)
Sudan	403.89	42.3	36.09 (26.23, 46.46)	89.36 (64.93, 115.04)	156.64 (112.55,

					203.44)
Suriname	5.43	15.2	0.36 (0.25, 0.48)	66.06 (46.23, 88.46)	77.26 (53.87, 103.80)
Swaziland	12.89	17.8	1.29 (0.90, 1.70)	99.81 (70.16, 131.93)	186.40 (131.74, 247.70)
Sweden	98.08	6.1	1.23 (0.18, 2.60)	12.55 (1.88, 26.47)	6.94 (1.03, 14.50)
Switzerland	82.78	12.6	6.43 (4.30, 9.01)	77.64 (52.00, 108.88)	46.31 (30.85, 64.65)
Syria	186.22	35.8	14.88 (10.81, 19.15)	79.89 (58.04, 102.85)	125.13 (90.21, 162.01)
Tajikistan	85.01	41.3	6.87 (4.95, 8.91)	80.82 (58.28, 104.85)	145.74 (105.87, 189.20)
Tanzania	533.73	22	41.03 (29.90, 52.63)	76.87 (56.01, 98.61)	155.44 (112.27, 201.32)
Thailand	678.94	25.8	62.03 (45.04, 80.16)	91.36 (66.34, 118.07)	75.85 (55.19, 97.24)
The Bahamas	3.87	12.6	0.20 (0.14, 0.28)	52.86 (35.40, 73.21)	54.03 (36.14, 75.68)
The Gambia	20.01	39.7	2.00 (1.46, 2.59)	100.04 (72.77, 129.46)	214.82 (154.65, 277.45)
Timor-Leste	11.90	14.4	0.25 (0.18, 0.34)	21.32 (14.75, 28.69)	34.59 (23.89, 47.05)
Togo	73.03	26	9.06 (6.57, 11.67)	124.04 (89.92, 159.87)	227.28 (163.83, 296.75)
Tonga	1.07	3.9	0.00 (0.00, 0.01)	0.00 (0.00, 7.65)	0.00 (0.00, 11.18)
Trinidad and Tobago	13.61	13.1	0.90 (0.61, 1.25)	66.18 (45.16, 91.60)	60.51 (41.36, 83.84)
Tunisia	112.50	43.2	15.05 (10.93, 19.50)	133.82 (97.17, 173.35)	138.75 (101.14, 179.30)
Turkey	784.20	35.6	149.34 (107.89, 193.37)	190.43 (137.58, 246.58)	205.17 (148.13, 266.16)
Turkmenistan	53.81	26.7	6.22 (4.49, 8.05)	115.65 (83.43, 149.66)	173.38 (124.34, 226.28)
Uganda	391.54	57.2	26.34 (19.22, 33.74)	67.28 (49.09, 86.17)	162.19 (117.55, 209.23)
Ukraine	465.08	16.6	54.40 (38.42, 73.05)	116.97 (82.62, 157.08)	78.57 (55.29, 104.13)
United Arab Emirates	91.45	62.2	8.16 (5.89, 10.57)	89.24 (64.42, 115.58)	144.84 (104.05, 188.05)
United Kingdom	642.44	12.2	31.84 (21.27, 44.66)	49.56 (33.11, 69.52)	29.94 (19.98, 42.00)
United States	3235.26	8.3	163.49 (88.76, 262.78)	50.53 (27.44, 81.22)	35.44 (19.39, 57.44)

Uruguay	34.34	11.2	1.77 (1.14, 2.56)	51.47 (33.33, 74.66)	37.80 (24.60, 54.33)
Uzbekistan	299.41	33	30.79 (22.37, 39.65)	102.83 (74.72, 132.42)	146.64 (105.09, 191.81)
Vanuatu	2.63	6.5	0.03 (0.01, 0.05)	10.23 (2.99, 19.72)	16.78 (4.91, 32.33)
Venezuela	311.06	22.9	44.63 (31.94, 58.05)	143.49 (102.69, 186.63)	182.63 (131.66, 238.12)
Vietnam	934.72	27.3	38.83 (28.20, 49.94)	41.54 (30.17, 53.43)	46.79 (33.92, 60.31)
Virgin Islands, U.S.	1.07	14.7	0.11 (0.07, 0.14)	99.44 (68.13, 135.33)	63.79 (43.94, 86.41)
Yemen	269.12	40.7	22.21 (16.22, 28.54)	82.52 (60.27, 106.07)	166.16 (119.22, 215.67)
Zambia	162.49	23.4	13.68 (9.94, 17.47)	84.19 (61.17, 107.53)	183.65 (132.13, 236.56)
Zimbabwe	155.74	19.8	15.52 (11.18, 20.24)	99.68 (71.79, 129.93)	213.77 (152.75, 280.65)

$PM_{2.5}$, Fine particulate matter <2.5 μm; ABD, Attributable burden of disease;

Supplemental Table 2: Years living with disability (YLD), years of life lost (YLL), and disability adjusted life years (DALY) of chronic kidney disease associated with $PM_{2.5.}$

Country	YLD (in 1000s)	YLD (per 100,000)	Age Standardized YLD (per 100,000)	YLL (in 1000s)	YLL (per 100,000)	Age Standardized YLL (per 100,000)	DALY (in 1000s)	DALY (per 100,000)	Age Standardized DALY (per 100,000)
Global	2,849.31 (1,875.22, 3,983.94)	38.66 (25.44, 54.05)	40.97 (26.84, 57.11)	8,587.74 (6,355.78, 10,772.24)	116.51 (86.23, 146.14)	122.71 (90.36, 153.52)	11,445.40 (8,380.25, 14,554.09)	155.27 (113.69, 197.45)	163.69 (120.58, 207.28)
Afghanistan	15.78 (10.35, 22.35)	48.39 (31.75, 68.53)	100.93 (66.66, 141.17)	80.86 (51.35, 116.20)	247.97 (157.47, 356.37)	516.25 (326.37, 739.27)	96.28 (62.90, 135.20)	295.27 (192.91, 414.63)	616.34 (408.20, 867.27)
Albania	0.60 (0.38, 0.88)	20.80 (13.17, 30.22)	17.31 (10.99, 24.97)	2.11 (1.44, 2.90)	72.97 (49.85, 100.23)	62.69 (43.29, 85.74)	2.72 (1.90, 3.64)	93.81 (65.63, 125.67)	80.29 (56.13, 106.33)
Algeria	22.93 (15.02, 32.26)	57.86 (37.91, 81.39)	71.02 (46.64, 100.31)	47.83 (33.27, 63.95)	120.68 (83.95, 161.35)	162.94 (114.17, 217.27)	71.00 (50.72, 92.82)	179.14 (127.96, 234.19)	233.92 (169.67, 305.79)
American Samoa	0.00 (0.00, 0.00)	0.00 (0.00, 3.32)	0.00 (0.00, 5.20)	0.00 (0.00, 0.02)	0.00 (0.00, 20.43)	0.00 (0.00, 33.64)	0.00 (0.00, 0.02)	0.00 (0.00, 23.78)	0.00 (0.00, 38.44)
Andorra	0.01 (0.00, 0.01)	10.42 (5.95, 16.83)	6.17 (3.51, 9.97)	0.01 (0.00, 0.02)	11.03 (5.28, 19.50)	5.94 (2.91, 10.55)	0.02 (0.01, 0.03)	21.70 (12.68, 34.27)	12.19 (7.19, 19.18)
Angola	6.58 (4.23, 9.46)	26.04 (16.74, 37.48)	63.19 (40.50, 90.77)	11.30 (6.78, 16.55)	44.76 (26.84, 65.53)	87.56 (52.33, 129.83)	17.89 (12.24, 24.49)	70.84 (48.47, 96.97)	151.41 (104.04, 206.44)
Antigua and Barbuda	0.02 (0.01, 0.03)	21.07 (12.92, 31.63)	22.64 (13.72, 34.35)	0.09 (0.06, 0.12)	93.37 (63.19, 130.16)	96.98 (65.92, 135.53)	0.11 (0.07, 0.15)	114.57 (77.87, 158.29)	119.87 (81.10, 165.54)
Argentina	10.35 (6.52, 15.41)	23.84 (15.02, 35.50)	22.48 (14.23, 33.23)	30.57 (21.14, 41.92)	70.43 (48.68, 96.56)	66.09 (45.14, 89.95)	41.06 (28.15, 56.10)	94.58 (64.84, 129.21)	88.69 (60.91, 121.56)
Armenia	1.92 (1.24, 2.74)	63.93 (41.29, 91.25)	54.32 (35.15, 77.48)	2.24 (1.63, 2.88)	74.53 (54.20, 95.72)	63.70 (46.31, 82.02)	4.17 (2.99, 5.45)	138.60 (99.27, 181.15)	118.22 (84.68, 154.97)
Australia	0.77 (0.00, 1.83)	3.17 (0.00, 7.54)	2.32 (0.00, 5.55)	1.51 (0.00, 3.37)	6.20 (0.00, 13.85)	4.11 (0.00, 9.20)	2.29 (0.00, 5.11)	9.43 (0.00, 20.99)	6.46 (0.00, 14.49)
Austria	2.43 (1.56,	28.07	16.95 (10.82,	5.78 (4.12,	66.71	35.45 (25.30,	8.22 (5.88,	94.85	52.55 (37.32,

	3.50)	(18.02, 40.36)	24.67)	7.53)	(47.51, 86.83)	46.46)	10.81)	(67.87, 124.73)	69.02)
Azerbaijan	4.67 (2.99, 6.64)	47.71 (30.59, 67.91)	55.28 (35.35, 78.77)	10.89 (7.49, 14.76)	111.29 (76.59, 150.90)	118.28 (82.85, 158.67)	15.58 (11.18, 20.48)	159.25 (114.27, 209.40)	173.98 (124.03, 226.28)
Bahrain	0.63 (0.40, 0.90)	46.21 (29.50, 65.98)	63.69 (42.15, 88.70)	1.11 (0.75, 1.54)	81.34 (54.67, 112.79)	170.51 (112.78, 236.54)	1.75 (1.23, 2.35)	128.14 (89.87, 171.95)	234.56 (165.09, 315.29)
Bangladesh	51.45 (33.04, 72.84)	31.96 (20.53, 45.25)	45.58 (28.89, 64.56)	168.36 (121.18, 220.47)	104.60 (75.28, 136.98)	137.57 (98.14, 179.69)	220.26 (159.56, 283.60)	136.84 (99.13, 176.20)	183.21 (132.76, 236.87)
Barbados	0.09 (0.05, 0.13)	30.39 (18.92, 44.96)	22.88 (14.36, 33.90)	0.33 (0.23, 0.44)	115.22 (79.33, 156.08)	87.72 (60.74, 118.85)	0.41 (0.29, 0.56)	145.83 (101.20, 197.33)	110.85 (76.61, 149.60)
Belarus	3.20 (2.00, 4.70)	33.32 (20.76, 48.92)	24.00 (15.01, 35.08)	3.21 (2.24, 4.31)	33.40 (23.28, 44.86)	25.13 (17.48, 33.86)	6.42 (4.43, 8.71)	66.78 (46.09, 90.63)	49.26 (34.10, 66.80)
Belgium	2.59 (1.65, 3.76)	22.87 (14.56, 33.19)	14.18 (9.15, 20.36)	4.60 (3.24, 6.15)	40.62 (28.56, 54.26)	21.68 (15.18, 28.86)	7.22 (5.04, 9.69)	63.75 (44.46, 85.52)	35.87 (25.02, 48.10)
Belize	0.10 (0.07, 0.15)	29.01 (18.88, 41.13)	46.41 (29.68, 66.35)	0.69 (0.49, 0.91)	193.45 (137.33, 254.42)	309.79 (222.58, 406.03)	0.80 (0.57, 1.04)	222.65 (158.81, 289.88)	356.94 (258.16, 462.43)
Benin	4.31 (2.74, 6.20)	39.46 (25.10, 56.81)	81.61 (52.77, 115.92)	11.87 (8.18, 16.18)	108.76 (74.96, 148.28)	172.70 (119.54, 235.01)	16.26 (11.35, 21.77)	148.96 (103.96, 199.48)	254.04 (178.36, 337.96)
Bermuda	0.01 (0.00, 0.01)	8.40 (4.35, 14.40)	8.49 (4.43, 14.75)	0.02 (0.01, 0.03)	27.68 (15.47, 44.04)	28.16 (15.76, 45.10)	0.02 (0.01, 0.04)	36.12 (20.32, 57.30)	36.76 (20.69, 57.92)
Bhutan	0.29 (0.18, 0.41)	36.78 (23.66, 52.34)	52.27 (33.89, 74.69)	0.97 (0.62, 1.38)	124.89 (79.46, 178.30)	168.36 (110.65, 236.69)	1.25 (0.85, 1.72)	161.48 (110.05, 221.36)	220.68 (151.58, 301.63)
Bolivia	2.99 (1.94, 4.24)	27.82 (18.01, 39.39)	38.53 (24.81, 54.96)	22.30 (14.92, 30.93)	207.09 (138.57, 287.29)	277.03 (182.00, 385.54)	25.39 (17.43, 34.41)	235.85 (161.92, 319.63)	316.08 (216.87, 431.03)
Bosnia and Herzegovina	1.82 (1.19, 2.58)	47.73 (31.24, 67.59)	32.51 (21.31, 45.52)	3.76 (2.67, 5.00)	98.66 (70.11, 131.12)	67.09 (47.63, 88.75)	5.60 (4.02, 7.28)	146.96 (105.54, 190.98)	100.14 (71.90, 129.83)
Botswana	0.68 (0.43, 0.98)	29.90 (18.95,	48.07 (30.04, 70.85)	1.37 (0.63, 2.34)	60.71 (27.85,	102.33 (50.74, 168.91)	2.06 (1.20, 3.16)	91.07 (52.95,	151.38 (90.43, 229.77)

		43.55)			103.76)			140.05)	
Brazil	25.72 (15.29, 39.59)	12.38 (7.36, 19.05)	13.55 (8.11, 20.94)	98.88 (65.54, 139.27)	47.57 (31.53, 67.01)	51.17 (34.05, 72.01)	124.85 (82.57, 176.65)	60.07 (39.72, 84.99)	64.76 (42.92, 91.88)
Brunei	0.01 (0.00, 0.03)	2.32 (0.00, 8.04)	2.98 (0.00, 10.53)	0.02 (0.00, 0.08)	5.56 (0.00, 19.31)	7.87 (0.00, 26.63)	0.03 (0.00, 0.11)	8.00 (0.00, 26.61)	10.86 (0.00, 36.48)
Bulgaria	3.47 (2.17, 5.03)	47.72 (29.91, 69.20)	28.59 (18.30, 40.81)	8.72 (6.17, 11.52)	119.92 (84.89, 158.48)	77.27 (54.61, 101.87)	12.22 (8.79, 15.95)	168.11 (120.88, 219.44)	105.94 (76.14, 137.65)
Burkina Faso	6.04 (3.81, 8.75)	33.40 (21.06, 48.37)	78.10 (49.95, 110.78)	11.88 (8.40, 15.80)	65.65 (46.41, 87.30)	112.79 (81.92, 144.36)	17.97 (12.84, 23.59)	99.29 (70.95, 130.37)	190.49 (136.55, 249.99)
Burundi	3.20 (1.98, 4.65)	28.44 (17.61, 41.35)	62.45 (39.54, 90.32)	5.52 (3.77, 7.56)	49.05 (33.49, 67.22)	86.58 (59.04, 118.33)	8.74 (6.21, 11.58)	77.67 (55.23, 103.00)	149.74 (105.20, 198.10)
Cambodia	2.75 (1.77, 3.94)	17.66 (11.35, 25.25)	27.66 (18.20, 39.32)	17.78 (12.87, 22.99)	114.06 (82.52, 147.46)	166.02 (120.34, 213.75)	20.53 (14.88, 26.32)	131.69 (95.45, 168.79)	194.04 (141.21, 248.37)
Cameroon	8.06 (5.11, 11.66)	34.44 (21.84, 49.84)	69.42 (44.47, 100.23)	29.37 (17.73, 42.92)	125.51 (75.78, 183.42)	185.46 (113.23, 271.03)	37.47 (25.06, 52.43)	160.13 (107.09, 224.05)	255.04 (167.04, 356.67)
Canada	2.63 (1.03, 5.03)	7.27 (2.84, 13.91)	5.09 (1.98, 9.77)	3.88 (1.58, 6.92)	10.73 (4.38, 19.14)	7.01 (2.86, 12.42)	6.55 (2.66, 11.74)	18.13 (7.35, 32.48)	12.13 (4.95, 21.82)
Cape Verde	0.27 (0.18, 0.38)	52.09 (33.73, 73.89)	77.90 (50.53, 111.43)	0.51 (0.36, 0.68)	97.36 (69.06, 129.77)	132.17 (93.71, 175.24)	0.78 (0.56, 1.02)	150.01 (107.45, 196.66)	210.82 (149.30, 276.52)
Central African Republic	1.80 (1.17, 2.56)	36.68 (23.76, 52.20)	68.27 (43.92, 97.19)	3.93 (2.61, 5.41)	80.08 (53.30, 110.29)	122.68 (82.91, 169.24)	5.73 (4.04, 7.62)	116.92 (82.30, 155.41)	191.79 (133.62, 256.75)
Chad	5.12 (3.23, 7.36)	36.39 (22.95, 52.30)	86.75 (54.15, 124.91)	17.38 (12.11, 23.42)	123.61 (86.12, 166.54)	177.23 (123.76, 236.45)	22.54 (15.88, 29.84)	160.28 (112.95, 212.21)	264.19 (189.32, 345.78)
Chile	8.52 (5.63, 11.92)	47.46 (31.36, 66.43)	41.42 (27.66, 57.65)	18.06 (12.01, 25.06)	100.60 (66.93, 139.64)	87.97 (58.58, 122.97)	26.54 (18.38, 35.82)	147.86 (102.41, 199.56)	129.54 (90.05, 175.32)
China	462.21 (304.57, 647.27)	33.41 (22.01, 46.79)	29.12 (19.36, 41.01)	1,188.22 (870.96, 1,501.83)	85.89 (62.95, 108.56)	76.18 (55.93, 96.49)	1,651.72 (1,212.35, 2,103.21)	119.39 (87.63, 152.02)	105.79 (77.30, 133.98)

Colombia	14.77 (9.60, 20.92)	30.61 (19.89, 43.34)	34.79 (22.95, 49.73)	37.69 (26.69, 49.38)	78.08 (55.30, 102.32)	92.36 (65.62, 121.19)	52.45 (37.36, 68.94)	108.66 (77.41, 142.84)	127.67 (90.79, 167.02)
Comoros	0.20 (0.12, 0.30)	25.43 (15.55, 37.83)	48.98 (29.85, 73.12)	0.25 (0.13, 0.39)	31.35 (17.02, 49.22)	53.86 (29.18, 84.89)	0.45 (0.29, 0.65)	56.76 (36.33, 81.83)	103.08 (66.46, 149.18)
Congo	1.55 (0.99, 2.20)	33.48 (21.39, 47.46)	64.04 (41.27, 91.07)	2.68 (1.76, 3.74)	57.90 (37.97, 80.80)	100.69 (65.77, 141.75)	4.24 (2.96, 5.74)	91.63 (64.03, 124.09)	165.95 (114.47, 222.62)
Costa Rica	1.89 (1.22, 2.73)	39.40 (25.33, 56.70)	39.80 (25.50, 56.91)	6.49 (4.71, 8.39)	135.03 (98.02, 174.38)	134.89 (97.43, 173.03)	8.41 (6.10, 10.78)	174.83 (126.80, 224.09)	174.96 (126.88, 224.74)
Cote d'Ivoire	9.08 (5.68, 13.15)	40.03 (25.06, 57.97)	80.94 (51.84, 116.88)	28.27 (19.14, 39.04)	124.62 (84.34, 172.07)	189.00 (123.69, 267.47)	37.33 (25.50, 50.49)	164.53 (112.41, 222.56)	270.82 (185.31, 369.24)
Croatia	1.65 (1.08, 2.34)	38.87 (25.48, 55.06)	23.65 (15.44, 33.25)	3.34 (2.40, 4.33)	78.73 (56.70, 102.04)	45.03 (32.47, 58.44)	5.00 (3.62, 6.45)	117.81 (85.44, 152.10)	69.03 (49.85, 88.95)
Cuba	3.17 (1.99, 4.63)	27.81 (17.47, 40.61)	20.49 (12.69, 30.35)	10.25 (7.29, 13.57)	89.95 (64.00, 119.09)	66.97 (47.68, 88.27)	13.45 (9.50, 17.70)	118.07 (83.42, 155.38)	87.58 (62.19, 115.61)
Cyprus	0.21 (0.14, 0.31)	23.91 (15.14, 34.44)	18.20 (11.76, 25.83)	0.75 (0.54, 0.97)	83.82 (60.07, 109.09)	60.21 (43.24, 78.34)	0.96 (0.69, 1.25)	107.87 (77.36, 140.64)	78.41 (56.11, 102.22)
Czech Republic	4.25 (2.78, 6.04)	39.71 (25.97, 56.42)	25.71 (16.53, 36.59)	5.56 (4.07, 7.07)	51.94 (38.09, 66.06)	32.97 (23.97, 41.68)	9.83 (7.04, 12.77)	91.86 (65.78, 119.39)	58.62 (42.45, 76.24)
Democratic Republic of the Congo	22.52 (14.70, 32.09)	29.09 (18.99, 41.45)	65.38 (42.42, 93.03)	33.70 (24.05, 44.53)	43.53 (31.07, 57.52)	78.20 (56.21, 102.14)	56.66 (40.43, 73.73)	73.19 (52.22, 95.24)	143.94 (103.26, 188.29)
Denmark	0.77 (0.46, 1.20)	13.52 (8.13, 21.05)	8.77 (5.30, 13.74)	1.38 (0.88, 2.00)	24.11 (15.44, 35.11)	14.49 (9.35, 21.05)	2.15 (1.39, 3.13)	37.71 (24.36, 54.78)	23.27 (15.13, 33.81)
Djibouti	0.35 (0.22, 0.51)	39.75 (24.97, 57.53)	69.42 (43.27, 101.69)	0.52 (0.33, 0.74)	58.06 (36.69, 83.43)	89.00 (55.89, 128.33)	0.87 (0.60, 1.19)	98.28 (67.04, 134.22)	159.20 (108.66, 216.60)
Dominica	0.02 (0.01, 0.03)	26.78 (16.28, 40.41)	27.20 (16.63, 41.41)	0.10 (0.07, 0.14)	141.01 (94.20, 198.43)	143.39 (95.78, 200.98)	0.12 (0.08, 0.17)	167.77 (112.89, 233.81)	170.57 (114.74, 238.15)

Dominican Republic	2.16 (1.40, 3.11)	20.51 (13.32, 29.56)	25.21 (16.27, 35.79)	10.27 (7.12, 13.78)	97.53 (67.59, 130.86)	118.26 (82.48, 158.03)	12.44 (8.72, 16.50)	118.16 (82.83, 156.69)	143.44 (101.14, 190.86)
Ecuador	2.15 (1.32, 3.26)	13.29 (8.20, 20.16)	16.47 (10.07, 24.94)	16.18 (11.08, 22.31)	100.15 (68.60, 138.10)	125.41 (85.32, 172.37)	18.39 (12.51, 25.26)	113.87 (77.43, 156.40)	142.20 (96.35, 195.11)
Egypt	52.26 (33.82, 73.90)	57.34 (37.10, 81.08)	78.38 (52.19, 109.64)	120.03 (72.90, 175.32)	131.68 (79.98, 192.35)	195.21 (113.70, 292.81)	172.30 (117.78, 234.75)	189.03 (129.21, 257.55)	273.55 (184.84, 379.35)
El Salvador	3.28 (2.17, 4.57)	53.49 (35.35, 74.39)	60.54 (40.91, 83.89)	26.18 (18.78, 34.28)	426.58 (306.06, 558.61)	481.81 (344.35, 636.50)	29.52 (21.20, 38.63)	481.04 (345.36, 629.37)	543.35 (391.16, 707.96)
Equatorial Guinea	0.31 (0.19, 0.44)	36.10 (22.80, 52.06)	62.82 (40.97, 89.68)	0.33 (0.14, 0.55)	38.67 (16.27, 65.19)	65.43 (28.59, 107.37)	0.63 (0.40, 0.91)	74.72 (47.43, 107.66)	127.91 (82.09, 182.20)
Eritrea	1.58 (0.99, 2.26)	30.15 (18.84, 43.18)	65.72 (41.77, 93.78)	2.55 (1.72, 3.51)	48.56 (32.81, 67.03)	90.41 (61.56, 124.00)	4.13 (2.84, 5.58)	78.70 (54.27, 106.42)	156.58 (109.12, 209.90)
Estonia	0.24 (0.13, 0.40)	17.52 (9.40, 29.47)	10.53 (5.71, 17.73)	0.34 (0.20, 0.52)	24.98 (14.95, 38.24)	15.18 (9.06, 23.36)	0.58 (0.34, 0.90)	42.69 (25.13, 66.20)	25.83 (15.22, 40.11)
Ethiopia	33.19 (20.80, 48.02)	33.38 (20.92, 48.29)	67.59 (42.14, 98.96)	61.22 (42.68, 81.87)	61.57 (42.92, 82.34)	109.74 (76.89, 145.84)	94.59 (67.19, 125.41)	95.13 (67.58, 126.13)	177.87 (126.42, 234.11)
Federated States of Micronesia	0.01 (0.00, 0.01)	5.15 (0.78, 11.55)	8.30 (1.23, 18.33)	0.05 (0.01, 0.11)	46.55 (6.82, 106.75)	71.82 (10.73, 165.71)	0.05 (0.01, 0.12)	51.60 (7.54, 116.80)	80.06 (12.05, 181.25)
Fiji	0.06 (0.01, 0.14)	7.08 (0.72, 16.13)	8.44 (0.86, 19.52)	0.49 (0.05, 1.10)	54.64 (5.58, 123.55)	65.44 (6.46, 147.66)	0.55 (0.06, 1.23)	61.67 (6.29, 138.03)	74.23 (7.50, 164.95)
Finland	0.31 (0.13, 0.58)	5.53 (2.29, 10.37)	3.37 (1.42, 6.32)	0.34 (0.15, 0.59)	6.04 (2.65, 10.58)	3.25 (1.44, 5.68)	0.64 (0.28, 1.14)	11.62 (5.04, 20.51)	6.67 (2.90, 11.83)
France	10.91 (6.80, 16.24)	16.72 (10.42, 24.90)	10.33 (6.46, 15.54)	14.82 (9.99, 20.53)	22.72 (15.32, 31.47)	11.56 (7.81, 16.04)	25.74 (17.27, 36.09)	39.46 (26.48, 55.32)	21.98 (14.45, 30.75)
Gabon	0.69 (0.44, 0.98)	39.84 (25.74, 56.59)	64.43 (41.20, 92.46)	1.17 (0.73, 1.69)	67.89 (42.35, 97.63)	103.47 (65.94, 149.30)	1.86 (1.28, 2.56)	107.89 (74.10, 148.39)	169.15 (115.23, 230.82)

Georgia	2.79 (1.81, 3.99)	69.57 (45.09, 99.58)	52.95 (34.74, 74.84)	5.47 (3.95, 7.07)	136.67 (98.53, 176.53)	109.34 (78.72, 141.78)	8.05 (5.80, 10.42)	200.95 (144.82, 260.11)	162.56 (116.39, 211.01)
Germany	19.37 (12.08, 28.60)	23.16 (14.45, 34.20)	12.69 (7.91, 18.77)	48.60 (33.67, 65.68)	58.12 (40.26, 78.54)	26.78 (18.63, 36.11)	68.11 (47.23, 92.79)	81.44 (56.48, 110.96)	39.52 (27.20, 53.71)
Ghana	12.42 (7.83, 17.85)	45.30 (28.55, 65.10)	82.09 (52.28, 118.31)	26.03 (18.42, 34.67)	94.94 (67.17, 126.47)	138.80 (98.95, 184.52)	38.46 (27.42, 50.42)	140.27 (100.00, 183.89)	221.70 (158.31, 291.92)
Greece	2.82 (1.77, 4.15)	25.80 (16.19, 37.97)	14.22 (8.94, 21.00)	6.41 (4.38, 8.70)	58.68 (40.11, 79.65)	28.23 (19.35, 38.55)	9.20 (6.34, 12.62)	84.26 (58.03, 115.54)	42.42 (29.20, 58.30)
Greenland	0.00 (0.00, 0.00)	1.91 (0.00, 5.81)	2.03 (0.00, 6.25)	0.00 (0.00, 0.01)	3.06 (0.00, 9.34)	4.06 (0.00, 12.10)	0.00 (0.00, 0.01)	5.05 (0.00, 14.85)	6.15 (0.00, 17.97)
Grenada	0.02 (0.02, 0.04)	23.18 (14.68, 34.33)	26.83 (16.93, 39.22)	0.17 (0.12, 0.24)	160.25 (109.88, 220.44)	185.70 (127.42, 254.62)	0.20 (0.13, 0.27)	183.38 (126.10, 251.11)	212.35 (146.51, 290.28)
Guam	0.01 (0.01, 0.03)	8.49 (3.03, 16.96)	8.90 (3.15, 17.49)	0.07 (0.02, 0.13)	40.18 (14.62, 75.40)	41.50 (15.03, 77.79)	0.08 (0.03, 0.15)	48.82 (18.00, 91.23)	50.69 (18.52, 93.78)
Guatemala	6.58 (4.31, 9.27)	40.24 (26.36, 56.66)	65.22 (42.57, 91.99)	36.15 (24.35, 49.98)	221.02 (148.91, 305.60)	341.33 (229.36, 470.47)	42.67 (29.49, 58.10)	260.90 (180.34, 355.27)	408.41 (283.82, 551.84)
Guinea	4.63 (2.95, 6.69)	36.83 (23.43, 53.19)	73.16 (46.42, 106.87)	10.60 (7.03, 14.77)	84.34 (55.88, 117.44)	125.93 (84.04, 177.29)	15.23 (10.57, 20.72)	121.16 (84.06, 164.80)	200.40 (138.47, 270.56)
Guinea-Bissau	0.95 (0.60, 1.37)	51.12 (32.31, 73.94)	97.52 (61.55, 140.52)	3.07 (2.11, 4.18)	166.22 (114.18, 226.05)	250.33 (172.32, 341.15)	4.02 (2.82, 5.40)	217.69 (152.81, 291.96)	349.02 (246.22, 463.93)
Guyana	0.16 (0.10, 0.23)	20.60 (12.92, 30.36)	27.16 (17.08, 40.05)	1.07 (0.74, 1.45)	138.67 (96.10, 188.24)	166.74 (115.79, 224.82)	1.23 (0.85, 1.66)	159.32 (110.51, 215.69)	193.49 (134.96, 260.32)
Haiti	3.11 (1.99, 4.46)	28.98 (18.58, 41.56)	46.35 (30.15, 65.93)	21.89 (13.72, 31.56)	204.22 (127.98, 294.35)	288.82 (178.97, 421.19)	24.97 (16.35, 35.18)	232.93 (152.48, 328.10)	336.51 (221.79, 469.96)
Honduras	2.91 (1.87, 4.16)	35.95 (23.14, 51.41)	56.82 (36.73, 80.36)	18.89 (11.77, 27.36)	233.27 (145.37, 337.87)	373.02 (236.17, 536.20)	21.84 (14.16, 30.66)	269.69 (174.88, 378.64)	429.86 (279.86, 607.50)
Hungary	4.43 (2.93, 6.25)	43.61 (28.86,	27.78 (18.37, 39.22)	7.31 (5.32, 9.32)	71.89 (52.35,	45.39 (33.18, 57.91)	11.77 (8.60,	115.74 (84.56,	73.26 (53.08, 94.52)

		61.47)			91.69)		15.16)	149.08)	
Iceland	0.01 (0.01, 0.03)	4.32 (1.96, 7.91)	3.32 (1.51, 6.12)	0.02 (0.01, 0.04)	6.61 (3.15, 11.26)	4.67 (2.24, 7.93)	0.04 (0.02, 0.06)	10.97 (5.24, 18.70)	8.05 (3.82, 13.68)
India	447.47 (289.00, 638.28)	34.12 (22.03, 48.66)	45.40 (29.19, 64.54)	2,048.91 (1,471.02, 2,662.61)	156.21 (112.15, 203.00)	192.55 (138.73, 249.04)	2,502.15 (1,827.96, 3,204.77)	190.77 (139.37, 244.33)	238.25 (173.90, 303.98)
Indonesia	40.67 (25.55, 60.13)	15.79 (9.92, 23.34)	20.02 (12.80, 29.32)	224.57 (158.94, 297.66)	87.17 (61.70, 115.54)	102.00 (72.07, 134.72)	265.23 (186.14, 351.41)	102.95 (72.25, 136.41)	122.19 (86.18, 162.36)
Iran	40.01 (25.81, 56.48)	50.63 (32.66, 71.46)	62.59 (40.71, 87.54)	63.94 (43.65, 87.16)	80.90 (55.23, 110.28)	113.67 (76.61, 156.53)	104.22 (74.20, 137.48)	131.87 (93.88, 173.95)	176.65 (125.09, 232.59)
Iraq	19.19 (12.49, 27.20)	52.68 (34.30, 74.68)	101.57 (65.61, 143.07)	55.87 (36.12, 78.88)	153.40 (99.19, 216.58)	318.22 (206.59, 449.32)	75.32 (50.89, 102.71)	206.79 (139.73, 282.01)	419.84 (287.98, 568.47)
Ireland	0.37 (0.21, 0.61)	7.79 (4.40, 12.69)	6.15 (3.49, 9.94)	0.75 (0.46, 1.15)	15.76 (9.63, 23.98)	12.00 (7.32, 18.19)	1.13 (0.70, 1.71)	23.65 (14.54, 35.63)	18.27 (11.28, 27.51)
Israel	3.02 (2.00, 4.21)	37.57 (24.79, 52.28)	34.58 (23.29, 48.51)	8.19 (5.64, 11.06)	101.74 (70.06, 137.39)	89.16 (61.66, 120.39)	11.22 (8.06, 14.81)	139.36 (100.15, 184.04)	124.05 (88.27, 162.83)
Italy	21.45 (13.88, 30.20)	34.16 (22.11, 48.10)	18.21 (11.64, 25.94)	42.15 (30.49, 53.95)	67.12 (48.55, 85.91)	30.11 (21.70, 38.73)	63.56 (45.86, 82.14)	101.22 (73.03, 130.80)	48.45 (34.67, 63.06)
Jamaica	0.85 (0.55, 1.24)	30.16 (19.31, 43.66)	31.36 (20.01, 45.53)	4.10 (2.52, 5.95)	145.06 (88.93, 210.37)	150.41 (95.03, 220.47)	4.93 (3.20, 7.06)	174.26 (113.09, 249.40)	182.02 (119.19, 259.29)
Japan	57.64 (36.80, 84.54)	44.92 (28.68, 65.89)	21.97 (13.83, 32.50)	72.08 (49.89, 97.36)	56.18 (38.88, 75.88)	23.15 (16.00, 31.22)	129.79 (88.75, 178.70)	101.16 (69.17, 139.27)	45.26 (30.63, 62.55)
Jordan	3.38 (2.20, 4.78)	44.69 (29.00, 63.16)	73.69 (48.26, 104.12)	8.94 (5.84, 12.69)	118.07 (77.08, 167.59)	220.75 (145.55, 309.46)	12.38 (8.47, 16.92)	163.52 (111.86, 223.54)	295.39 (203.17, 401.39)
Kazakhstan	6.56 (4.09, 9.54)	37.39 (23.33, 54.40)	44.28 (27.96, 64.54)	10.80 (7.42, 14.68)	61.60 (42.29, 83.70)	67.01 (45.73, 91.21)	17.40 (12.14, 23.45)	99.23 (69.24, 133.73)	111.27 (77.35, 149.82)
Kenya	7.21 (4.44, 10.72)	15.62 (9.60,	32.62 (19.87, 48.33)	9.03 (6.02, 12.76)	19.55 (13.04,	35.26 (23.26, 49.71)	16.31 (11.14,	35.32 (24.13,	67.96 (46.37, 94.51)

		23.20)			27.62)		22.40)	48.50)	
Kiribati	0.00 (0.00, 0.00)	0.00 (0.00, 2.78)	0.00 (0.00, 4.34)	0.00 (0.00, 0.02)	0.00 (0.00, 14.97)	0.00 (0.00, 22.50)	0.00 (0.00, 0.02)	0.00 (0.00, 17.59)	0.00 (0.00, 26.59)
Kuwait	1.67 (1.07, 2.36)	42.72 (27.46, 60.56)	62.14 (41.51, 87.34)	1.46 (0.94, 2.04)	37.47 (24.17, 52.38)	96.18 (63.34, 135.21)	3.13 (2.18, 4.19)	80.12 (56.00, 107.52)	158.85 (110.11, 212.88)
Kyrgyzstan	1.60 (0.99, 2.32)	27.19 (16.87, 39.37)	39.54 (25.16, 57.71)	3.97 (2.80, 5.24)	67.28 (47.48, 88.89)	77.55 (54.77, 102.49)	5.58 (3.92, 7.39)	94.65 (66.52, 125.35)	117.48 (82.40, 157.14)
Laos	1.40 (0.92, 1.96)	20.54 (13.47, 28.90)	35.90 (23.64, 50.12)	10.56 (7.48, 13.97)	155.35 (109.96, 205.51)	225.76 (160.53, 295.45)	11.98 (8.56, 15.65)	176.24 (125.92, 230.19)	261.99 (187.73, 338.96)
Latvia	1.15 (0.72, 1.66)	51.94 (32.47, 75.02)	31.18 (19.79, 44.95)	1.23 (0.88, 1.59)	55.51 (39.91, 71.89)	35.81 (25.58, 46.79)	2.38 (1.68, 3.14)	107.46 (75.80, 141.87)	66.97 (47.80, 88.16)
Lebanon	2.84 (1.86, 4.04)	49.32 (32.23, 70.05)	52.61 (33.79, 73.67)	3.16 (2.20, 4.23)	54.82 (38.26, 73.35)	60.14 (42.42, 81.00)	6.03 (4.33, 7.85)	104.63 (75.20, 136.31)	113.49 (80.31, 149.05)
Lesotho	0.89 (0.57, 1.28)	41.72 (26.56, 60.28)	73.49 (46.75, 106.00)	2.27 (1.40, 3.30)	106.69 (65.92, 154.98)	191.47 (120.26, 275.94)	3.17 (2.11, 4.41)	148.80 (99.07, 207.33)	265.75 (177.38, 369.94)
Liberia	0.37 (0.16, 0.69)	8.13 (3.55, 15.26)	16.17 (7.14, 30.27)	1.02 (0.46, 1.85)	22.67 (10.20, 41.02)	37.89 (17.07, 68.49)	1.40 (0.63, 2.46)	31.11 (14.03, 54.65)	54.40 (24.99, 95.66)
Libya	3.10 (1.99, 4.41)	49.22 (31.58, 70.12)	64.63 (41.62, 91.46)	9.93 (6.69, 13.58)	157.79 (106.21, 215.77)	239.23 (164.52, 324.97)	12.98 (9.12, 17.43)	206.27 (144.95, 276.96)	304.55 (214.36, 405.38)
Lithuania	1.40 (0.87, 2.03)	44.29 (27.62, 64.53)	26.66 (16.65, 38.80)	1.23 (0.89, 1.59)	38.87 (28.18, 50.34)	25.74 (18.60, 33.17)	2.63 (1.83, 3.53)	83.36 (57.97, 112.11)	52.62 (36.84, 69.86)
Luxembourg	0.11 (0.07, 0.16)	20.08 (13.06, 28.98)	14.63 (9.45, 21.29)	0.20 (0.14, 0.27)	35.99 (25.41, 48.02)	24.27 (17.12, 32.21)	0.31 (0.22, 0.42)	56.31 (39.71, 74.94)	38.94 (27.24, 52.34)
Macedonia	0.90 (0.59, 1.27)	43.25 (28.18, 61.19)	34.63 (22.59, 48.79)	2.21 (1.61, 2.83)	106.56 (77.58, 136.06)	84.44 (61.71, 107.85)	3.12 (2.28, 3.98)	150.29 (109.65, 191.33)	119.39 (86.76, 152.31)
Madagascar	5.26 (3.22, 7.69)	21.73 (13.31, 31.80)	45.18 (28.06, 66.20)	9.04 (5.99, 12.78)	37.37 (24.77, 52.83)	61.22 (40.58, 85.75)	14.36 (9.80, 19.61)	59.35 (40.52, 81.07)	107.07 (74.22, 146.41)

Malawi	4.24 (2.62, 6.18)	24.65 (15.22, 35.88)	56.22 (35.02, 82.60)	8.68 (5.88, 11.99)	50.42 (34.18, 69.66)	89.53 (60.33, 124.01)	12.99 (9.07, 17.38)	75.45 (52.71, 100.96)	146.34 (103.79, 194.95)
Malaysia	4.83 (2.98, 7.15)	15.95 (9.83, 23.60)	19.95 (12.31, 29.58)	17.65 (12.24, 23.82)	58.25 (40.41, 78.62)	75.22 (52.62, 100.56)	22.52 (15.61, 30.24)	74.33 (51.53, 99.81)	95.26 (66.73, 127.57)
Maldives	0.08 (0.05, 0.12)	22.29 (14.33, 31.90)	31.65 (20.35, 44.89)	0.49 (0.33, 0.67)	134.44 (90.97, 184.83)	206.14 (139.42, 282.81)	0.57 (0.39, 0.77)	156.71 (107.58, 212.79)	237.75 (164.88, 321.79)
Mali	6.34 (3.98, 9.08)	36.09 (22.66, 51.68)	84.40 (54.25, 121.34)	16.34 (10.69, 22.99)	93.03 (60.87, 130.87)	140.33 (92.29, 195.80)	22.81 (15.96, 30.76)	129.83 (90.82, 175.11)	225.22 (157.45, 301.52)
Malta	0.10 (0.06, 0.15)	24.57 (15.50, 35.79)	15.83 (10.05, 23.22)	0.23 (0.16, 0.32)	56.10 (37.89, 77.44)	33.99 (23.02, 47.21)	0.34 (0.23, 0.46)	80.76 (55.48, 109.36)	49.99 (34.54, 68.39)
Marshall Islands	0.01 (0.01, 0.02)	16.60 (9.08, 27.35)	27.62 (15.35, 45.56)	0.08 (0.04, 0.14)	107.66 (53.64, 189.61)	171.05 (85.99, 298.82)	0.09 (0.05, 0.15)	124.80 (65.47, 213.03)	199.34 (104.19, 344.92)
Mauritania	1.84 (1.14, 2.66)	44.98 (27.94, 65.03)	81.72 (51.93, 116.30)	3.45 (2.23, 4.89)	84.49 (54.54, 119.68)	133.29 (87.40, 189.66)	5.32 (3.67, 7.21)	130.13 (89.96, 176.52)	216.06 (149.79, 291.21)
Mauritius	0.53 (0.33, 0.77)	41.27 (26.17, 60.30)	37.45 (23.50, 54.65)	4.03 (2.77, 5.54)	316.19 (217.45, 434.77)	278.43 (190.83, 382.07)	4.57 (3.14, 6.26)	358.69 (246.54, 491.69)	315.62 (217.48, 432.92)
Mexico	74.93 (49.49, 104.85)	58.98 (38.95, 82.54)	72.27 (48.02, 101.20)	390.95 (286.18, 495.17)	307.73 (225.26, 389.77)	382.48 (279.40, 484.08)	466.91 (339.46, 591.64)	367.53 (267.20, 465.70)	455.29 (332.51, 577.97)
Moldova	1.10 (0.69, 1.65)	27.07 (16.89, 40.47)	23.99 (14.92, 35.33)	1.24 (0.87, 1.65)	30.56 (21.50, 40.70)	25.99 (18.17, 34.39)	2.35 (1.63, 3.18)	57.86 (40.20, 78.24)	49.92 (34.26, 68.11)
Mongolia	1.44 (0.91, 2.07)	48.65 (30.89, 70.07)	71.95 (45.44, 104.52)	3.92 (1.84, 6.39)	132.82 (62.15, 216.42)	159.95 (82.07, 251.45)	5.36 (3.07, 8.10)	181.34 (104.12, 274.36)	232.09 (144.46, 338.98)
Montenegro	0.24 (0.15, 0.35)	37.99 (23.22, 55.93)	29.04 (18.03, 41.99)	0.70 (0.50, 0.90)	111.08 (79.94, 144.42)	85.11 (61.70, 110.56)	0.94 (0.68, 1.21)	149.44 (108.02, 193.16)	114.41 (83.11, 147.56)
Morocco	15.85 (10.18, 22.71)	46.12 (29.62, 66.05)	53.43 (34.34, 77.10)	59.22 (39.29, 82.64)	172.28 (114.30, 240.41)	210.24 (136.95, 298.98)	75.30 (52.04, 101.51)	219.08 (151.40, 295.32)	264.23 (181.58, 360.76)

Mozambique	6.48 (4.07, 9.58)	23.17 (14.54, 34.21)	49.55 (31.12, 72.18)	11.62 (6.16, 18.36)	41.52 (22.01, 65.59)	68.33 (36.08, 108.85)	18.11 (11.57, 26.09)	64.70 (41.34, 93.20)	117.80 (75.41, 170.55)
Myanmar	14.41 (9.15, 20.69)	26.68 (16.94, 38.30)	34.36 (21.95, 48.94)	85.73 (60.05, 113.35)	158.68 (111.14, 209.81)	193.98 (139.31, 254.94)	100.03 (71.37, 131.87)	185.15 (132.09, 244.09)	228.69 (163.33, 299.93)
Namibia	0.75 (0.47, 1.07)	30.49 (19.14, 43.78)	54.33 (34.63, 79.02)	1.43 (0.87, 2.14)	58.35 (35.30, 87.20)	107.16 (65.06, 160.65)	2.19 (1.43, 3.08)	89.26 (58.27, 125.54)	161.94 (106.15, 227.78)
Nepal	10.76 (6.99, 15.23)	37.67 (24.48, 53.34)	56.55 (35.89, 80.92)	36.26 (24.22, 50.10)	127.02 (84.83, 175.47)	181.39 (122.63, 251.34)	47.16 (32.78, 63.76)	165.17 (114.82, 223.31)	238.33 (166.71, 319.47)
Netherlands	3.09 (1.97, 4.49)	17.96 (11.48, 26.15)	11.61 (7.37, 17.08)	5.32 (3.71, 7.17)	30.93 (21.57, 41.71)	17.93 (12.50, 24.14)	8.40 (5.85, 11.41)	48.89 (34.02, 66.40)	29.64 (20.46, 40.00)
New Zealand	0.10 (0.00, 0.29)	2.30 (0.00, 6.35)	1.71 (0.00, 4.68)	0.27 (0.00, 0.71)	5.99 (0.00, 15.48)	4.23 (0.00, 11.06)	0.38 (0.00, 0.99)	8.28 (0.00, 21.61)	5.98 (0.00, 15.66)
Nicaragua	2.46 (1.61, 3.45)	40.37 (26.47, 56.66)	55.95 (36.53, 79.46)	19.41 (13.63, 25.94)	318.74 (223.87, 426.02)	430.73 (300.43, 574.81)	21.91 (15.44, 29.17)	359.93 (253.60, 479.10)	486.52 (343.82, 646.79)
Niger	7.23 (4.59, 10.31)	36.44 (23.13, 51.95)	83.74 (53.34, 119.47)	19.14 (11.85, 28.03)	96.42 (59.70, 141.17)	146.12 (93.15, 208.11)	26.36 (17.79, 36.22)	132.75 (89.59, 182.42)	231.08 (156.91, 313.98)
Nigeria	61.22 (38.09, 88.68)	33.55 (20.87, 48.59)	71.93 (45.61, 103.27)	57.66 (37.92, 80.13)	31.60 (20.78, 43.91)	44.94 (29.23, 62.98)	119.40 (82.97, 161.55)	65.43 (45.47, 88.52)	117.66 (81.05, 158.12)
North Korea	9.89 (6.46, 13.94)	39.31 (25.66, 55.40)	40.32 (26.41, 57.00)	28.73 (20.52, 37.48)	114.19 (81.57, 148.96)	113.40 (81.07, 148.41)	38.69 (27.97, 50.53)	153.79 (111.16, 200.83)	153.80 (111.17, 199.42)
Northern Mariana Islands	0.02 (0.01, 0.02)	13.73 (8.23, 21.38)	25.74 (15.51, 39.61)	0.07 (0.04, 0.10)	56.73 (35.54, 85.53)	126.69 (80.14, 186.00)	0.08 (0.05, 0.12)	70.80 (45.02, 105.00)	152.32 (98.83, 222.85)
Norway	0.35 (0.19, 0.57)	6.69 (3.67, 11.04)	4.62 (2.56, 7.55)	0.59 (0.34, 0.91)	11.41 (6.67, 17.61)	7.13 (4.16, 11.03)	0.94 (0.55, 1.46)	18.15 (10.61, 28.26)	11.76 (6.86, 18.27)
Oman	2.04 (1.31, 2.90)	45.54 (29.20, 64.74)	71.02 (46.68, 99.09)	2.27 (1.65, 2.91)	50.70 (36.73, 64.92)	113.44 (82.14, 146.06)	4.32 (3.09, 5.62)	96.49 (68.90, 125.40)	184.57 (133.94, 239.56)
Pakistan	47.74 (30.60,	25.25 (16.19,	39.99 (25.77, 56.99)	292.68 (174.43,	154.81 (92.27,	215.59 (123.95,	342.45 (213.87,	181.14 (113.12,	254.25 (157.33,

	68.12)	36.03)		434.38)	229.76)	322.52)	492.17)	260.33)	365.23)
Palestine	1.84 (1.16, 2.65)	39.37 (24.73, 56.67)	77.71 (50.22, 110.75)	6.37 (4.64, 8.22)	136.36 (99.30, 175.88)	312.70 (225.51, 403.20)	8.22 (5.97, 10.57)	175.83 (127.80, 226.11)	391.28 (283.36, 502.90)
Panama	0.84 (0.52, 1.26)	21.27 (13.18, 32.00)	24.12 (14.67, 36.23)	3.17 (2.10, 4.53)	80.74 (53.51, 115.26)	90.28 (59.97, 128.36)	4.02 (2.69, 5.61)	102.22 (68.42, 142.71)	114.94 (77.67, 159.65)
Papua New Guinea	1.02 (0.58, 1.64)	13.36 (7.66, 21.46)	23.89 (14.06, 37.88)	7.50 (3.99, 12.60)	98.32 (52.22, 165.03)	164.66 (87.62, 270.05)	8.59 (4.78, 13.94)	112.56 (62.64, 182.66)	188.56 (106.76, 304.33)
Paraguay	1.07 (0.67, 1.58)	16.15 (10.09, 23.78)	22.06 (13.58, 33.09)	7.25 (4.98, 9.86)	108.93 (74.87, 148.24)	149.05 (102.59, 203.04)	8.33 (5.69, 11.26)	125.17 (85.58, 169.27)	171.06 (118.47, 232.34)
Peru	6.45 (4.15, 9.18)	20.56 (13.22, 29.25)	25.73 (16.56, 36.66)	34.03 (23.23, 46.67)	108.39 (74.00, 148.65)	133.73 (90.56, 180.87)	40.38 (28.21, 53.89)	128.62 (89.86, 171.68)	160.05 (112.59, 214.73)
Philippines	28.85 (18.52, 41.30)	28.62 (18.37, 40.97)	40.41 (25.99, 57.40)	259.30 (185.16, 337.40)	257.24 (183.69, 334.71)	354.39 (255.63, 460.41)	287.75 (207.53, 372.02)	285.46 (205.87, 369.05)	394.64 (287.96, 511.26)
Poland	16.59 (10.98, 23.41)	42.64 (28.22, 60.15)	29.10 (18.79, 41.18)	24.23 (17.69, 31.13)	62.27 (45.45, 80.01)	41.86 (30.51, 53.59)	40.89 (29.87, 52.59)	105.08 (76.76, 135.15)	71.27 (51.55, 91.90)
Portugal	1.71 (0.99, 2.72)	15.81 (9.20, 25.23)	8.93 (5.16, 14.25)	3.81 (2.34, 5.70)	35.29 (21.68, 52.81)	17.91 (11.04, 26.83)	5.54 (3.39, 8.34)	51.31 (31.41, 77.26)	26.99 (16.50, 40.67)
Puerto Rico	1.51 (0.97, 2.15)	40.87 (26.40, 58.46)	30.98 (20.18, 44.62)	5.52 (3.91, 7.28)	149.97 (106.23, 197.55)	113.91 (81.06, 151.00)	7.03 (4.97, 9.27)	190.95 (135.04, 251.55)	145.37 (102.98, 191.07)
Qatar	0.89 (0.57, 1.27)	39.90 (25.64, 57.14)	60.35 (40.19, 84.52)	0.84 (0.51, 1.23)	37.93 (23.17, 55.38)	118.50 (73.98, 173.45)	1.73 (1.18, 2.38)	77.95 (52.91, 107.28)	180.00 (118.76, 250.16)
Romania	6.85 (4.56, 9.70)	35.10 (23.33, 49.66)	22.37 (14.74, 31.48)	14.11 (10.21, 18.23)	72.25 (52.29, 93.34)	47.26 (33.91, 61.01)	21.02 (15.03, 27.30)	107.63 (77.00, 139.82)	69.60 (50.30, 90.70)
Russia	45.31 (27.94, 67.45)	30.59 (18.86, 45.54)	22.99 (14.08, 34.08)	54.05 (32.23, 81.33)	36.49 (21.76, 54.91)	28.25 (16.88, 42.28)	100.14 (66.26, 140.14)	67.61 (44.74, 94.61)	51.29 (34.08, 72.60)
Rwanda	3.02 (1.87, 4.36)	25.97 (16.05,	54.12 (33.17, 79.17)	4.28 (2.55, 6.38)	36.79 (21.93,	66.56 (38.82, 99.41)	7.33 (4.95, 10.18)	63.00 (42.53,	121.20 (82.06, 167.28)

		37.47)			54.89)			87.49)	
Saint Lucia	0.04 (0.03, 0.07)	23.08 (13.90, 35.17)	22.71 (13.76, 34.28)	0.20 (0.13, 0.27)	106.13 (72.88, 144.74)	103.81 (71.55, 141.19)	0.24 (0.17, 0.33)	129.38 (89.20, 176.24)	126.62 (87.55, 173.16)
Saint Vincent and the Grenadines	0.02 (0.02, 0.04)	22.50 (13.87, 33.75)	24.70 (15.16, 37.46)	0.13 (0.09, 0.18)	121.90 (84.02, 166.76)	130.26 (90.01, 177.81)	0.16 (0.11, 0.22)	144.55 (99.57, 196.30)	155.22 (106.97, 212.14)
Samoa	0.00 (0.00, 0.01)	0.00 (0.00, 3.84)	0.00 (0.00, 5.70)	0.00 (0.00, 0.04)	0.00 (0.00, 21.72)	0.00 (0.00, 32.36)	0.00 (0.00, 0.05)	0.00 (0.00, 25.64)	0.00 (0.00, 38.51)
Sao Tome and Principe	0.05 (0.03, 0.07)	25.35 (15.10, 38.77)	48.74 (29.60, 73.96)	0.17 (0.11, 0.26)	91.25 (57.95, 133.66)	153.48 (99.48, 221.91)	0.22 (0.14, 0.32)	116.63 (75.83, 168.74)	201.80 (134.38, 288.06)
Saudi Arabia	13.27 (8.63, 18.98)	42.23 (27.44, 60.38)	62.93 (41.40, 88.25)	34.01 (24.58, 43.86)	108.19 (78.18, 139.51)	227.28 (166.46, 290.61)	47.31 (34.52, 61.01)	150.50 (109.80, 194.09)	291.08 (211.88, 372.82)
Senegal	6.52 (4.13, 9.37)	43.18 (27.36, 62.00)	89.98 (57.24, 129.26)	17.32 (12.26, 22.75)	114.64 (81.16, 150.60)	189.77 (136.70, 246.60)	23.92 (17.22, 31.12)	158.33 (113.97, 205.94)	280.40 (202.56, 362.00)
Serbia	3.62 (2.36, 5.13)	40.87 (26.60, 57.97)	26.73 (17.55, 38.13)	10.32 (7.49, 13.20)	116.57 (84.53, 149.08)	75.89 (55.14, 97.25)	13.91 (10.13, 17.91)	157.10 (114.42, 202.25)	102.82 (74.80, 132.19)
Seychelles	0.02 (0.01, 0.02)	16.72 (9.88, 25.59)	17.41 (10.55, 26.44)	0.15 (0.10, 0.22)	157.96 (104.85, 223.41)	165.03 (110.66, 233.29)	0.17 (0.11, 0.24)	175.10 (117.35, 245.78)	182.95 (123.36, 256.84)
Sierra Leone	1.76 (1.09, 2.61)	27.31 (16.90, 40.32)	57.89 (35.55, 86.10)	5.04 (3.25, 7.28)	77.97 (50.36, 112.65)	115.11 (76.06, 165.01)	6.81 (4.62, 9.62)	105.39 (71.44, 148.83)	173.17 (116.39, 240.75)
Singapore	1.56 (1.03, 2.22)	39.79 (26.21, 56.48)	31.23 (20.24, 43.99)	2.85 (1.93, 3.94)	72.51 (49.28, 100.30)	59.44 (40.45, 82.38)	4.42 (3.07, 5.94)	112.75 (78.29, 151.41)	91.04 (63.80, 122.34)
Slovakia	2.05 (1.30, 2.92)	36.82 (23.46, 52.56)	26.93 (17.23, 38.62)	3.67 (2.63, 4.82)	66.15 (47.33, 86.81)	48.08 (34.41, 63.01)	5.74 (4.13, 7.48)	103.39 (74.37, 134.71)	75.35 (53.37, 98.22)
Slovenia	0.76 (0.49, 1.09)	36.97 (23.84, 52.95)	22.44 (14.62, 31.75)	0.74 (0.53, 0.96)	35.71 (25.55, 46.58)	19.26 (13.81, 25.17)	1.50 (1.07, 1.98)	72.72 (51.62, 95.92)	41.95 (29.69, 55.35)
Solomon Islands	0.02 (0.00, 0.05)	2.71 (0.00, 8.38)	4.99 (0.00, 15.26)	0.14 (0.00, 0.41)	23.14 (0.00, 70.41)	40.62 (0.00, 123.55)	0.15 (0.00, 0.46)	25.72 (0.00, 77.88)	45.76 (0.00, 138.00)

Somalia	2.96 (1.85, 4.35)	27.31 (17.04, 40.10)	57.58 (36.03, 84.84)	5.51 (3.55, 7.90)	50.78 (32.77, 72.85)	89.84 (58.08, 129.98)	8.53 (5.80, 11.81)	78.63 (53.43, 108.87)	148.16 (100.71, 204.83)
South Africa	27.41 (17.89, 38.81)	51.02 (33.31, 72.23)	67.92 (44.54, 95.71)	81.03 (59.31, 102.93)	150.82 (110.39, 191.60)	190.53 (139.55, 242.61)	108.75 (79.90, 138.51)	202.42 (148.72, 257.83)	259.46 (189.72, 330.98)
South Korea	24.09 (16.23, 33.14)	47.91 (32.28, 65.91)	35.22 (23.78, 48.74)	32.63 (21.06, 45.80)	64.89 (41.88, 91.08)	47.57 (31.30, 67.16)	56.83 (40.04, 75.77)	113.03 (79.62, 150.69)	83.04 (58.26, 110.17)
South Sudan	4.16 (2.62, 5.98)	33.85 (21.28, 48.68)	71.82 (44.86, 104.50)	6.02 (3.84, 8.64)	48.97 (31.25, 70.29)	83.15 (52.95, 119.74)	10.22 (7.03, 13.78)	83.14 (57.24, 112.15)	155.42 (107.47, 212.16)
Spain	8.34 (4.81, 13.36)	17.11 (9.87, 27.41)	10.21 (5.88, 16.32)	11.66 (7.25, 17.41)	23.92 (14.87, 35.71)	11.96 (7.42, 17.73)	20.04 (12.24, 30.13)	41.11 (25.12, 61.80)	22.12 (13.53, 33.48)
Sri Lanka	6.74 (4.41, 9.60)	32.50 (21.25, 46.29)	32.31 (20.93, 45.89)	30.64 (20.66, 41.83)	147.68 (99.59, 201.61)	145.77 (100.00, 197.32)	37.46 (26.07, 50.17)	180.56 (125.66, 241.80)	178.26 (125.31, 238.47)
Sudan	17.14 (11.07, 24.14)	42.44 (27.40, 59.77)	75.61 (50.12, 105.62)	54.41 (36.50, 74.99)	134.71 (90.36, 185.67)	234.94 (156.60, 330.04)	71.81 (49.63, 95.93)	177.81 (122.88, 237.51)	311.20 (213.50, 423.15)
Suriname	0.14 (0.09, 0.20)	25.84 (16.27, 37.78)	29.49 (18.58, 43.47)	0.92 (0.64, 1.24)	169.52 (118.42, 228.60)	193.35 (134.48, 259.66)	1.06 (0.74, 1.42)	195.57 (136.51, 262.14)	223.20 (155.73, 298.41)
Swaziland	0.44 (0.29, 0.64)	34.42 (22.15, 49.72)	66.36 (42.53, 94.95)	1.07 (0.55, 1.69)	83.05 (42.89, 131.20)	159.16 (84.75, 252.88)	1.51 (0.93, 2.23)	117.26 (71.89, 173.20)	224.89 (141.20, 332.16)
Sweden	0.36 (0.05, 0.80)	3.69 (0.55, 8.14)	2.26 (0.34, 5.03)	0.59 (0.09, 1.22)	5.99 (0.87, 12.47)	3.22 (0.48, 6.74)	0.95 (0.14, 1.98)	9.73 (1.43, 20.17)	5.52 (0.82, 11.48)
Switzerland	1.71 (1.05, 2.59)	20.64 (12.68, 31.26)	13.02 (7.91, 19.65)	2.11 (1.34, 3.10)	25.54 (16.22, 37.49)	13.62 (8.63, 20.04)	3.84 (2.53, 5.47)	46.38 (30.56, 66.14)	26.68 (17.56, 38.31)
Syria	7.11 (4.50, 10.34)	38.18 (24.18, 55.51)	60.33 (38.67, 86.39)	16.36 (10.44, 23.32)	87.86 (56.05, 125.22)	141.61 (81.93, 212.25)	23.61 (16.44, 31.59)	126.79 (88.26, 169.63)	201.75 (134.52, 283.36)
Tajikistan	2.82 (1.79, 4.05)	33.23 (21.02, 47.65)	58.23 (37.24, 83.38)	7.10 (4.96, 9.50)	83.52 (58.29, 111.75)	105.21 (73.36, 140.51)	9.96 (7.14, 13.14)	117.10 (84.04, 154.52)	163.73 (117.63, 214.65)
Tanzania	13.76 (8.49,	25.79 (15.92,	55.74 (35.21, 80.51)	27.22 (19.17,	51.00 (35.92,	87.12 (61.28, 116.64)	41.06 (29.18,	76.94 (54.67,	143.21 (100.95,

	20.08)	37.61)		36.19)	67.81)		54.43)	101.99)	190.96)
Thailand	27.14 (17.67, 38.62)	39.97 (26.03, 56.88)	33.88 (22.16, 47.79)	140.01 (101.18, 180.95)	206.22 (149.02, 266.52)	171.39 (123.59, 221.15)	167.25 (121.13, 215.36)	246.34 (178.41, 317.21)	205.12 (148.73, 264.89)
The Bahamas	0.07 (0.05, 0.11)	19.36 (11.85, 29.42)	19.87 (12.22, 30.23)	0.41 (0.28, 0.57)	105.56 (71.18, 147.20)	105.35 (71.38, 147.16)	0.49 (0.33, 0.67)	125.28 (84.18, 173.53)	125.71 (84.37, 174.29)
The Gambia	0.68 (0.42, 0.98)	33.86 (20.99, 48.78)	81.01 (51.16, 116.49)	1.49 (1.01, 2.04)	74.24 (50.69, 102.08)	130.92 (90.23, 176.72)	2.17 (1.52, 2.89)	108.35 (76.15, 144.33)	212.34 (150.15, 281.19)
Timor-Leste	0.13 (0.08, 0.19)	10.59 (6.62, 15.79)	18.13 (11.17, 26.69)	0.55 (0.32, 0.85)	46.57 (27.21, 71.11)	71.35 (42.26, 109.34)	0.68 (0.42, 1.01)	57.16 (35.65, 84.79)	90.03 (56.96, 132.62)
Togo	2.88 (1.81, 4.13)	39.41 (24.84, 56.55)	78.92 (50.62, 112.90)	6.49 (3.96, 9.52)	88.94 (54.21, 130.42)	140.32 (86.84, 207.76)	9.36 (6.26, 13.02)	128.21 (85.77, 178.27)	220.62 (147.56, 303.58)
Tonga	0.00 (0.00, 0.00)	0.00 (0.00, 4.34)	0.00 (0.00, 6.18)	0.00 (0.00, 0.03)	0.00 (0.00, 27.12)	0.00 (0.00, 39.21)	0.00 (0.00, 0.03)	0.00 (0.00, 31.16)	0.00 (0.00, 45.13)
Trinidad and Tobago	0.36 (0.22, 0.54)	26.48 (16.42, 39.35)	24.67 (15.46, 36.58)	1.76 (1.20, 2.41)	129.36 (88.11, 177.01)	117.31 (79.95, 160.41)	2.12 (1.45, 2.91)	155.66 (106.50, 213.89)	142.26 (97.78, 193.90)
Tunisia	7.08 (4.62, 9.84)	62.89 (41.10, 87.50)	64.17 (42.47, 90.61)	16.92 (10.83, 24.13)	150.41 (96.24, 214.47)	166.49 (106.85, 237.69)	24.11 (16.42, 33.07)	214.31 (145.96, 293.94)	230.95 (156.75, 318.41)
Turkey	63.22 (41.62, 88.48)	80.61 (53.08, 112.82)	86.19 (56.33, 121.10)	79.28 (54.93, 107.65)	101.09 (70.05, 137.27)	113.99 (78.91, 153.13)	143.05 (102.67, 187.25)	182.41 (130.92, 238.78)	200.99 (144.30, 264.54)
Turkmenistan	2.53 (1.63, 3.64)	47.09 (30.30, 67.69)	67.91 (42.54, 98.10)	8.66 (6.36, 10.90)	160.90 (118.25, 202.64)	198.23 (145.67, 249.49)	11.23 (8.23, 14.21)	208.67 (152.91, 264.14)	266.68 (195.69, 338.43)
Uganda	9.17 (5.72, 13.20)	23.42 (14.61, 33.71)	60.85 (38.80, 87.27)	19.21 (13.48, 25.56)	49.06 (34.42, 65.29)	95.39 (67.65, 125.88)	28.37 (20.17, 37.25)	72.46 (51.51, 95.13)	156.82 (111.58, 207.31)
Ukraine	13.52 (8.37, 19.79)	29.06 (18.00, 42.55)	20.19 (12.64, 29.78)	13.19 (8.56, 18.92)	28.36 (18.41, 40.67)	21.20 (13.61, 30.58)	26.74 (18.11, 36.66)	57.49 (38.94, 78.83)	41.62 (28.40, 57.65)
United Arab Emirates	4.95 (3.20, 7.04)	54.16 (34.96, 76.97)	74.23 (48.95, 105.11)	11.09 (6.58, 16.60)	121.26 (71.91, 181.56)	226.66 (140.67, 329.49)	16.03 (10.55, 22.82)	175.24 (115.35, 249.54)	302.07 (200.89, 419.93)

United Kingdom	9.60 (5.90, 14.42)	14.94 (9.19, 22.45)	9.70 (6.06, 14.53)	11.85 (8.08, 16.24)	18.45 (12.57, 25.27)	11.01 (7.52, 15.09)	21.50 (14.36, 30.15)	33.47 (22.35, 46.93)	20.75 (13.83, 29.21)
United States	61.54 (32.36, 105.07)	19.02 (10.00, 32.48)	14.51 (7.59, 24.72)	104.78 (58.14, 165.08)	32.39 (17.97, 51.03)	23.30 (12.96, 36.77)	166.61 (91.84, 264.98)	51.50 (28.39, 81.90)	37.92 (20.91, 60.47)
Uruguay	0.71 (0.43, 1.08)	20.69 (12.56, 31.57)	15.67 (9.62, 24.00)	1.53 (1.01, 2.16)	44.42 (29.32, 62.88)	32.94 (21.77, 46.83)	2.24 (1.47, 3.18)	65.20 (42.90, 92.65)	48.80 (31.93, 69.47)
Uzbekistan	11.53 (7.50, 16.42)	38.51 (25.05, 54.83)	53.53 (34.39, 76.99)	39.04 (28.32, 50.30)	130.39 (94.60, 167.99)	148.03 (107.44, 190.30)	50.65 (36.81, 64.96)	169.18 (122.95, 216.98)	201.97 (146.53, 259.25)
Vanuatu	0.01 (0.00, 0.03)	5.58 (1.61, 11.49)	9.25 (2.66, 19.08)	0.12 (0.03, 0.25)	45.10 (12.84, 94.05)	71.48 (20.34, 148.26)	0.13 (0.04, 0.28)	51.16 (14.58, 106.04)	80.50 (23.32, 165.50)
Venezuela	11.03 (7.21, 15.68)	35.44 (23.19, 50.42)	44.25 (29.06, 63.09)	56.58 (40.06, 75.49)	181.91 (128.77, 242.68)	224.40 (158.78, 299.11)	67.82 (48.29, 88.71)	218.03 (155.25, 285.18)	269.20 (192.79, 351.74)
Vietnam	20.60 (13.42, 29.12)	22.04 (14.36, 31.16)	24.02 (15.53, 34.04)	123.68 (88.51, 161.51)	132.32 (94.69, 172.79)	147.11 (105.04, 192.10)	144.22 (103.44, 188.31)	154.29 (110.66, 201.46)	171.04 (123.43, 221.91)
Virgin Islands, U.S.	0.03 (0.02, 0.05)	31.63 (19.64, 46.93)	21.89 (13.33, 32.72)	0.17 (0.12, 0.23)	159.81 (109.28, 220.35)	106.73 (72.23, 147.83)	0.21 (0.14, 0.28)	192.64 (132.92, 261.64)	128.74 (88.45, 176.67)
Yemen	10.76 (6.86, 15.33)	39.99 (25.51, 56.97)	83.25 (54.04, 117.66)	30.76 (18.58, 44.88)	114.32 (69.06, 166.75)	243.61 (148.90, 356.94)	41.43 (27.53, 58.27)	153.93 (102.30, 216.52)	327.43 (212.41, 459.04)
Zambia	4.42 (2.80, 6.28)	27.20 (17.24, 38.63)	60.68 (38.79, 86.73)	10.69 (7.18, 14.66)	65.77 (44.21, 90.22)	119.87 (80.00, 165.72)	15.13 (10.63, 20.18)	93.12 (65.40, 124.18)	181.28 (127.74, 242.93)
Zimbabwe	5.27 (3.33, 7.56)	33.85 (21.41, 48.53)	71.70 (45.37, 103.06)	14.99 (9.74, 21.22)	96.26 (62.54, 136.27)	205.12 (133.09, 292.11)	20.33 (13.95, 27.55)	130.52 (89.56, 176.88)	278.23 (188.52, 380.20)

YLD, Years living with disability; YLL, Years of life lost; DALY, Disability adjusted life years

Supplemental table 3: Frontier analysis for age standardized disability adjusted life years (DALY) rates and risk deleted DALY rates by Socio-demographic Index (SDI).

Country	Region	Socio-demographic Index	DALY (Per 100,000)	Frontier (DALY Per 100,000)	Effective Difference (DALY Per 100,000)	Risk Deleted		
						DALY (Per 100,000)	Frontier (DALY Per 100,000)	Effective Difference (DALY Per 100,000)
Afghanistan	West & Central Asia	0.289	616.34	116.07	500.27	254.21	54.46	199.75
Albania	Europe	0.736	80.29	8.72	71.57	58.44	0.60	57.83
Algeria	North Africa	0.590	233.92	39.80	194.13	93.55	6.71	86.84
American Samoa	Oceania	0.714	0.00	2.83	0.00	0.00	0.23	0.00
Andorra	Europe	0.919	12.19	1.35	10.84	6.40	0.12	6.27
Angola	Sub-Saharan Africa	0.419	151.41	84.75	66.66	75.46	37.27	38.19
Antigua and Barbuda	North & Central America	0.841	119.87	3.49	116.38	61.13	0.25	60.88
Argentina	South America	0.772	88.69	4.97	83.71	41.39	0.29	41.10
Armenia	West & Central Asia	0.755	118.22	6.88	111.34	59.73	0.57	59.16
Australia	Oceania	0.915	6.46	1.18	5.28	2.13	0.09	2.04
Austria	Europe	0.888	52.55	2.56	50.00	24.99	0.17	24.81
Azerbaijan	West & Central Asia	0.788	173.98	5.28	168.70	94.95	0.33	94.63
Bahrain	West & Central Asia	0.776	234.56	4.80	229.76	86.84	0.25	86.58
Bangladesh	South & Southeast Asia	0.472	183.21	62.05	121.16	80.55	18.48	62.07
Barbados	North & Central America	0.782	110.85	5.00	105.84	56.37	0.33	56.04
Belarus	East Asia	0.847	49.26	3.59	45.67	33.58	0.25	33.33
Belgium	Europe	0.882	35.87	3.56	32.31	18.20	0.18	18.01

Belize	Mesoamerica (or Central America)	0.665	356.94	14.40	342.54	184.41	1.25	183.16
Benin	Sub-Saharan Africa	0.345	254.04	105.60	148.45	132.65	48.47	84.18
Bermuda	North & Central America	0.916	36.76	1.44	35.32	17.23	0.13	17.10
Bhutan	South & Southeast Asia	0.532	220.68	46.18	174.49	87.52	10.15	77.37
Bolivia	South America	0.612	316.08	41.66	274.43	164.20	6.46	157.74
Bosnia and Herzegovina	Europe	0.739	100.14	9.33	90.82	56.03	0.61	55.42
Botswana	Sub-Saharan Africa	0.641	151.38	16.86	134.52	71.40	1.69	69.71
Brazil	South America	0.662	64.76	14.60	50.17	32.98	1.42	31.56
Brunei	South & Southeast Asia	0.923	10.86	0.95	9.91	2.89	0.06	2.83
Bulgaria	Europe	0.808	105.94	4.59	101.35	60.69	0.33	60.36
Burkina Faso	Sub-Saharan Africa	0.237	190.49	175.07	15.41	95.27	86.52	8.75
Burundi	Sub-Saharan Africa	0.240	149.74	142.05	7.69	77.83	70.89	6.95
Cambodia	South & Southeast Asia	0.486	194.04	45.95	148.09	29.25	9.69	19.57
Cameroon	Sub-Saharan Africa	0.464	255.04	69.10	185.94	133.55	20.26	113.29
Canada	North America	0.938	12.13	1.20	10.94	3.51	0.12	3.38
Cape Verde	Sub-Saharan Africa	0.549	210.82	43.63	167.18	101.07	8.52	92.55
Central African Republic	Sub-Saharan Africa	0.282	191.79	134.31	57.48	97.07	63.65	33.42
Chad	Sub-Saharan Africa	0.287	264.19	113.38	150.81	139.83	53.35	86.48
Chile	South America	0.805	129.54	5.44	124.10	58.36	0.35	58.01
China	East Asia	0.678	105.79	14.21	91.58	20.33	1.30	19.03
Colombia	South America	0.700	127.67	14.30	113.37	66.21	1.14	65.07
Comoros	Sub-Saharan	0.365	103.08	83.92	19.17	51.34	38.59	12.74

	Africa							
Congo	Sub-Saharan Africa	0.527	165.95	47.33	118.62	81.54	10.61	70.93
Costa Rica	Mesoamerica (or Central America)	0.723	174.96	8.10	166.86	85.79	0.48	85.31
Cote d'Ivoire	Sub-Saharan Africa	0.381	270.82	89.20	181.62	137.83	40.47	97.36
Croatia	Europe	0.784	69.03	4.71	64.31	34.25	0.27	33.97
Cuba	North & Central America	0.766	87.58	4.73	82.85	43.90	0.36	43.54
Cyprus	West & Central Asia	0.881	78.41	3.63	74.78	40.49	0.26	40.23
Czech Republic	Europe	0.892	58.62	2.54	56.08	32.15	0.18	31.98
Democratic Republic of the Congo	Sub-Saharan Africa	0.239	143.94	142.01	1.93	71.79	69.93	1.86
Denmark	Europe	0.910	23.27	1.52	21.75	12.35	0.11	12.24
Djibouti	Sub-Saharan Africa	0.462	159.20	68.65	90.55	78.25	20.59	57.66
Dominica	North & Central America	0.753	170.57	7.01	163.56	84.96	0.56	84.40
Dominican Republic	North & Central America	0.684	143.44	14.86	128.58	75.39	1.34	74.05
Ecuador	South America	0.685	142.20	12.78	129.42	71.94	1.13	70.80
Egypt	North Africa	0.619	273.55	40.74	232.80	110.54	6.36	104.19
El Salvador	Mesoamerica (or Central America)	0.619	543.35	41.79	501.56	270.61	6.88	263.74
Equatorial Guinea	Sub-Saharan Africa	0.609	127.91	41.46	86.45	61.33	6.54	54.79
Eritrea	Sub-Saharan Africa	0.324	156.58	102.14	54.45	79.37	47.31	32.06
Estonia	Europe	0.861	25.83	3.33	22.49	13.73	0.23	13.50
Ethiopia	Sub-Saharan Africa	0.302	177.87	110.01	67.86	88.62	51.26	37.36
Federated States of	Oceania	0.624	80.06	21.75	58.31	10.95	1.86	9.09

Micronesia								
Fiji	Oceania	0.693	74.23	12.92	61.31	12.32	0.92	11.40
Finland	Europe	0.893	6.67	1.45	5.22	3.32	0.13	3.19
France	Europe	0.834	21.98	3.49	18.48	11.39	0.29	11.10
Gabon	Sub-Saharan Africa	0.644	169.15	15.21	153.94	80.92	1.37	79.55
Georgia	West & Central Asia	0.761	162.56	4.45	158.11	91.66	0.33	91.34
Germany	Europe	0.903	39.52	1.59	37.94	19.02	0.15	18.87
Ghana	Sub-Saharan Africa	0.511	221.70	46.74	174.96	111.84	11.38	100.46
Greece	Europe	0.825	42.42	4.12	38.30	19.09	0.35	18.74
Greenland	Europe	0.758	6.15	2.04	4.10	1.48	0.16	1.33
Grenada	North & Central America	0.753	212.35	7.33	205.03	110.85	0.58	110.27
Guam	Oceania	0.884	50.69	3.51	47.17	7.89	0.21	7.68
Guatemala	Mesoamerica (or Central America)	0.543	408.41	42.19	366.22	205.05	8.06	197.00
Guinea	Sub-Saharan Africa	0.278	200.40	148.97	51.42	102.86	72.22	30.64
Guinea-Bissau	Sub-Saharan Africa	0.294	349.02	115.70	233.32	178.80	54.47	124.32
Guyana	South America	0.655	193.49	15.00	178.49	101.06	1.33	99.73
Haiti	North & Central America	0.412	336.51	87.21	249.30	186.15	39.17	146.98
Honduras	Mesoamerica (or Central America)	0.568	429.86	43.74	386.12	216.42	7.94	208.49
Hungary	Europe	0.849	73.26	3.96	69.29	37.00	0.29	36.72
Iceland	Europe	0.893	8.05	1.32	6.72	4.67	0.10	4.56
India	South & Southeast Asia	0.556	238.25	41.39	196.86	96.78	8.04	88.74
Indonesia	South & Southeast Asia	0.652	122.19	15.71	106.48	21.58	1.40	20.18
Iran	West & Central	0.715	176.65	8.26	168.39	65.88	0.58	65.30

	Asia							
Iraq	West & Central Asia	0.576	419.84	43.41	376.43	162.62	7.59	155.02
Ireland	Europe	0.885	18.27	2.28	15.99	9.74	0.18	9.56
Israel	West & Central Asia	0.842	124.05	3.98	120.07	31.83	0.33	31.50
Italy	Europe	0.856	48.45	3.83	44.62	25.21	0.29	24.92
Jamaica	North & Central America	0.719	182.02	7.82	174.20	93.27	0.54	92.73
Japan	East Asia	0.896	45.26	1.46	43.80	14.88	0.12	14.75
Jordan	West & Central Asia	0.695	295.39	13.45	281.94	100.48	1.30	99.18
Kazakhstan	West & Central Asia	0.807	111.27	4.60	106.67	55.28	0.31	54.97
Kenya	Sub-Saharan Africa	0.472	67.96	53.14	14.82	34.27	17.23	17.04
Kiribati	Oceania	0.478	0.00	5.25	0.00	0.00	0.85	0.00
Kuwait	West & Central Asia	0.862	158.85	3.98	154.87	58.61	0.27	58.34
Kyrgyzstan	West & Central Asia	0.631	117.48	22.37	95.11	64.36	2.40	61.96
Laos	South & Southeast Asia	0.508	261.99	43.67	218.32	49.83	10.94	38.89
Latvia	Europe	0.861	66.97	3.67	63.30	47.11	0.27	46.84
Lebanon	West & Central Asia	0.755	113.49	6.75	106.74	45.38	0.53	44.85
Lesotho	Sub-Saharan Africa	0.522	265.75	47.44	218.31	126.81	10.02	116.79
Liberia	Sub-Saharan Africa	0.283	54.40	52.54	1.86	26.86	25.75	1.11
Libya	North Africa	0.643	304.55	15.06	289.49	110.95	1.39	109.56
Lithuania	Europe	0.837	52.62	3.79	48.83	35.49	0.34	35.15
Luxembourg	Europe	0.911	38.94	1.64	37.30	20.17	0.12	20.05
Macedonia	Europe	0.762	119.39	4.17	115.22	69.67	0.27	69.40
Madagascar	Sub-Saharan Africa	0.370	107.07	83.69	23.37	54.45	38.52	15.93

Malawi	Sub-Saharan Africa	0.309	146.34	105.99	40.35	73.88	48.96	24.92
Malaysia	South & Southeast Asia	0.767	95.26	5.08	90.18	10.32	0.32	10.00
Maldives	South & Southeast Asia	0.623	237.75	25.14	212.60	28.75	2.42	26.33
Mali	Sub-Saharan Africa	0.231	225.22	198.87	26.35	116.72	101.45	15.27
Malta	Europe	0.806	49.99	4.82	45.17	25.70	0.33	25.38
Marshall Islands	Oceania	0.592	199.34	41.81	157.53	34.19	5.89	28.31
Mauritania	Sub-Saharan Africa	0.401	216.06	87.44	128.62	109.51	39.38	70.13
Mauritius	Sub-Saharan Africa	0.735	315.62	8.43	307.19	35.60	0.47	35.13
Mexico	Mesoamerica (or Central America)	0.718	455.29	8.25	447.04	218.43	0.70	217.73
Moldova	East Asia	0.703	49.92	12.12	37.80	33.98	1.10	32.88
Mongolia	East Asia	0.705	232.09	12.51	219.59	122.00	1.12	120.89
Montenegro	Europe	0.799	114.41	4.67	109.74	54.08	0.30	53.78
Morocco	North Africa	0.496	264.23	45.46	218.77	120.60	11.21	109.39
Mozambique	Sub-Saharan Africa	0.278	117.80	113.00	4.80	59.03	53.99	5.05
Myanmar	South & Southeast Asia	0.520	228.69	47.08	181.62	33.54	9.52	24.02
Namibia	Sub-Saharan Africa	0.617	161.94	41.24	120.69	75.52	6.97	68.55
Nepal	South & Southeast Asia	0.423	238.33	87.48	150.85	89.43	38.56	50.86
Netherlands	Europe	0.894	29.64	1.50	28.14	15.80	0.11	15.70
New Zealand	Oceania	0.884	5.98	1.50	4.47	1.64	0.10	1.54
Nicaragua	Mesoamerica (or Central America)	0.563	486.52	43.63	442.89	246.19	8.38	237.81
Niger	Sub-Saharan Africa	0.147	231.08	235.99	0.00	120.56	124.29	0.00

Nigeria	Sub-Saharan Africa	0.474	117.66	62.18	55.48	58.08	18.17	39.91
North Korea	East Asia	0.565	153.80	42.37	111.43	31.95	7.70	24.24
Northern Mariana Islands	Oceania	0.841	152.32	3.75	148.57	22.46	0.35	22.12
Norway	Europe	0.937	11.76	1.14	10.62	6.83	0.09	6.74
Oman	West & Central Asia	0.730	184.57	8.46	176.11	68.64	0.66	67.98
Pakistan	West & Central Asia	0.468	254.25	70.13	184.12	108.52	19.77	88.75
Palestine	West & Central Asia	0.567	391.28	43.89	347.39	150.15	8.07	142.08
Panama	Mesoamerica (or Central America)	0.747	114.94	8.33	106.61	57.45	0.61	56.84
Papua New Guinea	Oceania	0.448	188.56	85.54	103.02	35.56	26.98	8.58
Paraguay	South America	0.644	171.06	15.11	155.95	84.08	1.44	82.64
Peru	South America	0.705	160.05	12.58	147.47	86.35	1.11	85.24
Philippines	South & Southeast Asia	0.645	394.64	15.17	379.47	58.03	1.34	56.69
Poland	Europe	0.868	71.27	3.68	67.59	31.64	0.24	31.40
Portugal	Europe	0.752	26.99	5.72	21.27	10.69	0.44	10.24
Puerto Rico	North & Central America	0.882	145.37	3.51	141.86	67.38	0.24	67.14
Qatar	West & Central Asia	0.805	180.00	4.77	175.22	66.70	0.27	66.43
Romania	Europe	0.799	69.60	4.40	65.20	44.40	0.25	44.15
Russia	East Asia	0.856	51.29	3.13	48.16	36.80	0.20	36.61
Rwanda	Sub-Saharan Africa	0.371	121.20	86.13	35.07	61.80	39.03	22.77
Saint Lucia	North & Central America	0.741	126.62	8.57	118.05	65.96	0.64	65.32
Saint Vincent and the Grenadines	North & Central America	0.747	155.22	6.95	148.26	80.30	0.47	79.83
Samoa	Oceania	0.637	0.00	3.62	0.00	0.00	0.28	0.00
Sao Tome and	Sub-Saharan	0.448	201.80	88.19	113.61	101.72	38.89	62.82

Principe	Africa							
Saudi Arabia	West & Central Asia	0.759	291.08	4.78	286.30	98.26	0.28	97.98
Senegal	Sub-Saharan Africa	0.334	280.40	102.79	177.61	140.37	47.36	93.02
Serbia	Europe	0.772	102.82	4.48	98.34	51.91	0.29	51.62
Seychelles	Sub-Saharan Africa	0.759	182.95	4.62	178.33	22.80	0.35	22.45
Sierra Leone	Sub-Saharan Africa	0.323	173.17	104.57	68.60	90.51	48.64	41.88
Singapore	South & Southeast Asia	0.881	91.04	3.63	87.41	18.29	0.23	18.06
Slovakia	Europe	0.862	75.35	3.57	71.79	31.91	0.26	31.65
Slovenia	Europe	0.856	41.95	3.99	37.96	23.08	0.25	22.83
Solomon Islands	Oceania	0.461	45.76	46.46	0.00	5.56	7.81	0.00
Somalia	Sub-Saharan Africa	0.151	148.16	152.80	0.00	74.94	77.75	0.00
South Africa	Sub-Saharan Africa	0.716	259.46	9.56	249.90	129.46	0.74	128.72
South Korea	East Asia	0.871	83.04	3.56	79.48	13.10	0.24	12.86
South Sudan	Sub-Saharan Africa	0.262	155.42	143.99	11.43	76.43	69.55	6.88
Spain	Europe	0.819	22.12	3.70	18.42	11.46	0.31	11.15
Sri Lanka	South & Southeast Asia	0.705	178.26	11.82	166.44	22.96	0.80	22.16
Sudan	Sub-Saharan Africa	0.428	311.20	87.18	224.02	131.93	38.53	93.40
Suriname	South America	0.704	223.20	12.16	211.04	113.99	1.15	112.84
Swaziland	Sub-Saharan Africa	0.623	224.89	24.67	200.22	106.71	3.16	103.55
Sweden	Europe	0.892	5.52	1.40	4.12	3.04	0.12	2.92
Switzerland	Europe	0.928	26.68	1.37	25.31	11.53	0.11	11.42
Syria	West & Central Asia	0.579	201.75	41.84	159.91	80.22	7.90	72.32
Tajikistan	West & Central Asia	0.574	163.73	39.30	124.43	92.48	7.41	85.07

Tanzania	Sub-Saharan Africa	0.411	143.21	86.63	56.57	71.52	38.73	32.79
Thailand	South & Southeast Asia	0.705	205.12	12.80	192.32	19.55	1.02	18.53
The Bahamas	North & Central America	0.835	125.71	3.78	121.93	65.03	0.28	64.75
The Gambia	Sub-Saharan Africa	0.327	212.34	106.09	106.26	103.27	48.78	54.49
Timor-Leste	South & Southeast Asia	0.450	90.03	73.14	16.89	14.59	13.40	1.19
Togo	Sub-Saharan Africa	0.362	220.62	105.78	114.84	113.01	48.13	64.88
Tonga	Oceania	0.622	0.00	6.78	0.00	0.00	0.94	0.00
Trinidad and Tobago	North & Central America	0.833	142.26	3.78	138.48	73.04	0.27	72.77
Tunisia	North Africa	0.652	230.95	15.33	215.62	98.96	1.31	97.65
Turkey	West & Central Asia	0.690	200.99	15.07	185.91	65.65	1.36	64.29
Turkmenistan	West & Central Asia	0.781	266.68	4.72	261.96	147.02	0.33	146.69
Uganda	Sub-Saharan Africa	0.377	156.82	87.84	68.98	79.22	39.45	39.77
Ukraine	East Asia	0.811	41.62	4.21	37.42	29.60	0.28	29.32
United Arab Emirates	West & Central Asia	0.875	302.07	3.51	298.56	111.81	0.25	111.55
United Kingdom	Europe	0.893	20.75	1.64	19.12	11.97	0.12	11.85
United States	North America	0.931	37.92	1.21	36.71	9.52	0.10	9.42
Uruguay	South America	0.745	48.80	6.96	41.84	19.73	0.54	19.19
Uzbekistan	West & Central Asia	0.699	201.97	14.47	187.50	112.81	1.15	111.65
Vanuatu	Oceania	0.536	80.50	38.48	42.02	13.48	5.46	8.03
Venezuela	South America	0.728	269.20	8.85	260.34	130.43	0.55	129.87
Vietnam	South & Southeast Asia	0.628	171.04	23.48	147.56	22.06	2.38	19.68
Virgin Islands, U.S.	North & Central America	0.886	128.74	2.48	126.26	62.83	0.16	62.67

Yemen	West & Central Asia	0.408	327.43	88.39	239.04	129.35	40.08	89.27
Zambia	Sub-Saharan Africa	0.467	181.28	69.00	112.28	93.25	20.79	72.46
Zimbabwe	Sub-Saharan Africa	0.538	278.23	41.15	237.08	131.89	7.97	123.92
DALYs are age adjusted **DALY, Disability adjusted life years**								

Supplemental Table 4: Attributable burden of disease (ABD) and disability adjusted life years (DALY) using the World Health Organization recommended level of $PM_{2.5}$ as the theoretical minimum risk exposure level (TMREL), 10 ug/m^3

Location	ABD (in 1000s)	ABD (per 100,000)	Age Standardized ABD (per 100,000)	DALY (in 1000s)	DALY (per 100,000)	Age Standardized DALY (per 100,000)
Global	5,005.39 (3,626.87, 6,397.35)	67.91 (49.20, 86.79)	73.20 (53.22, 93.42)	8,257.98 (6,012.93, 10,386.32)	112.03 (81.57, 140.91)	118.28 (86.27, 148.54)
Afghanistan	21.98 (15.96, 28.25)	67.40 (48.93, 86.65)	138.11 (99.80, 180.11)	69.58 (45.30, 97.15)	213.40 (138.94, 297.93)	443.96 (293.57, 623.12)
Albania	0.97 (0.69, 1.27)	33.42 (23.74, 43.70)	27.22 (19.45, 35.35)	1.60 (1.13, 2.09)	55.15 (38.92, 72.17)	47.21 (33.37, 61.57)

Algeria	33.44 (24.06, 42.68)	84.36 (60.70, 107.69)	106.95 (77.07, 137.86)	51.11 (36.52, 66.58)	128.96 (92.13, 167.99)	169.14 (121.26, 219.48)
American Samoa	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Andorra	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Angola	13.40 (9.76, 17.23)	53.08 (38.63, 68.25)	120.74 (86.10, 155.91)	12.85 (8.85, 17.55)	50.88 (35.05, 69.51)	109.31 (74.01, 149.93)
Antigua and Barbuda	0.02 (0.01, 0.02)	18.25 (12.86, 23.96)	19.86 (13.92, 26.35)	0.04 (0.03, 0.05)	40.12 (28.25, 52.78)	41.98 (29.34, 54.91)
Argentina	9.26 (6.50, 12.17)	21.34 (14.98, 28.04)	19.88 (13.97, 26.21)	15.01 (10.73, 19.32)	34.57 (24.71, 44.51)	32.39 (23.02, 41.95)
Armenia	3.61 (2.56, 4.77)	120.03 (85.19, 158.46)	102.64 (72.84, 133.45)	2.93 (2.11, 3.81)	97.44 (70.00, 126.56)	83.33 (59.56, 108.46)
Australia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Austria	4.85 (3.43, 6.31)	55.93 (39.60, 72.76)	31.54 (22.45, 41.10)	4.71 (3.40, 6.07)	54.29 (39.23, 70.02)	30.12 (21.69, 38.70)
Azerbaijan	9.81 (6.97, 12.84)	100.33 (71.22, 131.27)	116.91 (82.78, 152.33)	11.22 (8.02, 14.72)	114.68 (82.00, 150.53)	125.34 (89.22, 163.91)
Bahrain	0.85 (0.61, 1.10)	62.24 (44.93, 80.26)	96.84 (69.69, 124.03)	1.26 (0.88, 1.69)	92.33 (64.18, 123.36)	168.77 (117.82, 225.26)
Bangladesh	98.37 (71.45, 125.09)	61.12 (44.39, 77.72)	87.57 (62.83, 112.10)	158.40 (114.47, 204.64)	98.41 (71.12, 127.14)	131.92 (94.99, 170.95)
Barbados	0.10 (0.07, 0.13)	35.78 (25.28, 46.74)	26.04 (18.44, 33.95)	0.18 (0.13, 0.24)	64.56 (45.97, 83.78)	49.10 (34.89, 63.86)
Belarus	7.57 (5.29, 9.98)	78.75 (55.08, 103.81)	55.79 (39.35, 73.08)	3.95 (2.74, 5.27)	41.05 (28.52, 54.86)	30.35 (21.12, 40.37)
Belgium	4.37 (3.08, 5.73)	38.59 (27.21, 50.55)	22.33 (15.79, 29.14)	3.69 (2.63, 4.80)	32.59 (23.21, 42.36)	18.29 (13.00, 23.90)
Belize	0.18 (0.13, 0.23)	50.23 (36.31, 63.77)	86.32 (62.21, 111.02)	0.57 (0.41, 0.75)	160.19 (114.86, 207.71)	256.89 (184.83, 332.08)
Benin	9.38 (6.80, 12.07)	85.96 (62.33, 110.56)	159.79 (114.64, 207.00)	11.67 (8.11, 15.70)	106.93 (74.32, 143.83)	183.62 (129.07, 243.93)
Bermuda	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Bhutan	0.46 (0.33, 0.58)	58.76 (42.60, 75.28)	84.66 (60.91, 109.00)	0.90 (0.61, 1.24)	116.56 (79.10, 159.41)	158.91 (108.55, 216.91)
Bolivia	5.67 (4.12, 7.28)	52.70 (38.23, 67.63)	74.72 (54.09, 96.00)	18.26 (12.50, 24.63)	169.63 (116.14, 228.76)	227.62 (155.42, 310.03)
Bosnia and	2.50 (1.79, 3.21)	65.48 (47.09,	44.13 (31.82,	4.03 (2.91, 5.24)	105.76 (76.41,	72.12 (51.59,

Herzegovina		84.18)	56.59)		137.56)	93.10)
Botswana	1.06 (0.75, 1.39)	46.83 (33.14, 61.51)	73.00 (51.63, 96.64)	1.06 (0.62, 1.59)	47.03 (27.49, 70.30)	78.14 (47.97, 116.14)
Brazil	11.82 (8.27, 15.56)	5.69 (3.98, 7.49)	6.28 (4.38, 8.28)	21.40 (15.16, 27.64)	10.29 (7.29, 13.30)	11.12 (7.90, 14.42)
Brunei	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Bulgaria	5.52 (3.95, 7.11)	75.88 (54.41, 97.79)	45.06 (32.67, 57.89)	8.81 (6.34, 11.43)	121.20 (87.24, 157.30)	76.38 (54.70, 99.19)
Burkina Faso	13.01 (9.43, 16.64)	71.90 (52.12, 91.96)	149.63 (107.38, 193.44)	12.94 (9.24, 16.87)	71.52 (51.08, 93.26)	137.35 (98.15, 179.85)
Burundi	6.96 (5.07, 8.91)	61.85 (45.11, 79.18)	128.03 (91.78, 164.95)	6.30 (4.42, 8.37)	55.98 (39.28, 74.45)	107.48 (75.07, 142.14)
Cambodia	4.16 (3.02, 5.31)	26.71 (19.37, 34.06)	41.02 (29.77, 52.49)	14.80 (10.67, 18.98)	94.90 (68.44, 121.73)	139.82 (101.39, 178.67)
Cameroon	17.44 (12.61, 22.31)	74.53 (53.88, 95.36)	143.07 (103.50, 184.81)	27.04 (17.85, 37.94)	115.54 (76.27, 162.14)	183.33 (120.38, 256.90)
Canada	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Cape Verde	0.54 (0.39, 0.69)	103.50 (74.92, 132.79)	154.92 (110.80, 201.01)	0.56 (0.40, 0.73)	108.20 (77.18, 141.11)	151.72 (108.17, 198.88)
Central African Republic	3.44 (2.48, 4.42)	70.25 (50.63, 90.14)	123.73 (88.66, 158.84)	4.13 (2.89, 5.48)	84.31 (58.90, 111.85)	138.05 (96.19, 184.94)
Chad	10.41 (7.56, 13.38)	74.04 (53.75, 95.15)	158.85 (113.74, 206.67)	16.20 (11.42, 21.47)	115.20 (81.18, 152.68)	190.06 (135.31, 248.39)
Chile	12.89 (9.25, 16.73)	71.84 (51.53, 93.21)	62.97 (45.14, 81.15)	18.32 (12.76, 24.56)	102.06 (71.09, 136.84)	89.44 (62.04, 120.05)
China	553.88 (401.61, 707.76)	40.04 (29.03, 51.16)	35.31 (25.78, 45.01)	1,191.53 (869.38, 1,507.32)	86.13 (62.84, 108.95)	76.16 (55.70, 96.10)
Colombia	29.70 (21.14, 38.65)	61.53 (43.81, 80.07)	70.74 (50.04, 92.03)	31.86 (22.71, 41.22)	66.02 (47.05, 85.40)	77.50 (55.34, 99.33)
Comoros	0.28 (0.20, 0.36)	34.97 (24.71, 45.66)	64.26 (45.62, 84.21)	0.25 (0.16, 0.35)	31.08 (20.39, 44.11)	56.48 (36.58, 80.01)
Congo	3.23 (2.34, 4.13)	69.68 (50.48, 89.33)	127.16 (91.21, 164.60)	3.06 (2.13, 4.08)	66.13 (45.96, 88.08)	119.50 (82.10, 160.66)
Costa Rica	4.60 (3.28, 5.97)	95.57 (68.20, 124.19)	95.69 (68.57, 124.55)	5.61 (4.08, 7.14)	116.74 (84.78, 148.57)	116.74 (84.28, 149.09)
Cote d'Ivoire	18.05 (12.96, 23.36)	79.57 (57.13, 102.95)	143.36 (102.49, 187.33)	24.96 (17.20, 33.69)	110.03 (75.81, 148.48)	181.06 (124.07, 243.27)

Croatia	2.88 (2.06, 3.72)	68.01 (48.54, 87.70)	40.27 (28.97, 51.94)	3.51 (2.52, 4.53)	82.84 (59.40, 106.76)	48.45 (34.93, 62.01)
Cuba	4.78 (3.39, 6.18)	41.93 (29.79, 54.28)	30.59 (21.70, 39.78)	7.55 (5.40, 9.69)	66.31 (47.44, 85.09)	49.26 (35.37, 63.36)
Cyprus	0.46 (0.32, 0.60)	51.51 (36.41, 67.08)	38.19 (26.83, 49.92)	0.59 (0.43, 0.76)	66.36 (47.88, 85.46)	48.27 (34.82, 61.71)
Czech Republic	6.38 (4.58, 8.22)	59.64 (42.84, 76.82)	37.56 (27.33, 48.18)	6.86 (4.91, 8.92)	64.13 (45.94, 83.43)	40.94 (29.44, 53.31)
Democratic Republic of the Congo	42.90 (31.03, 54.95)	55.42 (40.09, 70.98)	115.51 (82.91, 149.82)	40.74 (29.19, 53.05)	52.62 (37.71, 68.52)	103.70 (73.69, 135.06)
Denmark	0.30 (0.21, 0.40)	5.30 (3.68, 7.08)	3.13 (2.19, 4.16)	0.25 (0.17, 0.33)	4.38 (3.06, 5.77)	2.70 (1.89, 3.59)
Djibouti	0.65 (0.47, 0.84)	73.08 (52.68, 94.07)	121.71 (87.79, 157.11)	0.63 (0.43, 0.86)	70.67 (48.37, 96.80)	114.87 (78.22, 155.63)
Dominica	0.01 (0.01, 0.02)	19.08 (13.42, 25.10)	19.59 (13.87, 25.78)	0.04 (0.03, 0.05)	54.29 (38.24, 71.34)	55.30 (38.67, 72.77)
Dominican Republic	3.94 (2.84, 5.07)	37.41 (26.97, 48.16)	47.21 (33.77, 60.99)	7.83 (5.53, 10.24)	74.37 (52.48, 97.27)	90.19 (63.68, 118.24)
Ecuador	2.21 (1.55, 2.89)	13.66 (9.60, 17.90)	17.66 (12.41, 23.19)	5.95 (4.24, 7.71)	36.80 (26.26, 47.70)	46.03 (32.60, 59.49)
Egypt	83.34 (60.45, 106.96)	91.43 (66.32, 117.35)	124.26 (89.93, 159.34)	124.12 (84.50, 168.87)	136.18 (92.71, 185.27)	197.49 (132.77, 271.08)
El Salvador	9.16 (6.68, 11.57)	149.33 (108.87, 188.55)	175.31 (128.04, 221.56)	21.25 (15.13, 27.55)	346.20 (246.49, 448.96)	391.27 (280.15, 508.00)
Equatorial Guinea	0.63 (0.45, 0.82)	74.89 (53.52, 97.57)	121.56 (87.18, 157.49)	0.46 (0.29, 0.66)	53.85 (33.80, 77.55)	91.96 (58.70, 132.26)
Eritrea	3.20 (2.32, 4.10)	60.96 (44.19, 78.16)	125.53 (90.04, 162.49)	2.97 (2.04, 4.02)	56.73 (38.83, 76.59)	112.89 (78.78, 150.20)
Estonia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Ethiopia	65.83 (47.76, 84.63)	66.20 (48.03, 85.11)	126.18 (90.75, 163.63)	67.95 (48.21, 89.90)	68.34 (48.49, 90.41)	128.06 (90.83, 168.68)
Federated States of Micronesia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Fiji	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Finland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
France	9.44 (6.60, 12.52)	14.47 (10.12, 19.19)	8.07 (5.64, 10.60)	7.35 (5.18, 9.65)	11.27 (7.94, 14.80)	6.26 (4.37, 8.27)

Gabon	1.31 (0.95, 1.69)	75.97 (54.98, 97.76)	121.15 (87.25, 156.37)	1.34 (0.91, 1.84)	77.89 (52.50, 106.50)	121.85 (82.86, 165.77)
Georgia	4.47 (3.19, 5.81)	111.52 (79.78, 145.01)	88.20 (62.89, 114.83)	5.36 (3.85, 6.89)	133.91 (96.19, 172.09)	108.65 (78.21, 140.28)
Germany	29.62 (20.61, 39.24)	35.42 (24.65, 46.92)	17.56 (12.38, 23.06)	28.42 (20.14, 37.19)	33.99 (24.08, 44.48)	16.49 (11.71, 21.42)
Ghana	25.51 (18.34, 32.82)	93.05 (66.91, 119.69)	156.61 (112.61, 203.64)	27.39 (19.59, 36.02)	99.90 (71.46, 131.36)	157.89 (112.67, 207.44)
Greece	3.11 (2.18, 4.13)	28.48 (19.96, 37.84)	14.59 (10.28, 19.15)	3.51 (2.50, 4.57)	32.17 (22.86, 41.82)	16.17 (11.63, 21.05)
Greenland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Grenada	0.03 (0.02, 0.04)	25.49 (17.93, 33.25)	30.60 (21.67, 40.21)	0.09 (0.06, 0.11)	80.37 (56.68, 105.81)	92.92 (65.67, 121.98)
Guam	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Guatemala	14.19 (10.27, 18.18)	86.74 (62.81, 111.17)	151.50 (109.29, 195.59)	30.82 (21.13, 41.65)	188.47 (129.22, 254.64)	293.76 (201.78, 397.48)
Guinea	9.01 (6.42, 11.67)	71.68 (51.10, 92.78)	128.63 (90.70, 167.52)	10.01 (6.95, 13.46)	79.64 (55.23, 107.06)	131.47 (90.77, 176.10)
Guinea-Bissau	1.96 (1.41, 2.53)	106.12 (76.38, 136.74)	182.42 (132.07, 236.39)	2.90 (2.04, 3.85)	156.81 (110.21, 208.47)	251.12 (177.70, 334.40)
Guyana	0.20 (0.14, 0.27)	26.36 (18.68, 34.60)	33.86 (24.13, 44.31)	0.60 (0.42, 0.78)	77.31 (55.14, 101.13)	94.06 (66.81, 122.08)
Haiti	5.35 (3.85, 6.80)	49.87 (35.93, 63.45)	81.26 (58.71, 104.11)	18.01 (11.79, 25.27)	167.94 (109.94, 235.67)	242.70 (158.09, 335.78)
Honduras	7.05 (5.07, 9.13)	87.06 (62.61, 112.78)	144.71 (103.71, 188.55)	15.72 (10.16, 22.23)	194.17 (125.47, 274.60)	309.35 (199.62, 431.69)
Hungary	7.19 (5.18, 9.27)	70.71 (50.99, 91.17)	43.77 (31.75, 56.07)	8.48 (6.16, 10.87)	83.42 (60.59, 106.92)	52.83 (38.17, 67.50)
Iceland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
India	786.55 (568.75, 1,006.63)	59.97 (43.36, 76.75)	77.91 (56.46, 99.99)	1,801.84 (1,309.50, 2,298.82)	137.37 (99.84, 175.26)	171.90 (125.02, 217.84)
Indonesia	38.10 (26.91, 49.38)	14.79 (10.45, 19.17)	18.54 (13.14, 23.97)	131.65 (94.36, 168.66)	51.10 (36.63, 65.47)	60.56 (43.44, 77.50)
Iran	65.60 (47.37, 84.25)	83.01 (59.94, 106.60)	107.31 (77.53, 138.37)	75.07 (53.25, 98.71)	94.98 (67.37, 124.89)	127.28 (90.41, 167.32)
Iraq	25.02 (18.15, 32.10)	68.69 (49.84, 88.14)	135.49 (97.84, 174.11)	54.04 (36.71, 74.16)	148.38 (100.80, 203.61)	302.27 (208.95, 407.86)

Ireland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Israel	5.39 (3.86, 6.92)	66.96 (48.01, 85.94)	60.56 (43.99, 78.24)	7.77 (5.56, 10.12)	96.58 (69.04, 125.79)	85.70 (60.78, 112.41)
Italy	48.18 (34.38, 62.54)	76.73 (54.75, 99.59)	37.35 (26.87, 48.50)	42.12 (30.31, 54.13)	67.07 (48.27, 86.20)	32.10 (23.13, 41.26)
Jamaica	1.15 (0.82, 1.49)	40.59 (28.99, 52.60)	42.96 (30.55, 56.17)	2.81 (1.84, 3.93)	99.18 (65.01, 138.75)	103.55 (68.49, 144.47)
Japan	50.38 (35.22, 66.88)	39.26 (27.45, 52.12)	16.75 (11.79, 21.90)	48.57 (34.25, 63.35)	37.85 (26.69, 49.37)	16.88 (11.94, 22.17)
Jordan	5.00 (3.65, 6.43)	66.07 (48.16, 84.91)	113.96 (81.78, 147.50)	8.90 (6.09, 12.15)	117.52 (80.39, 160.47)	212.61 (146.56, 288.57)
Kazakhstan	11.04 (7.85, 14.44)	62.98 (44.78, 82.36)	73.34 (52.15, 96.31)	10.16 (7.12, 13.50)	57.96 (40.60, 76.99)	65.03 (45.58, 86.68)
Kenya	12.04 (8.51, 15.61)	26.06 (18.42, 33.80)	52.29 (36.88, 68.52)	8.57 (5.98, 11.45)	18.56 (12.95, 24.78)	35.82 (24.74, 48.42)
Kiribati	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Kuwait	2.16 (1.54, 2.77)	55.27 (39.61, 71.00)	92.57 (67.03, 119.14)	2.26 (1.56, 3.02)	57.88 (40.11, 77.39)	114.27 (79.77, 152.45)
Kyrgyzstan	2.30 (1.63, 3.02)	38.97 (27.61, 51.20)	56.95 (39.97, 74.65)	3.05 (2.17, 3.95)	51.78 (36.88, 67.08)	64.33 (46.01, 83.27)
Laos	1.87 (1.36, 2.38)	27.48 (19.97, 34.94)	46.84 (33.91, 59.47)	8.64 (6.14, 11.33)	127.05 (90.36, 166.61)	188.65 (136.73, 243.39)
Latvia	2.82 (2.00, 3.69)	127.37 (90.52, 166.94)	76.37 (54.21, 99.86)	1.59 (1.13, 2.10)	72.01 (51.09, 95.01)	44.92 (31.99, 58.53)
Lebanon	4.35 (3.14, 5.57)	75.56 (54.56, 96.66)	80.84 (58.27, 104.12)	4.34 (3.10, 5.66)	75.29 (53.74, 98.22)	81.72 (58.13, 106.46)
Lesotho	1.52 (1.08, 1.97)	71.32 (50.71, 92.39)	124.48 (88.50, 163.40)	2.02 (1.35, 2.79)	94.71 (63.63, 131.22)	168.86 (114.18, 232.64)
Liberia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Libya	4.97 (3.60, 6.36)	78.96 (57.12, 101.11)	107.90 (77.77, 138.57)	9.35 (6.51, 12.51)	148.56 (103.41, 198.70)	219.10 (154.40, 293.34)
Lithuania	3.17 (2.25, 4.16)	100.50 (71.27, 131.87)	61.75 (44.36, 80.35)	1.67 (1.17, 2.23)	53.11 (37.22, 70.70)	33.53 (23.72, 43.97)
Luxembourg	0.20 (0.14, 0.27)	36.48 (25.60, 47.68)	25.89 (18.32, 33.77)	0.17 (0.12, 0.22)	31.13 (22.16, 40.37)	21.52 (15.28, 28.16)
Macedonia	1.15 (0.82, 1.47)	55.16 (39.59, 70.95)	43.45 (31.41, 55.52)	2.25 (1.63, 2.88)	108.28 (78.60, 138.39)	86.14 (62.08, 109.72)
Madagascar	10.33 (7.37,	42.71 (30.47,	82.75 (58.53,	9.17 (6.33,	37.91 (26.16,	68.59 (47.60,

	13.37)	55.26)	108.21)	12.41)	51.30)	92.21)
Malawi	8.78 (6.36, 11.29)	51.01 (36.95, 65.57)	109.83 (79.39, 142.95)	9.17 (6.36, 12.27)	53.26 (36.96, 71.30)	103.32 (72.48, 137.05)
Malaysia	4.70 (3.35, 6.11)	15.51 (11.04, 20.18)	19.16 (13.48, 25.04)	11.27 (7.98, 14.63)	37.21 (26.33, 48.30)	47.69 (33.89, 61.68)
Maldives	0.12 (0.08, 0.15)	32.02 (23.23, 40.83)	46.86 (34.02, 59.57)	0.41 (0.28, 0.56)	112.83 (77.79, 153.36)	171.15 (118.28, 230.15)
Mali	12.89 (9.34, 16.49)	73.36 (53.18, 93.87)	154.93 (111.18, 200.53)	16.38 (11.46, 21.95)	93.23 (65.24, 124.95)	162.02 (113.44, 216.44)
Malta	0.18 (0.13, 0.24)	43.10 (30.52, 56.82)	24.96 (17.55, 32.76)	0.17 (0.12, 0.23)	41.64 (29.26, 55.28)	25.80 (17.98, 34.14)
Marshall Islands	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Mauritania	3.88 (2.79, 4.97)	94.91 (68.35, 121.77)	159.22 (114.17, 206.63)	3.82 (2.63, 5.17)	93.62 (64.47, 126.47)	155.47 (107.46, 210.16)
Mauritius	0.44 (0.31, 0.57)	34.29 (24.08, 44.80)	29.81 (21.18, 38.80)	2.11 (1.49, 2.78)	165.84 (116.67, 218.42)	145.74 (102.55, 193.09)
Mexico	137.61 (98.68, 177.83)	108.32 (77.68, 139.97)	137.61 (98.41, 178.80)	311.56 (227.46, 390.77)	245.24 (179.04, 307.59)	304.03 (221.95, 382.61)
Moldova	2.28 (1.60, 3.01)	56.13 (39.41, 74.09)	46.86 (33.49, 61.85)	1.35 (0.94, 1.78)	33.20 (23.16, 43.73)	28.60 (19.85, 38.17)
Mongolia	2.54 (1.83, 3.29)	86.13 (61.84, 111.34)	131.02 (93.69, 170.41)	3.88 (2.19, 5.85)	131.22 (74.00, 198.03)	167.71 (103.81, 242.85)
Montenegro	0.41 (0.30, 0.53)	65.58 (47.33, 85.01)	49.22 (35.54, 63.15)	0.67 (0.49, 0.86)	107.57 (77.94, 138.06)	82.39 (59.82, 105.73)
Morocco	20.70 (15.05, 26.64)	60.22 (43.80, 77.49)	69.93 (50.31, 89.65)	54.19 (37.34, 73.07)	157.65 (108.63, 212.57)	190.76 (131.21, 259.15)
Mozambique	10.63 (7.60, 13.83)	37.98 (27.16, 49.42)	76.22 (53.75, 99.50)	10.55 (6.83, 15.07)	37.71 (24.40, 53.83)	68.74 (44.97, 97.91)
Myanmar	20.52 (14.77, 26.34)	37.99 (27.34, 48.75)	47.49 (34.25, 60.68)	72.10 (51.34, 94.80)	133.45 (95.03, 175.48)	164.59 (118.35, 214.89)
Namibia	1.34 (0.96, 1.74)	54.66 (39.03, 70.75)	94.50 (67.32, 123.60)	1.39 (0.91, 1.94)	56.77 (37.20, 79.14)	103.18 (67.97, 143.38)
Nepal	23.84 (17.27, 30.59)	83.50 (60.48, 107.15)	117.84 (84.33, 151.74)	34.01 (23.35, 45.63)	119.11 (81.80, 159.80)	172.09 (120.09, 228.43)
Netherlands	4.44 (3.12, 5.86)	25.83 (18.12, 34.11)	15.41 (10.85, 20.24)	3.84 (2.72, 5.01)	22.33 (15.83, 29.12)	13.49 (9.58, 17.64)
New Zealand	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Nicaragua	6.33 (4.58, 8.19)	103.91 (75.25,	153.27 (110.22,	15.77 (11.07,	259.01 (181.79,	350.66 (246.24,

		134.55)	197.22)	20.94)	344.00)	461.78)
Niger	15.10 (10.88, 19.41)	76.04 (54.79, 97.75)	155.10 (112.04, 201.47)	18.99 (12.68, 26.34)	95.67 (63.84, 132.66)	165.85 (113.37, 227.06)
Nigeria	140.66 (101.70, 180.23)	77.08 (55.73, 98.76)	144.52 (103.59, 187.08)	85.68 (59.86, 115.45)	46.95 (32.80, 63.26)	84.71 (58.31, 114.01)
North Korea	10.91 (7.86, 14.14)	43.38 (31.24, 56.20)	44.22 (32.10, 56.62)	27.94 (20.06, 36.08)	111.07 (79.75, 143.39)	110.68 (79.45, 144.03)
Northern Mariana Islands	0.00 (0.00, 0.01)	4.06 (2.84, 5.36)	9.45 (6.67, 12.47)	0.02 (0.01, 0.02)	13.91 (9.36, 19.18)	30.01 (20.76, 40.37)
Norway	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Oman	2.41 (1.75, 3.08)	53.87 (39.12, 68.73)	94.72 (68.30, 122.31)	3.11 (2.22, 4.05)	69.45 (49.56, 90.32)	133.13 (95.31, 171.44)
Pakistan	77.51 (56.63, 98.27)	41.00 (29.95, 51.98)	64.30 (46.68, 82.05)	246.12 (153.64, 353.37)	130.18 (81.26, 186.91)	182.73 (113.75, 263.58)
Palestine	2.59 (1.87, 3.32)	55.46 (40.08, 71.09)	112.01 (80.08, 144.76)	5.58 (4.03, 7.13)	119.35 (86.24, 152.53)	264.79 (192.26, 339.14)
Panama	0.96 (0.67, 1.28)	24.48 (17.14, 32.48)	28.53 (19.86, 37.87)	1.33 (0.94, 1.75)	33.98 (23.99, 44.65)	38.22 (26.76, 50.29)
Papua New Guinea	0.13 (0.09, 0.17)	1.69 (1.19, 2.23)	3.03 (2.11, 4.00)	0.60 (0.36, 0.89)	7.82 (4.72, 11.70)	13.11 (8.02, 19.50)
Paraguay	1.33 (0.94, 1.73)	19.95 (14.11, 26.01)	27.91 (19.62, 36.66)	3.80 (2.69, 4.98)	57.05 (40.38, 74.85)	77.87 (55.16, 101.70)
Peru	13.94 (10.11, 17.78)	44.40 (32.21, 56.62)	57.34 (41.46, 73.89)	29.10 (20.36, 38.58)	92.68 (64.86, 122.89)	115.33 (80.52, 152.93)
Philippines	38.96 (28.35, 49.52)	38.65 (28.12, 49.12)	53.88 (38.80, 68.32)	207.35 (148.93, 267.93)	205.70 (147.75, 265.80)	284.53 (205.31, 366.11)
Poland	29.14 (20.79, 37.60)	74.90 (53.42, 96.62)	50.77 (36.67, 65.26)	29.47 (21.27, 37.75)	75.73 (54.66, 97.00)	51.37 (37.25, 66.05)
Portugal	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Puerto Rico	2.14 (1.52, 2.79)	58.02 (41.36, 75.61)	43.71 (31.05, 56.69)	4.03 (2.90, 5.19)	109.42 (78.65, 140.83)	83.18 (59.51, 107.10)
Qatar	1.05 (0.76, 1.35)	47.36 (34.13, 60.94)	92.76 (66.44, 119.08)	1.25 (0.84, 1.70)	56.17 (37.79, 76.58)	129.54 (86.48, 179.64)
Romania	10.38 (7.47, 13.32)	53.14 (38.23, 68.24)	34.01 (24.55, 43.74)	13.72 (9.93, 17.66)	70.27 (50.87, 90.43)	45.55 (32.81, 58.52)
Russia	91.33 (64.40, 119.39)	61.66 (43.48, 80.61)	44.39 (31.27, 58.14)	53.41 (35.80, 73.06)	36.06 (24.17, 49.33)	27.36 (18.33, 37.88)
Rwanda	6.27 (4.53, 8.07)	53.89 (38.92,	109.18 (78.76,	5.29 (3.56, 7.31)	45.47 (30.60,	87.10 (58.68,

		69.35)	140.88)		62.83)	121.25)
Saint Lucia	0.04 (0.03, 0.05)	21.49 (15.19, 28.00)	21.57 (15.15, 28.46)	0.09 (0.06, 0.12)	48.42 (34.63, 62.48)	47.38 (33.62, 61.13)
Saint Vincent and the Grenadines	0.02 (0.02, 0.03)	20.66 (14.57, 27.12)	22.97 (16.13, 30.12)	0.06 (0.04, 0.08)	55.11 (39.35, 71.07)	59.25 (41.87, 76.15)
Samoa	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Sao Tome and Principe	0.05 (0.04, 0.07)	26.60 (18.89, 34.87)	50.12 (35.12, 66.25)	0.07 (0.05, 0.10)	38.84 (25.99, 53.11)	67.04 (46.10, 90.33)
Saudi Arabia	22.09 (15.99, 28.43)	70.27 (50.87, 90.43)	108.54 (78.59, 139.62)	34.11 (24.78, 43.85)	108.52 (78.82, 139.49)	209.54 (151.98, 266.42)
Senegal	13.18 (9.55, 16.84)	87.26 (63.22, 111.46)	166.93 (120.36, 217.81)	17.26 (12.44, 22.29)	114.26 (82.33, 147.51)	201.83 (145.14, 260.94)
Serbia	4.81 (3.45, 6.24)	54.29 (38.97, 70.48)	35.27 (25.45, 45.43)	9.68 (6.97, 12.39)	109.25 (78.66, 139.85)	71.38 (51.90, 90.78)
Seychelles	0.01 (0.01, 0.01)	11.12 (7.97, 14.61)	11.66 (8.24, 15.24)	0.06 (0.04, 0.08)	59.67 (41.69, 79.71)	62.47 (43.54, 82.95)
Sierra Leone	2.58 (1.83, 3.40)	39.98 (28.37, 52.56)	74.47 (52.46, 97.62)	3.38 (2.30, 4.63)	52.37 (35.60, 71.61)	85.72 (58.82, 115.97)
Singapore	1.80 (1.28, 2.34)	45.85 (32.63, 59.56)	36.70 (26.06, 47.70)	2.69 (1.89, 3.58)	68.68 (48.27, 91.14)	55.46 (38.80, 73.16)
Slovakia	2.94 (2.12, 3.82)	52.97 (38.07, 68.79)	38.25 (27.64, 49.43)	3.89 (2.80, 5.05)	70.00 (50.40, 90.88)	51.09 (36.21, 66.20)
Slovenia	1.06 (0.76, 1.37)	51.45 (36.91, 66.55)	30.77 (22.06, 39.69)	1.01 (0.72, 1.32)	48.94 (34.96, 63.93)	28.16 (19.93, 36.75)
Solomon Islands	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Somalia	4.23 (3.02, 5.51)	38.98 (27.81, 50.83)	76.87 (54.43, 100.26)	4.89 (3.37, 6.60)	45.07 (31.02, 60.81)	84.75 (58.59, 114.52)
South Africa	60.27 (43.43, 77.00)	112.19 (80.84, 143.33)	146.54 (105.05, 187.65)	78.29 (56.93, 99.75)	145.72 (105.98, 185.67)	186.86 (135.89, 237.91)
South Korea	30.99 (22.52, 39.62)	61.64 (44.79, 78.79)	45.33 (32.97, 57.95)	40.91 (28.68, 54.41)	81.36 (57.05, 108.21)	59.65 (42.11, 79.40)
South Sudan	7.44 (5.38, 9.55)	60.55 (43.75, 77.68)	121.62 (87.40, 157.96)	7.34 (5.09, 9.90)	59.76 (41.43, 80.58)	112.01 (77.43, 152.44)
Spain	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Sri Lanka	9.67 (7.03, 12.39)	46.61 (33.88, 59.69)	44.84 (32.61, 57.01)	27.05 (18.68, 35.98)	130.36 (90.03, 173.39)	127.97 (90.13, 170.38)
Sudan	26.03 (18.77,	64.45 (46.46,	112.68 (81.47,	51.64 (35.95,	127.87 (89.01,	224.43 (155.47,

	33.52)	83.00)	146.65)	69.16)	171.22)	305.45)
Suriname	0.18 (0.13, 0.24)	33.41 (23.72, 43.84)	39.09 (27.76, 50.85)	0.54 (0.38, 0.70)	99.23 (70.12, 128.32)	113.04 (80.32, 146.34)
Swaziland	0.79 (0.56, 1.02)	61.17 (43.78, 79.47)	114.19 (80.74, 149.79)	0.93 (0.57, 1.36)	71.86 (43.94, 105.19)	137.92 (85.57, 200.74)
Sweden	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Switzerland	2.14 (1.50, 2.85)	25.81 (18.07, 34.38)	15.41 (10.77, 20.31)	1.28 (0.88, 1.73)	15.42 (10.60, 20.89)	8.85 (6.07, 12.05)
Syria	10.71 (7.74, 13.73)	57.54 (41.54, 73.74)	90.21 (65.03, 116.49)	17.02 (11.81, 22.80)	91.37 (63.44, 122.44)	145.14 (95.07, 203.80)
Tajikistan	4.94 (3.58, 6.35)	58.15 (42.11, 74.73)	105.26 (75.64, 135.83)	7.16 (5.11, 9.40)	84.25 (60.08, 110.54)	118.15 (84.06, 154.62)
Tanzania	29.49 (21.40, 37.75)	55.26 (40.10, 70.72)	111.66 (80.03, 144.68)	29.57 (20.88, 38.78)	55.40 (39.13, 72.66)	102.94 (72.10, 136.87)
Thailand	44.70 (32.46, 57.48)	65.84 (47.80, 84.66)	54.71 (39.42, 70.19)	120.20 (86.91, 154.57)	177.04 (128.00, 227.66)	147.71 (106.95, 189.58)
The Bahamas	0.07 (0.05, 0.09)	17.55 (12.20, 23.06)	17.97 (12.60, 23.64)	0.16 (0.11, 0.21)	41.58 (29.32, 54.40)	41.84 (29.32, 54.63)
The Gambia	1.44 (1.05, 1.86)	72.18 (52.26, 92.74)	154.64 (112.08, 199.68)	1.56 (1.10, 2.07)	78.09 (54.87, 103.59)	152.74 (108.08, 202.17)
Timor-Leste	0.12 (0.08, 0.15)	9.82 (6.98, 12.85)	15.97 (11.34, 20.86)	0.31 (0.20, 0.45)	26.36 (16.72, 38.10)	41.55 (26.17, 59.52)
Togo	6.53 (4.73, 8.38)	89.42 (64.76, 114.73)	163.94 (117.68, 212.81)	6.75 (4.48, 9.37)	92.38 (61.29, 128.24)	158.90 (106.35, 219.49)
Tonga	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Trinidad and Tobago	0.34 (0.24, 0.44)	24.73 (17.42, 32.52)	22.64 (15.85, 29.68)	0.79 (0.56, 1.03)	58.21 (41.50, 75.65)	53.06 (37.48, 68.83)
Tunisia	10.87 (7.83, 14.03)	96.60 (69.60, 124.68)	99.93 (72.54, 128.48)	17.39 (11.77, 23.70)	154.56 (104.59, 210.69)	166.84 (112.62, 226.87)
Turkey	107.73 (77.61, 138.62)	137.38 (98.97, 176.77)	147.75 (106.34, 190.82)	103.23 (73.62, 134.37)	131.64 (93.88, 171.35)	144.75 (103.04, 189.76)
Turkmenistan	4.49 (3.23, 5.76)	83.47 (59.96, 107.04)	125.07 (88.85, 162.56)	8.08 (5.91, 10.19)	150.22 (109.89, 189.36)	192.21 (140.50, 242.68)
Uganda	18.97 (13.84, 24.23)	48.46 (35.34, 61.89)	116.67 (84.54, 150.41)	20.43 (14.50, 26.67)	52.19 (37.04, 68.12)	112.70 (79.91, 149.04)
Ukraine	31.03 (21.74, 40.58)	66.73 (46.74, 87.25)	44.57 (31.62, 58.46)	15.15 (10.40, 20.57)	32.58 (22.36, 44.23)	23.64 (16.18, 32.30)
United Arab	5.89 (4.26, 7.60)	64.39 (46.57,	104.27 (75.17,	11.63 (7.43,	127.18 (81.21,	217.26 (144.57,

Emirates		83.11)	134.17)	16.37)	178.99)	299.97)
United Kingdom	9.43 (6.59, 12.36)	14.67 (10.26, 19.25)	8.85 (6.21, 11.60)	6.35 (4.46, 8.39)	9.89 (6.94, 13.07)	6.12 (4.27, 8.10)
United States	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Uruguay	0.33 (0.23, 0.44)	9.51 (6.58, 12.70)	6.97 (4.87, 9.27)	0.41 (0.29, 0.54)	12.02 (8.48, 15.75)	9.01 (6.34, 11.73)
Uzbekistan	22.17 (15.98, 28.45)	74.03 (53.37, 95.03)	105.80 (75.84, 136.97)	36.51 (26.41, 46.89)	121.94 (88.20, 156.62)	145.71 (105.49, 185.71)
Vanuatu	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Venezuela	32.17 (22.93, 42.01)	103.43 (73.73, 135.05)	131.52 (94.17, 170.60)	48.77 (34.76, 63.70)	156.79 (111.74, 204.78)	194.19 (137.84, 254.47)
Vietnam	27.89 (20.21, 35.80)	29.84 (21.62, 38.30)	33.74 (24.45, 43.41)	104.22 (74.13, 135.01)	111.50 (79.31, 144.44)	123.22 (88.58, 160.01)
Virgin Islands, U.S.	0.05 (0.04, 0.07)	47.66 (33.60, 62.81)	30.54 (21.54, 40.20)	0.10 (0.07, 0.13)	92.05 (64.52, 121.11)	61.65 (43.18, 81.47)
Yemen	16.01 (11.57, 20.53)	59.50 (42.98, 76.27)	119.38 (86.19, 154.56)	29.90 (19.63, 41.81)	111.09 (72.96, 155.36)	235.43 (152.58, 331.79)
Zambia	9.85 (7.13, 12.61)	60.64 (43.90, 77.58)	132.06 (94.54, 170.67)	10.91 (7.58, 14.49)	67.12 (46.63, 89.15)	130.59 (91.31, 173.75)
Zimbabwe	10.43 (7.46, 13.42)	66.94 (47.92, 86.14)	143.36 (101.91, 186.83)	13.56 (9.34, 18.47)	87.10 (59.98, 118.61)	186.08 (126.46, 253.26)

Attributable burden of disease, ABD; Disability Adjusted Life Years, DALY

Supplemental Table 5: Years living with disability (YLD) and years of life lost (YLL) using the World Health Organization recommended level of $PM_{2.5}$ as the theoretical minimum risk exposure level (TMREL), 10 ug/m^3

Location	YLD (in 1000s)	YLD (per 100,000)	Age Standardized YLD (per 100,000)	YLL in 1000s	YLL (per 100,000)	Age Standardized YLL (per 100,000)
Global	2,047.18 (1,352.47, 2,852.81)	27.77 (18.35, 38.70)	29.57 (19.51, 41.12)	6,189.43 (4,532.12, 7,756.55)	83.97 (61.49, 105.23)	88.41 (64.89, 110.21)
Afghanistan	11.38 (7.40, 16.05)	34.91 (22.70, 49.23)	72.66 (47.99, 101.24)	58.20 (36.71, 84.14)	178.50 (112.59, 258.04)	371.49 (234.67, 535.24)
Albania	0.35 (0.22, 0.51)	12.23 (7.66, 17.63)	10.16 (6.56, 14.44)	1.24 (0.86, 1.68)	42.80 (29.59, 57.99)	36.93 (25.52, 49.36)

Algeria	16.51 (10.74, 23.36)	41.67 (27.11, 58.94)	51.08 (33.70, 71.66)	34.37 (23.90, 46.24)	86.72 (60.30, 116.67)	117.49 (82.32, 157.01)
American Samoa	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Andorra	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Angola	4.75 (3.06, 6.74)	18.80 (12.11, 26.70)	45.42 (28.98, 65.41)	8.12 (4.89, 11.95)	32.17 (19.37, 47.33)	63.10 (37.35, 93.36)
Antigua and Barbuda	0.01 (0.00, 0.01)	7.35 (4.67, 10.61)	7.93 (4.96, 11.45)	0.03 (0.02, 0.04)	32.66 (22.97, 43.06)	33.92 (23.76, 44.69)
Argentina	3.79 (2.46, 5.41)	8.72 (5.67, 12.45)	8.23 (5.38, 11.63)	11.18 (7.97, 14.44)	25.75 (18.36, 33.26)	24.17 (17.10, 31.29)
Armenia	1.35 (0.86, 1.93)	44.80 (28.75, 64.14)	38.16 (24.70, 53.90)	1.57 (1.14, 2.01)	52.35 (37.83, 66.75)	44.76 (32.53, 57.09)
Australia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Austria	1.39 (0.91, 1.97)	16.06 (10.46, 22.69)	9.76 (6.33, 13.77)	3.31 (2.39, 4.23)	38.18 (27.54, 48.85)	20.31 (14.58, 25.97)
Azerbaijan	3.37 (2.15, 4.82)	34.42 (21.96, 49.26)	39.75 (25.46, 56.39)	7.84 (5.42, 10.57)	80.15 (55.38, 108.05)	85.05 (59.61, 114.53)
Bahrain	0.45 (0.29, 0.64)	33.23 (21.28, 46.95)	45.79 (30.36, 63.51)	0.80 (0.53, 1.10)	58.73 (39.05, 80.81)	122.97 (81.37, 170.08)
Bangladesh	37.08 (23.69, 52.70)	23.04 (14.72, 32.74)	32.69 (20.97, 46.84)	121.54 (86.25, 157.96)	75.51 (53.59, 98.13)	99.06 (70.79, 128.22)
Barbados	0.04 (0.02, 0.05)	13.42 (8.66, 19.25)	10.15 (6.51, 14.53)	0.14 (0.10, 0.19)	51.08 (36.17, 66.61)	38.98 (27.74, 50.58)
Belarus	1.97 (1.24, 2.84)	20.52 (12.95, 29.55)	14.79 (9.32, 21.28)	1.97 (1.38, 2.61)	20.53 (14.38, 27.16)	15.50 (10.78, 20.51)
Belgium	1.32 (0.85, 1.89)	11.67 (7.52, 16.67)	7.23 (4.69, 10.30)	2.35 (1.67, 3.07)	20.73 (14.76, 27.09)	11.06 (7.87, 14.31)
Belize	0.08 (0.05, 0.11)	20.92 (13.45, 29.53)	33.49 (21.07, 47.66)	0.50 (0.35, 0.65)	139.14 (98.42, 182.17)	223.10 (160.26, 290.39)
Benin	3.10 (1.99, 4.44)	28.39 (18.23, 40.69)	58.86 (37.41, 83.26)	8.58 (5.84, 11.62)	78.58 (53.52, 106.50)	124.46 (85.32, 168.16)
Bermuda	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Bhutan	0.20 (0.13, 0.29)	26.43 (17.18, 37.83)	37.69 (24.18, 53.67)	0.70 (0.44, 0.99)	89.89 (57.38, 127.53)	120.96 (78.99, 170.14)
Bolivia	2.16 (1.39,	20.03 (12.91,	27.69 (17.71,	16.08 (10.71,	149.34 (99.51,	199.67 (131.35,

	3.05)	28.34)	39.25)	22.15)	205.76)	277.55)
Bosnia and Herzegovina	1.31 (0.86, 1.84)	34.35 (22.45, 48.37)	23.40 (15.40, 32.78)	2.71 (1.91, 3.59)	71.24 (50.11, 94.22)	48.35 (34.13, 63.61)
Botswana	0.35 (0.22, 0.50)	15.37 (9.81, 22.02)	24.81 (15.85, 35.70)	0.71 (0.33, 1.18)	31.32 (14.44, 52.24)	53.00 (26.08, 85.70)
Brazil	4.41 (2.80, 6.34)	2.12 (1.34, 3.05)	2.33 (1.50, 3.35)	16.97 (12.08, 21.84)	8.17 (5.81, 10.51)	8.80 (6.27, 11.28)
Brunei	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Bulgaria	2.50 (1.59, 3.61)	34.41 (21.82, 49.60)	20.53 (13.08, 29.27)	6.27 (4.42, 8.25)	86.29 (60.85, 113.56)	55.44 (39.18, 73.03)
Burkina Faso	4.35 (2.73, 6.24)	24.04 (15.12, 34.48)	56.15 (35.78, 79.70)	8.55 (6.01, 11.37)	47.26 (33.19, 62.82)	81.24 (58.85, 103.59)
Burundi	2.31 (1.43, 3.36)	20.52 (12.68, 29.88)	44.99 (28.60, 64.69)	3.99 (2.70, 5.41)	35.45 (24.04, 48.15)	62.29 (42.49, 84.83)
Cambodia	1.98 (1.26, 2.83)	12.68 (8.08, 18.16)	19.94 (12.95, 28.24)	12.83 (9.19, 16.42)	82.28 (58.93, 105.28)	119.54 (85.88, 153.06)
Cameroon	5.81 (3.63, 8.39)	24.83 (15.52, 35.84)	50.15 (31.94, 71.52)	21.11 (12.83, 30.99)	90.19 (54.82, 132.44)	133.16 (81.95, 194.45)
Canada	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Cape Verde	0.19 (0.13, 0.28)	37.42 (24.19, 53.26)	56.20 (36.22, 79.52)	0.36 (0.26, 0.48)	70.08 (49.24, 92.83)	95.20 (67.30, 125.84)
Central African Republic	1.29 (0.84, 1.85)	26.40 (17.04, 37.66)	49.12 (31.59, 70.11)	2.83 (1.89, 3.88)	57.76 (38.53, 79.11)	88.58 (59.53, 120.91)
Chad	3.68 (2.33, 5.29)	26.15 (16.56, 37.60)	62.49 (39.21, 89.07)	12.53 (8.60, 16.88)	89.10 (61.14, 120.06)	127.12 (88.85, 171.12)
Chile	5.86 (3.93, 8.15)	32.67 (21.89, 45.40)	28.63 (18.99, 39.72)	12.46 (8.21, 17.15)	69.41 (45.76, 95.58)	60.53 (40.65, 83.93)
China	331.78 (218.42, 466.00)	23.98 (15.79, 33.68)	21.03 (13.78, 29.52)	856.85 (624.59, 1,078.57)	61.94 (45.15, 77.96)	54.86 (40.22, 69.46)
Colombia	8.95 (5.86, 12.53)	18.55 (12.15, 25.96)	21.15 (13.94, 29.73)	22.82 (16.39, 29.50)	47.28 (33.95, 61.12)	56.01 (39.94, 71.97)
Comoros	0.11 (0.07, 0.16)	13.94 (8.47, 20.30)	26.87 (16.31, 39.51)	0.14 (0.08, 0.21)	17.18 (9.56, 26.49)	29.47 (16.21, 46.31)
Congo	1.11 (0.71, 1.58)	24.06 (15.39, 34.22)	46.15 (29.49, 65.68)	1.93 (1.27, 2.70)	41.69 (27.52, 58.39)	72.35 (47.47, 102.93)
Costa Rica	1.26 (0.82, 1.80)	26.29 (17.00, 37.51)	26.52 (16.89, 37.76)	4.34 (3.15, 5.51)	90.21 (65.46, 114.55)	90.06 (65.08, 114.16)

Cote d'Ivoire	6.07 (3.80, 8.80)	26.76 (16.73, 38.79)	54.16 (34.62, 77.47)	18.89 (12.82, 25.99)	83.25 (56.49, 114.55)	126.83 (83.68, 176.27)
Croatia	1.16 (0.76, 1.63)	27.24 (17.86, 38.51)	16.60 (10.83, 23.33)	2.35 (1.68, 3.03)	55.34 (39.71, 71.43)	31.67 (22.90, 40.74)
Cuba	1.78 (1.12, 2.57)	15.61 (9.86, 22.60)	11.49 (7.11, 16.73)	5.75 (4.12, 7.40)	50.51 (36.15, 64.94)	37.56 (27.06, 48.30)
Cyprus	0.13 (0.08, 0.19)	14.74 (9.42, 20.94)	11.20 (7.27, 15.77)	0.46 (0.33, 0.59)	51.55 (37.19, 66.01)	37.05 (26.77, 47.23)
Czech Republic	2.97 (1.93, 4.18)	27.72 (18.07, 39.04)	17.92 (11.67, 25.29)	3.88 (2.81, 4.91)	36.31 (26.31, 45.88)	22.97 (16.70, 28.99)
Democratic Republic of the Congo	16.28 (10.49, 23.09)	21.03 (13.55, 29.83)	47.02 (30.71, 66.80)	24.29 (17.18, 32.09)	31.38 (22.20, 41.45)	56.41 (39.94, 73.63)
Denmark	0.09 (0.06, 0.13)	1.57 (1.01, 2.25)	1.02 (0.65, 1.45)	0.16 (0.11, 0.21)	2.79 (1.94, 3.72)	1.68 (1.17, 2.23)
Djibouti	0.26 (0.16, 0.37)	28.73 (17.91, 41.12)	49.96 (31.19, 72.63)	0.37 (0.23, 0.54)	41.87 (26.26, 60.66)	63.99 (40.03, 92.06)
Dominica	0.01 (0.00, 0.01)	8.68 (5.45, 12.45)	8.83 (5.54, 12.83)	0.03 (0.02, 0.04)	45.61 (31.89, 60.63)	46.29 (32.37, 61.20)
Dominican Republic	1.36 (0.88, 1.93)	12.89 (8.38, 18.30)	15.83 (10.23, 22.46)	6.44 (4.54, 8.57)	61.16 (43.10, 81.36)	74.13 (51.99, 98.03)
Ecuador	0.70 (0.44, 1.00)	4.31 (2.70, 6.16)	5.33 (3.34, 7.71)	5.26 (3.72, 6.80)	32.54 (23.05, 42.11)	40.58 (28.89, 52.39)
Egypt	37.61 (24.40, 53.11)	41.26 (26.77, 58.26)	56.31 (37.08, 78.54)	86.38 (52.51, 126.17)	94.76 (57.61, 138.42)	140.01 (83.80, 210.08)
El Salvador	2.36 (1.56, 3.28)	38.47 (25.48, 53.52)	43.60 (29.03, 60.66)	18.89 (13.48, 24.53)	307.81 (219.64, 399.65)	346.83 (246.67, 453.72)
Equatorial Guinea	0.22 (0.14, 0.31)	26.05 (16.43, 37.21)	45.32 (29.33, 64.00)	0.24 (0.10, 0.40)	27.94 (11.75, 47.08)	46.88 (20.55, 77.19)
Eritrea	1.14 (0.71, 1.63)	21.69 (13.54, 31.09)	47.04 (29.89, 68.11)	1.83 (1.23, 2.51)	34.92 (23.54, 47.90)	64.88 (44.43, 89.00)
Estonia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Ethiopia	23.83 (15.00, 34.32)	23.97 (15.09, 34.52)	48.77 (30.22, 71.45)	44.18 (30.67, 58.65)	44.43 (30.85, 58.98)	79.02 (55.61, 105.48)
Federated States of Micronesia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Fiji	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)

Finland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
France	3.11 (2.03, 4.41)	4.76 (3.11, 6.77)	2.95 (1.91, 4.20)	4.23 (3.00, 5.48)	6.49 (4.60, 8.40)	3.31 (2.35, 4.27)
Gabon	0.50 (0.32, 0.70)	28.69 (18.34, 40.78)	46.46 (29.80, 66.25)	0.84 (0.53, 1.21)	48.90 (30.79, 70.37)	74.79 (47.27, 107.42)
Georgia	1.86 (1.20, 2.65)	46.54 (30.03, 66.21)	35.34 (23.26, 49.51)	3.65 (2.63, 4.71)	91.14 (65.70, 117.61)	72.98 (52.61, 94.05)
Germany	8.06 (5.24, 11.45)	9.63 (6.27, 13.69)	5.28 (3.45, 7.55)	20.35 (14.52, 26.20)	24.33 (17.36, 31.33)	11.19 (7.93, 14.43)
Ghana	8.84 (5.59, 12.70)	32.23 (20.38, 46.34)	58.37 (37.61, 83.81)	18.51 (13.07, 24.49)	67.52 (47.67, 89.31)	99.14 (69.87, 131.27)
Greece	1.07 (0.70, 1.50)	9.83 (6.44, 13.75)	5.43 (3.51, 7.64)	2.44 (1.73, 3.16)	22.35 (15.82, 28.97)	10.75 (7.65, 13.89)
Greenland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Grenada	0.01 (0.01, 0.02)	10.16 (6.56, 14.37)	11.75 (7.54, 16.63)	0.08 (0.05, 0.10)	70.22 (49.43, 92.89)	81.18 (56.83, 106.89)
Guam	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Guatemala	4.73 (3.07, 6.64)	28.94 (18.78, 40.59)	46.99 (30.68, 65.82)	26.09 (17.47, 35.84)	159.50 (106.84, 219.12)	246.08 (164.39, 337.58)
Guinea	3.04 (1.91, 4.35)	24.19 (15.18, 34.62)	48.23 (30.41, 69.71)	6.97 (4.64, 9.66)	55.45 (36.87, 76.79)	82.86 (55.23, 114.90)
Guinea-Bissau	0.68 (0.43, 0.97)	36.93 (23.20, 52.74)	70.17 (44.44, 100.88)	2.21 (1.53, 3.01)	119.33 (82.89, 162.89)	180.09 (123.43, 245.78)
Guyana	0.08 (0.05, 0.11)	9.99 (6.40, 14.25)	13.15 (8.41, 18.83)	0.52 (0.37, 0.68)	67.28 (47.75, 88.08)	80.77 (57.43, 105.42)
Haiti	2.23 (1.43, 3.18)	20.84 (13.32, 29.67)	33.43 (21.78, 47.35)	15.78 (9.78, 22.75)	147.20 (91.19, 212.16)	207.97 (129.75, 304.16)
Honduras	2.10 (1.34, 3.00)	25.89 (16.50, 37.04)	40.84 (26.30, 57.89)	13.57 (8.47, 19.78)	167.57 (104.57, 244.32)	269.11 (169.22, 385.92)
Hungary	3.19 (2.09, 4.53)	31.41 (20.59, 44.56)	20.06 (13.09, 28.12)	5.26 (3.84, 6.69)	51.78 (37.80, 65.79)	32.64 (23.78, 41.63)
Iceland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
India	321.95 (209.02, 458.60)	24.55 (15.94, 34.96)	32.64 (21.08, 46.40)	1,474.63 (1,061.17, 1,912.57)	112.43 (80.90, 145.82)	138.74 (99.54, 179.15)

Indonesia	20.12 (12.80, 28.94)	7.81 (4.97, 11.23)	9.92 (6.37, 14.17)	111.23 (80.12, 141.74)	43.18 (31.10, 55.02)	50.58 (36.47, 64.90)
Iran	28.80 (18.43, 40.61)	36.44 (23.32, 51.38)	45.00 (29.25, 63.43)	46.01 (31.39, 62.97)	58.22 (39.72, 79.67)	81.82 (54.70, 112.73)
Iraq	13.83 (8.95, 19.67)	37.97 (24.58, 54.01)	73.16 (47.17, 102.82)	40.16 (26.07, 56.62)	110.27 (71.57, 155.45)	229.39 (149.71, 321.96)
Ireland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Israel	2.09 (1.40, 2.89)	25.95 (17.34, 35.89)	23.94 (15.95, 33.16)	5.65 (3.94, 7.62)	70.20 (48.95, 94.67)	61.63 (42.72, 83.12)
Italy	14.15 (9.32, 20.00)	22.53 (14.84, 31.85)	12.06 (7.69, 17.11)	27.87 (20.24, 35.52)	44.38 (32.22, 56.56)	19.95 (14.40, 25.31)
Jamaica	0.48 (0.31, 0.69)	17.14 (11.12, 24.35)	17.84 (11.51, 25.43)	2.32 (1.45, 3.35)	82.00 (51.19, 118.28)	85.43 (54.56, 123.21)
Japan	21.47 (14.32, 30.11)	16.73 (11.16, 23.46)	8.23 (5.40, 11.60)	26.97 (19.23, 34.38)	21.02 (14.99, 26.79)	8.66 (6.18, 11.05)
Jordan	2.44 (1.58, 3.45)	32.19 (20.85, 45.56)	53.15 (34.73, 74.27)	6.45 (4.23, 9.15)	85.19 (55.83, 120.81)	159.42 (103.99, 222.47)
Kazakhstan	3.82 (2.42, 5.48)	21.77 (13.80, 31.22)	25.86 (16.34, 37.22)	6.30 (4.37, 8.45)	35.91 (24.95, 48.21)	39.04 (27.02, 52.79)
Kenya	3.80 (2.34, 5.50)	8.22 (5.06, 11.90)	17.10 (10.69, 24.81)	4.75 (3.21, 6.52)	10.28 (6.95, 14.12)	18.54 (12.62, 25.56)
Kiribati	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Kuwait	1.20 (0.77, 1.70)	30.72 (19.84, 43.62)	44.74 (29.67, 62.64)	1.05 (0.68, 1.49)	26.96 (17.38, 38.24)	69.41 (45.60, 96.77)
Kyrgyzstan	0.87 (0.56, 1.26)	14.82 (9.44, 21.32)	21.74 (13.81, 31.04)	2.17 (1.56, 2.81)	36.88 (26.53, 47.67)	42.44 (30.47, 54.85)
Laos	1.01 (0.65, 1.42)	14.81 (9.55, 20.85)	25.84 (16.91, 36.11)	7.60 (5.42, 10.03)	111.81 (79.72, 147.52)	162.90 (116.05, 212.45)
Latvia	0.77 (0.48, 1.11)	34.81 (21.71, 50.28)	20.85 (13.31, 30.06)	0.82 (0.60, 1.06)	37.18 (26.91, 48.02)	23.97 (17.24, 30.85)
Lebanon	2.04 (1.33, 2.89)	35.47 (23.14, 50.11)	37.86 (24.58, 53.38)	2.28 (1.59, 3.04)	39.53 (27.52, 52.77)	43.56 (30.06, 58.69)
Lesotho	0.57 (0.36, 0.80)	26.65 (16.99, 37.80)	46.85 (30.05, 66.51)	1.45 (0.88, 2.08)	68.07 (41.32, 97.76)	121.69 (77.01, 173.73)
Liberia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Libya	2.23 (1.42,	35.36 (22.49,	46.50 (29.87,	7.14 (4.85,	113.45 (77.09,	172.32 (119.22,

	3.19)	50.60)	65.78)	9.72)	154.34)	232.55)
Lithuania	0.89 (0.56, 1.28)	28.24 (17.74, 40.50)	17.04 (10.74, 24.36)	0.78 (0.56, 0.99)	24.78 (17.86, 31.54)	16.42 (11.84, 20.85)
Luxembourg	0.06 (0.04, 0.09)	11.11 (7.24, 15.74)	8.10 (5.21, 11.45)	0.11 (0.08, 0.14)	19.89 (14.17, 25.87)	13.41 (9.60, 17.33)
Macedonia	0.65 (0.42, 0.91)	31.14 (20.16, 43.97)	24.97 (16.15, 35.05)	1.60 (1.16, 2.03)	76.95 (56.06, 97.74)	60.84 (44.31, 77.06)
Madagascar	3.36 (2.10, 4.87)	13.87 (8.68, 20.13)	28.95 (18.03, 41.75)	5.80 (3.78, 8.11)	23.98 (15.64, 33.53)	39.25 (26.46, 54.52)
Malawi	3.00 (1.86, 4.35)	17.44 (10.78, 25.27)	39.69 (24.63, 58.00)	6.15 (4.15, 8.45)	35.72 (24.11, 49.08)	63.21 (42.89, 86.75)
Malaysia	2.42 (1.53, 3.50)	7.99 (5.04, 11.55)	9.96 (6.17, 14.52)	8.82 (6.28, 11.47)	29.11 (20.73, 37.88)	37.66 (26.80, 48.94)
Maldives	0.06 (0.04, 0.08)	16.04 (10.34, 22.99)	22.73 (14.69, 32.24)	0.35 (0.24, 0.48)	96.76 (64.94, 132.54)	148.14 (101.30, 203.53)
Mali	4.56 (2.88, 6.50)	25.95 (16.37, 36.99)	60.85 (38.91, 87.43)	11.76 (7.72, 16.48)	66.94 (43.93, 93.80)	100.92 (66.62, 141.60)
Malta	0.05 (0.03, 0.08)	12.63 (8.13, 18.04)	8.13 (5.27, 11.59)	0.12 (0.08, 0.16)	28.88 (19.97, 38.96)	17.53 (12.08, 23.68)
Marshall Islands	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Mauritania	1.32 (0.83, 1.90)	32.38 (20.25, 46.54)	58.81 (37.13, 84.70)	2.48 (1.61, 3.53)	60.69 (39.30, 86.46)	96.33 (62.60, 135.98)
Mauritius	0.24 (0.16, 0.35)	19.01 (12.30, 27.24)	17.24 (11.10, 24.57)	1.86 (1.30, 2.46)	146.16 (101.76, 192.74)	129.09 (90.56, 170.44)
Mexico	50.01 (33.33, 69.50)	39.37 (26.24, 54.71)	48.23 (31.98, 67.07)	260.98 (191.44, 327.02)	205.43 (150.69, 257.41)	255.19 (187.29, 320.56)
Moldova	0.63 (0.39, 0.92)	15.53 (9.66, 22.71)	13.72 (8.48, 20.01)	0.71 (0.51, 0.94)	17.51 (12.42, 23.01)	14.85 (10.67, 19.38)
Mongolia	1.04 (0.65, 1.49)	35.07 (21.99, 50.37)	51.89 (32.88, 74.65)	2.83 (1.30, 4.60)	95.77 (44.00, 155.77)	115.55 (59.53, 182.08)
Montenegro	0.17 (0.11, 0.25)	27.41 (17.04, 39.88)	20.89 (12.93, 30.41)	0.50 (0.36, 0.65)	80.06 (57.23, 103.50)	61.29 (44.27, 79.51)
Morocco	11.42 (7.35, 16.31)	33.22 (21.39, 47.46)	38.65 (24.66, 55.35)	42.69 (28.30, 59.15)	124.18 (82.33, 172.09)	151.44 (98.73, 213.29)
Mozambique	3.79 (2.38, 5.51)	13.53 (8.51, 19.68)	28.99 (18.34, 41.69)	6.78 (3.59, 10.58)	24.23 (12.83, 37.80)	40.01 (21.40, 62.78)
Myanmar	10.37 (6.58, 14.75)	19.20 (12.19, 27.30)	24.72 (15.88, 35.01)	61.62 (43.47, 81.51)	114.05 (80.47, 150.87)	139.84 (99.41, 183.83)

Namibia	0.48 (0.30, 0.68)	19.39 (12.30, 27.69)	34.76 (21.93, 49.98)	0.91 (0.55, 1.35)	37.20 (22.42, 54.94)	68.14 (41.46, 101.42)
Nepal	7.76 (5.03, 10.96)	27.19 (17.61, 38.40)	40.74 (25.91, 58.14)	26.15 (17.54, 36.12)	91.60 (61.45, 126.50)	130.76 (87.57, 179.62)
Netherlands	1.41 (0.93, 2.00)	8.20 (5.41, 11.61)	5.30 (3.47, 7.47)	2.42 (1.73, 3.16)	14.10 (10.06, 18.35)	8.19 (5.83, 10.64)
New Zealand	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Nicaragua	1.77 (1.16, 2.46)	29.07 (18.97, 40.43)	40.26 (26.36, 57.18)	13.96 (9.76, 18.71)	229.28 (160.23, 307.36)	310.15 (217.89, 411.28)
Niger	5.20 (3.31, 7.42)	26.20 (16.65, 37.37)	60.33 (38.50, 85.59)	13.81 (8.60, 20.07)	69.55 (43.33, 101.09)	105.32 (66.30, 150.45)
Nigeria	43.99 (27.51, 63.27)	24.11 (15.07, 34.67)	52.00 (33.07, 74.66)	41.45 (27.56, 58.05)	22.71 (15.10, 31.81)	32.30 (21.25, 45.22)
North Korea	7.11 (4.68, 9.91)	28.27 (18.59, 39.40)	29.04 (19.01, 40.78)	20.75 (14.76, 27.05)	82.46 (58.68, 107.52)	81.68 (58.19, 106.40)
Northern Mariana Islands	0.00 (0.00, 0.00)	2.71 (1.71, 3.93)	5.04 (3.25, 7.38)	0.01 (0.01, 0.02)	11.17 (7.31, 15.58)	24.92 (16.91, 34.15)
Norway	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Oman	1.47 (0.95, 2.08)	32.74 (21.18, 46.50)	51.15 (33.37, 71.18)	1.64 (1.19, 2.10)	36.53 (26.50, 46.90)	81.73 (59.02, 104.40)
Pakistan	34.42 (21.89, 48.96)	18.20 (11.58, 25.90)	28.80 (18.48, 41.01)	210.88 (125.43, 314.47)	111.54 (66.35, 166.34)	154.47 (89.68, 232.29)
Palestine	1.25 (0.78, 1.78)	26.71 (16.74, 38.13)	52.66 (33.84, 74.28)	4.32 (3.14, 5.52)	92.41 (67.13, 118.05)	212.38 (153.03, 269.56)
Panama	0.28 (0.18, 0.40)	7.09 (4.52, 10.09)	8.00 (5.19, 11.49)	1.05 (0.73, 1.41)	26.83 (18.48, 36.00)	30.07 (20.90, 40.10)
Papua New Guinea	0.07 (0.04, 0.10)	0.93 (0.58, 1.36)	1.67 (1.06, 2.43)	0.52 (0.30, 0.81)	6.86 (3.87, 10.63)	11.46 (6.63, 17.44)
Paraguay	0.49 (0.31, 0.70)	7.36 (4.69, 10.55)	10.05 (6.38, 14.56)	3.30 (2.33, 4.34)	49.62 (34.99, 65.31)	67.85 (47.96, 89.29)
Peru	4.64 (2.96, 6.61)	14.79 (9.43, 21.04)	18.57 (11.82, 26.30)	24.48 (16.62, 33.12)	77.98 (52.94, 105.51)	96.60 (65.85, 131.90)
Philippines	20.80 (13.13, 29.53)	20.63 (13.02, 29.29)	29.10 (18.93, 41.54)	186.82 (133.90, 240.91)	185.33 (132.84, 238.99)	255.18 (182.55, 330.77)
Poland	11.96 (7.93, 16.76)	30.74 (20.37, 43.07)	20.94 (13.63, 29.43)	17.47 (12.68, 22.34)	44.89 (32.60, 57.40)	30.18 (21.90, 38.44)
Portugal	0.00 (0.00,	0.00 (0.00,	0.00 (0.00,	0.00 (0.00,	0.00 (0.00,	0.00 (0.00, 0.00)

	0.00)	0.00)	0.00)	0.00)	0.00)	
Puerto Rico	0.86 (0.57, 1.22)	23.38 (15.40, 32.99)	17.72 (11.58, 25.08)	3.16 (2.28, 4.09)	85.78 (61.78, 110.89)	65.23 (46.53, 84.36)
Qatar	0.64 (0.41, 0.91)	28.76 (18.45, 41.08)	43.44 (28.83, 60.48)	0.60 (0.37, 0.89)	27.23 (16.48, 40.22)	85.38 (52.42, 125.21)
Romania	4.50 (2.95, 6.27)	23.05 (15.11, 32.11)	14.65 (9.64, 20.51)	9.22 (6.64, 11.78)	47.22 (34.00, 60.35)	30.85 (22.35, 39.37)
Russia	24.25 (14.97, 35.25)	16.37 (10.11, 23.80)	12.26 (7.66, 17.92)	28.83 (17.30, 42.90)	19.46 (11.68, 28.96)	15.07 (9.09, 22.33)
Rwanda	2.16 (1.34, 3.16)	18.59 (11.49, 27.16)	38.97 (23.92, 56.67)	3.09 (1.85, 4.56)	26.57 (15.90, 39.25)	48.01 (27.89, 71.57)
Saint Lucia	0.02 (0.01, 0.02)	8.62 (5.35, 12.60)	8.46 (5.30, 12.23)	0.07 (0.05, 0.09)	39.69 (28.34, 51.29)	38.79 (27.60, 50.27)
Saint Vincent and the Grenadines	0.01 (0.01, 0.01)	8.60 (5.41, 12.47)	9.38 (5.98, 13.62)	0.05 (0.04, 0.07)	46.42 (32.95, 60.58)	49.69 (35.22, 64.45)
Samoa	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Sao Tome and Principe	0.02 (0.01, 0.02)	8.42 (5.27, 12.30)	16.18 (10.16, 23.39)	0.06 (0.04, 0.08)	30.25 (19.95, 42.51)	50.89 (34.43, 70.03)
Saudi Arabia	9.55 (6.17, 13.59)	30.39 (19.64, 43.22)	45.30 (29.76, 63.49)	24.50 (17.61, 31.42)	77.94 (56.01, 99.95)	163.92 (119.09, 209.47)
Senegal	4.70 (2.98, 6.76)	31.09 (19.73, 44.71)	64.85 (41.07, 93.06)	12.48 (8.87, 16.46)	82.62 (58.69, 108.93)	136.81 (98.45, 176.64)
Serbia	2.52 (1.62, 3.55)	28.40 (18.33, 40.09)	18.58 (12.08, 26.25)	7.15 (5.19, 9.13)	80.74 (58.65, 103.06)	52.76 (38.15, 66.92)
Seychelles	0.01 (0.00, 0.01)	5.72 (3.48, 8.36)	5.94 (3.76, 8.61)	0.05 (0.04, 0.07)	53.82 (37.25, 72.00)	56.39 (38.89, 75.12)
Sierra Leone	0.87 (0.54, 1.26)	13.52 (8.40, 19.57)	28.68 (17.81, 41.78)	2.50 (1.64, 3.50)	38.71 (25.34, 54.12)	56.96 (38.11, 79.27)
Singapore	0.95 (0.63, 1.33)	24.28 (16.15, 33.90)	19.00 (12.57, 26.55)	1.73 (1.19, 2.35)	44.08 (30.37, 59.92)	36.25 (24.74, 49.52)
Slovakia	1.39 (0.89, 1.98)	24.98 (15.97, 35.70)	18.19 (11.63, 26.15)	2.49 (1.77, 3.23)	44.78 (31.88, 58.16)	32.63 (23.12, 42.46)
Slovenia	0.51 (0.33, 0.73)	24.86 (16.15, 35.49)	15.15 (9.85, 21.15)	0.49 (0.35, 0.64)	23.98 (17.15, 31.24)	12.93 (9.30, 16.75)
Solomon Islands	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Somalia	1.70 (1.06, 2.46)	15.65 (9.79, 22.69)	32.99 (20.74, 47.70)	3.16 (2.08, 4.47)	29.12 (19.22, 41.19)	51.46 (33.43, 72.91)

South Africa	19.72 (12.80, 27.66)	36.70 (23.82, 51.49)	48.91 (31.84, 68.99)	58.33 (42.65, 73.98)	108.58 (79.39, 137.71)	137.43 (99.68, 173.95)
South Korea	17.38 (11.76, 23.83)	34.56 (23.38, 47.39)	25.33 (17.04, 34.81)	23.55 (15.11, 33.25)	46.84 (30.04, 66.12)	34.25 (22.30, 47.93)
South Sudan	2.99 (1.89, 4.30)	24.33 (15.36, 34.97)	51.75 (32.09, 75.36)	4.35 (2.72, 6.21)	35.39 (22.17, 50.52)	59.89 (37.95, 85.45)
Spain	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Sri Lanka	4.86 (3.15, 6.82)	23.41 (15.19, 32.87)	23.28 (14.92, 33.03)	22.08 (14.85, 30.20)	106.42 (71.55, 145.57)	105.07 (70.89, 142.32)
Sudan	12.33 (7.95, 17.47)	30.53 (19.68, 43.26)	54.58 (36.28, 75.67)	39.11 (26.35, 54.08)	96.84 (65.23, 133.89)	169.37 (111.48, 238.89)
Suriname	0.07 (0.05, 0.10)	13.05 (8.47, 18.56)	14.93 (9.48, 21.37)	0.47 (0.33, 0.61)	85.96 (60.88, 112.08)	97.82 (69.19, 128.13)
Swaziland	0.27 (0.18, 0.39)	21.09 (13.74, 29.99)	40.62 (26.32, 58.01)	0.66 (0.34, 1.02)	50.88 (26.32, 78.97)	97.54 (51.30, 152.07)
Sweden	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Switzerland	0.57 (0.36, 0.82)	6.86 (4.36, 9.91)	4.31 (2.76, 6.29)	0.70 (0.47, 0.98)	8.48 (5.71, 11.87)	4.52 (2.97, 6.31)
Syria	5.14 (3.24, 7.40)	27.61 (17.38, 39.72)	43.40 (27.65, 62.59)	11.80 (7.54, 16.82)	63.35 (40.48, 90.33)	102.17 (57.85, 152.97)
Tajikistan	2.03 (1.29, 2.92)	23.91 (15.12, 34.36)	42.03 (26.52, 59.98)	5.11 (3.56, 6.86)	60.10 (41.84, 80.63)	75.56 (52.60, 101.68)
Tanzania	9.90 (6.17, 14.29)	18.55 (11.56, 26.78)	40.10 (25.68, 57.59)	19.58 (13.68, 25.94)	36.68 (25.63, 48.61)	62.52 (43.89, 83.87)
Thailand	19.46 (12.54, 27.84)	28.66 (18.47, 41.01)	24.40 (15.75, 34.46)	100.91 (72.11, 129.44)	148.63 (106.22, 190.66)	123.20 (88.60, 158.83)
The Bahamas	0.02 (0.02, 0.04)	6.44 (4.06, 9.24)	6.61 (4.24, 9.53)	0.14 (0.10, 0.18)	35.02 (24.58, 45.95)	34.98 (24.53, 46.16)
The Gambia	0.49 (0.30, 0.70)	24.38 (15.15, 35.15)	58.57 (36.46, 83.32)	1.07 (0.72, 1.46)	53.54 (36.11, 73.20)	94.33 (64.94, 127.22)
Timor-Leste	0.06 (0.04, 0.08)	4.88 (3.09, 7.11)	8.33 (5.23, 12.16)	0.26 (0.15, 0.38)	21.44 (12.65, 32.18)	33.00 (19.72, 49.20)
Togo	2.07 (1.31, 2.98)	28.36 (17.92, 40.75)	56.83 (36.28, 81.33)	4.67 (2.87, 6.81)	64.00 (39.31, 93.21)	101.35 (62.08, 148.63)
Tonga	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Trinidad and	0.13 (0.09,	9.87 (6.43,	9.21 (5.95,	0.66 (0.47,	48.28 (34.29,	43.77 (30.97, 56.85)

Tobago	0.19)	14.19)	13.14)	0.86)	62.87)	
Tunisia	5.07 (3.34, 7.12)	45.09 (29.67, 63.28)	46.29 (30.89, 65.29)	12.17 (7.73, 17.42)	108.15 (68.69, 154.83)	119.91 (75.89, 170.51)
Turkey	45.45 (29.94, 63.66)	57.96 (38.18, 81.17)	61.97 (41.33, 87.17)	57.26 (39.37, 77.22)	73.02 (50.20, 98.47)	81.84 (56.78, 110.38)
Turkmenistan	1.83 (1.16, 2.62)	33.95 (21.59, 48.71)	48.87 (30.36, 70.58)	6.24 (4.59, 7.85)	115.93 (85.24, 145.79)	142.94 (104.59, 179.26)
Uganda	6.61 (4.18, 9.36)	16.88 (10.68, 23.90)	43.89 (27.79, 62.74)	13.81 (9.65, 18.39)	35.28 (24.65, 46.98)	68.61 (48.46, 90.65)
Ukraine	7.71 (4.83, 11.11)	16.57 (10.39, 23.89)	11.49 (7.25, 16.69)	7.50 (4.90, 10.53)	16.13 (10.54, 22.64)	12.08 (7.91, 17.11)
United Arab Emirates	3.57 (2.31, 5.03)	39.03 (25.29, 54.98)	53.70 (34.58, 75.47)	8.00 (4.68, 11.84)	87.50 (51.13, 129.41)	163.20 (100.84, 238.05)
United Kingdom	2.83 (1.83, 4.04)	4.41 (2.85, 6.29)	2.86 (1.84, 4.08)	3.50 (2.51, 4.47)	5.45 (3.90, 6.95)	3.25 (2.33, 4.16)
United States	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Uruguay	0.13 (0.08, 0.19)	3.82 (2.45, 5.46)	2.89 (1.87, 4.11)	0.28 (0.20, 0.37)	8.20 (5.80, 10.65)	6.08 (4.30, 7.89)
Uzbekistan	8.33 (5.38, 11.72)	27.84 (17.96, 39.15)	38.59 (24.71, 54.94)	28.11 (20.38, 36.24)	93.89 (68.06, 121.04)	106.63 (77.03, 136.37)
Vanuatu	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Venezuela	7.91 (5.20, 11.19)	25.44 (16.70, 35.98)	31.92 (20.84, 45.23)	40.84 (28.56, 54.04)	131.29 (91.82, 173.73)	161.68 (113.49, 214.22)
Vietnam	14.83 (9.73, 20.94)	15.86 (10.41, 22.41)	17.29 (11.43, 24.17)	88.96 (63.22, 116.91)	95.17 (67.64, 125.08)	105.85 (75.39, 138.02)
Virgin Islands, U.S.	0.02 (0.01, 0.02)	15.19 (9.45, 22.03)	10.49 (6.59, 15.10)	0.08 (0.06, 0.11)	76.75 (53.39, 102.08)	51.16 (35.43, 68.56)
Yemen	7.74 (4.93, 11.13)	28.77 (18.33, 41.37)	59.85 (38.83, 84.91)	22.09 (13.44, 32.34)	82.07 (49.93, 120.17)	175.22 (107.99, 256.20)
Zambia	3.18 (2.01, 4.54)	19.56 (12.36, 27.95)	43.73 (27.72, 62.35)	7.69 (5.13, 10.63)	47.32 (31.59, 65.40)	86.42 (57.46, 119.13)
Zimbabwe	3.53 (2.25, 5.09)	22.69 (14.45, 32.70)	48.08 (30.43, 68.21)	10.03 (6.54, 14.17)	64.40 (41.97, 90.99)	137.14 (89.08, 194.76)

Years living with disability, YLD; Years of life lost, YLL

Checklist of information that should be included in new reports of global health estimates

Item #	Checklist item	Reported on page #
Objectives and funding		
1	Define the indicator(s), populations (including age, sex, and geographic entities), and time period(s) for which estimates were made.	Abstract, 3-4
2	List the funding sources for the work.	16
Data Inputs		
For all data inputs from multiple sources that are synthesized as part of the study:		
3	Describe how the data were identified and how the data were accessed.	3-4
4	Specify the inclusion and exclusion criteria. Identify all ad-hoc exclusions.	3-4
5	Provide information on all included data sources and their main characteristics. For each data source used, report reference information or contact name/institution, population represented, data collection method, year(s) of data collection, sex and age range, diagnostic criteria or measurement method, and sample size, as relevant.	3-4
6	Identify and describe any categories of input data that have potentially important biases (e.g., based on characteristics listed in item 5).	3-4, 14-15
For data inputs that contribute to the analysis but were not synthesized as part of the study:		
7	Describe and give sources for any other data inputs.	3-4
For all data inputs:		
8	Provide all data inputs in a file format from which data can be efficiently extracted (e.g., a spreadsheet rather than a PDF), including all relevant meta-data listed in item 5. For any data inputs that cannot be shared because of ethical or legal reasons, such as third-party ownership, provide a contact name or the name of the institution that retains the right to the data.	All data is publicly available. References are provided.
Data analysis		
9	Provide a conceptual overview of the data analysis method. A diagram may be helpful.	7
10	Provide a detailed description of all steps of the analysis, including mathematical formulae. This description should cover, as relevant, data cleaning, data pre-processing, data adjustments and weighting of data sources, and mathematical or statistical model(s).	4-8
11	Describe how candidate models were evaluated and how the final model(s) were selected.	N/A
12	Provide the results of an evaluation of model performance, if done, as well as the results of any relevant sensitivity analysis.	N/A
13	Describe methods for calculating uncertainty of the estimates. State which sources of uncertainty were, and were not, accounted for in the uncertainty analysis.	7
14	State how analytic or statistical source code used to generate estimates can be accessed.	N/A
Results and Discussion		
15	Provide published estimates in a file format from which data can be efficiently extracted.	Supplemental table 1-5
16	Report a quantitative measure of the uncertainty of the estimates (e.g. uncertainty intervals).	All estimates come with 95% Uncertainty Intervals
17	Interpret results in light of existing evidence. If updating a previous set of estimates, describe the reasons for changes in estimates.	12-15

18	Discuss limitations of the estimates. Include a discussion of any modelling assumptions or data limitations that affect interpretation of the estimates.	15-16

This checklist should be used in conjunction with the GATHER statement and Explanation and Elaboration document, found on gather-statement.org

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Estimates of the 2016 Global Burden of Kidney Disease Attributable to Ambient Fine Particulate Matter Air Pollution

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Estimates of the 2016 Global Burden of Kidney Disease Attributable to Ambient Fine Particulate Matter Air Pollution

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Abstract:

Objective: To quantitate the 2016 global and national burden of chronic kidney disease (CKD) attributable to ambient fine particulate matter air pollution ($PM_{2.5}$).

Design: We used the Global Burden of Disease (GBD) study data and methodologies to estimate the 2016 burden of CKD attributable to $PM_{2.5}$ in 194 countries and territories. Population weighted $PM_{2.5}$ levels and incident rates of CKD for each country were curated from the GBD study publicly available data sources.

Setting: GBD global and national data on $PM_{2.5}$ and CKD

Participants: 194 countries and territories.

Main outcome measures: We estimated the attributable burden of disease (ABD), years living with disability (YLD), years of life lost (YLL), and disability-adjusted life-years (DALYs).

Results: The 2016 global burden of incident CKD attributable to $PM_{2.5}$ was 6,950,514 (95% Uncertainty Interval: 5,061,533-8,914,745). Global YLD, YLL, and DALYs of CKD attributable to $PM_{2.5}$ were 2,849,311 (1,875,219-3,983,941), 8,587,735 (6,355,784-10,772,239), and 11,445,397 (8,380,246-14,554,091), respectively. Age-standardized ABD, YLL, YLD, and DALY rates varied substantially among geographies. Populations in Mesoamerica, Northern Africa, several countries in the Eastern Mediterranean region, Afghanistan, Pakistan, India, and several countries in Southeast Asia were amongst those with highest age-standardized DALY rates. For example, age-standardized DALYs per 100,000 were 543.35 (391.16-707.96) in El Salvador, 455.29 (332.51-577.97) in Mexico, 408.41 (283.82-551.84) in Guatemala, 238.25 (173.90-303.98) in India, and 178.26 (125.31-238.47) in Sri Lanka, compared to 5.52 (0.82-11.48) in Sweden, 6.46 (0.00-14.49) in Australia, and 12.13 (4.95-21.82) in Canada. Frontier analyses showed that Mesoamerican countries had significantly higher CKD DALY rates relative to other countries with comparable socio-demographic development.

Conclusions: Our results demonstrate that the global toll of CKD attributable to ambient air pollution is significant, and identify several endemic geographies where air pollution may be a significant driver of CKD burden. Air pollution may need to be considered in the discussion of the global epidemiology of CKD.

Strengths and limitation of this study:

- The study leveraged the availability of the Global Burden of Disease study data which is the most comprehensive compilation and analysis of global health information available.
- The study quantitated the burden of CKD attributable to air pollution using the combined measure of disability-adjusted-life-years (DALYs) which comprehensively captures the years of healthy life lost due to dying prematurely and to the years living with disability.
- For each estimate reported in this study, we also provide a measure of uncertainty (Uncertainty Intervals) to reflect how much is known, but more importantly how much is not known.
- The burden was quantitated at the country level, the study does not provide subnational estimates of CKD burden.
- Global burden of disease estimates while considered robust and reliable, are necessarily limited by the quality of the available data.

Introduction:

Several studies described substantial geographic variation in the burden of chronic kidney disease (CKD) that cannot be explained by traditional drivers including diabetes, and hypertension[1-4]. It was suggested that other risk factors including environmental pollution may explain these geographic variations[5]. We recently characterized fine particulate matter of <2.5 μm in aerodynamic diameter ($PM_{2.5}$) as a novel risk factor for development and progression of kidney disease and described a linear relationship between exposure to levels of $PM_{2.5}$ and risk of incident CKD, kidney disease progression, and end stage renal disease[6].

The global burden of kidney disease attributable to ambient air pollution has not been previously described. A quantitative assessment of the global burden of kidney disease attributable to air pollution might explain some of the geographic variation in burden of kidney disease, help identify endemic areas, and contribute to the global and national discussions about the effect of environmental pollution on non-communicable disease in general, and more specifically on the potential impact of air pollution on the global epidemiology of CKD. In this work, we used the Global Burden of Disease (GBD) study methodologies to estimate the burden of CKD attributable to fine particulate matter air pollution in 194 countries and territories using the following measures: attributable burden of disease (ABD), years living with disability (YLD), years of life lost (YLL), and disability-adjusted life years (DALYs).

Methods:

Global Data Sources:

National $PM_{2.5}$ exposure levels were obtained from publicly available 2016 Global Burden of Disease data (GBD)[7-9]. The GBD $PM_{2.5}$ values are derived from the integration of satellite data, surface measurements, geographic data, and a chemical transport model, at a 1-degree (approximately 11 by 11 km at the equator) resolution, and then aggregated to national level population weighted means to produce a national exposure estimate[7 8]. Estimates of global and national incident rates, YLDs, YLLs, DALYs of chronic kidney disease, and their uncertainty levels were obtained from the publicly available 2016 GBD[10 11]. The GBD aims to use all accessible information on disease occurrence, natural history, and severity that meets inclusion criteria, drawing on a large network collaborators for subject matter expertise on disease and injury to generate

internally consistent, comprehensive global health statistics on the burden of disease[12]. GBD uses an integrative Bayesian meta-regression method which estimates a generalized negative binomial model for all epidemiological data through DisMod-MR 2.1 to compute GBD estimates of disease burden including YLDs, YLLs, and DALYs[12]. Estimates are generated using hierarchical modeling methodology that accounts for temporal, geospatial, sex, age, and cause specific variance to establish attributable burden of kidney disease across all levels of the GBD framework[10 13-16]. Key to GBD estimates are the propagation of uncertainty through the modeling process, which incorporates uncertainty due to diversity in data sources, sparsity of data for some parts of the world, modeling choices, and other factors which impact estimation such as the determination of disability weights. Detailed descriptions of overall GBD 2016 methodologies and specific CKD methodology have been provided elsewhere[10 12-17]. Population size was obtained from the GBD Population Estimates dataset[18]. Country income classifications were obtained from the World Bank[19].

$PM_{2.5}$ Risk Estimation:

$PM_{2.5}$ risk estimation was obtained from prior work assessing the association of $PM_{2.5}$ with kidney disease outcomes[6]. Department of Veterans Affairs datasets were linked with the Center for Disease Control's (CDC) National Environmental Public Health Tracking Network annual particulate matter estimates for the contiguous United States, which originates from Community Multiscale Air Quality (CMAQ) modeled output[20]. Time dependent adjusted Cox Proportional Hazard survival models, where cohort participants' exposure was updated annually and upon movement in residence, were used to investigate the association between $PM_{2.5}$ and time until incident eGFR <60 ml/min/1.73m^2. Models were adjusted for age, race, sex, cancer, cardiovascular disease, chronic lung disease, diabetes mellitus, hyperlipidemia, hypertension, eGFR at time of cohort entry, body mass index, smoking status, angiotensin-converting enzyme inhibitor/angiotensin receptor blocker use, county population density, number of outpatient eGFR measurements, number of hospitalizations, and county percent in poverty. Restricted cubic spline analyses of $PM_{2.5}$ suggested no deviation from linearity in the range of $PM_{2.5}$ in the study (5.0-22.1 μg/m^3). Alternate analyses using time zero exposure values, and using NASA data as an alternate exposure source produced consistent results[21 22]. Ambient sodium levels were investigated as a negative control, where there existed no biologic bases to support an association with risk of incident CKD. Results for every interquartile range (the distance between the 25th and 75th percentile;

0.046 μg/m^3) increase in sodium showed a vanishingly weak association, 0.99 (0.99-0.99). Results were consistent in sensitivity analyses that used ground level measures only, and that assessed potential confounding by shared regional characteristics[6]. To estimate risk in each country, we relied on the $PM_{2.5}$ pollution and risk relationship characterized in the prior study described above[23] where $PM_{2.5}$ levels ranged from 5.0 to 22.1 μg/m^3 [23]. In this study, we took a conservative approach where we considered annual average $PM_{2.5}$ exposure greater than 22.1 μg/m^3 to contribute the same amount of risk as an exposure of 22.1 μg/m^3 [7 24]. This approach is supported by findings from GBD and several other studies where integrated exposure response functions suggest that risk of adverse health outcomes of $PM_{2.5}$ pollution levels off (follows a near plateau morphology) at $PM_{2.5}$ concentrations exceeding 20-25 μg/m^3 [7 8 25].

Population Attributable Fraction (PAF) and Attributable Burden of Disease (ABD):

The PAF of CKD due to $PM_{2.5}$ exposure above the theoretical minimum risk exposure level (TMREL) was calculated using an adapted Global Burden of Disease equation[14]. This PAF can be interpreted as the proportion of incident CKD attributable to $PM_{2.5}$ exposure that exceeds the TMREL. The Proportional Hazards based equation for PAF in a country is:

$$PAF = \frac{HR(x) - HR(TMREL)}{HR(x)}$$

where HR(x) is the hazard ratio for $PM_{2.5}$ at the national exposure level, and HR(TMREL) is the hazard ratio for $PM_{2.5}$ at the TMREL. The TMREL was defined according to the Global Burden of Disease (GBD) study methodologies[8 26 27]. The TMREL was assigned as a uniform distribution of $PM_{2.5}$ from 2.4 to 5.9 μg/m^3, which represents exposure values between the minimum and fifth percentiles of exposure distributions from outdoor air pollution cohort studies included in the GBD anlayses[8 26 27]. Levels under the TMREL were treated as contributing no risk[8]. Results were repeated utilizing the World Health Organization (WHO) Air Quality Guidelines for annual average of $PM_{2.5}$ concentration of 10 μg/m^3 as the TMREL[28].

Burden of CKD attributable to $PM_{2.5}$ above the TMREL, as the number of incident CKD per year attributable to $PM_{2.5}$ above the TMREL, was calculated using estimates from the 2016 GBD[13], from the equation:

$$ABD = PAF * IR * population$$

where PAF is the population attributable fraction, IR is the incident rate of CKD, and population those in which the burden is being assessed[2]. Results were repeated utilizing the WHO TMREL.

Years Living with Disability (YLD), Years of Life Lost (YLL), and Disability Adjusted Life years (DALYs):

YLD, YLL, and DALY values were estimated by multiplying the CKD specific GBD values of the corresponding burden measure by the PAF[13 17], resulting in YLD, YLL, and DALY values due to CKD attributable to $PM_{2\cdot5}$. YLD, YLL, and DALY estimates due to chronic kidney disease were obtained from the GBD results tool[10 11]. The basis of their calculation is presented below, further information has been described elsewhere[13 17]. Results were repeated utilizing the WHO TMREL.

YLD due to CKD is calculated as:

$$YLD = I * DW * R$$

where I is the incident cases of CKD in the population, DW is the disability weight for CKD representative of the severity of its impact on a person's life (0, no impact, to 1, the same as death), and R is the average duration of CKD until remission or death. YLD due to CKD is a measure of the burden placed on a population due to the ill-effects of living with CKD[29].

Years of Life Lost due to CKD is calculated using the equation:

$$YLL = N * L$$

where N is the number of deaths due to CKD, and L is the difference between age of death and average life expectancy due to CKD. YLL due to CKD is a measure of the burden placed on a population due to dying prematurely from CKD. Estimates of the difference between average life expectancy and age of death from CKD come from a GBD set of age and location-year specific life tables[10 13-16].

Disability Adjusted Life Years due to CKD is calculated using the equation:

$$DALY = YLD + YLL$$

The DALY due to CKD is a summary measure of YLD and YLL and represents the total years of healthy life lost due to ill-health, disability, or early death due to CKD.

Measure Estimation and Uncertainty:

In order to incorporate the uncertainty in measurements used in our estimation, all measures were generated from a distribution of 10,000 predictions, where the median (UI: 2.5th-97.5th percentile) are reported. Predictions incorporated uncertainty by randomly sampling from, unless otherwise specified, constructed normal distributions of the relevant measures. Uncertainty was derived from the TMREL distribution, the standard error of the $PM_{2.5}$ beta estimate, and the uncertainty of the incident rates, YLD, YLL and DALY from the GBD data. While accounting for variability in measures, measures sampled under zero were set to zero. Values of zero thus represent instances of estimated zero burden, reflective of areas where the corresponding $PM_{2.5}$ levels are below the TMREL distribution, or where uncertainty was enough to result in such estimates. Maps of age-standardized rates are presented. All analyses were performed in SAS Enterprise Guide version 7.1 (SAS Institute, Cary, NC). Maps were generated using Arc Map 10 (ESRI, Redlands, CA). The circular layout image was generated using the Circos software package[30].

Frontier Analysis:

Frontier analysis was conducted as a quantitative methodology to identify the lowest potentially achievable age standardized DALYs on the basis of development status as measured by the Socio-demographic Index (SDI). SDI is a summary measure of a country or territory's socio-demographic development; it is a composite measure of average income per person, educational attainment, and total fertility rate in any given country. The minimum possible SDI is zero, maximum is 100; it is comparable across geography and over time[31]. The DALYs frontier delineates the minimum DALY that could be achieved for every geography (country or territory) given its SDI. Distance from the frontier is termed effective difference; if a country or territory exhibits a large effective difference from the frontier given its SDI, then this likely suggests unrealized opportunities for gains or improvement (reduction in DALYs) that should be possible based on the country or territory's state on the development spectrum. A data envelope analysis, which allows for non-linear frontiers, utilizing the free disposal hull method was developed to produce a frontier for age adjusted DALYs[31-33]. In order to account for uncertainty, we used 1,000 bootstrapped samples of the data, randomly sampling with replacement from all countries and territories. LOESS regression was then used on this result to produce a smoothed frontier[31]. Super-efficient countries were excluded, to remove the influence of outliers, in the generation of the

frontier[31]. Absolute distances from the frontier of each country are reported as effective difference, where any countries with lower DALYs than the frontier were assigned a zero distance.

In order to account the effect of variation in prevalence of primary drivers of CKD (hypertension and diabetes) on differences in overall DALY rates, we repeated the frontier analysis following a decomposition analysis to generate risk deleted cause-specific age standardized DALY rates of CKD attributable to $PM_{2.5}$[17], where risks deleted were hypertension and diabetes. Diabetes and Hypertension cause specific CKD rates were obtained from the 2016 GBD, which were then subtracted from overall rates and then multiplied by the PAF[11]. The risk deleted DALY can be conceptualized by the formula:

$$DALY_O = DALY_{DHO} * (1 - PAF_{DH})$$

Where $DALY_O$ is the DALY due to other causes, $DALY_{DHO}$ is the DALY due to all three causes, and PAF_{DH} is the population attributable fraction due to diabetes and hypertension.

Patient involvement:

No patients were involved in developing the aims, design, or implementation of this study. No patients were involved in the interpretation of study results, or write up of the manuscript.

Results:

Global burden of kidney disease attributable to air pollution:

In 2016, the global annual burden of incident CKD attributable to elevated $PM_{2.5}$ was, in 1000s, 6,950.51 (95% Uncertainty Interval: 5,061.53-8,914.74). ABD rate per 100,000 people was 94.29 (68.67, 120.94), and age standardized ABD rate per 100,000 was 101.39 (74.49, 129.69) (table 1).

The 2016 global YLD, YLL, and DALYs of CKD attributable to elevated $PM_{2.5}$ are reported in table 2 as absolute values in 1000s, rates per 100,000 population, and age standardized rates per 100,000. Age standardized rates for YLD, YLL, and DALYs were 40.97 (26.84, 57.11), 122.71 (90.36, 153.52), and 163.69 (120.58, 207.28), respectively (table 2).

Burden of kidney disease attributable to air pollution at the national level:

ABD, YLD, YLL, and DALYs reported as absolute values, as rates per 100,000 population, and as age standardized rates per 100,000 population for 10 most populated countries (table 1 and 2), and for 194 countries and territories are provided in supplemental table 1 and supplemental table 2.

Among the 10 most populated countries in the world, India followed by China had the highest attributable burden of incident CKD due to air pollution globally (ABD=1,092.52, UI=791.38-1407.28, and 766.73, 558.72-985.14, in 1000s, respectively). India also outranked China in estimates standardized by population size, and age distribution (table 1). Age standardized ABD in the 10 most populated countries showed Nigeria, Bangladesh, and India having high burden exceeding 100 incident cases of CKD per 100,000 population (table 1). Age standardized ABD per 100,000 population varied substantially among geographies; where it was highest in Guinea-Bissau, El Salvador, Senegal, Togo, Benin, Mauritania, Chad, Ghana, Niger, and Mali (supplemental table 1, figure 1). Mapping the geographic distribution of age standardized ABD rates showed high burden in Mesoamerica, several countries in Central and South Africa, Mongolia, and several countries in the Far East and the Eastern Mediterranean region (figure 1). Countries with the lowest age standardized ABD per 100,000 population included Canada, Greenland, several countries in Scandinavia, Brunei, New Zealand, and Australia (supplemental table 1, figure 1).

Years Living with Disability:

Estimates for YLD in absolute terms, rates per 100,000 population, and age standardized YLL rates are provided in table 2 for the 10 most populated countries, and in supplemental table 2 for 194 countries and territories. Among the 10 most populated countries, Nigeria had the highest age standardized YLD rate per 100,000 population (YLD=71.93, UI=45.61-103.27), followed by Bangladesh (45.58, 28.89-64.56), and then India (45.40, 29.19-64.54). Among all countries, Iraq, Afghanistan, Guinea-Bissau, Senegal, Chad, Turkey, Mali, Niger, and Yemen had the highest age standardized YLD rate per 100,000 population (supplemental table 2, figure 2).

Years of Life Lost:

Estimates for YLL in absolute numbers, rates per 100,000 population, and age standardized rates per 100,000 population for 10 most populated countries and for 194 countries and territories are provided in table 2 and supplemental table 2, respectively. Among the 10 most populated countries, Pakistan had the highest age standardized YLL per 100,000 population (YLL=215.59, UI=123.95-322.52), followed by India (192.55, 138.73-249.04), and then Bangladesh (137.57, 98.14-179.69). Among all countries and territories, Afghanistan, El Salvador, Nicaragua, Mexico, Honduras, Philippines, Guatemala, Iraq, Palestine, and Belize had the highest age standardized YLL per 100,000 population (supplemental table 2, figure 3).

Disability-Adjusted Life-Years:

Among the 10 most populated countries, India had the highest DALY (DALY=2,502.15, UI=1,827.96-3,204.77 in 1000s), followed by China (1,651.72, 1,212.35-2,103.21), and then Pakistan (342.45, 213.87-492.17) (table 2). DALY rates per 100,000 population showed that India remained on top with DALY rate of 190.77 (UI=139.37-244.33), followed by Pakistan with DALY rate of 181.14 (UI=113.12-260.33), then Bangladesh with DALY rate of 136.84 (UI=99.13-176.20) (table 2). Age standardized DALY rates showed Pakistan leading, followed by India, then Bangladesh with age adjusted DALY rates of 254.25 (UI=157.33-365.23), 238.25 (UI=173.90-303.98), and 183.21 (132.76-236.87), respectively.

Among all countries and territories, those with the highest age standardized DALY rates included Afghanistan, El Salvador, Nicaragua, Mexico, Honduras, Iraq, Guatemala, Philippines, Palestine, and Belize (supplemental table 2). Mapping the geographic distribution of age standardized DALY rates across the globe showed populations in Mesoamerica, Northern Africa, South Africa, several countries in the Eastern Mediterranean Region, Afghanistan, Pakistan, India, and several countries in Southeast Asia were amongst those with highest age standardized DALY rates (figure 4). For example, age standardized DALYs per 100,000 were 543.35 (391.16-707.96) in El Salvador, 455.29 (332.51-577.97) in Mexico, 408.41 (283.82-551.84) in Guatemala, 295.39 (203.17-401.39) in Jordan, 273.55 (184.84-379.35) in Egypt, 264.23 (181.58-360.76) in Morocco, 259.46 (189.72-330.98) in South Africa, 205.12 (148.73-264.89) in Thailand, 183.21 (132.76-236.87) in Bangladesh, and 178.26 (125.31-238.47) in Sri Lanka. The map identified Canada, several northern European

and Scandinavian countries, New Zealand, and Australia as having lowest estimates of age standardized DALY rates. For example, age standardized DALY rates were 5.52 (0.82-11.48) in Sweden, 6.46 (0.00-14.49) in Australia, and 12.13 (4.95-21.82) in Canada (figure 4).

Frontier analysis:

We developed a frontier analysis to identify countries and territories which exhibited the least burden of kidney disease attributable to particulate matter air pollution given their SDI. The analysis provides a comparative quantitative assessment of the potential reduction in CKD burden that might be achievable in each country given their social and economic development. Most importantly, for each SDI, this analysis identifies exemplar countries at the frontier (with lowest DALYs for their SDI), and countries with the highest DALYs for their SDI. The effective difference between the frontier and the highest DALYs given an SDI represents a hypothetical magnitude of potential improvement in impact of air pollution on burden of CKD in a given country. Frontier analysis of age adjusted DALYs are presented in figure 5. Supplemental table 3 provides the effective difference from the frontier for each country given that country SDI; countries with the largest effective difference were El Salvador, Afghanistan, Mexico, Nicaragua, Honduras, Philippines, Iraq, Guatemala, and Palestine. Among countries with an SDI<0.3, Somalia, Niger, Liberia, the Democratic Republic of Congo, Mozambique, and Burundi had age standardized DALY rates that are close to the frontier with an effective difference of less than 10. Afghanistan, Guinea-Bissau, and Chad also had an SDI <0.3; however, they exhibited relatively high age standardized DALY rates and effective difference from the frontier which exceeded 100 representing a large gap in performance vis-à-vis other countries with comparable resources. Among reasonably well-resourced countries with an SDI>0.7, Mexico, Mauritius, The United Arab Emirates, Saudi Arabia, Turkmenistan, Venezuela, South Africa, Bahrain, and Mongolia had an effective difference from the frontier of more than 200 representing potential unrealized opportunities for progress in those countries given their resources.

To further evaluate the frontier independent of potential contamination by other strong drivers of CKD such as diabetes—where it is a major driver in Mexico[34]—and hypertension, we rebuilt the entire frontier following a decomposition analysis of risk-deleted cause-specific DALYs where we risk deleted DALYs caused by

diabetes and hypertension. This analysis yielded consistent results (supplemental figure 1); specifically, that several countries including Mesoamerica exhibited significant effective difference from the frontier suggesting a disproportionally higher $PM_{2.5}$ attributable DALYs than would be expected by their SDI (supplemental figure 1).

Burden of CKD attributable to PM2.5 levels above the WHO limit of 10 µg/m^3:

All the primary analyses were developed considering risk attributable to exposure levels of $PM_{2.5}$ above a uniform distribution between 2.4-5.9 µg/m^3 representing exposure values between the minimum and fifth percentiles of exposure distributions from outdoor air pollution studies[7 8].

We repeated all the analyses where we considered risk attributable to exposure levels of $PM_{2.5}$ above the WHO limit of 10 µg/m^3 (using the alternate scenario where the theoretical minimal risk exposure level was set at 10 µg/m^3)[6]. The estimates describe the burden of kidney disease —globally and at the national level— that is attributable to $PM_{2.5}$ concentrations in excess of the WHO limit. The geographic distribution of burden was consistent with the primary results (supplemental table 4 and 5). The results from this analysis necessarily underestimate the true burden as they—by definition—ignore $PM_{2.5}$ related risk below the WHO limit, but might be informative to policy makers and relevant stakeholders in estimating the burden of CKD that could be avoided should targeting the WHO limit become a policy goal.

Discussion:

In this work, we provide a quantitative analysis of the global burden of CKD attributable to air pollution in 194 countries and territories. The results describe the annual incidence of kidney disease attributable to air pollution globally and at the national level, and provide a quantitative assessment of the years living with disability due to kidney disease, years of life lost due to early mortality from kidney disease, and the combined comprehensive measure of DALYs (years of healthy life lost, due to dying prematurely, and to the years living with disability) of kidney disease attributable to air pollution. The global toll of CKD attributable to air pollution is significant with 6.9 million incident cases of CKD per year, 101 cases per 100,000 population per year, and 11.4 million DALYs per year. The findings suggest substantial geographic variation and identify geographies where the toll of air pollution may be a significant driver of the epidemiology of kidney disease. Our analyses

also suggest disproportionately higher $PM_{2.5}$ DALYs from kidney disease in several countries including Mesoamerica than would be expected for their SDI.

According to the GBD study, global age standardized DALY rates attributable to $PM_{2.5}$ are 1,521 per 100,000[35]. Our estimates of $PM_{2.5}$ CKD DALYs were 164, representing 10.7% of the total global DALYs - years of healthy life lost- attributable to air pollution[35]. Our analyses suggest that the overall burden of kidney disease attributable to air pollution is shaped by the epidemiologic transition[36]. Among countries that are poor with a high burden of communicable diseases and reduced life expectancy (for example several countries in the African continent), we observed a lower global ranking for years of life lost than years of living with disability (figures 2, and 3), reflecting increased probability of early loss of life from other diseases not related to air pollution. The corollary observation is that in countries that are relatively more developed including Mesoamerica, South America (including Venezuela, Gynae, Surinam, and Bolivia), Pakistan, India, and several countries in southeast Asia ranked in the highest decile for YLL, but not in YLD reflecting much earlier loss of life attributable to air pollution related kidney disease (figures 2 and 3). The results suggest that as countries journey forward along the path of the epidemiologic transition, the contribution of air pollution to non-communicable disease mortality in general, and more specifically CKD becomes more pronounced. Unfortunately, CKD has been largely ignored in the global and WHO discussion of non-communicable diseases[37-40]; CKD and its environmental drivers should feature on the national, international development, and global health agendas[40-42] and should be assigned a priority commensurate with its ascending rank among the global burden of diseases[2 10 13-16 43-48].

Our results show substantial geographic variation in the global burden of CKD attributable to air pollution (figure 4), where low and lower-middle income countries are most affected (figures 6 and 7). Air pollution is a significant global problem with well documented transboundary health impacts due to international trade, and atmospheric pollutant transport[49]; it results in an estimated 4.2 million deaths per year, and is worsening especially in low-income, and middle-income countries[15 35 41 50]. This is consistent with findings from the State of Global Air 2017 report where the largest increases in air pollution related death were in rapidly industrializing low and middle income countries[35 41].The global burden of CKD is increasing and its rank as

a contributor to disability and death is ascending[47]; it disproportionately impacts low-income and middle-income countries[1 40 47 51] which are least equipped to provide costly but life-saving CKD care[37 38]. While diabetes mellitus and hypertension are the leading causes of CKD in high and upper middle-income countries, a significant proportion of CKD cannot be explained by these traditional causes in low and lower middle-income countries where environmental exposures loom prominently as potential drivers of non-communicable diseases including CKD[40 41 52-54]. In an elegant recent editorial Jha and colleagues[55] reflected on the rise of kidney failure death in India, and suggested that a sizable portion of kidney failure is not due to traditional drivers (diabetes mellitus), and advocated for a research agenda to identify the drivers of this increased incidence of kidney failure and kidney failure death. Others have also advocated for greater understanding and larger emphasis of the role of environmental air pollution in non-communicable diseases, and specifically kidney disease[41 53]. The rise of CKD-of unknown origin in Mesoamerica and other geographies including India, and Sri Lanka illustrates the need for a broader and more comprehensive evaluation of potential risk factors for development and progression of kidney disease[40 56].

Our frontier analysis provides a blueprint to comparatively evaluate the CKD DALYs attributable to air pollution in countries with similar resources. The analysis identifies a cluster of countries with substantially higher CKD DALYs than would be expected for their place on the development spectrum. The clustering of countries including Mesoamerican countries with a high CKD DALYs gap attributable to air pollution is likely not random; and (a) supports the prescient hypothesis put forth by Orantes-Navarro et al.[56] for inclusion of environmental air pollution—among others--as a potential risk factor for CKD of unknown cause—a so far elusive disease entity, vibrantly discussed among luminaries in the field[40 46 57-66]—, and (b) potentially represents unrealized opportunity for improved performance through interventions in the form of laws, health and economic policy measures, reprioritization and alignment of resources, technological transition, and other devices that would ultimately close the DALYs gap. Similarly, our analysis identifies exemplar countries where performance for the county's level of development is considered leading (at the frontier pushing the envelope), the identification of these exemplars provides a window for better understanding of the potential drivers for success[38] and determination whether advocacy and wider adoption of these drivers by other countries might yield decreased CKD burden[42].

While our analyses described the global and national burden of kidney disease attributable to $PM_{2.5}$ air pollution, consideration of the impact of other air pollutants (i.e. nitrogen oxides, ozone, carbon monoxide, PM_{10}, and others)[52], a higher spatial resolution analysis at the subnational level, and a greater understanding of temporal trends over the years (e.g. an annual global CKD burden report which would track the contributions of all risk factors over time) are certainly needed to develop a better understanding of the epidemiology of CKD driven by air pollution. Future work should revisit this question to provide updated estimates of the burden of CKD attributable to ambient air pollution when updated and more accurate estimates for $PM_{2.5}$ and CKD are available across the $PM_{2.5}$ exposure spectrum for incorporation in integrative meta-regression methods[26 67 68].

Three hypotheses have been proposed to explain the mechanisms by which $PM_{2.5}$ may play a role in the development of CKD: a) Inhaled particular matter may result in pulmonary inflammation which could then lead to systematic inflammation, b) pollutants may also induce disturbances in respiratory autonomic nervous system and subsequently provoke systemic disturbances resulting in kidney damage, c) evidence has also suggested that inhaled fine particulate matter when sufficiently small may enter the bloodstream and subsequently interact with kidney tissue[69 70]. Furthermore, the association between $PM_{2.5}$ and CKD has been supported by other work. In a recent study of the US Medicare population by Bragg-Gresham et al., a 4 $\mu g/m^3$ increase in levels of $PM_{2.5}$ was associated with higher prevalence of diagnosed CKD (PR=1.03; 95%CI 1.02-1.05)[71]. In a study of 100,629 adult non-CKD Taiwanese residents by Chen et al., a 10 $\mu g/m^3$ increase in $PM_{2.5}$ was associated with an increased risk of incident CKD (HR: 1.06; 95%CI: 1.02-1.10)[72].

This study has several limitations. Our analyses do not account for the composition and toxic content of $PM_{2.5}$; however, studies have shown that estimates using non-specific $PM_{2.5}$ biomass alone will underestimate the burden of kidney disease attributable to air pollution[7 8 50]. Furthermore, we considered that risk plateaued for $PM_{2.5}$ concentrations above 22 $\mu g/m^3$, this likely yielded conservative estimate of the true burden of chronic kidney disease (CKD) attributable to air pollution. Our estimates of CKD attributable to PM2.5 at the global and national levels reflect the influence not only of PM2.5 levels across the globe, but also of demography and underlying CKD rates. Our analyses were performed at the global and national level where we assigned $PM_{2.5}$

exposure, and generated incident rate of CKD for every country and territory; thus, our analyses do not provide further insight into the subnational level. We relied on estimates for incident CKD generated by the Global Burden of Disease study group, and while those Bayesian estimates are considered reliable, and robust, they are necessarily limited by the quality of the available data[73]. Furthermore, variability and inconsistency of data collection methods and tools across the countries could influence geographic variations[73]. Inaccuracies in prediction of population exposure levels may have introduced bias[74]. We did not have data on indoor air pollutants, which may have resulted in misclassification of exposure or confounding of observed associations. Collinearity with other pollutants, geographic heterogeneity in effect, seasonal variation, and lagged effect of exposure may have biased the association[75 76]. To generate the estimates provided in this report, we relied on risk estimates generated in prior work[23], and while the analytic strategies were robust including the application of negative controls, the possibility of residual confounding cannot be eliminated. Causal interpretations should be made with caution. Small differences in estimated risk could have profound impacts on estimated burden. In the GBD, CKD of unknown origin is not currently part of the casual framework; available evidence on how $PM_{2.5}$ is associated with CKD of different etiologies is limited, and if different, could have biased results.

Key strengths include leveraging the availability of the 2016 Global Burden of Disease data which is the most comprehensive compilation and analysis of global health information available; we also employed GBD methodologies including the concept of DALY to capture the burden of disease across the globe and a measure of uncertainty (to reflect how much we know, and how much we don't know). We also developed a frontier analysis to enable comparative evaluation among countries with similar SDI, and finally, we repeated all analyses using an alternative scenario where we considered the WHO air quality standards as counterfactual.

In sum, our results show that the global toll of CKD attributable to air pollution is significant. The burden varies substantially by geography. Air pollution might be a contributing risk factor and might partially explain the rise in the incidence of CKD of unknown cause in some geographies around the world. As countries further develop

and industrialize and travel along the path of the epidemiologic transition, the rise in air pollution related non-communicable disease and specifically kidney disease should be reflected on the global health agendas.

Footnotes

Acknowledgment:

In this report, we used the publicly available Global Burden of Disease studies data and methodologies. The Global Burden of Disease Collaborator Network is comprised of more than 2,700 collaborators worldwide and is headquartered at the Institute for Health Metrics and Evaluation (IHME) in Seattle, Washington. The estimates used in generating this manuscript relied on the GBD data and methodologies, we acknowledge the visionary global health leadership of IHME, and the contribution of all collaborators without whom this report would not be possible.

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Contributors: Research area and study design: BB, YX, ZAA; data acquisition: BB, YX, ZAA; data analysis: BB, YX, ZAA; interpretation of study results: BB. YX, TL, YY, HX, ZAA; statistical analysis: BB, YX; drafting the manuscript BB, ZAA; revision and comment on manuscript YX, TL, YY, HX; supervision or mentorship: ZAA. Each author contributed important intellectual content during manuscript drafting or revision and accepts accountability for the overall work by ensuring that questions pertaining to the accuracy or integrity of any portion of the work are appropriately investigated and resolved. ZAA takes responsibility that this study has been reported honestly, accurately, and transparently; that no important aspects of the study have been omitted.

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Ethical approval: This research project was reviewed and approved by the Institutional Review Board of the VA Saint Louis Health Care System.

Data sharing: Data is available through the Global Burden of Disease Results Portal. http://ghdx.healthdata.org/gbd-results-tool

Transparency: The lead authors affirm that the manuscript is an honest, accurate, and transparent account of the study being reported; that no important aspects of the study have been omitted; and that any discrepancies from the study as planned have been explained.

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Tables:

Table 1: Attributable burden of chronic kidney disease (ABD) associated with $PM_{2.5}$ exposure globally, and for the top 10 most populous countries.

Country	$PM_{2.5}$	Attributable Burden of Disease (in 1000s)	Attributable Burden of Disease (per 100,000)	Age Standardized Attributable Burden of Disease (per 100,000)
Global	42.27	6,950.51 (5,061.53, 8,914.74)	94.29 (68.67, 120.94)	101.39 (74.49, 129.69)
China	57.2	766.73 (558.72, 985.14)	55.42 (40.39, 71.21)	48.98 (35.52, 63.01)
India	72.6	1,092.52 (791.38, 1,407.28)	83.30 (60.34, 107.29)	108.21 (77.99, 139.22)
US	8.3	163.49 (88.76, 262.78)	50.53 (27.44, 81.22)	35.44 (19.39, 57.44)
Indonesia	15	76.81 (53.66, 103.42)	29.81 (20.83, 40.15)	37.38 (26.05, 50.06)
Brazil	11.1	69.03 (45.11, 99.44)	33.21 (21.70, 47.84)	36.57 (23.68, 52.72)
Pakistan	63	107.43 (78.85, 137.04)	56.83 (41.71, 72.49)	89.17 (64.66, 114.14)
Nigeria	36.9	195.23 (141.44, 250.95)	106.98 (77.51, 137.52)	200.28 (145.24, 261.20)
Bangladesh	87	136.17 (99.56, 174.46)	84.60 (61.86, 108.39)	121.08 (88.55, 156.18)
Russia	15.8	170.89 (118.90, 229.76)	115.38 (80.27, 155.12)	82.87 (57.99, 111.67)
Japan	13.1	134.56 (91.13, 186.81)	104.88 (71.03, 145.60)	44.79 (30.61, 61.70)

$PM_{2.5}$, Fine particulate matter <2.5 μm

Table 2: Years living with disability (YLD), years of life lost (YLL), and disability adjusted life years (DALY) of chronic kidney disease associated with $PM_{2.5}$ for the top 10 most populous countries.

Country	Years Living with Disability (in 1000s)	Years Living with Disability (per 100,000)	Age Standardized Years Living with Disability (per 100,000)	Years of Life Lost (in 1000s)	Years of Life Lost (per 100,000)	Age Standardized Years of Life Lost (per 100,000)	Disability Adjusted Life Years (in 1000s)	Disability Adjusted Life Years (per 100,000)	Age Standardized Disability Adjusted Life Years (per 100,000)
Global	2,849.31 (1,875.22, 3,983.94)	38.66 (25.44, 54.05)	40.97 (26.84, 57.11)	8,587.74 (6,355.78, 10,772.24)	116.51 (86.23, 146.14)	122.71 (90.36, 153.52)	11,445.40 (8,380.25, 14,554.09)	155.27 (113.69, 197.45)	163.69 (120.58, 207.28)
China	462.21 (304.57, 647.27)	33.41 (22.01, 46.79)	29.12 (19.36, 41.01)	1,188.22 (870.96, 1,501.83)	85.89 (62.95, 108.56)	76.18 (55.93, 96.49)	1,651.72 (1,212.35, 2,103.21)	119.39 (87.63, 152.02)	105.79 (77.30, 133.98)
India	447.47 (289.00, 638.28)	34.12 (22.03, 48.66)	45.40 (29.19, 64.54)	2,048.91 (1,471.02, 2,662.61)	156.21 (112.15, 203.00)	192.55 (138.73, 249.04)	2,502.15 (1,827.96, 3,204.77)	190.77 (139.37, 244.33)	238.25 (173.90, 303.98)
US	61.54 (32.36, 105.07)	19.02 (10.00, 32.48)	14.51 (7.59, 24.72)	104.78 (58.14, 165.08)	32.39 (17.97, 51.03)	23.30 (12.96, 36.77)	166.61 (91.84, 264.98)	51.50 (28.39, 81.90)	37.92 (20.91, 60.47)
Indonesia	40.67 (25.55, 60.13)	15.79 (9.92, 23.34)	20.02 (12.80, 29.32)	224.57 (158.94, 297.66)	87.17 (61.70, 115.54)	102.00 (72.07, 134.72)	265.23 (186.14, 351.41)	102.95 (72.25, 136.41)	122.19 (86.18, 162.36)
Brazil	25.72 (15.29, 39.59)	12.38 (7.36, 19.05)	13.55 (8.11, 20.94)	98.88 (65.54, 139.27)	47.57 (31.53, 67.01)	51.17 (34.05, 72.01)	124.85 (82.57, 176.65)	60.07 (39.72, 84.99)	64.76 (42.92, 91.88)
Pakistan	47.74 (30.60, 68.12)	25.25 (16.19, 36.03)	39.99 (25.77, 56.99)	292.68 (174.43, 434.38)	154.81 (92.27, 229.76)	215.59 (123.95, 322.52)	342.45 (213.87, 492.17)	181.14 (113.12, 260.33)	254.25 (157.33, 365.23)
Nigeria	61.22 (38.09, 88.68)	33.55 (20.87, 48.59)	71.93 (45.61, 103.27)	57.66 (37.92, 80.13)	31.60 (20.78, 43.91)	44.94 (29.23, 62.98)	119.40 (82.97, 161.55)	65.43 (45.47, 88.52)	117.66 (81.05, 158.12)
Bangladesh	51.45 (33.04, 72.84)	31.96 (20.53, 45.25)	45.58 (28.89, 64.56)	168.36 (121.18, 220.47)	104.60 (75.28, 136.98)	137.57 (98.14, 179.69)	220.26 (159.56, 283.60)	136.84 (99.13, 176.20)	183.21 (132.76, 236.87)
Russia	45.31 (27.94, 67.45)	30.59 (18.86, 45.54)	22.99 (14.08, 34.08)	54.05 (32.23, 81.33)	36.49 (21.76, 54.91)	28.25 (16.88, 42.28)	100.14 (66.26, 140.14)	67.61 (44.74, 94.61)	51.29 (34.08, 72.60)
Japan	57.64 (36.80, 84.54)	44.92 (28.68, 65.89)	21.97 (13.83, 32.50)	72.08 (49.89, 97.36)	56.18 (38.88, 75.88)	23.15 (16.00, 31.22)	129.79 (88.75, 178.70)	101.16 (69.17, 139.27)	45.26 (30.63, 62.55)

Figure Legends:

Figure 1: Age standardized burden (ABD) of incident chronic kidney disease attributable to $PM_{2.5}$ per 100,000 population. ATG, Antigua and Barbuda; FSM, Federated States of Micronesia; Isl, Island; LCA, Saint Lucia; TLS, Timor-Leste; TTO, Trinidad and Tobago; VCT, Saint Vincent and the Grenadines.

Figure 2: Age standardized years living with disability (YLD) due to incident chronic kidney disease attributable to $PM_{2.5}$ per 100,000 population. ATG, Antigua and Barbuda; FSM, Federated States of Micronesia; Isl, Island; LCA, Saint Lucia; TLS, Timor-Leste; TTO, Trinidad and Tobago; VCT, Saint Vincent and the Grenadines.

Figure 3: Age standardized years of life lost (YLL) due to incident chronic kidney disease attributable to $PM_{2.5}$ per 100,000 population. ATG, Antigua and Barbuda; FSM, Federated States of Micronesia; Isl, Island; LCA, Saint Lucia; TLS, Timor-Leste; TTO, Trinidad and Tobago; VCT, Saint Vincent and the Grenadines.

Figure 4: Age standardized disability adjust life years (DALYs) due to incident chronic kidney disease attributable to $PM_{2.5}$ per 100,000 population. ATG, Antigua and Barbuda; FSM, Federated States of Micronesia; Isl, Island; LCA, Saint Lucia; TLS, Timor-Leste; TTO, Trinidad and Tobago; VCT, Saint Vincent and the Grenadines.

Figure 5: Frontier analysis of age standardized disability adjusted life years (DALY) rate per 100,000 population by socio-demographic index (SDI). Countries with the top 10% effective difference are labelled. Countries are colored by region.

Figure 6: Plot showing burden of CKD attributable to $PM_{2.5}$ in 194 countries and territories. Heat map tracks show percentiles, which from inside to outside represent the YLL, YLD, ABD, effective difference, and DALY. Scatter plot represents the DALYs (in open circles) and effective difference (in closed circles) percentile, with a reference line at the median. Values are graded, from low to high, as blue to red (on the Brewer palette). Countries are represented by their 3-character country code. Regions are ordered from low to high burden clockwise. NA=North America.

Figure 7: Age-standardized CKD DALYs (per 100,000) attributable to $PM_{2.5}$ by World Bank income classification.

Supplemental Figure 1: Frontier analysis of risk deleted cause specific age standardized disability adjusted life years (DALY) rate per 100,000 population by socio-demographic index (SDI). Countries with the top 10% effective difference are labelled. Countries are colored by region.

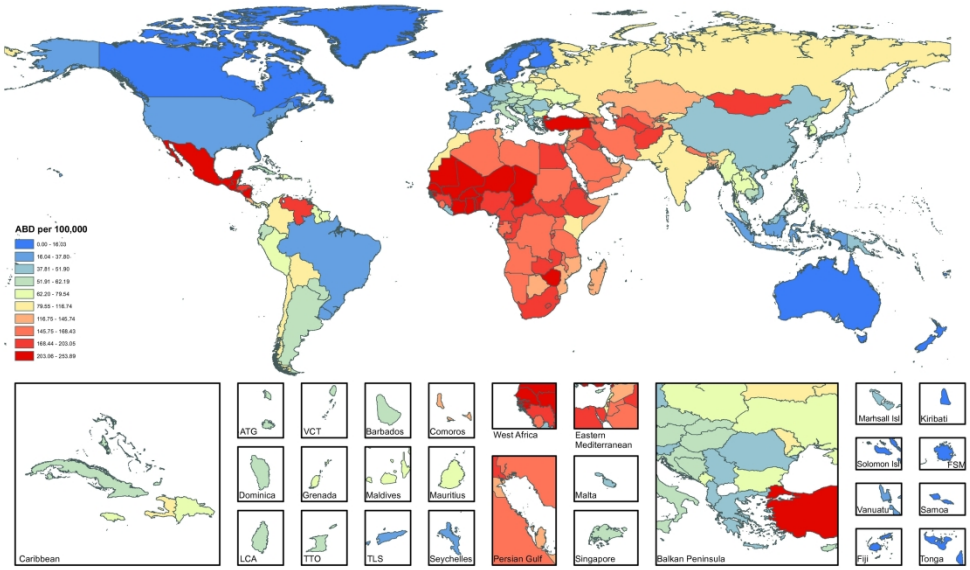


Figure 1

279x215mm (300 x 300 DPI)

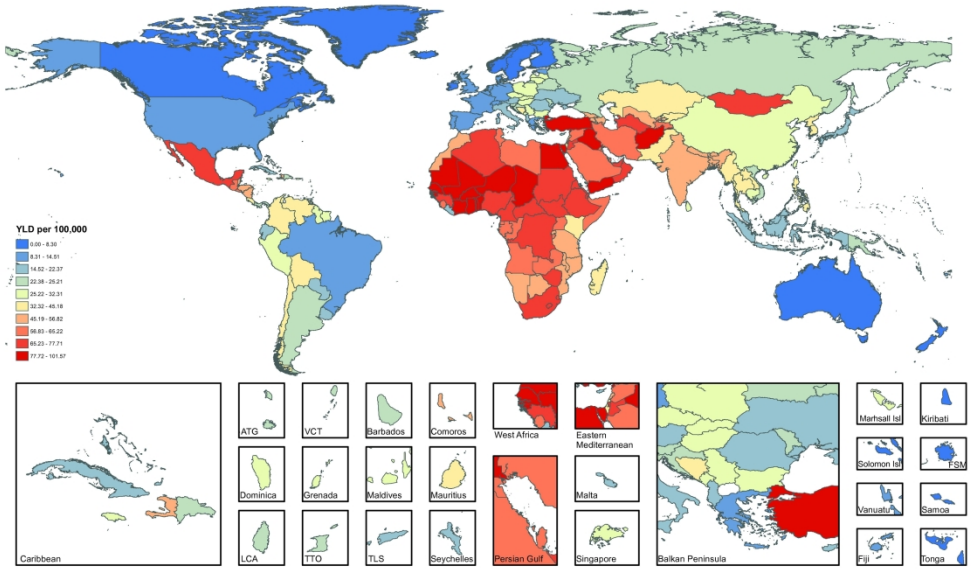


Figure 2

279x215mm (300 x 300 DPI)

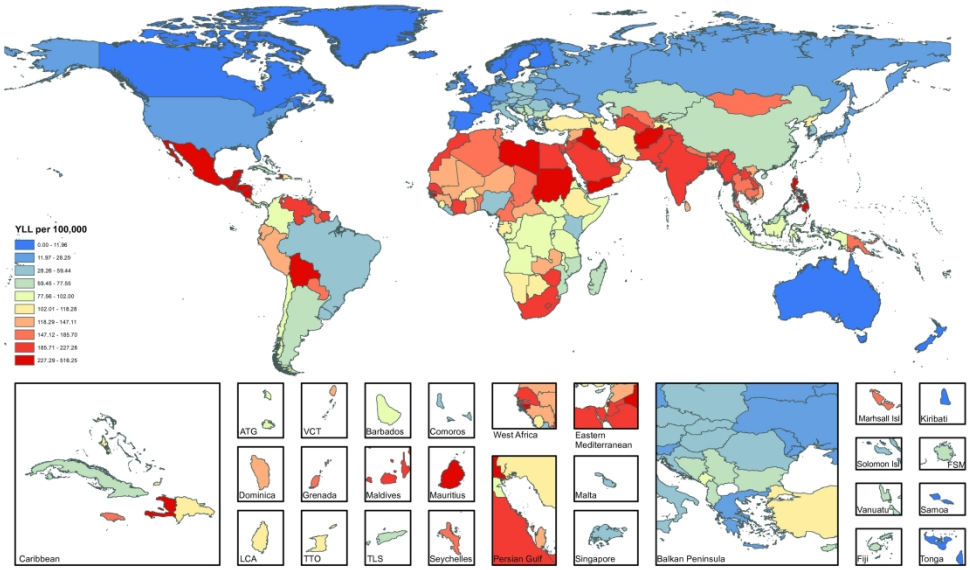


Figure 3

279x215mm (300 x 300 DPI)

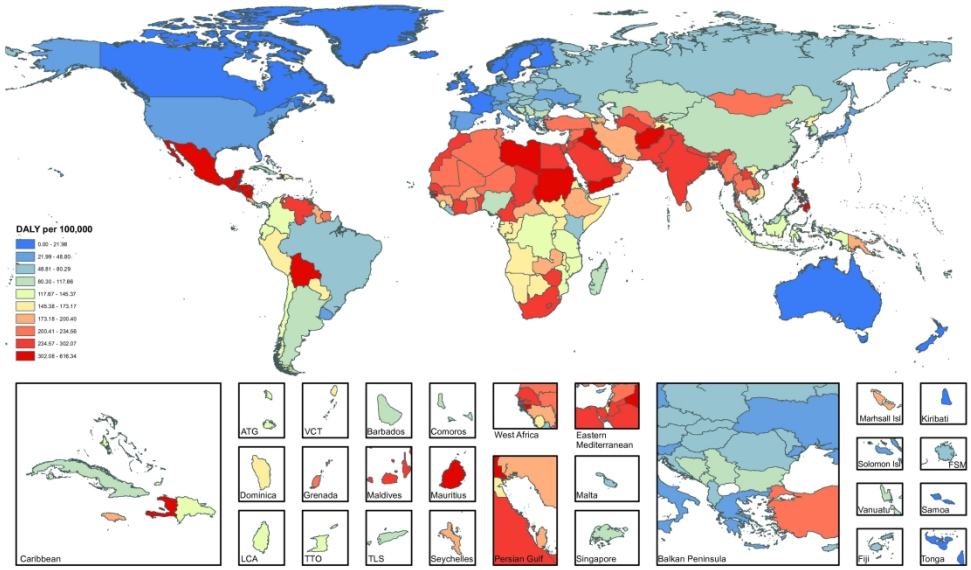
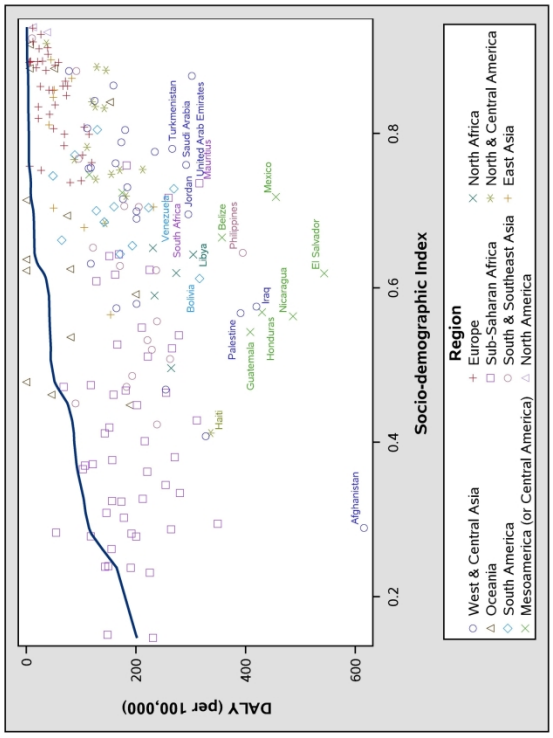


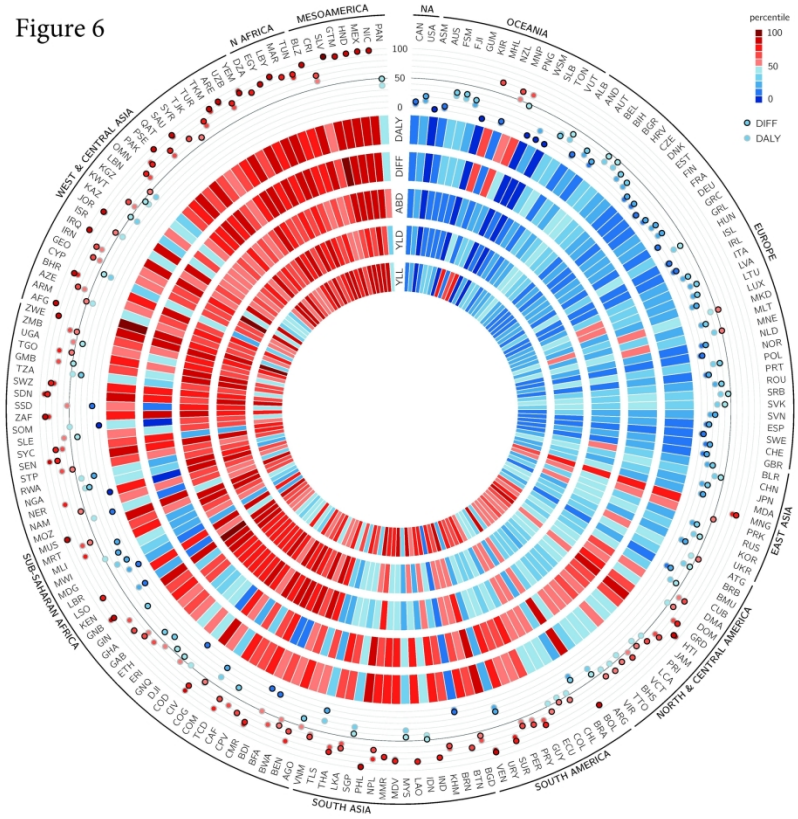
Figure 4

279x215mm (300 x 300 DPI)

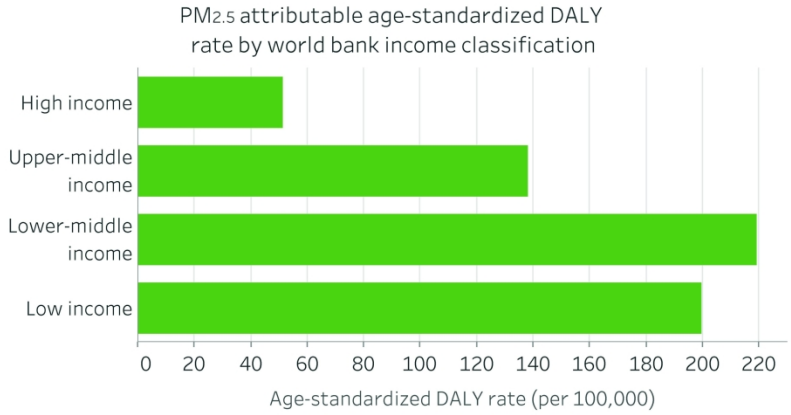


215x279mm (300 x 300 DPI)

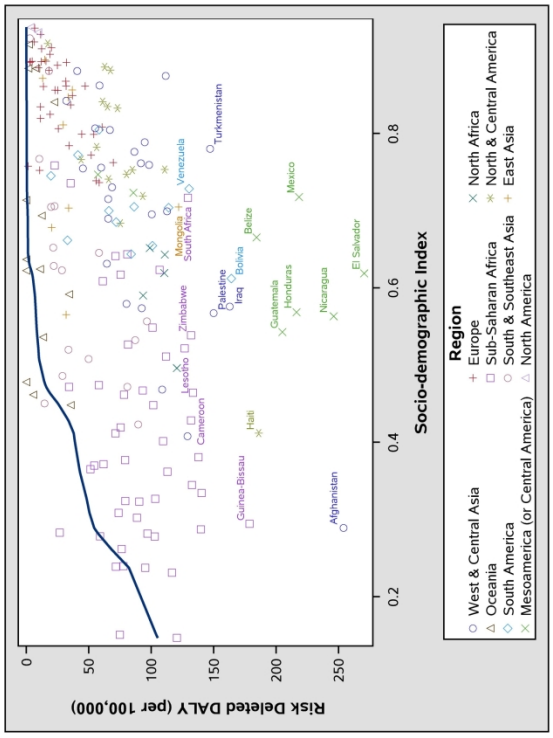
Figure 6



215x279mm (300 x 300 DPI)



215x279mm (300 x 300 DPI)



215x279mm (300 x 300 DPI)

Supplemental Material:

Supplemental table 1: Country characteristics and attributable burden of incident chronic kidney disease attributable to $PM_{2.5}$

Country	Population (in 100,000s)	$PM_{2.5}$ ($\mu g/m^3$)	ABD (in 1000s)	ABD (per 100,000)	Age Standardized ABD (per 100,000)
Global	73710.68	42.27353	6,950.51 (5,061.53, 8,914.74)	94.29 (68.67, 120.94)	101.39 (74.49, 129.69)
Afghanistan	326.08	46.1	30.62 (22.13, 39.33)	93.91 (67.87, 120.62)	191.88 (138.69, 250.09)
Albania	28.96	17.1	1.65 (1.17, 2.18)	56.86 (40.23, 75.34)	46.27 (32.73, 60.97)
Algeria	396.35	30.9	46.28 (33.81, 59.58)	116.77 (85.31, 150.32)	148.29 (108.18, 191.08)
American Samoa	0.83	3.7	0.00 (0.00, 0.00)	0.00 (0.00, 5.89)	0.00 (0.00, 10.24)
Andorra	0.79	9.7	0.03 (0.02, 0.04)	33.65 (20.56, 51.06)	18.26 (11.18, 27.50)
Angola	252.51	29.1	18.63 (13.45, 23.93)	73.78 (53.28, 94.77)	167.03 (120.40, 218.54)
Antigua and Barbuda	0.92	12.8	0.05 (0.03, 0.07)	52.16 (35.28, 72.37)	56.86 (38.55, 78.89)
Argentina	434.13	13	25.33 (17.07, 35.06)	58.35 (39.31, 80.76)	54.36 (37.06, 75.23)
Armenia	30.08	21.2	5.14 (3.62, 6.79)	170.82 (120.49, 225.62)	146.08 (104.36, 192.99)
Australia	243.22	5.8	3.00 (0.00, 6.77)	12.32 (0.00, 27.83)	8.58 (0.00, 19.34)
Austria	86.70	16.7	8.46 (5.94, 11.25)	97.63 (68.55, 129.71)	55.12 (38.79, 72.98)
Azerbaijan	97.82	25.6	13.61 (9.72, 17.82)	139.17 (99.35, 182.22)	162.21 (116.83, 212.80)
Bahrain	13.67	54.4	1.18 (0.86, 1.53)	86.54 (62.67, 112.18)	134.55 (97.69, 173.40)
Bangladesh	1609.58	87	136.17 (99.56, 174.46)	84.60 (61.86, 108.39)	121.08 (88.55, 156.18)
Barbados	2.84	14.1	0.23 (0.16, 0.31)	80.43 (55.70, 110.22)	58.71 (40.65, 79.70)
Belarus	96.12	17.9	12.27 (8.63, 16.39)	127.67 (89.75, 170.57)	90.45 (63.46, 120.31)
Belgium	113.33	15.3	8.55 (5.98, 11.60)	75.47 (52.75, 102.36)	43.74 (30.54, 59.11)
Belize	3.59	23.2	0.25 (0.18, 0.32)	69.68 (50.71, 89.18)	119.56 (86.74, 154.56)

Benin	109.14	29.1	13.03 (9.45, 16.83)	119.42 (86.55, 154.23)	221.80 (158.67, 288.49)
Bermuda	0.67	8.5	0.02 (0.01, 0.03)	23.70 (13.38, 37.60)	24.27 (13.58, 38.49)
Bhutan	7.75	54.1	0.63 (0.46, 0.81)	81.62 (59.15, 105.14)	117.58 (85.02, 151.93)
Bolivia	107.67	27.1	7.88 (5.73, 10.12)	73.15 (53.26, 93.97)	103.87 (75.28, 133.54)
Bosnia and Herzegovina	38.11	45.3	3.47 (2.50, 4.50)	91.07 (65.52, 118.05)	61.29 (44.32, 79.04)
Botswana	22.59	15.4	2.05 (1.42, 2.76)	90.88 (62.78, 122.29)	141.70 (98.19, 191.81)
Brazil	2078.47	11.1	69.03 (45.11, 99.44)	33.21 (21.70, 47.84)	36.57 (23.68, 52.72)
Brunei	4.23	5	0.01 (0.00, 0.05)	3.42 (0.00, 11.43)	5.19 (0.00, 17.16)
Bulgaria	72.68	27.5	7.64 (5.50, 9.91)	105.13 (75.64, 136.35)	62.62 (45.69, 80.52)
Burkina Faso	180.94	33.6	18.04 (13.04, 23.17)	99.72 (72.06, 128.05)	207.57 (150.31, 269.84)
Burundi	112.47	37.1	9.66 (7.00, 12.41)	85.85 (62.26, 110.31)	177.62 (128.26, 231.63)
Cambodia	155.92	23.9	5.78 (4.23, 7.39)	37.07 (27.10, 47.42)	56.89 (41.44, 72.76)
Cameroon	234.01	64	24.23 (17.60, 31.15)	103.53 (75.22, 133.13)	198.36 (144.84, 256.55)
Canada	361.46	7	8.34 (3.40, 15.08)	23.07 (9.40, 41.72)	15.02 (6.10, 27.17)
Cape Verde	5.20	35.2	0.75 (0.54, 0.96)	143.34 (104.72, 184.95)	214.86 (154.68, 277.73)
Central African Republic	49.03	38.3	4.79 (3.47, 6.14)	97.60 (70.67, 125.21)	171.43 (124.31, 223.21)
Chad	140.63	39.6	14.46 (10.50, 18.54)	102.83 (74.64, 131.86)	220.58 (157.76, 287.17)
Chile	179.48	20.6	18.72 (13.36, 24.39)	104.29 (74.42, 135.90)	91.45 (65.70, 118.71)
China	13834.71	57.2	766.73 (558.72, 985.14)	55.42 (40.39, 71.21)	48.98 (35.52, 63.01)
Colombia	482.64	17.6	49.09 (34.74, 65.16)	101.71 (71.98, 135.00)	116.74 (82.49, 155.15)
Comoros	7.92	16.1	0.50 (0.35, 0.67)	63.64 (44.53, 84.92)	117.38 (81.93, 157.82)
Congo	46.29	42.3	4.48 (3.28, 5.75)	96.77 (70.88, 124.13)	176.51 (127.77, 229.52)
Costa Rica	48.09	19.7	6.86 (4.89, 9.01)	142.69 (101.73, 187.28)	143.54 (102.27, 187.39)

Cote d'Ivoire	226.88	19.8	26.91 (19.33, 35.11)	118.62 (85.19, 154.73)	214.13 (152.49, 280.67)
Croatia	42.41	21.2	4.09 (2.91, 5.35)	96.50 (68.56, 126.11)	57.30 (41.40, 74.38)
Cuba	113.93	16.4	8.51 (5.99, 11.35)	74.69 (52.60, 99.60)	54.54 (38.26, 72.87)
Cyprus	8.92	17.9	0.75 (0.52, 0.99)	83.56 (58.73, 111.25)	61.89 (43.91, 82.30)
Czech Republic	106.97	21	9.13 (6.57, 11.84)	85.32 (61.46, 110.71)	53.89 (39.00, 69.54)
Democratic Republic of the Congo	774.14	38.7	59.51 (43.52, 76.68)	76.87 (56.22, 99.06)	160.32 (115.41, 208.74)
Denmark	57.11	10.7	2.62 (1.68, 3.83)	45.79 (29.35, 67.00)	27.06 (17.47, 39.28)
Djibouti	8.90	39.1	0.90 (0.65, 1.16)	101.59 (73.49, 130.67)	168.86 (121.39, 218.42)
Dominica	0.72	12.5	0.04 (0.03, 0.06)	58.81 (39.96, 82.15)	60.71 (41.15, 84.09)
Dominican Republic	105.30	18.3	6.27 (4.47, 8.19)	59.57 (42.47, 77.75)	75.11 (53.80, 98.40)
Ecuador	161.54	12.5	6.81 (4.60, 9.48)	42.14 (28.51, 58.65)	54.52 (36.79, 75.88)
Egypt	911.48	99.5	115.58 (84.09, 148.52)	126.81 (92.26, 162.95)	172.28 (124.99, 221.03)
El Salvador	61.37	35.5	12.72 (9.33, 16.10)	207.27 (152.01, 262.25)	243.44 (178.28, 309.30)
Equatorial Guinea	8.45	34	0.88 (0.63, 1.15)	103.85 (74.40, 135.90)	168.82 (121.56, 218.53)
Eritrea	52.42	35.3	4.44 (3.22, 5.72)	84.61 (61.49, 109.10)	174.25 (125.86, 225.66)
Estonia	13.54	9.1	1.00 (0.58, 1.55)	73.50 (42.99, 114.07)	44.54 (26.14, 69.71)
Ethiopia	994.32	30.1	91.51 (66.04, 117.62)	92.04 (66.42, 118.29)	175.10 (126.30, 227.38)
Federated States of Micronesia	1.05	6.1	0.01 (0.00, 0.02)	9.86 (1.48, 20.72)	15.19 (2.27, 31.50)
Fiji	8.92	6	0.12 (0.01, 0.26)	13.54 (1.36, 29.07)	16.03 (1.64, 34.27)
Finland	55.50	7.2	1.05 (0.46, 1.85)	19.00 (8.29, 33.37)	10.38 (4.56, 18.38)
France	652.32	12.1	33.11 (21.98, 46.89)	50.76 (33.69, 71.89)	28.24 (18.87, 39.78)
Gabon	17.26	31.3	1.82 (1.32, 2.34)	105.61 (76.30, 135.79)	168.43 (121.79, 218.50)
Georgia	40.04	19.7	6.69 (4.78, 8.74)	167.15 (119.41, 218.39)	132.27 (93.99, 172.71)
Germany	836.28	13.7	70.93 (47.89, 98.80)	84.82 (57.26, 118.14)	42.05 (28.94, 57.72)

Ghana	274.17	21.7	35.82 (26.00, 46.10)	130.65 (94.84, 168.16)	219.77 (158.78, 286.91)
Greece	109.22	13.2	8.16 (5.53, 11.34)	74.69 (50.68, 103.84)	38.26 (26.00, 52.72)
Greenland	0.54	5.2	0.00 (0.00, 0.01)	5.33 (0.00, 15.58)	6.07 (0.00, 17.59)
Grenada	1.07	14	0.06 (0.04, 0.08)	58.26 (40.14, 79.38)	70.08 (47.80, 96.05)
Guam	1.70	6.8	0.03 (0.01, 0.05)	15.82 (5.83, 29.24)	16.30 (5.94, 29.82)
Guatemala	163.55	33.9	19.67 (14.34, 25.39)	120.29 (87.70, 155.27)	209.74 (152.42, 272.81)
Guinea	125.74	19.3	13.72 (9.81, 17.89)	109.14 (78.05, 142.26)	195.33 (139.44, 258.00)
Guinea-Bissau	18.48	26	2.72 (1.98, 3.50)	147.24 (107.14, 189.25)	253.89 (183.23, 327.77)
Guyana	7.70	14.8	0.42 (0.29, 0.57)	54.46 (37.90, 73.60)	69.92 (48.64, 94.71)
Haiti	107.21	22.1	7.40 (5.39, 9.51)	69.04 (50.28, 88.68)	112.63 (81.88, 145.09)
Honduras	80.96	36.2	9.80 (7.08, 12.66)	120.98 (87.47, 156.34)	201.06 (144.40, 263.01)
Hungary	101.68	22.6	9.99 (7.20, 12.89)	98.26 (70.81, 126.78)	60.80 (44.16, 78.35)
Iceland	3.26	7.5	0.05 (0.02, 0.09)	15.35 (7.31, 26.30)	11.32 (5.40, 19.37)
India	13116.32	72.6	1,092.52 (791.38, 1,407.28)	83.30 (60.34, 107.29)	108.21 (77.99, 139.22)
Indonesia	2576.21	15	76.81 (53.66, 103.42)	29.81 (20.83, 40.15)	37.38 (26.05, 50.06)
Iran	790.34	42	91.01 (65.99, 117.28)	115.16 (83.50, 148.39)	149.19 (108.02, 191.81)
Iraq	364.21	45.2	34.71 (25.24, 44.66)	95.31 (69.31, 122.62)	188.02 (137.00, 243.23)
Ireland	47.90	9.6	1.35 (0.83, 2.04)	28.24 (17.35, 42.64)	21.79 (13.38, 32.85)
Israel	80.49	20.7	7.79 (5.61, 10.15)	96.73 (69.68, 126.13)	87.85 (62.89, 113.70)
Italy	627.97	19.5	72.58 (51.77, 95.43)	115.58 (82.44, 151.96)	56.46 (40.37, 73.98)
Jamaica	28.30	16.6	2.02 (1.43, 2.69)	71.31 (50.64, 94.92)	75.34 (53.45, 100.21)
Japan	1283.06	13.1	134.56 (91.13, 186.81)	104.88 (71.03, 145.60)	44.79 (30.61, 61.70)
Jordan	75.71	38	6.94 (5.06, 8.91)	91.72 (66.84, 117.67)	158.36 (114.70, 206.05)

Kazakhstan	175.37	17	18.92 (13.23, 25.33)	107.86 (75.47, 144.46)	125.62 (88.13, 168.39)
Kenya	461.90	15.6	22.91 (16.02, 30.63)	49.61 (34.68, 66.30)	99.34 (69.68, 134.28)
Kiribati	1.13	3.4	0.00 (0.00, 0.01)	0.00 (0.00, 4.53)	0.00 (0.00, 7.19)
Kuwait	39.01	65.7	2.99 (2.16, 3.87)	76.55 (55.33, 99.19)	128.44 (93.49, 165.90)
Kyrgyzstan	58.94	16.1	4.19 (2.93, 5.63)	71.15 (49.79, 95.51)	103.57 (72.70, 139.25)
Laos	67.99	27.9	2.60 (1.90, 3.30)	38.18 (27.97, 48.59)	64.96 (47.36, 83.09)
Latvia	22.12	19.8	4.22 (2.98, 5.57)	190.58 (134.74, 251.78)	114.09 (81.29, 150.57)
Lebanon	57.62	31.8	6.04 (4.39, 7.77)	104.81 (76.23, 134.81)	112.01 (81.21, 144.48)
Lesotho	21.29	18.6	2.38 (1.69, 3.13)	111.68 (79.43, 146.90)	195.68 (137.71, 258.63)
Liberia	45.08	7.4	1.17 (0.54, 2.03)	25.96 (12.07, 44.95)	46.88 (21.90, 81.55)
Libya	62.95	69.4	6.90 (5.00, 8.86)	109.60 (79.50, 140.70)	149.84 (107.92, 192.76)
Lithuania	31.53	18.6	4.98 (3.52, 6.62)	157.85 (111.58, 209.91)	96.99 (68.86, 127.38)
Luxembourg	5.56	16.2	0.37 (0.26, 0.49)	65.91 (46.31, 88.37)	46.84 (32.97, 62.57)
Macedonia	20.78	39.4	1.59 (1.15, 2.05)	76.57 (55.11, 98.54)	60.24 (43.70, 77.65)
Madagascar	241.92	18.7	16.14 (11.53, 21.02)	66.71 (47.66, 86.88)	129.22 (91.66, 171.24)
Malawi	172.14	21.4	12.44 (9.00, 16.02)	72.25 (52.30, 93.06)	155.47 (111.87, 203.05)
Malaysia	302.96	15.1	9.37 (6.58, 12.70)	30.91 (21.73, 41.93)	38.23 (26.77, 51.34)
Maldives	3.63	28.5	0.16 (0.12, 0.21)	44.47 (32.46, 56.71)	65.13 (47.34, 82.98)
Mali	175.68	37.2	17.90 (13.06, 22.97)	101.91 (74.36, 130.73)	215.28 (154.81, 278.99)
Malta	4.18	15.4	0.35 (0.24, 0.47)	83.52 (57.98, 113.42)	48.42 (33.48, 65.19)
Marshall Islands	0.72	9.1	0.02 (0.01, 0.03)	27.01 (16.13, 41.20)	46.11 (27.31, 71.02)
Mauritania	40.85	68.5	5.39 (3.89, 6.93)	131.84 (95.23, 169.69)	221.28 (159.05, 287.45)
Mauritius	12.74	14.4	0.95 (0.66, 1.28)	74.40 (51.72, 100.81)	64.63 (44.84, 86.96)
Mexico	1270.43	19.7	205.87 (147.95, 269.30)	162.05 (116.46, 211.98)	206.44 (147.97, 269.37)
Moldova	40.65	16.7	3.99 (2.77, 5.36)	98.14 (68.25, 131.75)	82.08 (57.78, 110.01)

Mongolia	29.53	22.9	3.53 (2.55, 4.58)	119.47 (86.18, 155.07)	182.35 (130.58, 237.33)
Montenegro	6.26	22.7	0.57 (0.41, 0.74)	91.15 (65.81, 118.31)	68.28 (49.58, 88.70)
Morocco	343.73	22.4	28.75 (20.79, 37.13)	83.65 (60.47, 108.03)	97.08 (70.31, 125.02)
Mozambique	279.91	17	18.20 (12.87, 24.04)	65.02 (45.96, 85.87)	130.12 (91.54, 172.57)
Myanmar	540.27	53	28.44 (20.70, 36.47)	52.64 (38.32, 67.51)	65.80 (47.73, 84.55)
Namibia	24.53	18.6	2.10 (1.50, 2.76)	85.72 (61.13, 112.35)	147.88 (104.50, 196.98)
Nepal	285.51	70.9	33.03 (23.92, 42.72)	115.68 (83.79, 149.62)	163.61 (118.20, 211.43)
Netherlands	171.91	14.3	9.73 (6.73, 13.38)	56.63 (39.12, 77.82)	33.72 (23.31, 46.04)
New Zealand	45.63	5.4	0.45 (0.00, 1.16)	9.76 (0.00, 25.40)	6.86 (0.00, 17.63)
Nicaragua	60.89	23	8.80 (6.38, 11.37)	144.51 (104.85, 186.69)	212.72 (153.46, 276.70)
Niger	198.54	53	20.96 (15.19, 27.02)	105.56 (76.52, 136.07)	215.31 (154.91, 278.75)
Nigeria	1824.90	36.9	195.23 (141.44, 250.95)	106.98 (77.51, 137.52)	200.28 (145.24, 261.20)
North Korea	251.59	27.7	15.12 (10.90, 19.59)	60.11 (43.32, 77.88)	61.34 (44.58, 78.87)
Northern Mariana Islands	1.16	11.3	0.02 (0.02, 0.03)	20.67 (13.49, 29.40)	47.95 (31.41, 68.33)
Norway	51.64	8.9	1.11 (0.65, 1.74)	21.54 (12.50, 33.61)	13.87 (8.09, 21.62)
Oman	44.81	46.7	3.36 (2.44, 4.29)	74.90 (54.42, 95.71)	131.54 (95.01, 170.75)
Pakistan	1890.55	63	107.43 (78.85, 137.04)	56.83 (41.71, 72.49)	89.17 (64.66, 114.14)
Palestine	46.73	20.1	3.83 (2.75, 4.94)	81.87 (58.75, 105.74)	165.02 (118.93, 215.20)
Panama	39.29	12.6	2.89 (1.94, 4.05)	73.68 (49.45, 103.06)	85.49 (57.25, 120.64)
Papua New Guinea	76.33	10.4	1.86 (1.19, 2.72)	24.39 (15.57, 35.63)	43.51 (27.83, 63.68)
Paraguay	66.53	14.3	2.90 (1.99, 3.95)	43.61 (29.95, 59.33)	61.17 (41.81, 82.87)
Peru	313.93	27.1	19.31 (14.05, 24.91)	61.52 (44.75, 79.35)	79.54 (57.72, 103.29)
Philippines	1008.03	22.8	54.04 (39.68, 68.69)	53.61 (39.36, 68.14)	74.76 (54.64, 94.99)
Poland	389.13	23.8	40.53 (29.17, 52.81)	104.15 (74.95, 135.72)	70.38 (51.26, 90.87)
Portugal	108.00	9.5	3.85 (2.33, 5.84)	35.69 (21.59, 54.08)	18.78 (11.47, 28.35)

Puerto Rico	36.84	16.7	3.73 (2.64, 4.96)	101.27 (71.69, 134.66)	76.26 (53.86, 101.30)
Qatar	22.21	104.2	1.46 (1.06, 1.89)	65.88 (47.52, 84.97)	128.63 (92.66, 166.35)
Romania	195.27	19.2	15.83 (11.38, 20.56)	81.06 (58.28, 105.29)	51.90 (37.43, 67.35)
Russia	1481.18	15.8	170.89 (118.90, 229.76)	115.38 (80.27, 155.12)	82.87 (57.99, 111.67)
Rwanda	116.31	41.3	8.71 (6.31, 11.23)	74.88 (54.22, 96.59)	151.70 (109.39, 196.85)
Saint Lucia	1.85	13.1	0.11 (0.07, 0.15)	57.56 (39.30, 79.12)	57.71 (39.45, 80.03)
Saint Vincent and the Grenadines	1.10	13.2	0.06 (0.04, 0.08)	54.25 (36.90, 74.94)	60.38 (40.98, 83.45)
Samoa	1.94	3.7	0.00 (0.00, 0.01)	0.00 (0.00, 6.72)	0.00 (0.00, 10.11)
Sao Tome and Principe	1.91	12.6	0.15 (0.10, 0.21)	80.10 (54.07, 111.56)	150.88 (101.15, 210.56)
Saudi Arabia	314.35	102.9	30.70 (22.09, 39.58)	97.66 (70.26, 125.92)	150.52 (109.32, 194.82)
Senegal	151.09	36.4	18.32 (13.34, 23.49)	121.23 (88.29, 155.47)	232.28 (166.70, 300.78)
Serbia	88.56	20.8	6.93 (4.96, 9.08)	78.30 (56.00, 102.53)	50.81 (36.59, 66.12)
Seychelles	0.97	12.7	0.03 (0.02, 0.04)	32.68 (22.05, 45.29)	34.25 (23.23, 47.29)
Sierra Leone	64.62	15	5.21 (3.60, 7.02)	80.61 (55.73, 108.68)	150.18 (103.40, 203.74)
Singapore	39.24	17.7	2.96 (2.09, 3.91)	75.44 (53.39, 99.60)	60.15 (42.54, 79.62)
Slovakia	55.55	20.1	4.34 (3.10, 5.65)	78.13 (55.88, 101.78)	56.44 (40.57, 73.37)
Slovenia	20.63	19.9	1.58 (1.12, 2.06)	76.60 (54.28, 99.90)	45.64 (32.80, 59.31)
Solomon Islands	5.86	5.2	0.03 (0.00, 0.08)	4.78 (0.00, 13.86)	8.83 (0.00, 25.48)
Somalia	108.49	16.7	7.39 (5.20, 9.81)	68.15 (47.95, 90.38)	133.98 (93.74, 179.48)
South Africa	537.24	28.9	83.45 (60.96, 107.82)	155.34 (113.48, 200.68)	203.05 (146.97, 262.13)
South Korea	502.83	28.1	42.98 (31.24, 55.16)	85.48 (62.13, 109.71)	62.81 (46.10, 80.28)
South Sudan	122.88	28.4	10.34 (7.48, 13.34)	84.15 (60.87, 108.54)	168.75 (121.86, 219.39)
Spain	487.51	9.6	28.19 (17.24, 42.67)	57.82 (35.37, 87.52)	33.08 (20.25, 49.77)
Sri Lanka	207.48	26.4	13.44 (9.77, 17.25)	64.80 (47.07, 83.15)	62.19 (45.41, 79.45)

Sudan	403.89	42.3	36.09 (26.23, 46.46)	89.36 (64.93, 115.04)	156.64 (112.55, 203.44)
Suriname	5.43	15.2	0.36 (0.25, 0.48)	66.06 (46.23, 88.46)	77.26 (53.87, 103.80)
Swaziland	12.89	17.8	1.29 (0.90, 1.70)	99.81 (70.16, 131.93)	186.40 (131.74, 247.70)
Sweden	98.08	6.1	1.23 (0.18, 2.60)	12.55 (1.88, 26.47)	6.94 (1.03, 14.50)
Switzerland	82.78	12.6	6.43 (4.30, 9.01)	77.64 (52.00, 108.88)	46.31 (30.85, 64.65)
Syria	186.22	35.8	14.88 (10.81, 19.15)	79.89 (58.04, 102.85)	125.13 (90.21, 162.01)
Tajikistan	85.01	41.3	6.87 (4.95, 8.91)	80.82 (58.28, 104.85)	145.74 (105.87, 189.20)
Tanzania	533.73	22	41.03 (29.90, 52.63)	76.87 (56.01, 98.61)	155.44 (112.27, 201.32)
Thailand	678.94	25.8	62.03 (45.04, 80.16)	91.36 (66.34, 118.07)	75.85 (55.19, 97.24)
The Bahamas	3.87	12.6	0.20 (0.14, 0.28)	52.86 (35.40, 73.21)	54.03 (36.14, 75.68)
The Gambia	20.01	39.7	2.00 (1.46, 2.59)	100.04 (72.77, 129.46)	214.82 (154.65, 277.45)
Timor-Leste	11.90	14.4	0.25 (0.18, 0.34)	21.32 (14.75, 28.69)	34.59 (23.89, 47.05)
Togo	73.03	26	9.06 (6.57, 11.67)	124.04 (89.92, 159.87)	227.28 (163.83, 296.75)
Tonga	1.07	3.9	0.00 (0.00, 0.01)	0.00 (0.00, 7.65)	0.00 (0.00, 11.18)
Trinidad and Tobago	13.61	13.1	0.90 (0.61, 1.25)	66.18 (45.16, 91.60)	60.51 (41.36, 83.84)
Tunisia	112.50	43.2	15.05 (10.93, 19.50)	133.82 (97.17, 173.35)	138.75 (101.14, 179.30)
Turkey	784.20	35.6	149.34 (107.89, 193.37)	190.43 (137.58, 246.58)	205.17 (148.13, 266.16)
Turkmenistan	53.81	26.7	6.22 (4.49, 8.05)	115.65 (83.43, 149.66)	173.38 (124.34, 226.28)
Uganda	391.54	57.2	26.34 (19.22, 33.74)	67.28 (49.09, 86.17)	162.19 (117.55, 209.23)
Ukraine	465.08	16.6	54.40 (38.42, 73.05)	116.97 (82.62, 157.08)	78.57 (55.29, 104.13)
United Arab Emirates	91.45	62.2	8.16 (5.89, 10.57)	89.24 (64.42, 115.58)	144.84 (104.05, 188.05)
United Kingdom	642.44	12.2	31.84 (21.27, 44.66)	49.56 (33.11, 69.52)	29.94 (19.98, 42.00)
United States	3235.26	8.3	163.49 (88.76, 262.78)	50.53 (27.44, 81.22)	35.44 (19.39, 57.44)

Uruguay	34.34	11.2	1.77 (1.14, 2.56)	51.47 (33.33, 74.66)	37.80 (24.60, 54.33)
Uzbekistan	299.41	33	30.79 (22.37, 39.65)	102.83 (74.72, 132.42)	146.64 (105.09, 191.81)
Vanuatu	2.63	6.5	0.03 (0.01, 0.05)	10.23 (2.99, 19.72)	16.78 (4.91, 32.33)
Venezuela	311.06	22.9	44.63 (31.94, 58.05)	143.49 (102.69, 186.63)	182.63 (131.66, 238.12)
Vietnam	934.72	27.3	38.83 (28.20, 49.94)	41.54 (30.17, 53.43)	46.79 (33.92, 60.31)
Virgin Islands, U.S.	1.07	14.7	0.11 (0.07, 0.14)	99.44 (68.13, 135.33)	63.79 (43.94, 86.41)
Yemen	269.12	40.7	22.21 (16.22, 28.54)	82.52 (60.27, 106.07)	166.16 (119.22, 215.67)
Zambia	162.49	23.4	13.68 (9.94, 17.47)	84.19 (61.17, 107.53)	183.65 (132.13, 236.56)
Zimbabwe	155.74	19.8	15.52 (11.18, 20.24)	99.68 (71.79, 129.93)	213.77 (152.75, 280.65)

$PM_{2.5}$, Fine particulate matter <2.5 µm; ABD, Attributable burden of disease;

Supplemental Table 2: Years living with disability (YLD), years of life lost (YLL), and disability adjusted life years (DALY) of chronic kidney disease associated with $PM_{2.5}$.

Country	YLD (in 1000s)	YLD (per 100,000)	Age Standardized YLD (per 100,000)	YLL (in 1000s)	YLL (per 100,000)	Age Standardized YLL (per 100,000)	DALY (in 1000s)	DALY (per 100,000)	Age Standardized DALY (per 100,000)
Global	2,849.31 (1,875.22, 3,983.94)	38.66 (25.44, 54.05)	40.97 (26.84, 57.11)	8,587.74 (6,355.78, 10,772.24)	116.51 (86.23, 146.14)	122.71 (90.36, 153.52)	11,445.40 (8,380.25, 14,554.09)	155.27 (113.69, 197.45)	163.69 (120.58, 207.28)
Afghanistan	15.78 (10.35, 22.35)	48.39 (31.75, 68.53)	100.93 (66.66, 141.17)	80.86 (51.35, 116.20)	247.97 (157.47, 356.37)	516.25 (326.37, 739.27)	96.28 (62.90, 135.20)	295.27 (192.91, 414.63)	616.34 (408.20, 867.27)
Albania	0.60 (0.38, 0.88)	20.80 (13.17, 30.22)	17.31 (10.99, 24.97)	2.11 (1.44, 2.90)	72.97 (49.85, 100.23)	62.69 (43.29, 85.74)	2.72 (1.90, 3.64)	93.81 (65.63, 125.67)	80.29 (56.13, 106.33)
Algeria	22.93 (15.02, 32.26)	57.86 (37.91, 81.39)	71.02 (46.64, 100.31)	47.83 (33.27, 63.95)	120.68 (83.95, 161.35)	162.94 (114.17, 217.27)	71.00 (50.72, 92.82)	179.14 (127.96, 234.19)	233.92 (169.67, 305.79)
American Samoa	0.00 (0.00, 0.00)	0.00 (0.00, 3.32)	0.00 (0.00, 5.20)	0.00 (0.00, 0.02)	0.00 (0.00, 20.43)	0.00 (0.00, 33.64)	0.00 (0.00, 0.02)	0.00 (0.00, 23.78)	0.00 (0.00, 38.44)
Andorra	0.01 (0.00, 0.01)	10.42 (5.95, 16.83)	6.17 (3.51, 9.97)	0.01 (0.00, 0.02)	11.03 (5.28, 19.50)	5.94 (2.91, 10.55)	0.02 (0.01, 0.03)	21.70 (12.68, 34.27)	12.19 (7.19, 19.18)
Angola	6.58 (4.23, 9.46)	26.04 (16.74, 37.48)	63.19 (40.50, 90.77)	11.30 (6.78, 16.55)	44.76 (26.84, 65.53)	87.56 (52.33, 129.83)	17.89 (12.24, 24.49)	70.84 (48.47, 96.97)	151.41 (104.04, 206.44)
Antigua and Barbuda	0.02 (0.01, 0.03)	21.07 (12.92, 31.63)	22.64 (13.72, 34.35)	0.09 (0.06, 0.12)	93.37 (63.19, 130.16)	96.98 (65.92, 135.53)	0.11 (0.07, 0.15)	114.57 (77.87, 158.29)	119.87 (81.10, 165.54)
Argentina	10.35 (6.52, 15.41)	23.84 (15.02, 35.50)	22.48 (14.23, 33.23)	30.57 (21.14, 41.92)	70.43 (48.68, 96.56)	66.09 (45.14, 89.95)	41.06 (28.15, 56.10)	94.58 (64.84, 129.21)	88.69 (60.91, 121.56)
Armenia	1.92 (1.24, 2.74)	63.93 (41.29, 91.25)	54.32 (35.15, 77.48)	2.24 (1.63, 2.88)	74.53 (54.20, 95.72)	63.70 (46.31, 82.02)	4.17 (2.99, 5.45)	138.60 (99.27, 181.15)	118.22 (84.68, 154.97)
Australia	0.77 (0.00, 1.83)	3.17 (0.00, 7.54)	2.32 (0.00, 5.55)	1.51 (0.00, 3.37)	6.20 (0.00, 13.85)	4.11 (0.00, 9.20)	2.29 (0.00, 5.11)	9.43 (0.00, 20.99)	6.46 (0.00, 14.49)

Austria	2.43 (1.56, 3.50)	28.07 (18.02, 40.36)	16.95 (10.82, 24.67)	5.78 (4.12, 7.53)	66.71 (47.51, 86.83)	35.45 (25.30, 46.46)	8.22 (5.88, 10.81)	94.85 (67.87, 124.73)	52.55 (37.32, 69.02)
Azerbaijan	4.67 (2.99, 6.64)	47.71 (30.59, 67.91)	55.28 (35.35, 78.77)	10.89 (7.49, 14.76)	111.29 (76.59, 150.90)	118.28 (82.85, 158.67)	15.58 (11.18, 20.48)	159.25 (114.27, 209.40)	173.98 (124.03, 226.28)
Bahrain	0.63 (0.40, 0.90)	46.21 (29.50, 65.98)	63.69 (42.15, 88.70)	1.11 (0.75, 1.54)	81.34 (54.67, 112.79)	170.51 (112.78, 236.54)	1.75 (1.23, 2.35)	128.14 (89.87, 171.95)	234.56 (165.09, 315.29)
Bangladesh	51.45 (33.04, 72.84)	31.96 (20.53, 45.25)	45.58 (28.89, 64.56)	168.36 (121.18, 220.47)	104.60 (75.28, 136.98)	137.57 (98.14, 179.69)	220.26 (159.56, 283.60)	136.84 (99.13, 176.20)	183.21 (132.76, 236.87)
Barbados	0.09 (0.05, 0.13)	30.39 (18.92, 44.96)	22.88 (14.36, 33.90)	0.33 (0.23, 0.44)	115.22 (79.33, 156.08)	87.72 (60.74, 118.85)	0.41 (0.29, 0.56)	145.83 (101.20, 197.33)	110.85 (76.61, 149.60)
Belarus	3.20 (2.00, 4.70)	33.32 (20.76, 48.92)	24.00 (15.01, 35.08)	3.21 (2.24, 4.31)	33.40 (23.28, 44.86)	25.13 (17.48, 33.86)	6.42 (4.43, 8.71)	66.78 (46.09, 90.63)	49.26 (34.10, 66.80)
Belgium	2.59 (1.65, 3.76)	22.87 (14.56, 33.19)	14.18 (9.15, 20.36)	4.60 (3.24, 6.15)	40.62 (28.56, 54.26)	21.68 (15.18, 28.86)	7.22 (5.04, 9.69)	63.75 (44.46, 85.52)	35.87 (25.02, 48.10)
Belize	0.10 (0.07, 0.15)	29.01 (18.88, 41.13)	46.41 (29.68, 66.35)	0.69 (0.49, 0.91)	193.45 (137.33, 254.42)	309.79 (222.58, 406.03)	0.80 (0.57, 1.04)	222.65 (158.81, 289.88)	356.94 (258.16, 462.43)
Benin	4.31 (2.74, 6.20)	39.46 (25.10, 56.81)	81.61 (52.77, 115.92)	11.87 (8.18, 16.18)	108.76 (74.96, 148.28)	172.70 (119.54, 235.01)	16.26 (11.35, 21.77)	148.96 (103.96, 199.48)	254.04 (178.36, 337.96)
Bermuda	0.01 (0.00, 0.01)	8.40 (4.35, 14.40)	8.49 (4.43, 14.75)	0.02 (0.01, 0.03)	27.68 (15.47, 44.04)	28.16 (15.76, 45.10)	0.02 (0.01, 0.04)	36.12 (20.32, 57.30)	36.76 (20.69, 57.92)
Bhutan	0.29 (0.18, 0.41)	36.78 (23.66, 52.34)	52.27 (33.89, 74.69)	0.97 (0.62, 1.38)	124.89 (79.46, 178.30)	168.36 (110.65, 236.69)	1.25 (0.85, 1.72)	161.48 (110.05, 221.36)	220.68 (151.58, 301.63)
Bolivia	2.99 (1.94, 4.24)	27.82 (18.01, 39.39)	38.53 (24.81, 54.96)	22.30 (14.92, 30.93)	207.09 (138.57, 287.29)	277.03 (182.00, 385.54)	25.39 (17.43, 34.41)	235.85 (161.92, 319.63)	316.08 (216.87, 431.03)
Bosnia and Herzegovina	1.82 (1.19, 2.58)	47.73 (31.24, 67.59)	32.51 (21.31, 45.52)	3.76 (2.67, 5.00)	98.66 (70.11, 131.12)	67.09 (47.63, 88.75)	5.60 (4.02, 7.28)	146.96 (105.54, 190.98)	100.14 (71.90, 129.83)

Botswana	0.68 (0.43, 0.98)	29.90 (18.95, 43.55)	48.07 (30.04, 70.85)	1.37 (0.63, 2.34)	60.71 (27.85, 103.76)	102.33 (50.74, 168.91)	2.06 (1.20, 3.16)	91.07 (52.95, 140.05)	151.38 (90.43, 229.77)
Brazil	25.72 (15.29, 39.59)	12.38 (7.36, 19.05)	13.55 (8.11, 20.94)	98.88 (65.54, 139.27)	47.57 (31.53, 67.01)	51.17 (34.05, 72.01)	124.85 (82.57, 176.65)	60.07 (39.72, 84.99)	64.76 (42.92, 91.88)
Brunei	0.01 (0.00, 0.03)	2.32 (0.00, 8.04)	2.98 (0.00, 10.53)	0.02 (0.00, 0.08)	5.56 (0.00, 19.31)	7.87 (0.00, 26.63)	0.03 (0.00, 0.11)	8.00 (0.00, 26.61)	10.86 (0.00, 36.48)
Bulgaria	3.47 (2.17, 5.03)	47.72 (29.91, 69.20)	28.59 (18.30, 40.81)	8.72 (6.17, 11.52)	119.92 (84.89, 158.48)	77.27 (54.61, 101.87)	12.22 (8.79, 15.95)	168.11 (120.88, 219.44)	105.94 (76.14, 137.65)
Burkina Faso	6.04 (3.81, 8.75)	33.40 (21.06, 48.37)	78.10 (49.95, 110.78)	11.88 (8.40, 15.80)	65.65 (46.41, 87.30)	112.79 (81.92, 144.36)	17.97 (12.84, 23.59)	99.29 (70.95, 130.37)	190.49 (136.55, 249.99)
Burundi	3.20 (1.98, 4.65)	28.44 (17.61, 41.35)	62.45 (39.54, 90.32)	5.52 (3.77, 7.56)	49.05 (33.49, 67.22)	86.58 (59.04, 118.33)	8.74 (6.21, 11.58)	77.67 (55.23, 103.00)	149.74 (105.20, 198.10)
Cambodia	2.75 (1.77, 3.94)	17.66 (11.35, 25.25)	27.66 (18.20, 39.32)	17.78 (12.87, 22.99)	114.06 (82.52, 147.46)	166.02 (120.34, 213.75)	20.53 (14.88, 26.32)	131.69 (95.45, 168.79)	194.04 (141.21, 248.37)
Cameroon	8.06 (5.11, 11.66)	34.44 (21.84, 49.84)	69.42 (44.47, 100.23)	29.37 (17.73, 42.92)	125.51 (75.78, 183.42)	185.46 (113.23, 271.03)	37.47 (25.06, 52.43)	160.13 (107.09, 224.05)	255.04 (167.04, 356.67)
Canada	2.63 (1.03, 5.03)	7.27 (2.84, 13.91)	5.09 (1.98, 9.77)	3.88 (1.58, 6.92)	10.73 (4.38, 19.14)	7.01 (2.86, 12.42)	6.55 (2.66, 11.74)	18.13 (7.35, 32.48)	12.13 (4.95, 21.82)
Cape Verde	0.27 (0.18, 0.38)	52.09 (33.73, 73.89)	77.90 (50.53, 111.43)	0.51 (0.36, 0.68)	97.36 (69.06, 129.77)	132.17 (93.71, 175.24)	0.78 (0.56, 1.02)	150.01 (107.45, 196.66)	210.82 (149.30, 276.52)
Central African Republic	1.80 (1.17, 2.56)	36.68 (23.76, 52.20)	68.27 (43.92, 97.19)	3.93 (2.61, 5.41)	80.08 (53.30, 110.29)	122.68 (82.91, 169.24)	5.73 (4.04, 7.62)	116.92 (82.30, 155.41)	191.79 (133.62, 256.75)
Chad	5.12 (3.23, 7.36)	36.39 (22.95, 52.30)	86.75 (54.15, 124.91)	17.38 (12.11, 23.42)	123.61 (86.12, 166.54)	177.23 (123.76, 236.45)	22.54 (15.88, 29.84)	160.28 (112.95, 212.21)	264.19 (189.32, 345.78)
Chile	8.52 (5.63, 11.92)	47.46 (31.36, 66.43)	41.42 (27.66, 57.65)	18.06 (12.01, 25.06)	100.60 (66.93, 139.64)	87.97 (58.58, 122.97)	26.54 (18.38, 35.82)	147.86 (102.41, 199.56)	129.54 (90.05, 175.32)

China	462.21 (304.57, 647.27)	33.41 (22.01, 46.79)	29.12 (19.36, 41.01)	1,188.22 (870.96, 1,501.83)	85.89 (62.95, 108.56)	76.18 (55.93, 96.49)	1,651.72 (1,212.35, 2,103.21)	119.39 (87.63, 152.02)	105.79 (77.30, 133.98)
Colombia	14.77 (9.60, 20.92)	30.61 (19.89, 43.34)	34.79 (22.95, 49.73)	37.69 (26.69, 49.38)	78.08 (55.30, 102.32)	92.36 (65.62, 121.19)	52.45 (37.36, 68.94)	108.66 (77.41, 142.84)	127.67 (90.79, 167.02)
Comoros	0.20 (0.12, 0.30)	25.43 (15.55, 37.83)	48.98 (29.85, 73.12)	0.25 (0.13, 0.39)	31.35 (17.02, 49.22)	53.86 (29.18, 84.89)	0.45 (0.29, 0.65)	56.76 (36.33, 81.83)	103.08 (66.46, 149.18)
Congo	1.55 (0.99, 2.20)	33.48 (21.39, 47.46)	64.04 (41.27, 91.07)	2.68 (1.76, 3.74)	57.90 (37.97, 80.80)	100.69 (65.77, 141.75)	4.24 (2.96, 5.74)	91.63 (64.03, 124.09)	165.95 (114.47, 222.62)
Costa Rica	1.89 (1.22, 2.73)	39.40 (25.33, 56.70)	39.80 (25.50, 56.91)	6.49 (4.71, 8.39)	135.03 (98.02, 174.38)	134.89 (97.43, 173.03)	8.41 (6.10, 10.78)	174.83 (126.80, 224.09)	174.96 (126.88, 224.74)
Cote d'Ivoire	9.08 (5.68, 13.15)	40.03 (25.06, 57.97)	80.94 (51.84, 116.88)	28.27 (19.14, 39.04)	124.62 (84.34, 172.07)	189.00 (123.69, 267.47)	37.33 (25.50, 50.49)	164.53 (112.41, 222.56)	270.82 (185.31, 369.24)
Croatia	1.65 (1.08, 2.34)	38.87 (25.48, 55.06)	23.65 (15.44, 33.25)	3.34 (2.40, 4.33)	78.73 (56.70, 102.04)	45.03 (32.47, 58.44)	5.00 (3.62, 6.45)	117.81 (85.44, 152.10)	69.03 (49.85, 88.95)
Cuba	3.17 (1.99, 4.63)	27.81 (17.47, 40.61)	20.49 (12.69, 30.35)	10.25 (7.29, 13.57)	89.95 (64.00, 119.09)	66.97 (47.68, 88.27)	13.45 (9.50, 17.70)	118.07 (83.42, 155.38)	87.58 (62.19, 115.61)
Cyprus	0.21 (0.14, 0.31)	23.91 (15.14, 34.44)	18.20 (11.76, 25.83)	0.75 (0.54, 0.97)	83.82 (60.07, 109.09)	60.21 (43.24, 78.34)	0.96 (0.69, 1.25)	107.87 (77.36, 140.64)	78.41 (56.11, 102.22)
Czech Republic	4.25 (2.78, 6.04)	39.71 (25.97, 56.42)	25.71 (16.53, 36.59)	5.56 (4.07, 7.07)	51.94 (38.09, 66.06)	32.97 (23.97, 41.68)	9.83 (7.04, 12.77)	91.86 (65.78, 119.39)	58.62 (42.45, 76.24)
Democratic Republic of the Congo	22.52 (14.70, 32.09)	29.09 (18.99, 41.45)	65.38 (42.42, 93.03)	33.70 (24.05, 44.53)	43.53 (31.07, 57.52)	78.20 (56.21, 102.14)	56.66 (40.43, 73.73)	73.19 (52.22, 95.24)	143.94 (103.26, 188.29)
Denmark	0.77 (0.46, 1.20)	13.52 (8.13, 21.05)	8.77 (5.30, 13.74)	1.38 (0.88, 2.00)	24.11 (15.44, 35.11)	14.49 (9.35, 21.05)	2.15 (1.39, 3.13)	37.71 (24.36, 54.78)	23.27 (15.13, 33.81)
Djibouti	0.35 (0.22, 0.51)	39.75 (24.97, 57.53)	69.42 (43.27, 101.69)	0.52 (0.33, 0.74)	58.06 (36.69, 83.43)	89.00 (55.89, 128.33)	0.87 (0.60, 1.19)	98.28 (67.04, 134.22)	159.20 (108.66, 216.60)

Dominica	0.02 (0.01, 0.03)	26.78 (16.28, 40.41)	27.20 (16.63, 41.41)	0.10 (0.07, 0.14)	141.01 (94.20, 198.43)	143.39 (95.78, 200.98)	0.12 (0.08, 0.17)	167.77 (112.89, 233.81)	170.57 (114.74, 238.15)
Dominican Republic	2.16 (1.40, 3.11)	20.51 (13.32, 29.56)	25.21 (16.27, 35.79)	10.27 (7.12, 13.78)	97.53 (67.59, 130.86)	118.26 (82.48, 158.03)	12.44 (8.72, 16.50)	118.16 (82.83, 156.69)	143.44 (101.14, 190.86)
Ecuador	2.15 (1.32, 3.26)	13.29 (8.20, 20.16)	16.47 (10.07, 24.94)	16.18 (11.08, 22.31)	100.15 (68.60, 138.10)	125.41 (85.32, 172.37)	18.39 (12.51, 25.26)	113.87 (77.43, 156.40)	142.20 (96.35, 195.11)
Egypt	52.26 (33.82, 73.90)	57.34 (37.10, 81.08)	78.38 (52.19, 109.64)	120.03 (72.90, 175.32)	131.68 (79.98, 192.35)	195.21 (113.70, 292.81)	172.30 (117.78, 234.75)	189.03 (129.21, 257.55)	273.55 (184.84, 379.35)
El Salvador	3.28 (2.17, 4.57)	53.49 (35.35, 74.39)	60.54 (40.91, 83.89)	26.18 (18.78, 34.28)	426.58 (306.06, 558.61)	481.81 (344.35, 636.50)	29.52 (21.20, 38.63)	481.04 (345.36, 629.37)	543.35 (391.16, 707.96)
Equatorial Guinea	0.31 (0.19, 0.44)	36.10 (22.80, 52.06)	62.82 (40.97, 89.68)	0.33 (0.14, 0.55)	38.67 (16.27, 65.19)	65.43 (28.59, 107.37)	0.63 (0.40, 0.91)	74.72 (47.43, 107.66)	127.91 (82.09, 182.20)
Eritrea	1.58 (0.99, 2.26)	30.15 (18.84, 43.18)	65.72 (41.77, 93.78)	2.55 (1.72, 3.51)	48.56 (32.81, 67.03)	90.41 (61.56, 124.00)	4.13 (2.84, 5.58)	78.70 (54.27, 106.42)	156.58 (109.12, 209.90)
Estonia	0.24 (0.13, 0.40)	17.52 (9.40, 29.47)	10.53 (5.71, 17.73)	0.34 (0.20, 0.52)	24.98 (14.95, 38.24)	15.18 (9.06, 23.36)	0.58 (0.34, 0.90)	42.69 (25.13, 66.20)	25.83 (15.22, 40.11)
Ethiopia	33.19 (20.80, 48.02)	33.38 (20.92, 48.29)	67.59 (42.14, 98.96)	61.22 (42.68, 81.87)	61.57 (42.92, 82.34)	109.74 (76.89, 145.84)	94.59 (67.19, 125.41)	95.13 (67.58, 126.13)	177.87 (126.42, 234.11)
Federated States of Micronesia	0.01 (0.00, 0.01)	5.15 (0.78, 11.55)	8.30 (1.23, 18.33)	0.05 (0.01, 0.11)	46.55 (6.82, 106.75)	71.82 (10.73, 165.71)	0.05 (0.01, 0.12)	51.60 (7.54, 116.80)	80.06 (12.05, 181.25)
Fiji	0.06 (0.01, 0.14)	7.08 (0.72, 16.13)	8.44 (0.86, 19.52)	0.49 (0.05, 1.10)	54.64 (5.58, 123.55)	65.44 (6.46, 147.66)	0.55 (0.06, 1.23)	61.67 (6.29, 138.03)	74.23 (7.50, 164.95)
Finland	0.31 (0.13, 0.58)	5.53 (2.29, 10.37)	3.37 (1.42, 6.32)	0.34 (0.15, 0.59)	6.04 (2.65, 10.58)	3.25 (1.44, 5.68)	0.64 (0.28, 1.14)	11.62 (5.04, 20.51)	6.67 (2.90, 11.83)
France	10.91 (6.80, 16.24)	16.72 (10.42, 24.90)	10.33 (6.46, 15.54)	14.82 (9.99, 20.53)	22.72 (15.32, 31.47)	11.56 (7.81, 16.04)	25.74 (17.27, 36.09)	39.46 (26.48, 55.32)	21.98 (14.45, 30.75)

Gabon	0.69 (0.44, 0.98)	39.84 (25.74, 56.59)	64.43 (41.20, 92.46)	1.17 (0.73, 1.69)	67.89 (42.35, 97.63)	103.47 (65.94, 149.30)	1.86 (1.28, 2.56)	107.89 (74.10, 148.39)	169.15 (115.23, 230.82)
Georgia	2.79 (1.81, 3.99)	69.57 (45.09, 99.58)	52.95 (34.74, 74.84)	5.47 (3.95, 7.07)	136.67 (98.53, 176.53)	109.34 (78.72, 141.78)	8.05 (5.80, 10.42)	200.95 (144.82, 260.11)	162.56 (116.39, 211.01)
Germany	19.37 (12.08, 28.60)	23.16 (14.45, 34.20)	12.69 (7.91, 18.77)	48.60 (33.67, 65.68)	58.12 (40.26, 78.54)	26.78 (18.63, 36.11)	68.11 (47.23, 92.79)	81.44 (56.48, 110.96)	39.52 (27.20, 53.71)
Ghana	12.42 (7.83, 17.85)	45.30 (28.55, 65.10)	82.09 (52.28, 118.31)	26.03 (18.42, 34.67)	94.94 (67.17, 126.47)	138.80 (98.95, 184.52)	38.46 (27.42, 50.42)	140.27 (100.00, 183.89)	221.70 (158.31, 291.92)
Greece	2.82 (1.77, 4.15)	25.80 (16.19, 37.97)	14.22 (8.94, 21.00)	6.41 (4.38, 8.70)	58.68 (40.11, 79.65)	28.23 (19.35, 38.55)	9.20 (6.34, 12.62)	84.26 (58.03, 115.54)	42.42 (29.20, 58.30)
Greenland	0.00 (0.00, 0.00)	1.91 (0.00, 5.81)	2.03 (0.00, 6.25)	0.00 (0.00, 0.01)	3.06 (0.00, 9.34)	4.06 (0.00, 12.10)	0.00 (0.00, 0.01)	5.05 (0.00, 14.85)	6.15 (0.00, 17.97)
Grenada	0.02 (0.02, 0.04)	23.18 (14.68, 34.33)	26.83 (16.93, 39.22)	0.17 (0.12, 0.24)	160.25 (109.88, 220.44)	185.70 (127.42, 254.62)	0.20 (0.13, 0.27)	183.38 (126.10, 251.11)	212.35 (146.51, 290.28)
Guam	0.01 (0.01, 0.03)	8.49 (3.03, 16.96)	8.90 (3.15, 17.49)	0.07 (0.02, 0.13)	40.18 (14.62, 75.40)	41.50 (15.03, 77.79)	0.08 (0.03, 0.15)	48.82 (18.00, 91.23)	50.69 (18.52, 93.78)
Guatemala	6.58 (4.31, 9.27)	40.24 (26.36, 56.66)	65.22 (42.57, 91.99)	36.15 (24.35, 49.98)	221.02 (148.91, 305.60)	341.33 (229.36, 470.47)	42.67 (29.49, 58.10)	260.90 (180.34, 355.27)	408.41 (283.82, 551.84)
Guinea	4.63 (2.95, 6.69)	36.83 (23.43, 53.19)	73.16 (46.42, 106.87)	10.60 (7.03, 14.77)	84.34 (55.88, 117.44)	125.93 (84.04, 177.29)	15.23 (10.57, 20.72)	121.16 (84.06, 164.80)	200.40 (138.47, 270.56)
Guinea-Bissau	0.95 (0.60, 1.37)	51.12 (32.31, 73.94)	97.52 (61.55, 140.52)	3.07 (2.11, 4.18)	166.22 (114.18, 226.05)	250.33 (172.32, 341.15)	4.02 (2.82, 5.40)	217.69 (152.81, 291.96)	349.02 (246.22, 463.93)
Guyana	0.16 (0.10, 0.23)	20.60 (12.92, 30.36)	27.16 (17.08, 40.05)	1.07 (0.74, 1.45)	138.67 (96.10, 188.24)	166.74 (115.79, 224.82)	1.23 (0.85, 1.66)	159.32 (110.51, 215.69)	193.49 (134.96, 260.32)
Haiti	3.11 (1.99, 4.46)	28.98 (18.58, 41.56)	46.35 (30.15, 65.93)	21.89 (13.72, 31.56)	204.22 (127.98, 294.35)	288.82 (178.97, 421.19)	24.97 (16.35, 35.18)	232.93 (152.48, 328.10)	336.51 (221.79, 469.96)

Honduras	2.91 (1.87, 4.16)	35.95 (23.14, 51.41)	56.82 (36.73, 80.36)	18.89 (11.77, 27.36)	233.27 (145.37, 337.87)	373.02 (236.17, 536.20)	21.84 (14.16, 30.66)	269.69 (174.88, 378.64)	429.86 (279.86, 607.50)
Hungary	4.43 (2.93, 6.25)	43.61 (28.86, 61.47)	27.78 (18.37, 39.22)	7.31 (5.32, 9.32)	71.89 (52.35, 91.69)	45.39 (33.18, 57.91)	11.77 (8.60, 15.16)	115.74 (84.56, 149.08)	73.26 (53.08, 94.52)
Iceland	0.01 (0.01, 0.03)	4.32 (1.96, 7.91)	3.32 (1.51, 6.12)	0.02 (0.01, 0.04)	6.61 (3.15, 11.26)	4.67 (2.24, 7.93)	0.04 (0.02, 0.06)	10.97 (5.24, 18.70)	8.05 (3.82, 13.68)
India	447.47 (289.00, 638.28)	34.12 (22.03, 48.66)	45.40 (29.19, 64.54)	2,048.91 (1,471.02, 2,662.61)	156.21 (112.15, 203.00)	192.55 (138.73, 249.04)	2,502.15 (1,827.96, 3,204.77)	190.77 (139.37, 244.33)	238.25 (173.90, 303.98)
Indonesia	40.67 (25.55, 60.13)	15.79 (9.92, 23.34)	20.02 (12.80, 29.32)	224.57 (158.94, 297.66)	87.17 (61.70, 115.54)	102.00 (72.07, 134.72)	265.23 (186.14, 351.41)	102.95 (72.25, 136.41)	122.19 (86.18, 162.36)
Iran	40.01 (25.81, 56.48)	50.63 (32.66, 71.46)	62.59 (40.71, 87.54)	63.94 (43.65, 87.16)	80.90 (55.23, 110.28)	113.67 (76.61, 156.53)	104.22 (74.20, 137.48)	131.87 (93.88, 173.95)	176.65 (125.09, 232.59)
Iraq	19.19 (12.49, 27.20)	52.68 (34.30, 74.68)	101.57 (65.61, 143.07)	55.87 (36.12, 78.88)	153.40 (99.19, 216.58)	318.22 (206.59, 449.32)	75.32 (50.89, 102.71)	206.79 (139.73, 282.01)	419.84 (287.98, 568.47)
Ireland	0.37 (0.21, 0.61)	7.79 (4.40, 12.69)	6.15 (3.49, 9.94)	0.75 (0.46, 1.15)	15.76 (9.63, 23.98)	12.00 (7.32, 18.19)	1.13 (0.70, 1.71)	23.65 (14.54, 35.63)	18.27 (11.28, 27.51)
Israel	3.02 (2.00, 4.21)	37.57 (24.79, 52.28)	34.58 (23.29, 48.51)	8.19 (5.64, 11.06)	101.74 (70.06, 137.39)	89.16 (61.66, 120.39)	11.22 (8.06, 14.81)	139.36 (100.15, 184.04)	124.05 (88.27, 162.83)
Italy	21.45 (13.88, 30.20)	34.16 (22.11, 48.10)	18.21 (11.64, 25.94)	42.15 (30.49, 53.95)	67.12 (48.55, 85.91)	30.11 (21.70, 38.73)	63.56 (45.86, 82.14)	101.22 (73.03, 130.80)	48.45 (34.67, 63.06)
Jamaica	0.85 (0.55, 1.24)	30.16 (19.31, 43.66)	31.36 (20.01, 45.53)	4.10 (2.52, 5.95)	145.06 (88.93, 210.37)	150.41 (95.03, 220.47)	4.93 (3.20, 7.06)	174.26 (113.09, 249.40)	182.02 (119.19, 259.29)
Japan	57.64 (36.80, 84.54)	44.92 (28.68, 65.89)	21.97 (13.83, 32.50)	72.08 (49.89, 97.36)	56.18 (38.88, 75.88)	23.15 (16.00, 31.22)	129.79 (88.75, 178.70)	101.16 (69.17, 139.27)	45.26 (30.63, 62.55)
Jordan	3.38 (2.20, 4.78)	44.69 (29.00, 63.16)	73.69 (48.26, 104.12)	8.94 (5.84, 12.69)	118.07 (77.08, 167.59)	220.75 (145.55, 309.46)	12.38 (8.47, 16.92)	163.52 (111.86, 223.54)	295.39 (203.17, 401.39)

Kazakhstan	6.56 (4.09, 9.54)	37.39 (23.33, 54.40)	44.28 (27.96, 64.54)	10.80 (7.42, 14.68)	61.60 (42.29, 83.70)	67.01 (45.73, 91.21)	17.40 (12.14, 23.45)	99.23 (69.24, 133.73)	111.27 (77.35, 149.82)
Kenya	7.21 (4.44, 10.72)	15.62 (9.60, 23.20)	32.62 (19.87, 48.33)	9.03 (6.02, 12.76)	19.55 (13.04, 27.62)	35.26 (23.26, 49.71)	16.31 (11.14, 22.40)	35.32 (24.13, 48.50)	67.96 (46.37, 94.51)
Kiribati	0.00 (0.00, 0.00)	0.00 (0.00, 2.78)	0.00 (0.00, 4.34)	0.00 (0.00, 0.02)	0.00 (0.00, 14.97)	0.00 (0.00, 22.50)	0.00 (0.00, 0.02)	0.00 (0.00, 17.59)	0.00 (0.00, 26.59)
Kuwait	1.67 (1.07, 2.36)	42.72 (27.46, 60.56)	62.14 (41.51, 87.34)	1.46 (0.94, 2.04)	37.47 (24.17, 52.38)	96.18 (63.34, 135.21)	3.13 (2.18, 4.19)	80.12 (56.00, 107.52)	158.85 (110.11, 212.88)
Kyrgyzstan	1.60 (0.99, 2.32)	27.19 (16.87, 39.37)	39.54 (25.16, 57.71)	3.97 (2.80, 5.24)	67.28 (47.48, 88.89)	77.55 (54.77, 102.49)	5.58 (3.92, 7.39)	94.65 (66.52, 125.35)	117.48 (82.40, 157.14)
Laos	1.40 (0.92, 1.96)	20.54 (13.47, 28.90)	35.90 (23.64, 50.12)	10.56 (7.48, 13.97)	155.35 (109.96, 205.51)	225.76 (160.53, 295.45)	11.98 (8.56, 15.65)	176.24 (125.92, 230.19)	261.99 (187.73, 338.96)
Latvia	1.15 (0.72, 1.66)	51.94 (32.47, 75.02)	31.18 (19.79, 44.95)	1.23 (0.88, 1.59)	55.51 (39.91, 71.89)	35.81 (25.58, 46.79)	2.38 (1.68, 3.14)	107.46 (75.80, 141.87)	66.97 (47.80, 88.16)
Lebanon	2.84 (1.86, 4.04)	49.32 (32.23, 70.05)	52.61 (33.79, 73.67)	3.16 (2.20, 4.23)	54.82 (38.26, 73.35)	60.14 (42.42, 81.00)	6.03 (4.33, 7.85)	104.63 (75.20, 136.31)	113.49 (80.31, 149.05)
Lesotho	0.89 (0.57, 1.28)	41.72 (26.56, 60.28)	73.49 (46.75, 106.00)	2.27 (1.40, 3.30)	106.69 (65.92, 154.98)	191.47 (120.26, 275.94)	3.17 (2.11, 4.41)	148.80 (99.07, 207.33)	265.75 (177.38, 369.94)
Liberia	0.37 (0.16, 0.69)	8.13 (3.55, 15.26)	16.17 (7.14, 30.27)	1.02 (0.46, 1.85)	22.67 (10.20, 41.02)	37.89 (17.07, 68.49)	1.40 (0.63, 2.46)	31.11 (14.03, 54.65)	54.40 (24.99, 95.66)
Libya	3.10 (1.99, 4.41)	49.22 (31.58, 70.12)	64.63 (41.62, 91.46)	9.93 (6.69, 13.58)	157.79 (106.21, 215.77)	239.23 (164.52, 324.97)	12.98 (9.12, 17.43)	206.27 (144.95, 276.96)	304.55 (214.36, 405.38)
Lithuania	1.40 (0.87, 2.03)	44.29 (27.62, 64.53)	26.66 (16.65, 38.80)	1.23 (0.89, 1.59)	38.87 (28.18, 50.34)	25.74 (18.60, 33.17)	2.63 (1.83, 3.53)	83.36 (57.97, 112.11)	52.62 (36.84, 69.86)
Luxembourg	0.11 (0.07, 0.16)	20.08 (13.06, 28.98)	14.63 (9.45, 21.29)	0.20 (0.14, 0.27)	35.99 (25.41, 48.02)	24.27 (17.12, 32.21)	0.31 (0.22, 0.42)	56.31 (39.71, 74.94)	38.94 (27.24, 52.34)

Macedonia	0.90 (0.59, 1.27)	43.25 (28.18, 61.19)	34.63 (22.59, 48.79)	2.21 (1.61, 2.83)	106.56 (77.58, 136.06)	84.44 (61.71, 107.85)	3.12 (2.28, 3.98)	150.29 (109.65, 191.33)	119.39 (86.76, 152.31)
Madagascar	5.26 (3.22, 7.69)	21.73 (13.31, 31.80)	45.18 (28.06, 66.20)	9.04 (5.99, 12.78)	37.37 (24.77, 52.83)	61.22 (40.58, 85.75)	14.36 (9.80, 19.61)	59.35 (40.52, 81.07)	107.07 (74.22, 146.41)
Malawi	4.24 (2.62, 6.18)	24.65 (15.22, 35.88)	56.22 (35.02, 82.60)	8.68 (5.88, 11.99)	50.42 (34.18, 69.66)	89.53 (60.33, 124.01)	12.99 (9.07, 17.38)	75.45 (52.71, 100.96)	146.34 (103.79, 194.95)
Malaysia	4.83 (2.98, 7.15)	15.95 (9.83, 23.60)	19.95 (12.31, 29.58)	17.65 (12.24, 23.82)	58.25 (40.41, 78.62)	75.22 (52.62, 100.56)	22.52 (15.61, 30.24)	74.33 (51.53, 99.81)	95.26 (66.73, 127.57)
Maldives	0.08 (0.05, 0.12)	22.29 (14.33, 31.90)	31.65 (20.35, 44.89)	0.49 (0.33, 0.67)	134.44 (90.97, 184.83)	206.14 (139.42, 282.81)	0.57 (0.39, 0.77)	156.71 (107.58, 212.79)	237.75 (164.88, 321.79)
Mali	6.34 (3.98, 9.08)	36.09 (22.66, 51.68)	84.40 (54.25, 121.34)	16.34 (10.69, 22.99)	93.03 (60.87, 130.87)	140.33 (92.29, 195.80)	22.81 (15.96, 30.76)	129.83 (90.82, 175.11)	225.22 (157.45, 301.52)
Malta	0.10 (0.06, 0.15)	24.57 (15.50, 35.79)	15.83 (10.05, 23.22)	0.23 (0.16, 0.32)	56.10 (37.89, 77.44)	33.99 (23.02, 47.21)	0.34 (0.23, 0.46)	80.76 (55.48, 109.36)	49.99 (34.54, 68.39)
Marshall Islands	0.01 (0.01, 0.02)	16.60 (9.08, 27.35)	27.62 (15.35, 45.56)	0.08 (0.04, 0.14)	107.66 (53.64, 189.61)	171.05 (85.99, 298.82)	0.09 (0.05, 0.15)	124.80 (65.47, 213.03)	199.34 (104.19, 344.92)
Mauritania	1.84 (1.14, 2.66)	44.98 (27.94, 65.03)	81.72 (51.93, 116.30)	3.45 (2.23, 4.89)	84.49 (54.54, 119.68)	133.29 (87.40, 189.66)	5.32 (3.67, 7.21)	130.13 (89.96, 176.52)	216.06 (149.79, 291.21)
Mauritius	0.53 (0.33, 0.77)	41.27 (26.17, 60.30)	37.45 (23.50, 54.65)	4.03 (2.77, 5.54)	316.19 (217.45, 434.77)	278.43 (190.83, 382.07)	4.57 (3.14, 6.26)	358.69 (246.54, 491.69)	315.62 (217.48, 432.92)
Mexico	74.93 (49.49, 104.85)	58.98 (38.95, 82.54)	72.27 (48.02, 101.20)	390.95 (286.18, 495.17)	307.73 (225.26, 389.77)	382.48 (279.40, 484.08)	466.91 (339.46, 591.64)	367.53 (267.20, 465.70)	455.29 (332.51, 577.97)
Moldova	1.10 (0.69, 1.65)	27.07 (16.89, 40.47)	23.99 (14.92, 35.33)	1.24 (0.87, 1.65)	30.56 (21.50, 40.70)	25.99 (18.17, 34.39)	2.35 (1.63, 3.18)	57.86 (40.20, 78.24)	49.92 (34.26, 68.11)
Mongolia	1.44 (0.91, 2.07)	48.65 (30.89, 70.07)	71.95 (45.44, 104.52)	3.92 (1.84, 6.39)	132.82 (62.15, 216.42)	159.95 (82.07, 251.45)	5.36 (3.07, 8.10)	181.34 (104.12, 274.36)	232.09 (144.46, 338.98)

Montenegro	0.24 (0.15, 0.35)	37.99 (23.22, 55.93)	29.04 (18.03, 41.99)	0.70 (0.50, 0.90)	111.08 (79.94, 144.42)	85.11 (61.70, 110.56)	0.94 (0.68, 1.21)	149.44 (108.02, 193.16)	114.41 (83.11, 147.56)
Morocco	15.85 (10.18, 22.71)	46.12 (29.62, 66.05)	53.43 (34.34, 77.10)	59.22 (39.29, 82.64)	172.28 (114.30, 240.41)	210.24 (136.95, 298.98)	75.30 (52.04, 101.51)	219.08 (151.40, 295.32)	264.23 (181.58, 360.76)
Mozambique	6.48 (4.07, 9.58)	23.17 (14.54, 34.21)	49.55 (31.12, 72.18)	11.62 (6.16, 18.36)	41.52 (22.01, 65.59)	68.33 (36.08, 108.85)	18.11 (11.57, 26.09)	64.70 (41.34, 93.20)	117.80 (75.41, 170.55)
Myanmar	14.41 (9.15, 20.69)	26.68 (16.94, 38.30)	34.36 (21.95, 48.94)	85.73 (60.05, 113.35)	158.68 (111.14, 209.81)	193.98 (139.31, 254.94)	100.03 (71.37, 131.87)	185.15 (132.09, 244.09)	228.69 (163.33, 299.93)
Namibia	0.75 (0.47, 1.07)	30.49 (19.14, 43.78)	54.33 (34.63, 79.02)	1.43 (0.87, 2.14)	58.35 (35.30, 87.20)	107.16 (65.06, 160.65)	2.19 (1.43, 3.08)	89.26 (58.27, 125.54)	161.94 (106.15, 227.78)
Nepal	10.76 (6.99, 15.23)	37.67 (24.48, 53.34)	56.55 (35.89, 80.92)	36.26 (24.22, 50.10)	127.02 (84.83, 175.47)	181.39 (122.63, 251.34)	47.16 (32.78, 63.76)	165.17 (114.82, 223.31)	238.33 (166.71, 319.47)
Netherlands	3.09 (1.97, 4.49)	17.96 (11.48, 26.15)	11.61 (7.37, 17.08)	5.32 (3.71, 7.17)	30.93 (21.57, 41.71)	17.93 (12.50, 24.14)	8.40 (5.85, 11.41)	48.89 (34.02, 66.40)	29.64 (20.46, 40.00)
New Zealand	0.10 (0.00, 0.29)	2.30 (0.00, 6.35)	1.71 (0.00, 4.68)	0.27 (0.00, 0.71)	5.99 (0.00, 15.48)	4.23 (0.00, 11.06)	0.38 (0.00, 0.99)	8.28 (0.00, 21.61)	5.98 (0.00, 15.66)
Nicaragua	2.46 (1.61, 3.45)	40.37 (26.47, 56.66)	55.95 (36.53, 79.46)	19.41 (13.63, 25.94)	318.74 (223.87, 426.02)	430.73 (300.43, 574.81)	21.91 (15.44, 29.17)	359.93 (253.60, 479.10)	486.52 (343.82, 646.79)
Niger	7.23 (4.59, 10.31)	36.44 (23.13, 51.95)	83.74 (53.34, 119.47)	19.14 (11.85, 28.03)	96.42 (59.70, 141.17)	146.12 (93.15, 208.11)	26.36 (17.79, 36.22)	132.75 (89.59, 182.42)	231.08 (156.91, 313.98)
Nigeria	61.22 (38.09, 88.68)	33.55 (20.87, 48.59)	71.93 (45.61, 103.27)	57.66 (37.92, 80.13)	31.60 (20.78, 43.91)	44.94 (29.23, 62.98)	119.40 (82.97, 161.55)	65.43 (45.47, 88.52)	117.66 (81.05, 158.12)
North Korea	9.89 (6.46, 13.94)	39.31 (25.66, 55.40)	40.32 (26.41, 57.00)	28.73 (20.52, 37.48)	114.19 (81.57, 148.96)	113.40 (81.07, 148.41)	38.69 (27.97, 50.53)	153.79 (111.16, 200.83)	153.80 (111.17, 199.42)
Northern Mariana Islands	0.02 (0.01, 0.02)	13.73 (8.23, 21.38)	25.74 (15.51, 39.61)	0.07 (0.04, 0.10)	56.73 (35.54, 85.53)	126.69 (80.14, 186.00)	0.08 (0.05, 0.12)	70.80 (45.02, 105.00)	152.32 (98.83, 222.85)

Norway	0.35 (0.19, 0.57)	6.69 (3.67, 11.04)	4.62 (2.56, 7.55)	0.59 (0.34, 0.91)	11.41 (6.67, 17.61)	7.13 (4.16, 11.03)	0.94 (0.55, 1.46)	18.15 (10.61, 28.26)	11.76 (6.86, 18.27)
Oman	2.04 (1.31, 2.90)	45.54 (29.20, 64.74)	71.02 (46.68, 99.09)	2.27 (1.65, 2.91)	50.70 (36.73, 64.92)	113.44 (82.14, 146.06)	4.32 (3.09, 5.62)	96.49 (68.90, 125.40)	184.57 (133.94, 239.56)
Pakistan	47.74 (30.60, 68.12)	25.25 (16.19, 36.03)	39.99 (25.77, 56.99)	292.68 (174.43, 434.38)	154.81 (92.27, 229.76)	215.59 (123.95, 322.52)	342.45 (213.87, 492.17)	181.14 (113.12, 260.33)	254.25 (157.33, 365.23)
Palestine	1.84 (1.16, 2.65)	39.37 (24.73, 56.67)	77.71 (50.22, 110.75)	6.37 (4.64, 8.22)	136.36 (99.30, 175.88)	312.70 (225.51, 403.20)	8.22 (5.97, 10.57)	175.83 (127.80, 226.11)	391.28 (283.36, 502.90)
Panama	0.84 (0.52, 1.26)	21.27 (13.18, 32.00)	24.12 (14.67, 36.23)	3.17 (2.10, 4.53)	80.74 (53.51, 115.26)	90.28 (59.97, 128.36)	4.02 (2.69, 5.61)	102.22 (68.42, 142.71)	114.94 (77.67, 159.65)
Papua New Guinea	1.02 (0.58, 1.64)	13.36 (7.66, 21.46)	23.89 (14.06, 37.88)	7.50 (3.99, 12.60)	98.32 (52.22, 165.03)	164.66 (87.62, 270.05)	8.59 (4.78, 13.94)	112.56 (62.64, 182.66)	188.56 (106.76, 304.33)
Paraguay	1.07 (0.67, 1.58)	16.15 (10.09, 23.78)	22.06 (13.58, 33.09)	7.25 (4.98, 9.86)	108.93 (74.87, 148.24)	149.05 (102.59, 203.04)	8.33 (5.69, 11.26)	125.17 (85.58, 169.27)	171.06 (118.47, 232.34)
Peru	6.45 (4.15, 9.18)	20.56 (13.22, 29.25)	25.73 (16.56, 36.66)	34.03 (23.23, 46.67)	108.39 (74.00, 148.65)	133.73 (90.56, 180.87)	40.38 (28.21, 53.89)	128.62 (89.86, 171.68)	160.05 (112.59, 214.73)
Philippines	28.85 (18.52, 41.30)	28.62 (18.37, 40.97)	40.41 (25.99, 57.40)	259.30 (185.16, 337.40)	257.24 (183.69, 334.71)	354.39 (255.63, 460.41)	287.75 (207.53, 372.02)	285.46 (205.87, 369.05)	394.64 (287.96, 511.26)
Poland	16.59 (10.98, 23.41)	42.64 (28.22, 60.15)	29.10 (18.79, 41.18)	24.23 (17.69, 31.13)	62.27 (45.45, 80.01)	41.86 (30.51, 53.59)	40.89 (29.87, 52.59)	105.08 (76.76, 135.15)	71.27 (51.55, 91.90)
Portugal	1.71 (0.99, 2.72)	15.81 (9.20, 25.23)	8.93 (5.16, 14.25)	3.81 (2.34, 5.70)	35.29 (21.68, 52.81)	17.91 (11.04, 26.83)	5.54 (3.39, 8.34)	51.31 (31.41, 77.26)	26.99 (16.50, 40.67)
Puerto Rico	1.51 (0.97, 2.15)	40.87 (26.40, 58.46)	30.98 (20.18, 44.62)	5.52 (3.91, 7.28)	149.97 (106.23, 197.55)	113.91 (81.06, 151.00)	7.03 (4.97, 9.27)	190.95 (135.04, 251.55)	145.37 (102.98, 191.07)
Qatar	0.89 (0.57, 1.27)	39.90 (25.64, 57.14)	60.35 (40.19, 84.52)	0.84 (0.51, 1.23)	37.93 (23.17, 55.38)	118.50 (73.98, 173.45)	1.73 (1.18, 2.38)	77.95 (52.91, 107.28)	180.00 (118.76, 250.16)

Romania	6.85 (4.56, 9.70)	35.10 (23.33, 49.66)	22.37 (14.74, 31.48)	14.11 (10.21, 18.23)	72.25 (52.29, 93.34)	47.26 (33.91, 61.01)	21.02 (15.03, 27.30)	107.63 (77.00, 139.82)	69.60 (50.30, 90.70)
Russia	45.31 (27.94, 67.45)	30.59 (18.86, 45.54)	22.99 (14.08, 34.08)	54.05 (32.23, 81.33)	36.49 (21.76, 54.91)	28.25 (16.88, 42.28)	100.14 (66.26, 140.14)	67.61 (44.74, 94.61)	51.29 (34.08, 72.60)
Rwanda	3.02 (1.87, 4.36)	25.97 (16.05, 37.47)	54.12 (33.17, 79.17)	4.28 (2.55, 6.38)	36.79 (21.93, 54.89)	66.56 (38.82, 99.41)	7.33 (4.95, 10.18)	63.00 (42.53, 87.49)	121.20 (82.06, 167.28)
Saint Lucia	0.04 (0.03, 0.07)	23.08 (13.90, 35.17)	22.71 (13.76, 34.28)	0.20 (0.13, 0.27)	106.13 (72.88, 144.74)	103.81 (71.55, 141.19)	0.24 (0.17, 0.33)	129.38 (89.20, 176.24)	126.62 (87.55, 173.16)
Saint Vincent and the Grenadines	0.02 (0.02, 0.04)	22.50 (13.87, 33.75)	24.70 (15.16, 37.46)	0.13 (0.09, 0.18)	121.90 (84.02, 166.76)	130.26 (90.01, 177.81)	0.16 (0.11, 0.22)	144.55 (99.57, 196.30)	155.22 (106.97, 212.14)
Samoa	0.00 (0.00, 0.01)	0.00 (0.00, 3.84)	0.00 (0.00, 5.70)	0.00 (0.00, 0.04)	0.00 (0.00, 21.72)	0.00 (0.00, 32.36)	0.00 (0.00, 0.05)	0.00 (0.00, 25.64)	0.00 (0.00, 38.51)
Sao Tome and Principe	0.05 (0.03, 0.07)	25.35 (15.10, 38.77)	48.74 (29.60, 73.96)	0.17 (0.11, 0.26)	91.25 (57.95, 133.66)	153.48 (99.48, 221.91)	0.22 (0.14, 0.32)	116.63 (75.83, 168.74)	201.80 (134.38, 288.06)
Saudi Arabia	13.27 (8.63, 18.98)	42.23 (27.44, 60.38)	62.93 (41.40, 88.25)	34.01 (24.58, 43.86)	108.19 (78.18, 139.51)	227.28 (166.46, 290.61)	47.31 (34.52, 61.01)	150.50 (109.80, 194.09)	291.08 (211.88, 372.82)
Senegal	6.52 (4.13, 9.37)	43.18 (27.36, 62.00)	89.98 (57.24, 129.26)	17.32 (12.26, 22.75)	114.64 (81.16, 150.60)	189.77 (136.70, 246.60)	23.92 (17.22, 31.12)	158.33 (113.97, 205.94)	280.40 (202.56, 362.00)
Serbia	3.62 (2.36, 5.13)	40.87 (26.60, 57.97)	26.73 (17.55, 38.13)	10.32 (7.49, 13.20)	116.57 (84.53, 149.08)	75.89 (55.14, 97.25)	13.91 (10.13, 17.91)	157.10 (114.42, 202.25)	102.82 (74.80, 132.19)
Seychelles	0.02 (0.01, 0.02)	16.72 (9.88, 25.59)	17.41 (10.55, 26.44)	0.15 (0.10, 0.22)	157.96 (104.85, 223.41)	165.03 (110.66, 233.29)	0.17 (0.11, 0.24)	175.10 (117.35, 245.78)	182.95 (123.36, 256.84)
Sierra Leone	1.76 (1.09, 2.61)	27.31 (16.90, 40.32)	57.89 (35.55, 86.10)	5.04 (3.25, 7.28)	77.97 (50.36, 112.65)	115.11 (76.06, 165.01)	6.81 (4.62, 9.62)	105.39 (71.44, 148.83)	173.17 (116.39, 240.75)
Singapore	1.56 (1.03, 2.22)	39.79 (26.21, 56.48)	31.23 (20.24, 43.99)	2.85 (1.93, 3.94)	72.51 (49.28, 100.30)	59.44 (40.45, 82.38)	4.42 (3.07, 5.94)	112.75 (78.29, 151.41)	91.04 (63.80, 122.34)

Slovakia	2.05 (1.30, 2.92)	36.82 (23.46, 52.56)	26.93 (17.23, 38.62)	3.67 (2.63, 4.82)	66.15 (47.33, 86.81)	48.08 (34.41, 63.01)	5.74 (4.13, 7.48)	103.39 (74.37, 134.71)	75.35 (53.37, 98.22)
Slovenia	0.76 (0.49, 1.09)	36.97 (23.84, 52.95)	22.44 (14.62, 31.75)	0.74 (0.53, 0.96)	35.71 (25.55, 46.58)	19.26 (13.81, 25.17)	1.50 (1.07, 1.98)	72.72 (51.62, 95.92)	41.95 (29.69, 55.35)
Solomon Islands	0.02 (0.00, 0.05)	2.71 (0.00, 8.38)	4.99 (0.00, 15.26)	0.14 (0.00, 0.41)	23.14 (0.00, 70.41)	40.62 (0.00, 123.55)	0.15 (0.00, 0.46)	25.72 (0.00, 77.88)	45.76 (0.00, 138.00)
Somalia	2.96 (1.85, 4.35)	27.31 (17.04, 40.10)	57.58 (36.03, 84.84)	5.51 (3.55, 7.90)	50.78 (32.77, 72.85)	89.84 (58.08, 129.98)	8.53 (5.80, 11.81)	78.63 (53.43, 108.87)	148.16 (100.71, 204.83)
South Africa	27.41 (17.89, 38.81)	51.02 (33.31, 72.23)	67.92 (44.54, 95.71)	81.03 (59.31, 102.93)	150.82 (110.39, 191.60)	190.53 (139.55, 242.61)	108.75 (79.90, 138.51)	202.42 (148.72, 257.83)	259.46 (189.72, 330.98)
South Korea	24.09 (16.23, 33.14)	47.91 (32.28, 65.91)	35.22 (23.78, 48.74)	32.63 (21.06, 45.80)	64.89 (41.88, 91.08)	47.57 (31.30, 67.16)	56.83 (40.04, 75.77)	113.03 (79.62, 150.69)	83.04 (58.26, 110.17)
South Sudan	4.16 (2.62, 5.98)	33.85 (21.28, 48.68)	71.82 (44.86, 104.50)	6.02 (3.84, 8.64)	48.97 (31.25, 70.29)	83.15 (52.95, 119.74)	10.22 (7.03, 13.78)	83.14 (57.24, 112.15)	155.42 (107.47, 212.16)
Spain	8.34 (4.81, 13.36)	17.11 (9.87, 27.41)	10.21 (5.88, 16.32)	11.66 (7.25, 17.41)	23.92 (14.87, 35.71)	11.96 (7.42, 17.73)	20.04 (12.24, 30.13)	41.11 (25.12, 61.80)	22.12 (13.53, 33.48)
Sri Lanka	6.74 (4.41, 9.60)	32.50 (21.25, 46.29)	32.31 (20.93, 45.89)	30.64 (20.66, 41.83)	147.68 (99.59, 201.61)	145.77 (100.00, 197.32)	37.46 (26.07, 50.17)	180.56 (125.66, 241.80)	178.26 (125.31, 238.47)
Sudan	17.14 (11.07, 24.14)	42.44 (27.40, 59.77)	75.61 (50.12, 105.62)	54.41 (36.50, 74.99)	134.71 (90.36, 185.67)	234.94 (156.60, 330.04)	71.81 (49.63, 95.93)	177.81 (122.88, 237.51)	311.20 (213.50, 423.15)
Suriname	0.14 (0.09, 0.20)	25.84 (16.27, 37.78)	29.49 (18.58, 43.47)	0.92 (0.64, 1.24)	169.52 (118.42, 228.60)	193.35 (134.48, 259.66)	1.06 (0.74, 1.42)	195.57 (136.51, 262.14)	223.20 (155.73, 298.41)
Swaziland	0.44 (0.29, 0.64)	34.42 (22.15, 49.72)	66.36 (42.53, 94.95)	1.07 (0.55, 1.69)	83.05 (42.89, 131.20)	159.16 (84.75, 252.88)	1.51 (0.93, 2.23)	117.26 (71.89, 173.20)	224.89 (141.20, 332.16)
Sweden	0.36 (0.05, 0.80)	3.69 (0.55, 8.14)	2.26 (0.34, 5.03)	0.59 (0.09, 1.22)	5.99 (0.87, 12.47)	3.22 (0.48, 6.74)	0.95 (0.14, 1.98)	9.73 (1.43, 20.17)	5.52 (0.82, 11.48)

Switzerland	1.71 (1.05, 2.59)	20.64 (12.68, 31.26)	13.02 (7.91, 19.65)	2.11 (1.34, 3.10)	25.54 (16.22, 37.49)	13.62 (8.63, 20.04)	3.84 (2.53, 5.47)	46.38 (30.56, 66.14)	26.68 (17.56, 38.31)
Syria	7.11 (4.50, 10.34)	38.18 (24.18, 55.51)	60.33 (38.67, 86.39)	16.36 (10.44, 23.32)	87.86 (56.05, 125.22)	141.61 (81.93, 212.25)	23.61 (16.44, 31.59)	126.79 (88.26, 169.63)	201.75 (134.52, 283.36)
Tajikistan	2.82 (1.79, 4.05)	33.23 (21.02, 47.65)	58.23 (37.24, 83.38)	7.10 (4.96, 9.50)	83.52 (58.29, 111.75)	105.21 (73.36, 140.51)	9.96 (7.14, 13.14)	117.10 (84.04, 154.52)	163.73 (117.63, 214.65)
Tanzania	13.76 (8.49, 20.08)	25.79 (15.92, 37.61)	55.74 (35.21, 80.51)	27.22 (19.17, 36.19)	51.00 (35.92, 67.81)	87.12 (61.28, 116.64)	41.06 (29.18, 54.43)	76.94 (54.67, 101.99)	143.21 (100.95, 190.96)
Thailand	27.14 (17.67, 38.62)	39.97 (26.03, 56.88)	33.88 (22.16, 47.79)	140.01 (101.18, 180.95)	206.22 (149.02, 266.52)	171.39 (123.59, 221.15)	167.25 (121.13, 215.36)	246.34 (178.41, 317.21)	205.12 (148.73, 264.89)
The Bahamas	0.07 (0.05, 0.11)	19.36 (11.85, 29.42)	19.87 (12.22, 30.23)	0.41 (0.28, 0.57)	105.56 (71.18, 147.20)	105.35 (71.38, 147.16)	0.49 (0.33, 0.67)	125.28 (84.18, 173.53)	125.71 (84.37, 174.29)
The Gambia	0.68 (0.42, 0.98)	33.86 (20.99, 48.78)	81.01 (51.16, 116.49)	1.49 (1.01, 2.04)	74.24 (50.69, 102.08)	130.92 (90.23, 176.72)	2.17 (1.52, 2.89)	108.35 (76.15, 144.33)	212.34 (150.15, 281.19)
Timor-Leste	0.13 (0.08, 0.19)	10.59 (6.62, 15.79)	18.13 (11.17, 26.69)	0.55 (0.32, 0.85)	46.57 (27.21, 71.11)	71.35 (42.26, 109.34)	0.68 (0.42, 1.01)	57.16 (35.65, 84.79)	90.03 (56.96, 132.62)
Togo	2.88 (1.81, 4.13)	39.41 (24.84, 56.55)	78.92 (50.62, 112.90)	6.49 (3.96, 9.52)	88.94 (54.21, 130.42)	140.32 (86.84, 207.76)	9.36 (6.26, 13.02)	128.21 (85.77, 178.27)	220.62 (147.56, 303.58)
Tonga	0.00 (0.00, 0.00)	0.00 (0.00, 4.34)	0.00 (0.00, 6.18)	0.00 (0.00, 0.03)	0.00 (0.00, 27.12)	0.00 (0.00, 39.21)	0.00 (0.00, 0.03)	0.00 (0.00, 31.16)	0.00 (0.00, 45.13)
Trinidad and Tobago	0.36 (0.22, 0.54)	26.48 (16.42, 39.35)	24.67 (15.46, 36.58)	1.76 (1.20, 2.41)	129.36 (88.11, 177.01)	117.31 (79.95, 160.41)	2.12 (1.45, 2.91)	155.66 (106.50, 213.89)	142.26 (97.78, 193.90)
Tunisia	7.08 (4.62, 9.84)	62.89 (41.10, 87.50)	64.17 (42.47, 90.61)	16.92 (10.83, 24.13)	150.41 (96.24, 214.47)	166.49 (106.85, 237.69)	24.11 (16.42, 33.07)	214.31 (145.96, 293.94)	230.95 (156.75, 318.41)
Turkey	63.22 (41.62, 88.48)	80.61 (53.08, 112.82)	86.19 (56.33, 121.10)	79.28 (54.93, 107.65)	101.09 (70.05, 137.27)	113.99 (78.91, 153.13)	143.05 (102.67, 187.25)	182.41 (130.92, 238.78)	200.99 (144.30, 264.54)

Turkmenistan	2.53 (1.63, 3.64)	47.09 (30.30, 67.69)	67.91 (42.54, 98.10)	8.66 (6.36, 10.90)	160.90 (118.25, 202.64)	198.23 (145.67, 249.49)	11.23 (8.23, 14.21)	208.67 (152.91, 264.14)	266.68 (195.69, 338.43)
Uganda	9.17 (5.72, 13.20)	23.42 (14.61, 33.71)	60.85 (38.80, 87.27)	19.21 (13.48, 25.56)	49.06 (34.42, 65.29)	95.39 (67.65, 125.88)	28.37 (20.17, 37.25)	72.46 (51.51, 95.13)	156.82 (111.58, 207.31)
Ukraine	13.52 (8.37, 19.79)	29.06 (18.00, 42.55)	20.19 (12.64, 29.78)	13.19 (8.56, 18.92)	28.36 (18.41, 40.67)	21.20 (13.61, 30.58)	26.74 (18.11, 36.66)	57.49 (38.94, 78.83)	41.62 (28.40, 57.65)
United Arab Emirates	4.95 (3.20, 7.04)	54.16 (34.96, 76.97)	74.23 (48.95, 105.11)	11.09 (6.58, 16.60)	121.26 (71.91, 181.56)	226.66 (140.67, 329.49)	16.03 (10.55, 22.82)	175.24 (115.35, 249.54)	302.07 (200.89, 419.93)
United Kingdom	9.60 (5.90, 14.42)	14.94 (9.19, 22.45)	9.70 (6.06, 14.53)	11.85 (8.08, 16.24)	18.45 (12.57, 25.27)	11.01 (7.52, 15.09)	21.50 (14.36, 30.15)	33.47 (22.35, 46.93)	20.75 (13.83, 29.21)
United States	61.54 (32.36, 105.07)	19.02 (10.00, 32.48)	14.51 (7.59, 24.72)	104.78 (58.14, 165.08)	32.39 (17.97, 51.03)	23.30 (12.96, 36.77)	166.61 (91.84, 264.98)	51.50 (28.39, 81.90)	37.92 (20.91, 60.47)
Uruguay	0.71 (0.43, 1.08)	20.69 (12.56, 31.57)	15.67 (9.62, 24.00)	1.53 (1.01, 2.16)	44.42 (29.32, 62.88)	32.94 (21.77, 46.83)	2.24 (1.47, 3.18)	65.20 (42.90, 92.65)	48.80 (31.93, 69.47)
Uzbekistan	11.53 (7.50, 16.42)	38.51 (25.05, 54.83)	53.53 (34.39, 76.99)	39.04 (28.32, 50.30)	130.39 (94.60, 167.99)	148.03 (107.44, 190.30)	50.65 (36.81, 64.96)	169.18 (122.95, 216.98)	201.97 (146.53, 259.25)
Vanuatu	0.01 (0.00, 0.03)	5.58 (1.61, 11.49)	9.25 (2.66, 19.08)	0.12 (0.03, 0.25)	45.10 (12.84, 94.05)	71.48 (20.34, 148.26)	0.13 (0.04, 0.28)	51.16 (14.58, 106.04)	80.50 (23.32, 165.50)
Venezuela	11.03 (7.21, 15.68)	35.44 (23.19, 50.42)	44.25 (29.06, 63.09)	56.58 (40.06, 75.49)	181.91 (128.77, 242.68)	224.40 (158.78, 299.11)	67.82 (48.29, 88.71)	218.03 (155.25, 285.18)	269.20 (192.79, 351.74)
Vietnam	20.60 (13.42, 29.12)	22.04 (14.36, 31.16)	24.02 (15.53, 34.04)	123.68 (88.51, 161.51)	132.32 (94.69, 172.79)	147.11 (105.04, 192.10)	144.22 (103.44, 188.31)	154.29 (110.66, 201.46)	171.04 (123.43, 221.91)
Virgin Islands, U.S.	0.03 (0.02, 0.05)	31.63 (19.64, 46.93)	21.89 (13.33, 32.72)	0.17 (0.12, 0.23)	159.81 (109.28, 220.35)	106.73 (72.23, 147.83)	0.21 (0.14, 0.28)	192.64 (132.92, 261.64)	128.74 (88.45, 176.67)
Yemen	10.76 (6.86, 15.33)	39.99 (25.51, 56.97)	83.25 (54.04, 117.66)	30.76 (18.58, 44.88)	114.32 (69.06, 166.75)	243.61 (148.90, 356.94)	41.43 (27.53, 58.27)	153.93 (102.30, 216.52)	327.43 (212.41, 459.04)

Zambia	4.42 (2.80, 6.28)	27.20 (17.24, 38.63)	60.68 (38.79, 86.73)	10.69 (7.18, 14.66)	65.77 (44.21, 90.22)	119.87 (80.00, 165.72)	15.13 (10.63, 20.18)	93.12 (65.40, 124.18)	181.28 (127.74, 242.93)
Zimbabwe	5.27 (3.33, 7.56)	33.85 (21.41, 48.53)	71.70 (45.37, 103.06)	14.99 (9.74, 21.22)	96.26 (62.54, 136.27)	205.12 (133.09, 292.11)	20.33 (13.95, 27.55)	130.52 (89.56, 176.88)	278.23 (188.52, 380.20)
YLD, Years living with disability; YLL, Years of life lost; DALY, Disability adjusted life years									

Supplemental table 3: Frontier analysis for age standardized disability adjusted life years (DALY) rates and risk deleted DALY rates by Socio-demographic Index (SDI).

Country	Region	Socio-demographic Index	DALY (Per 100,000)	Frontier (DALY Per 100,000)	Effective Difference (DALY Per 100,000)	Risk Deleted		
						DALY (Per 100,000)	Frontier (DALY Per 100,000)	Effective Difference (DALY Per 100,000)
Afghanistan	West & Central Asia	0.289	616.34	116.07	500.27	254.21	54.46	199.75
Albania	Europe	0.736	80.29	8.72	71.57	58.44	0.60	57.83
Algeria	North Africa	0.590	233.92	39.80	194.13	93.55	6.71	86.84
American Samoa	Oceania	0.714	0.00	2.83	0.00	0.00	0.23	0.00
Andorra	Europe	0.919	12.19	1.35	10.84	6.40	0.12	6.27
Angola	Sub-Saharan Africa	0.419	151.41	84.75	66.66	75.46	37.27	38.19
Antigua and Barbuda	North & Central America	0.841	119.87	3.49	116.38	61.13	0.25	60.88
Argentina	South America	0.772	88.69	4.97	83.71	41.39	0.29	41.10
Armenia	West & Central Asia	0.755	118.22	6.88	111.34	59.73	0.57	59.16
Australia	Oceania	0.915	6.46	1.18	5.28	2.13	0.09	2.04

Austria	Europe	0.888	52.55	2.56	50.00	24.99	0.17	24.81
Azerbaijan	West & Central Asia	0.788	173.98	5.28	168.70	94.95	0.33	94.63
Bahrain	West & Central Asia	0.776	234.56	4.80	229.76	86.84	0.25	86.58
Bangladesh	South & Southeast Asia	0.472	183.21	62.05	121.16	80.55	18.48	62.07
Barbados	North & Central America	0.782	110.85	5.00	105.84	56.37	0.33	56.04
Belarus	East Asia	0.847	49.26	3.59	45.67	33.58	0.25	33.33
Belgium	Europe	0.882	35.87	3.56	32.31	18.20	0.18	18.01
Belize	Mesoamerica (or Central America)	0.665	356.94	14.40	342.54	184.41	1.25	183.16
Benin	Sub-Saharan Africa	0.345	254.04	105.60	148.45	132.65	48.47	84.18
Bermuda	North & Central America	0.916	36.76	1.44	35.32	17.23	0.13	17.10
Bhutan	South & Southeast Asia	0.532	220.68	46.18	174.49	87.52	10.15	77.37
Bolivia	South America	0.612	316.08	41.66	274.43	164.20	6.46	157.74
Bosnia and Herzegovina	Europe	0.739	100.14	9.33	90.82	56.03	0.61	55.42
Botswana	Sub-Saharan Africa	0.641	151.38	16.86	134.52	71.40	1.69	69.71
Brazil	South America	0.662	64.76	14.60	50.17	32.98	1.42	31.56
Brunei	South & Southeast Asia	0.923	10.86	0.95	9.91	2.89	0.06	2.83
Bulgaria	Europe	0.808	105.94	4.59	101.35	60.69	0.33	60.36
Burkina Faso	Sub-Saharan Africa	0.237	190.49	175.07	15.41	95.27	86.52	8.75
Burundi	Sub-Saharan Africa	0.240	149.74	142.05	7.69	77.83	70.89	6.95
Cambodia	South & Southeast Asia	0.486	194.04	45.95	148.09	29.25	9.69	19.57
Cameroon	Sub-Saharan Africa	0.464	255.04	69.10	185.94	133.55	20.26	113.29

Canada	North America	0.938	12.13	1.20	10.94	3.51	0.12	3.38
Cape Verde	Sub-Saharan Africa	0.549	210.82	43.63	167.18	101.07	8.52	92.55
Central African Republic	Sub-Saharan Africa	0.282	191.79	134.31	57.48	97.07	63.65	33.42
Chad	Sub-Saharan Africa	0.287	264.19	113.38	150.81	139.83	53.35	86.48
Chile	South America	0.805	129.54	5.44	124.10	58.36	0.35	58.01
China	East Asia	0.678	105.79	14.21	91.58	20.33	1.30	19.03
Colombia	South America	0.700	127.67	14.30	113.37	66.21	1.14	65.07
Comoros	Sub-Saharan Africa	0.365	103.08	83.92	19.17	51.34	38.59	12.74
Congo	Sub-Saharan Africa	0.527	165.95	47.33	118.62	81.54	10.61	70.93
Costa Rica	Mesoamerica (or Central America)	0.723	174.96	8.10	166.86	85.79	0.48	85.31
Cote d'Ivoire	Sub-Saharan Africa	0.381	270.82	89.20	181.62	137.83	40.47	97.36
Croatia	Europe	0.784	69.03	4.71	64.31	34.25	0.27	33.97
Cuba	North & Central America	0.766	87.58	4.73	82.85	43.90	0.36	43.54
Cyprus	West & Central Asia	0.881	78.41	3.63	74.78	40.49	0.26	40.23
Czech Republic	Europe	0.892	58.62	2.54	56.08	32.15	0.18	31.98
Democratic Republic of the Congo	Sub-Saharan Africa	0.239	143.94	142.01	1.93	71.79	69.93	1.86
Denmark	Europe	0.910	23.27	1.52	21.75	12.35	0.11	12.24
Djibouti	Sub-Saharan Africa	0.462	159.20	68.65	90.55	78.25	20.59	57.66
Dominica	North & Central America	0.753	170.57	7.01	163.56	84.96	0.56	84.40
Dominican Republic	North & Central America	0.684	143.44	14.86	128.58	75.39	1.34	74.05
Ecuador	South America	0.685	142.20	12.78	129.42	71.94	1.13	70.80

Egypt	North Africa	0.619	273.55	40.74	232.80	110.54	6.36	104.19
El Salvador	Mesoamerica (or Central America)	0.619	543.35	41.79	501.56	270.61	6.88	263.74
Equatorial Guinea	Sub-Saharan Africa	0.609	127.91	41.46	86.45	61.33	6.54	54.79
Eritrea	Sub-Saharan Africa	0.324	156.58	102.14	54.45	79.37	47.31	32.06
Estonia	Europe	0.861	25.83	3.33	22.49	13.73	0.23	13.50
Ethiopia	Sub-Saharan Africa	0.302	177.87	110.01	67.86	88.62	51.26	37.36
Federated States of Micronesia	Oceania	0.624	80.06	21.75	58.31	10.95	1.86	9.09
Fiji	Oceania	0.693	74.23	12.92	61.31	12.32	0.92	11.40
Finland	Europe	0.893	6.67	1.45	5.22	3.32	0.13	3.19
France	Europe	0.834	21.98	3.49	18.48	11.39	0.29	11.10
Gabon	Sub-Saharan Africa	0.644	169.15	15.21	153.94	80.92	1.37	79.55
Georgia	West & Central Asia	0.761	162.56	4.45	158.11	91.66	0.33	91.34
Germany	Europe	0.903	39.52	1.59	37.94	19.02	0.15	18.87
Ghana	Sub-Saharan Africa	0.511	221.70	46.74	174.96	111.84	11.38	100.46
Greece	Europe	0.825	42.42	4.12	38.30	19.09	0.35	18.74
Greenland	Europe	0.758	6.15	2.04	4.10	1.48	0.16	1.33
Grenada	North & Central America	0.753	212.35	7.33	205.03	110.85	0.58	110.27
Guam	Oceania	0.884	50.69	3.51	47.17	7.89	0.21	7.68
Guatemala	Mesoamerica (or Central America)	0.543	408.41	42.19	366.22	205.05	8.06	197.00
Guinea	Sub-Saharan Africa	0.278	200.40	148.97	51.42	102.86	72.22	30.64
Guinea-Bissau	Sub-Saharan Africa	0.294	349.02	115.70	233.32	178.80	54.47	124.32
Guyana	South America	0.655	193.49	15.00	178.49	101.06	1.33	99.73

Haiti	North & Central America	0.412	336.51	87.21	249.30	186.15	39.17	146.98
Honduras	Mesoamerica (or Central America)	0.568	429.86	43.74	386.12	216.42	7.94	208.49
Hungary	Europe	0.849	73.26	3.96	69.29	37.00	0.29	36.72
Iceland	Europe	0.893	8.05	1.32	6.72	4.67	0.10	4.56
India	South & Southeast Asia	0.556	238.25	41.39	196.86	96.78	8.04	88.74
Indonesia	South & Southeast Asia	0.652	122.19	15.71	106.48	21.58	1.40	20.18
Iran	West & Central Asia	0.715	176.65	8.26	168.39	65.88	0.58	65.30
Iraq	West & Central Asia	0.576	419.84	43.41	376.43	162.62	7.59	155.02
Ireland	Europe	0.885	18.27	2.28	15.99	9.74	0.18	9.56
Israel	West & Central Asia	0.842	124.05	3.98	120.07	31.83	0.33	31.50
Italy	Europe	0.856	48.45	3.83	44.62	25.21	0.29	24.92
Jamaica	North & Central America	0.719	182.02	7.82	174.20	93.27	0.54	92.73
Japan	East Asia	0.896	45.26	1.46	43.80	14.88	0.12	14.75
Jordan	West & Central Asia	0.695	295.39	13.45	281.94	100.48	1.30	99.18
Kazakhstan	West & Central Asia	0.807	111.27	4.60	106.67	55.28	0.31	54.97
Kenya	Sub-Saharan Africa	0.472	67.96	53.14	14.82	34.27	17.23	17.04
Kiribati	Oceania	0.478	0.00	5.25	0.00	0.00	0.85	0.00
Kuwait	West & Central Asia	0.862	158.85	3.98	154.87	58.61	0.27	58.34
Kyrgyzstan	West & Central Asia	0.631	117.48	22.37	95.11	64.36	2.40	61.96
Laos	South & Southeast Asia	0.508	261.99	43.67	218.32	49.83	10.94	38.89
Latvia	Europe	0.861	66.97	3.67	63.30	47.11	0.27	46.84

Lebanon	West & Central Asia	0.755	113.49	6.75	106.74	45.38	0.53	44.85
Lesotho	Sub-Saharan Africa	0.522	265.75	47.44	218.31	126.81	10.02	116.79
Liberia	Sub-Saharan Africa	0.283	54.40	52.54	1.86	26.86	25.75	1.11
Libya	North Africa	0.643	304.55	15.06	289.49	110.95	1.39	109.56
Lithuania	Europe	0.837	52.62	3.79	48.83	35.49	0.34	35.15
Luxembourg	Europe	0.911	38.94	1.64	37.30	20.17	0.12	20.05
Macedonia	Europe	0.762	119.39	4.17	115.22	69.67	0.27	69.40
Madagascar	Sub-Saharan Africa	0.370	107.07	83.69	23.37	54.45	38.52	15.93
Malawi	Sub-Saharan Africa	0.309	146.34	105.99	40.35	73.88	48.96	24.92
Malaysia	South & Southeast Asia	0.767	95.26	5.08	90.18	10.32	0.32	10.00
Maldives	South & Southeast Asia	0.623	237.75	25.14	212.60	28.75	2.42	26.33
Mali	Sub-Saharan Africa	0.231	225.22	198.87	26.35	116.72	101.45	15.27
Malta	Europe	0.806	49.99	4.82	45.17	25.70	0.33	25.38
Marshall Islands	Oceania	0.592	199.34	41.81	157.53	34.19	5.89	28.31
Mauritania	Sub-Saharan Africa	0.401	216.06	87.44	128.62	109.51	39.38	70.13
Mauritius	Sub-Saharan Africa	0.735	315.62	8.43	307.19	35.60	0.47	35.13
Mexico	Mesoamerica (or Central America)	0.718	455.29	8.25	447.04	218.43	0.70	217.73
Moldova	East Asia	0.703	49.92	12.12	37.80	33.98	1.10	32.88
Mongolia	East Asia	0.705	232.09	12.51	219.59	122.00	1.12	120.89
Montenegro	Europe	0.799	114.41	4.67	109.74	54.08	0.30	53.78
Morocco	North Africa	0.496	264.23	45.46	218.77	120.60	11.21	109.39
Mozambique	Sub-Saharan Africa	0.278	117.80	113.00	4.80	59.03	53.99	5.05

Myanmar	South & Southeast Asia	0.520	228.69	47.08	181.62	33.54	9.52	24.02
Namibia	Sub-Saharan Africa	0.617	161.94	41.24	120.69	75.52	6.97	68.55
Nepal	South & Southeast Asia	0.423	238.33	87.48	150.85	89.43	38.56	50.86
Netherlands	Europe	0.894	29.64	1.50	28.14	15.80	0.11	15.70
New Zealand	Oceania	0.884	5.98	1.50	4.47	1.64	0.10	1.54
Nicaragua	Mesoamerica (or Central America)	0.563	486.52	43.63	442.89	246.19	8.38	237.81
Niger	Sub-Saharan Africa	0.147	231.08	235.99	0.00	120.56	124.29	0.00
Nigeria	Sub-Saharan Africa	0.474	117.66	62.18	55.48	58.08	18.17	39.91
North Korea	East Asia	0.565	153.80	42.37	111.43	31.95	7.70	24.24
Northern Mariana Islands	Oceania	0.841	152.32	3.75	148.57	22.46	0.35	22.12
Norway	Europe	0.937	11.76	1.14	10.62	6.83	0.09	6.74
Oman	West & Central Asia	0.730	184.57	8.46	176.11	68.64	0.66	67.98
Pakistan	West & Central Asia	0.468	254.25	70.13	184.12	108.52	19.77	88.75
Palestine	West & Central Asia	0.567	391.28	43.89	347.39	150.15	8.07	142.08
Panama	Mesoamerica (or Central America)	0.747	114.94	8.33	106.61	57.45	0.61	56.84
Papua New Guinea	Oceania	0.448	188.56	85.54	103.02	35.56	26.98	8.58
Paraguay	South America	0.644	171.06	15.11	155.95	84.08	1.44	82.64
Peru	South America	0.705	160.05	12.58	147.47	86.35	1.11	85.24
Philippines	South & Southeast Asia	0.645	394.64	15.17	379.47	58.03	1.34	56.69
Poland	Europe	0.868	71.27	3.68	67.59	31.64	0.24	31.40
Portugal	Europe	0.752	26.99	5.72	21.27	10.69	0.44	10.24

Puerto Rico	North & Central America	0.882	145.37	3.51	141.86	67.38	0.24	67.14
Qatar	West & Central Asia	0.805	180.00	4.77	175.22	66.70	0.27	66.43
Romania	Europe	0.799	69.60	4.40	65.20	44.40	0.25	44.15
Russia	East Asia	0.856	51.29	3.13	48.16	36.80	0.20	36.61
Rwanda	Sub-Saharan Africa	0.371	121.20	86.13	35.07	61.80	39.03	22.77
Saint Lucia	North & Central America	0.741	126.62	8.57	118.05	65.96	0.64	65.32
Saint Vincent and the Grenadines	North & Central America	0.747	155.22	6.95	148.26	80.30	0.47	79.83
Samoa	Oceania	0.637	0.00	3.62	0.00	0.00	0.28	0.00
Sao Tome and Principe	Sub-Saharan Africa	0.448	201.80	88.19	113.61	101.72	38.89	62.82
Saudi Arabia	West & Central Asia	0.759	291.08	4.78	286.30	98.26	0.28	97.98
Senegal	Sub-Saharan Africa	0.334	280.40	102.79	177.61	140.37	47.36	93.02
Serbia	Europe	0.772	102.82	4.48	98.34	51.91	0.29	51.62
Seychelles	Sub-Saharan Africa	0.759	182.95	4.62	178.33	22.80	0.35	22.45
Sierra Leone	Sub-Saharan Africa	0.323	173.17	104.57	68.60	90.51	48.64	41.88
Singapore	South & Southeast Asia	0.881	91.04	3.63	87.41	18.29	0.23	18.06
Slovakia	Europe	0.862	75.35	3.57	71.79	31.91	0.26	31.65
Slovenia	Europe	0.856	41.95	3.99	37.96	23.08	0.25	22.83
Solomon Islands	Oceania	0.461	45.76	46.46	0.00	5.56	7.81	0.00
Somalia	Sub-Saharan Africa	0.151	148.16	152.80	0.00	74.94	77.75	0.00
South Africa	Sub-Saharan Africa	0.716	259.46	9.56	249.90	129.46	0.74	128.72
South Korea	East Asia	0.871	83.04	3.56	79.48	13.10	0.24	12.86
South Sudan	Sub-Saharan Africa	0.262	155.42	143.99	11.43	76.43	69.55	6.88

Spain	Europe	0.819	22.12	3.70	18.42	11.46	0.31	11.15
Sri Lanka	South & Southeast Asia	0.705	178.26	11.82	166.44	22.96	0.80	22.16
Sudan	Sub-Saharan Africa	0.428	311.20	87.18	224.02	131.93	38.53	93.40
Suriname	South America	0.704	223.20	12.16	211.04	113.99	1.15	112.84
Swaziland	Sub-Saharan Africa	0.623	224.89	24.67	200.22	106.71	3.16	103.55
Sweden	Europe	0.892	5.52	1.40	4.12	3.04	0.12	2.92
Switzerland	Europe	0.928	26.68	1.37	25.31	11.53	0.11	11.42
Syria	West & Central Asia	0.579	201.75	41.84	159.91	80.22	7.90	72.32
Tajikistan	West & Central Asia	0.574	163.73	39.30	124.43	92.48	7.41	85.07
Tanzania	Sub-Saharan Africa	0.411	143.21	86.63	56.57	71.52	38.73	32.79
Thailand	South & Southeast Asia	0.705	205.12	12.80	192.32	19.55	1.02	18.53
The Bahamas	North & Central America	0.835	125.71	3.78	121.93	65.03	0.28	64.75
The Gambia	Sub-Saharan Africa	0.327	212.34	106.09	106.26	103.27	48.78	54.49
Timor-Leste	South & Southeast Asia	0.450	90.03	73.14	16.89	14.59	13.40	1.19
Togo	Sub-Saharan Africa	0.362	220.62	105.78	114.84	113.01	48.13	64.88
Tonga	Oceania	0.622	0.00	6.78	0.00	0.00	0.94	0.00
Trinidad and Tobago	North & Central America	0.833	142.26	3.78	138.48	73.04	0.27	72.77
Tunisia	North Africa	0.652	230.95	15.33	215.62	98.96	1.31	97.65
Turkey	West & Central Asia	0.690	200.99	15.07	185.91	65.65	1.36	64.29
Turkmenistan	West & Central Asia	0.781	266.68	4.72	261.96	147.02	0.33	146.69
Uganda	Sub-Saharan Africa	0.377	156.82	87.84	68.98	79.22	39.45	39.77
Ukraine	East Asia	0.811	41.62	4.21	37.42	29.60	0.28	29.32

United Arab Emirates	West & Central Asia	0.875	302.07	3.51	298.56	111.81	0.25	111.55
United Kingdom	Europe	0.893	20.75	1.64	19.12	11.97	0.12	11.85
United States	North America	0.931	37.92	1.21	36.71	9.52	0.10	9.42
Uruguay	South America	0.745	48.80	6.96	41.84	19.73	0.54	19.19
Uzbekistan	West & Central Asia	0.699	201.97	14.47	187.50	112.81	1.15	111.65
Vanuatu	Oceania	0.536	80.50	38.48	42.02	13.48	5.46	8.03
Venezuela	South America	0.728	269.20	8.85	260.34	130.43	0.55	129.87
Vietnam	South & Southeast Asia	0.628	171.04	23.48	147.56	22.06	2.38	19.68
Virgin Islands, U.S.	North & Central America	0.886	128.74	2.48	126.26	62.83	0.16	62.67
Yemen	West & Central Asia	0.408	327.43	88.39	239.04	129.35	40.08	89.27
Zambia	Sub-Saharan Africa	0.467	181.28	69.00	112.28	93.25	20.79	72.46
Zimbabwe	Sub-Saharan Africa	0.538	278.23	41.15	237.08	131.89	7.97	123.92
DALYs are age adjusted **DALY, Disability adjusted life years**								

Supplemental Table 4: Attributable burden of disease (ABD) and disability adjusted life years (DALY) using the World Health Organization recommended level of $PM_{2.5}$ as the theoretical minimum risk exposure level (TMREL), 10 ug/m^3

Location	ABD (in 1000s)	ABD (per 100,000)	Age Standardized ABD (per 100,000)	DALY (in 1000s)	DALY (per 100,000)	Age Standardized DALY (per 100,000)
Global	5,005.39 (3,626.87, 6,397.35)	67.91 (49.20, 86.79)	73.20 (53.22, 93.42)	8,257.98 (6,012.93, 10,386.32)	112.03 (81.57, 140.91)	118.28 (86.27, 148.54)
Afghanistan	21.98 (15.96, 28.25)	67.40 (48.93, 86.65)	138.11 (99.80, 180.11)	69.58 (45.30, 97.15)	213.40 (138.94, 297.93)	443.96 (293.57, 623.12)
Albania	0.97 (0.69, 1.27)	33.42 (23.74, 43.70)	27.22 (19.45, 35.35)	1.60 (1.13, 2.09)	55.15 (38.92, 72.17)	47.21 (33.37, 61.57)
Algeria	33.44 (24.06, 42.68)	84.36 (60.70, 107.69)	106.95 (77.07, 137.86)	51.11 (36.52, 66.58)	128.96 (92.13, 167.99)	169.14 (121.26, 219.48)
American Samoa	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Andorra	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Angola	13.40 (9.76, 17.23)	53.08 (38.63, 68.25)	120.74 (86.10, 155.91)	12.85 (8.85, 17.55)	50.88 (35.05, 69.51)	109.31 (74.01, 149.93)
Antigua and Barbuda	0.02 (0.01, 0.02)	18.25 (12.86, 23.96)	19.86 (13.92, 26.35)	0.04 (0.03, 0.05)	40.12 (28.25, 52.78)	41.98 (29.34, 54.91)
Argentina	9.26 (6.50, 12.17)	21.34 (14.98, 28.04)	19.88 (13.97, 26.21)	15.01 (10.73, 19.32)	34.57 (24.71, 44.51)	32.39 (23.02, 41.95)
Armenia	3.61 (2.56, 4.77)	120.03 (85.19, 158.46)	102.64 (72.84, 133.45)	2.93 (2.11, 3.81)	97.44 (70.00, 126.56)	83.33 (59.56, 108.46)
Australia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Austria	4.85 (3.43, 6.31)	55.93 (39.60, 72.76)	31.54 (22.45, 41.10)	4.71 (3.40, 6.07)	54.29 (39.23, 70.02)	30.12 (21.69, 38.70)
Azerbaijan	9.81 (6.97, 12.84)	100.33 (71.22, 131.27)	116.91 (82.78, 152.33)	11.22 (8.02, 14.72)	114.68 (82.00, 150.53)	125.34 (89.22, 163.91)
Bahrain	0.85 (0.61, 1.10)	62.24 (44.93, 80.26)	96.84 (69.69, 124.03)	1.26 (0.88, 1.69)	92.33 (64.18, 123.36)	168.77 (117.82, 225.26)
Bangladesh	98.37 (71.45, 125.09)	61.12 (44.39, 77.72)	87.57 (62.83, 112.10)	158.40 (114.47, 204.64)	98.41 (71.12, 127.14)	131.92 (94.99, 170.95)

Barbados	0.10 (0.07, 0.13)	35.78 (25.28, 46.74)	26.04 (18.44, 33.95)	0.18 (0.13, 0.24)	64.56 (45.97, 83.78)	49.10 (34.89, 63.86)
Belarus	7.57 (5.29, 9.98)	78.75 (55.08, 103.81)	55.79 (39.35, 73.08)	3.95 (2.74, 5.27)	41.05 (28.52, 54.86)	30.35 (21.12, 40.37)
Belgium	4.37 (3.08, 5.73)	38.59 (27.21, 50.55)	22.33 (15.79, 29.14)	3.69 (2.63, 4.80)	32.59 (23.21, 42.36)	18.29 (13.00, 23.90)
Belize	0.18 (0.13, 0.23)	50.23 (36.31, 63.77)	86.32 (62.21, 111.02)	0.57 (0.41, 0.75)	160.19 (114.86, 207.71)	256.89 (184.83, 332.08)
Benin	9.38 (6.80, 12.07)	85.96 (62.33, 110.56)	159.79 (114.64, 207.00)	11.67 (8.11, 15.70)	106.93 (74.32, 143.83)	183.62 (129.07, 243.93)
Bermuda	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Bhutan	0.46 (0.33, 0.58)	58.76 (42.60, 75.28)	84.66 (60.91, 109.00)	0.90 (0.61, 1.24)	116.56 (79.10, 159.41)	158.91 (108.55, 216.91)
Bolivia	5.67 (4.12, 7.28)	52.70 (38.23, 67.63)	74.72 (54.09, 96.00)	18.26 (12.50, 24.63)	169.63 (116.14, 228.76)	227.62 (155.42, 310.03)
Bosnia and Herzegovina	2.50 (1.79, 3.21)	65.48 (47.09, 84.18)	44.13 (31.82, 56.59)	4.03 (2.91, 5.24)	105.76 (76.41, 137.56)	72.12 (51.59, 93.10)
Botswana	1.06 (0.75, 1.39)	46.83 (33.14, 61.51)	73.00 (51.63, 96.64)	1.06 (0.62, 1.59)	47.03 (27.49, 70.30)	78.14 (47.97, 116.14)
Brazil	11.82 (8.27, 15.56)	5.69 (3.98, 7.49)	6.28 (4.38, 8.28)	21.40 (15.16, 27.64)	10.29 (7.29, 13.30)	11.12 (7.90, 14.42)
Brunei	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Bulgaria	5.52 (3.95, 7.11)	75.88 (54.41, 97.79)	45.06 (32.67, 57.89)	8.81 (6.34, 11.43)	121.20 (87.24, 157.30)	76.38 (54.70, 99.19)
Burkina Faso	13.01 (9.43, 16.64)	71.90 (52.12, 91.96)	149.63 (107.38, 193.44)	12.94 (9.24, 16.87)	71.52 (51.08, 93.26)	137.35 (98.15, 179.85)
Burundi	6.96 (5.07, 8.91)	61.85 (45.11, 79.18)	128.03 (91.78, 164.95)	6.30 (4.42, 8.37)	55.98 (39.28, 74.45)	107.48 (75.07, 142.14)
Cambodia	4.16 (3.02, 5.31)	26.71 (19.37, 34.06)	41.02 (29.77, 52.49)	14.80 (10.67, 18.98)	94.90 (68.44, 121.73)	139.82 (101.39, 178.67)
Cameroon	17.44 (12.61, 22.31)	74.53 (53.88, 95.36)	143.07 (103.50, 184.81)	27.04 (17.85, 37.94)	115.54 (76.27, 162.14)	183.33 (120.38, 256.90)
Canada	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Cape Verde	0.54 (0.39, 0.69)	103.50 (74.92, 132.79)	154.92 (110.80, 201.01)	0.56 (0.40, 0.73)	108.20 (77.18, 141.11)	151.72 (108.17, 198.88)
Central African Republic	3.44 (2.48, 4.42)	70.25 (50.63, 90.14)	123.73 (88.66, 158.84)	4.13 (2.89, 5.48)	84.31 (58.90, 111.85)	138.05 (96.19, 184.94)

Chad	10.41 (7.56, 13.38)	74.04 (53.75, 95.15)	158.85 (113.74, 206.67)	16.20 (11.42, 21.47)	115.20 (81.18, 152.68)	190.06 (135.31, 248.39)
Chile	12.89 (9.25, 16.73)	71.84 (51.53, 93.21)	62.97 (45.14, 81.15)	18.32 (12.76, 24.56)	102.06 (71.09, 136.84)	89.44 (62.04, 120.05)
China	553.88 (401.61, 707.76)	40.04 (29.03, 51.16)	35.31 (25.78, 45.01)	1,191.53 (869.38, 1,507.32)	86.13 (62.84, 108.95)	76.16 (55.70, 96.10)
Colombia	29.70 (21.14, 38.65)	61.53 (43.81, 80.07)	70.74 (50.04, 92.03)	31.86 (22.71, 41.22)	66.02 (47.05, 85.40)	77.50 (55.34, 99.33)
Comoros	0.28 (0.20, 0.36)	34.97 (24.71, 45.66)	64.26 (45.62, 84.21)	0.25 (0.16, 0.35)	31.08 (20.39, 44.11)	56.48 (36.58, 80.01)
Congo	3.23 (2.34, 4.13)	69.68 (50.48, 89.33)	127.16 (91.21, 164.60)	3.06 (2.13, 4.08)	66.13 (45.96, 88.08)	119.50 (82.10, 160.66)
Costa Rica	4.60 (3.28, 5.97)	95.57 (68.20, 124.19)	95.69 (68.57, 124.55)	5.61 (4.08, 7.14)	116.74 (84.78, 148.57)	116.74 (84.28, 149.09)
Cote d'Ivoire	18.05 (12.96, 23.36)	79.57 (57.13, 102.95)	143.36 (102.49, 187.33)	24.96 (17.20, 33.69)	110.03 (75.81, 148.48)	181.06 (124.07, 243.27)
Croatia	2.88 (2.06, 3.72)	68.01 (48.54, 87.70)	40.27 (28.97, 51.94)	3.51 (2.52, 4.53)	82.84 (59.40, 106.76)	48.45 (34.93, 62.01)
Cuba	4.78 (3.39, 6.18)	41.93 (29.79, 54.28)	30.59 (21.70, 39.78)	7.55 (5.40, 9.69)	66.31 (47.44, 85.09)	49.26 (35.37, 63.36)
Cyprus	0.46 (0.32, 0.60)	51.51 (36.41, 67.08)	38.19 (26.83, 49.92)	0.59 (0.43, 0.76)	66.36 (47.88, 85.46)	48.27 (34.82, 61.71)
Czech Republic	6.38 (4.58, 8.22)	59.64 (42.84, 76.82)	37.56 (27.33, 48.18)	6.86 (4.91, 8.92)	64.13 (45.94, 83.43)	40.94 (29.44, 53.31)
Democratic Republic of the Congo	42.90 (31.03, 54.95)	55.42 (40.09, 70.98)	115.51 (82.91, 149.82)	40.74 (29.19, 53.05)	52.62 (37.71, 68.52)	103.70 (73.69, 135.06)
Denmark	0.30 (0.21, 0.40)	5.30 (3.68, 7.08)	3.13 (2.19, 4.16)	0.25 (0.17, 0.33)	4.38 (3.06, 5.77)	2.70 (1.89, 3.59)
Djibouti	0.65 (0.47, 0.84)	73.08 (52.68, 94.07)	121.71 (87.79, 157.11)	0.63 (0.43, 0.86)	70.67 (48.37, 96.80)	114.87 (78.22, 155.63)
Dominica	0.01 (0.01, 0.02)	19.08 (13.42, 25.10)	19.59 (13.87, 25.78)	0.04 (0.03, 0.05)	54.29 (38.24, 71.34)	55.30 (38.67, 72.77)
Dominican Republic	3.94 (2.84, 5.07)	37.41 (26.97, 48.16)	47.21 (33.77, 60.99)	7.83 (5.53, 10.24)	74.37 (52.48, 97.27)	90.19 (63.68, 118.24)
Ecuador	2.21 (1.55, 2.89)	13.66 (9.60, 17.90)	17.66 (12.41, 23.19)	5.95 (4.24, 7.71)	36.80 (26.26, 47.70)	46.03 (32.60, 59.49)
Egypt	83.34 (60.45, 106.96)	91.43 (66.32, 117.35)	124.26 (89.93, 159.34)	124.12 (84.50, 168.87)	136.18 (92.71, 185.27)	197.49 (132.77, 271.08)

El Salvador	9.16 (6.68, 11.57)	149.33 (108.87, 188.55)	175.31 (128.04, 221.56)	21.25 (15.13, 27.55)	346.20 (246.49, 448.96)	391.27 (280.15, 508.00)
Equatorial Guinea	0.63 (0.45, 0.82)	74.89 (53.52, 97.57)	121.56 (87.18, 157.49)	0.46 (0.29, 0.66)	53.85 (33.80, 77.55)	91.96 (58.70, 132.26)
Eritrea	3.20 (2.32, 4.10)	60.96 (44.19, 78.16)	125.53 (90.04, 162.49)	2.97 (2.04, 4.02)	56.73 (38.83, 76.59)	112.89 (78.78, 150.20)
Estonia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Ethiopia	65.83 (47.76, 84.63)	66.20 (48.03, 85.11)	126.18 (90.75, 163.63)	67.95 (48.21, 89.90)	68.34 (48.49, 90.41)	128.06 (90.83, 168.68)
Federated States of Micronesia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Fiji	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Finland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
France	9.44 (6.60, 12.52)	14.47 (10.12, 19.19)	8.07 (5.64, 10.60)	7.35 (5.18, 9.65)	11.27 (7.94, 14.80)	6.26 (4.37, 8.27)
Gabon	1.31 (0.95, 1.69)	75.97 (54.98, 97.76)	121.15 (87.25, 156.37)	1.34 (0.91, 1.84)	77.89 (52.50, 106.50)	121.85 (82.86, 165.77)
Georgia	4.47 (3.19, 5.81)	111.52 (79.78, 145.01)	88.20 (62.89, 114.83)	5.36 (3.85, 6.89)	133.91 (96.19, 172.09)	108.65 (78.21, 140.28)
Germany	29.62 (20.61, 39.24)	35.42 (24.65, 46.92)	17.56 (12.38, 23.06)	28.42 (20.14, 37.19)	33.99 (24.08, 44.48)	16.49 (11.71, 21.42)
Ghana	25.51 (18.34, 32.82)	93.05 (66.91, 119.69)	156.61 (112.61, 203.64)	27.39 (19.59, 36.02)	99.90 (71.46, 131.36)	157.89 (112.67, 207.44)
Greece	3.11 (2.18, 4.13)	28.48 (19.96, 37.84)	14.59 (10.28, 19.15)	3.51 (2.50, 4.57)	32.17 (22.86, 41.82)	16.17 (11.63, 21.05)
Greenland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Grenada	0.03 (0.02, 0.04)	25.49 (17.93, 33.25)	30.60 (21.67, 40.21)	0.09 (0.06, 0.11)	80.37 (56.68, 105.81)	92.92 (65.67, 121.98)
Guam	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Guatemala	14.19 (10.27, 18.18)	86.74 (62.81, 111.17)	151.50 (109.29, 195.59)	30.82 (21.13, 41.65)	188.47 (129.22, 254.64)	293.76 (201.78, 397.48)
Guinea	9.01 (6.42, 11.67)	71.68 (51.10, 92.78)	128.63 (90.70, 167.52)	10.01 (6.95, 13.46)	79.64 (55.23, 107.06)	131.47 (90.77, 176.10)
Guinea-Bissau	1.96 (1.41, 2.53)	106.12 (76.38, 136.74)	182.42 (132.07, 236.39)	2.90 (2.04, 3.85)	156.81 (110.21, 208.47)	251.12 (177.70, 334.40)
Guyana	0.20 (0.14, 0.27)	26.36 (18.68, 34.60)	33.86 (24.13, 44.31)	0.60 (0.42, 0.78)	77.31 (55.14, 101.13)	94.06 (66.81, 122.08)

Haiti	5.35 (3.85, 6.80)	49.87 (35.93, 63.45)	81.26 (58.71, 104.11)	18.01 (11.79, 25.27)	167.94 (109.94, 235.67)	242.70 (158.09, 335.78)
Honduras	7.05 (5.07, 9.13)	87.06 (62.61, 112.78)	144.71 (103.71, 188.55)	15.72 (10.16, 22.23)	194.17 (125.47, 274.60)	309.35 (199.62, 431.69)
Hungary	7.19 (5.18, 9.27)	70.71 (50.99, 91.17)	43.77 (31.75, 56.07)	8.48 (6.16, 10.87)	83.42 (60.59, 106.92)	52.83 (38.17, 67.50)
Iceland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
India	786.55 (568.75, 1,006.63)	59.97 (43.36, 76.75)	77.91 (56.46, 99.99)	1,801.84 (1,309.50, 2,298.82)	137.37 (99.84, 175.26)	171.90 (125.02, 217.84)
Indonesia	38.10 (26.91, 49.38)	14.79 (10.45, 19.17)	18.54 (13.14, 23.97)	131.65 (94.36, 168.66)	51.10 (36.63, 65.47)	60.56 (43.44, 77.50)
Iran	65.60 (47.37, 84.25)	83.01 (59.94, 106.60)	107.31 (77.53, 138.37)	75.07 (53.25, 98.71)	94.98 (67.37, 124.89)	127.28 (90.41, 167.32)
Iraq	25.02 (18.15, 32.10)	68.69 (49.84, 88.14)	135.49 (97.84, 174.11)	54.04 (36.71, 74.16)	148.38 (100.80, 203.61)	302.27 (208.95, 407.86)
Ireland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Israel	5.39 (3.86, 6.92)	66.96 (48.01, 85.94)	60.56 (43.99, 78.24)	7.77 (5.56, 10.12)	96.58 (69.04, 125.79)	85.70 (60.78, 112.41)
Italy	48.18 (34.38, 62.54)	76.73 (54.75, 99.59)	37.35 (26.87, 48.50)	42.12 (30.31, 54.13)	67.07 (48.27, 86.20)	32.10 (23.13, 41.26)
Jamaica	1.15 (0.82, 1.49)	40.59 (28.99, 52.60)	42.96 (30.55, 56.17)	2.81 (1.84, 3.93)	99.18 (65.01, 138.75)	103.55 (68.49, 144.47)
Japan	50.38 (35.22, 66.88)	39.26 (27.45, 52.12)	16.75 (11.79, 21.90)	48.57 (34.25, 63.35)	37.85 (26.69, 49.37)	16.88 (11.94, 22.17)
Jordan	5.00 (3.65, 6.43)	66.07 (48.16, 84.91)	113.96 (81.78, 147.50)	8.90 (6.09, 12.15)	117.52 (80.39, 160.47)	212.61 (146.56, 288.57)
Kazakhstan	11.04 (7.85, 14.44)	62.98 (44.78, 82.36)	73.34 (52.15, 96.31)	10.16 (7.12, 13.50)	57.96 (40.60, 76.99)	65.03 (45.58, 86.68)
Kenya	12.04 (8.51, 15.61)	26.06 (18.42, 33.80)	52.29 (36.88, 68.52)	8.57 (5.98, 11.45)	18.56 (12.95, 24.78)	35.82 (24.74, 48.42)
Kiribati	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Kuwait	2.16 (1.54, 2.77)	55.27 (39.61, 71.00)	92.57 (67.03, 119.14)	2.26 (1.56, 3.02)	57.88 (40.11, 77.39)	114.27 (79.77, 152.45)
Kyrgyzstan	2.30 (1.63, 3.02)	38.97 (27.61, 51.20)	56.95 (39.97, 74.65)	3.05 (2.17, 3.95)	51.78 (36.88, 67.08)	64.33 (46.01, 83.27)
Laos	1.87 (1.36, 2.38)	27.48 (19.97, 34.94)	46.84 (33.91, 59.47)	8.64 (6.14, 11.33)	127.05 (90.36, 166.61)	188.65 (136.73, 243.39)

Latvia	2.82 (2.00, 3.69)	127.37 (90.52, 166.94)	76.37 (54.21, 99.86)	1.59 (1.13, 2.10)	72.01 (51.09, 95.01)	44.92 (31.99, 58.53)
Lebanon	4.35 (3.14, 5.57)	75.56 (54.56, 96.66)	80.84 (58.27, 104.12)	4.34 (3.10, 5.66)	75.29 (53.74, 98.22)	81.72 (58.13, 106.46)
Lesotho	1.52 (1.08, 1.97)	71.32 (50.71, 92.39)	124.48 (88.50, 163.40)	2.02 (1.35, 2.79)	94.71 (63.63, 131.22)	168.86 (114.18, 232.64)
Liberia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Libya	4.97 (3.60, 6.36)	78.96 (57.12, 101.11)	107.90 (77.77, 138.57)	9.35 (6.51, 12.51)	148.56 (103.41, 198.70)	219.10 (154.40, 293.34)
Lithuania	3.17 (2.25, 4.16)	100.50 (71.27, 131.87)	61.75 (44.36, 80.35)	1.67 (1.17, 2.23)	53.11 (37.22, 70.70)	33.53 (23.72, 43.97)
Luxembourg	0.20 (0.14, 0.27)	36.48 (25.60, 47.68)	25.89 (18.32, 33.77)	0.17 (0.12, 0.22)	31.13 (22.16, 40.37)	21.52 (15.28, 28.16)
Macedonia	1.15 (0.82, 1.47)	55.16 (39.59, 70.95)	43.45 (31.41, 55.52)	2.25 (1.63, 2.88)	108.28 (78.60, 138.39)	86.14 (62.08, 109.72)
Madagascar	10.33 (7.37, 13.37)	42.71 (30.47, 55.26)	82.75 (58.53, 108.21)	9.17 (6.33, 12.41)	37.91 (26.16, 51.30)	68.59 (47.60, 92.21)
Malawi	8.78 (6.36, 11.29)	51.01 (36.95, 65.57)	109.83 (79.39, 142.95)	9.17 (6.36, 12.27)	53.26 (36.96, 71.30)	103.32 (72.48, 137.05)
Malaysia	4.70 (3.35, 6.11)	15.51 (11.04, 20.18)	19.16 (13.48, 25.04)	11.27 (7.98, 14.63)	37.21 (26.33, 48.30)	47.69 (33.89, 61.68)
Maldives	0.12 (0.08, 0.15)	32.02 (23.23, 40.83)	46.86 (34.02, 59.57)	0.41 (0.28, 0.56)	112.83 (77.79, 153.36)	171.15 (118.28, 230.15)
Mali	12.89 (9.34, 16.49)	73.36 (53.18, 93.87)	154.93 (111.18, 200.53)	16.38 (11.46, 21.95)	93.23 (65.24, 124.95)	162.02 (113.44, 216.44)
Malta	0.18 (0.13, 0.24)	43.10 (30.52, 56.82)	24.96 (17.55, 32.76)	0.17 (0.12, 0.23)	41.64 (29.26, 55.28)	25.80 (17.98, 34.14)
Marshall Islands	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Mauritania	3.88 (2.79, 4.97)	94.91 (68.35, 121.77)	159.22 (114.17, 206.63)	3.82 (2.63, 5.17)	93.62 (64.47, 126.47)	155.47 (107.46, 210.16)
Mauritius	0.44 (0.31, 0.57)	34.29 (24.08, 44.80)	29.81 (21.18, 38.80)	2.11 (1.49, 2.78)	165.84 (116.67, 218.42)	145.74 (102.55, 193.09)
Mexico	137.61 (98.68, 177.83)	108.32 (77.68, 139.97)	137.61 (98.41, 178.80)	311.56 (227.46, 390.77)	245.24 (179.04, 307.59)	304.03 (221.95, 382.61)
Moldova	2.28 (1.60, 3.01)	56.13 (39.41, 74.09)	46.86 (33.49, 61.85)	1.35 (0.94, 1.78)	33.20 (23.16, 43.73)	28.60 (19.85, 38.17)
Mongolia	2.54 (1.83, 3.29)	86.13 (61.84, 111.34)	131.02 (93.69, 170.41)	3.88 (2.19, 5.85)	131.22 (74.00, 198.03)	167.71 (103.81, 242.85)

Montenegro	0.41 (0.30, 0.53)	65.58 (47.33, 85.01)	49.22 (35.54, 63.15)	0.67 (0.49, 0.86)	107.57 (77.94, 138.06)	82.39 (59.82, 105.73)
Morocco	20.70 (15.05, 26.64)	60.22 (43.80, 77.49)	69.93 (50.31, 89.65)	54.19 (37.34, 73.07)	157.65 (108.63, 212.57)	190.76 (131.21, 259.15)
Mozambique	10.63 (7.60, 13.83)	37.98 (27.16, 49.42)	76.22 (53.75, 99.50)	10.55 (6.83, 15.07)	37.71 (24.40, 53.83)	68.74 (44.97, 97.91)
Myanmar	20.52 (14.77, 26.34)	37.99 (27.34, 48.75)	47.49 (34.25, 60.68)	72.10 (51.34, 94.80)	133.45 (95.03, 175.48)	164.59 (118.35, 214.89)
Namibia	1.34 (0.96, 1.74)	54.66 (39.03, 70.75)	94.50 (67.32, 123.60)	1.39 (0.91, 1.94)	56.77 (37.20, 79.14)	103.18 (67.97, 143.38)
Nepal	23.84 (17.27, 30.59)	83.50 (60.48, 107.15)	117.84 (84.33, 151.74)	34.01 (23.35, 45.63)	119.11 (81.80, 159.80)	172.09 (120.09, 228.43)
Netherlands	4.44 (3.12, 5.86)	25.83 (18.12, 34.11)	15.41 (10.85, 20.24)	3.84 (2.72, 5.01)	22.33 (15.83, 29.12)	13.49 (9.58, 17.64)
New Zealand	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Nicaragua	6.33 (4.58, 8.19)	103.91 (75.25, 134.55)	153.27 (110.22, 197.22)	15.77 (11.07, 20.94)	259.01 (181.79, 344.00)	350.66 (246.24, 461.78)
Niger	15.10 (10.88, 19.41)	76.04 (54.79, 97.75)	155.10 (112.04, 201.47)	18.99 (12.68, 26.34)	95.67 (63.84, 132.66)	165.85 (113.37, 227.06)
Nigeria	140.66 (101.70, 180.23)	77.08 (55.73, 98.76)	144.52 (103.59, 187.08)	85.68 (59.86, 115.45)	46.95 (32.80, 63.26)	84.71 (58.31, 114.01)
North Korea	10.91 (7.86, 14.14)	43.38 (31.24, 56.20)	44.22 (32.10, 56.62)	27.94 (20.06, 36.08)	111.07 (79.75, 143.39)	110.68 (79.45, 144.03)
Northern Mariana Islands	0.00 (0.00, 0.01)	4.06 (2.84, 5.36)	9.45 (6.67, 12.47)	0.02 (0.01, 0.02)	13.91 (9.36, 19.18)	30.01 (20.76, 40.37)
Norway	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Oman	2.41 (1.75, 3.08)	53.87 (39.12, 68.73)	94.72 (68.30, 122.31)	3.11 (2.22, 4.05)	69.45 (49.56, 90.32)	133.13 (95.31, 171.44)
Pakistan	77.51 (56.63, 98.27)	41.00 (29.95, 51.98)	64.30 (46.68, 82.05)	246.12 (153.64, 353.37)	130.18 (81.26, 186.91)	182.73 (113.75, 263.58)
Palestine	2.59 (1.87, 3.32)	55.46 (40.08, 71.09)	112.01 (80.08, 144.76)	5.58 (4.03, 7.13)	119.35 (86.24, 152.53)	264.79 (192.26, 339.14)
Panama	0.96 (0.67, 1.28)	24.48 (17.14, 32.48)	28.53 (19.86, 37.87)	1.33 (0.94, 1.75)	33.98 (23.99, 44.65)	38.22 (26.76, 50.29)
Papua New Guinea	0.13 (0.09, 0.17)	1.69 (1.19, 2.23)	3.03 (2.11, 4.00)	0.60 (0.36, 0.89)	7.82 (4.72, 11.70)	13.11 (8.02, 19.50)
Paraguay	1.33 (0.94, 1.73)	19.95 (14.11, 26.01)	27.91 (19.62, 36.66)	3.80 (2.69, 4.98)	57.05 (40.38, 74.85)	77.87 (55.16, 101.70)

Peru	13.94 (10.11, 17.78)	44.40 (32.21, 56.62)	57.34 (41.46, 73.89)	29.10 (20.36, 38.58)	92.68 (64.86, 122.89)	115.33 (80.52, 152.93)
Philippines	38.96 (28.35, 49.52)	38.65 (28.12, 49.12)	53.88 (38.80, 68.32)	207.35 (148.93, 267.93)	205.70 (147.75, 265.80)	284.53 (205.31, 366.11)
Poland	29.14 (20.79, 37.60)	74.90 (53.42, 96.62)	50.77 (36.67, 65.26)	29.47 (21.27, 37.75)	75.73 (54.66, 97.00)	51.37 (37.25, 66.05)
Portugal	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Puerto Rico	2.14 (1.52, 2.79)	58.02 (41.36, 75.61)	43.71 (31.05, 56.69)	4.03 (2.90, 5.19)	109.42 (78.65, 140.83)	83.18 (59.51, 107.10)
Qatar	1.05 (0.76, 1.35)	47.36 (34.13, 60.94)	92.76 (66.44, 119.08)	1.25 (0.84, 1.70)	56.17 (37.79, 76.58)	129.54 (86.48, 179.64)
Romania	10.38 (7.47, 13.32)	53.14 (38.23, 68.24)	34.01 (24.55, 43.74)	13.72 (9.93, 17.66)	70.27 (50.87, 90.43)	45.55 (32.81, 58.52)
Russia	91.33 (64.40, 119.39)	61.66 (43.48, 80.61)	44.39 (31.27, 58.14)	53.41 (35.80, 73.06)	36.06 (24.17, 49.33)	27.36 (18.33, 37.88)
Rwanda	6.27 (4.53, 8.07)	53.89 (38.92, 69.35)	109.18 (78.76, 140.88)	5.29 (3.56, 7.31)	45.47 (30.60, 62.83)	87.10 (58.68, 121.25)
Saint Lucia	0.04 (0.03, 0.05)	21.49 (15.19, 28.00)	21.57 (15.15, 28.46)	0.09 (0.06, 0.12)	48.42 (34.63, 62.48)	47.38 (33.62, 61.13)
Saint Vincent and the Grenadines	0.02 (0.02, 0.03)	20.66 (14.57, 27.12)	22.97 (16.13, 30.12)	0.06 (0.04, 0.08)	55.11 (39.35, 71.07)	59.25 (41.87, 76.15)
Samoa	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Sao Tome and Principe	0.05 (0.04, 0.07)	26.60 (18.89, 34.87)	50.12 (35.12, 66.25)	0.07 (0.05, 0.10)	38.84 (25.99, 53.11)	67.04 (46.10, 90.33)
Saudi Arabia	22.09 (15.99, 28.43)	70.27 (50.87, 90.43)	108.54 (78.59, 139.62)	34.11 (24.78, 43.85)	108.52 (78.82, 139.49)	209.54 (151.98, 266.42)
Senegal	13.18 (9.55, 16.84)	87.26 (63.22, 111.46)	166.93 (120.36, 217.81)	17.26 (12.44, 22.29)	114.26 (82.33, 147.51)	201.83 (145.14, 260.94)
Serbia	4.81 (3.45, 6.24)	54.29 (38.97, 70.48)	35.27 (25.45, 45.43)	9.68 (6.97, 12.39)	109.25 (78.66, 139.85)	71.38 (51.90, 90.78)
Seychelles	0.01 (0.01, 0.01)	11.12 (7.97, 14.61)	11.66 (8.24, 15.24)	0.06 (0.04, 0.08)	59.67 (41.69, 79.71)	62.47 (43.54, 82.95)
Sierra Leone	2.58 (1.83, 3.40)	39.98 (28.37, 52.56)	74.47 (52.46, 97.62)	3.38 (2.30, 4.63)	52.37 (35.60, 71.61)	85.72 (58.82, 115.97)
Singapore	1.80 (1.28, 2.34)	45.85 (32.63, 59.56)	36.70 (26.06, 47.70)	2.69 (1.89, 3.58)	68.68 (48.27, 91.14)	55.46 (38.80, 73.16)
Slovakia	2.94 (2.12, 3.82)	52.97 (38.07, 68.79)	38.25 (27.64, 49.43)	3.89 (2.80, 5.05)	70.00 (50.40, 90.88)	51.09 (36.21, 66.20)

Slovenia	1.06 (0.76, 1.37)	51.45 (36.91, 66.55)	30.77 (22.06, 39.69)	1.01 (0.72, 1.32)	48.94 (34.96, 63.93)	28.16 (19.93, 36.75)
Solomon Islands	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Somalia	4.23 (3.02, 5.51)	38.98 (27.81, 50.83)	76.87 (54.43, 100.26)	4.89 (3.37, 6.60)	45.07 (31.02, 60.81)	84.75 (58.59, 114.52)
South Africa	60.27 (43.43, 77.00)	112.19 (80.84, 143.33)	146.54 (105.05, 187.65)	78.29 (56.93, 99.75)	145.72 (105.98, 185.67)	186.86 (135.89, 237.91)
South Korea	30.99 (22.52, 39.62)	61.64 (44.79, 78.79)	45.33 (32.97, 57.95)	40.91 (28.68, 54.41)	81.36 (57.05, 108.21)	59.65 (42.11, 79.40)
South Sudan	7.44 (5.38, 9.55)	60.55 (43.75, 77.68)	121.62 (87.40, 157.96)	7.34 (5.09, 9.90)	59.76 (41.43, 80.58)	112.01 (77.43, 152.44)
Spain	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Sri Lanka	9.67 (7.03, 12.39)	46.61 (33.88, 59.69)	44.84 (32.61, 57.01)	27.05 (18.68, 35.98)	130.36 (90.03, 173.39)	127.97 (90.13, 170.38)
Sudan	26.03 (18.77, 33.52)	64.45 (46.46, 83.00)	112.68 (81.47, 146.65)	51.64 (35.95, 69.16)	127.87 (89.01, 171.22)	224.43 (155.47, 305.45)
Suriname	0.18 (0.13, 0.24)	33.41 (23.72, 43.84)	39.09 (27.76, 50.85)	0.54 (0.38, 0.70)	99.23 (70.12, 128.32)	113.04 (80.32, 146.34)
Swaziland	0.79 (0.56, 1.02)	61.17 (43.78, 79.47)	114.19 (80.74, 149.79)	0.93 (0.57, 1.36)	71.86 (43.94, 105.19)	137.92 (85.57, 200.74)
Sweden	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Switzerland	2.14 (1.50, 2.85)	25.81 (18.07, 34.38)	15.41 (10.77, 20.31)	1.28 (0.88, 1.73)	15.42 (10.60, 20.89)	8.85 (6.07, 12.05)
Syria	10.71 (7.74, 13.73)	57.54 (41.54, 73.74)	90.21 (65.03, 116.49)	17.02 (11.81, 22.80)	91.37 (63.44, 122.44)	145.14 (95.07, 203.80)
Tajikistan	4.94 (3.58, 6.35)	58.15 (42.11, 74.73)	105.26 (75.64, 135.83)	7.16 (5.11, 9.40)	84.25 (60.08, 110.54)	118.15 (84.06, 154.62)
Tanzania	29.49 (21.40, 37.75)	55.26 (40.10, 70.72)	111.66 (80.03, 144.68)	29.57 (20.88, 38.78)	55.40 (39.13, 72.66)	102.94 (72.10, 136.87)
Thailand	44.70 (32.46, 57.48)	65.84 (47.80, 84.66)	54.71 (39.42, 70.19)	120.20 (86.91, 154.57)	177.04 (128.00, 227.66)	147.71 (106.95, 189.58)
The Bahamas	0.07 (0.05, 0.09)	17.55 (12.20, 23.06)	17.97 (12.60, 23.64)	0.16 (0.11, 0.21)	41.58 (29.32, 54.40)	41.84 (29.32, 54.63)
The Gambia	1.44 (1.05, 1.86)	72.18 (52.26, 92.74)	154.64 (112.08, 199.68)	1.56 (1.10, 2.07)	78.09 (54.87, 103.59)	152.74 (108.08, 202.17)
Timor-Leste	0.12 (0.08, 0.15)	9.82 (6.98, 12.85)	15.97 (11.34, 20.86)	0.31 (0.20, 0.45)	26.36 (16.72, 38.10)	41.55 (26.17, 59.52)

Togo	6.53 (4.73, 8.38)	89.42 (64.76, 114.73)	163.94 (117.68, 212.81)	6.75 (4.48, 9.37)	92.38 (61.29, 128.24)	158.90 (106.35, 219.49)
Tonga	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Trinidad and Tobago	0.34 (0.24, 0.44)	24.73 (17.42, 32.52)	22.64 (15.85, 29.68)	0.79 (0.56, 1.03)	58.21 (41.50, 75.65)	53.06 (37.48, 68.83)
Tunisia	10.87 (7.83, 14.03)	96.60 (69.60, 124.68)	99.93 (72.54, 128.48)	17.39 (11.77, 23.70)	154.56 (104.59, 210.69)	166.84 (112.62, 226.87)
Turkey	107.73 (77.61, 138.62)	137.38 (98.97, 176.77)	147.75 (106.34, 190.82)	103.23 (73.62, 134.37)	131.64 (93.88, 171.35)	144.75 (103.04, 189.76)
Turkmenistan	4.49 (3.23, 5.76)	83.47 (59.96, 107.04)	125.07 (88.85, 162.56)	8.08 (5.91, 10.19)	150.22 (109.89, 189.36)	192.21 (140.50, 242.68)
Uganda	18.97 (13.84, 24.23)	48.46 (35.34, 61.89)	116.67 (84.54, 150.41)	20.43 (14.50, 26.67)	52.19 (37.04, 68.12)	112.70 (79.91, 149.04)
Ukraine	31.03 (21.74, 40.58)	66.73 (46.74, 87.25)	44.57 (31.62, 58.46)	15.15 (10.40, 20.57)	32.58 (22.36, 44.23)	23.64 (16.18, 32.30)
United Arab Emirates	5.89 (4.26, 7.60)	64.39 (46.57, 83.11)	104.27 (75.17, 134.17)	11.63 (7.43, 16.37)	127.18 (81.21, 178.99)	217.26 (144.57, 299.97)
United Kingdom	9.43 (6.59, 12.36)	14.67 (10.26, 19.25)	8.85 (6.21, 11.60)	6.35 (4.46, 8.39)	9.89 (6.94, 13.07)	6.12 (4.27, 8.10)
United States	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Uruguay	0.33 (0.23, 0.44)	9.51 (6.58, 12.70)	6.97 (4.87, 9.27)	0.41 (0.29, 0.54)	12.02 (8.48, 15.75)	9.01 (6.34, 11.73)
Uzbekistan	22.17 (15.98, 28.45)	74.03 (53.37, 95.03)	105.80 (75.84, 136.97)	36.51 (26.41, 46.89)	121.94 (88.20, 156.62)	145.71 (105.49, 185.71)
Vanuatu	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Venezuela	32.17 (22.93, 42.01)	103.43 (73.73, 135.05)	131.52 (94.17, 170.60)	48.77 (34.76, 63.70)	156.79 (111.74, 204.78)	194.19 (137.84, 254.47)
Vietnam	27.89 (20.21, 35.80)	29.84 (21.62, 38.30)	33.74 (24.45, 43.41)	104.22 (74.13, 135.01)	111.50 (79.31, 144.44)	123.22 (88.58, 160.01)
Virgin Islands, U.S.	0.05 (0.04, 0.07)	47.66 (33.60, 62.81)	30.54 (21.54, 40.20)	0.10 (0.07, 0.13)	92.05 (64.52, 121.11)	61.65 (43.18, 81.47)
Yemen	16.01 (11.57, 20.53)	59.50 (42.98, 76.27)	119.38 (86.19, 154.56)	29.90 (19.63, 41.81)	111.09 (72.96, 155.36)	235.43 (152.58, 331.79)
Zambia	9.85 (7.13, 12.61)	60.64 (43.90, 77.58)	132.06 (94.54, 170.67)	10.91 (7.58, 14.49)	67.12 (46.63, 89.15)	130.59 (91.31, 173.75)
Zimbabwe	10.43 (7.46, 13.42)	66.94 (47.92, 86.14)	143.36 (101.91, 186.83)	13.56 (9.34, 18.47)	87.10 (59.98, 118.61)	186.08 (126.46, 253.26)

Attributable burden of disease, ABD; Disability Adjusted Life Years, DALY

Supplemental Table 5: Years living with disability (YLD) and years of life lost (YLL) using the World Health Organization recommended level of $PM_{2.5}$ as the theoretical minimum risk exposure level (TMREL), 10 ug/m^3

Location	YLD (in 1000s)	YLD (per 100,000)	Age Standardized YLD (per 100,000)	YLL in 1000s	YLL (per 100,000)	Age Standardized YLL (per 100,000)
Global	2,047.18 (1,352.47, 2,852.81)	27.77 (18.35, 38.70)	29.57 (19.51, 41.12)	6,189.43 (4,532.12, 7,756.55)	83.97 (61.49, 105.23)	88.41 (64.89, 110.21)
Afghanistan	11.38 (7.40, 16.05)	34.91 (22.70, 49.23)	72.66 (47.99, 101.24)	58.20 (36.71, 84.14)	178.50 (112.59, 258.04)	371.49 (234.67, 535.24)
Albania	0.35 (0.22, 0.51)	12.23 (7.66, 17.63)	10.16 (6.56, 14.44)	1.24 (0.86, 1.68)	42.80 (29.59, 57.99)	36.93 (25.52, 49.36)
Algeria	16.51 (10.74, 23.36)	41.67 (27.11, 58.94)	51.08 (33.70, 71.66)	34.37 (23.90, 46.24)	86.72 (60.30, 116.67)	117.49 (82.32, 157.01)
American Samoa	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Andorra	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Angola	4.75 (3.06, 6.74)	18.80 (12.11, 26.70)	45.42 (28.98, 65.41)	8.12 (4.89, 11.95)	32.17 (19.37, 47.33)	63.10 (37.35, 93.36)
Antigua and Barbuda	0.01 (0.00, 0.01)	7.35 (4.67, 10.61)	7.93 (4.96, 11.45)	0.03 (0.02, 0.04)	32.66 (22.97, 43.06)	33.92 (23.76, 44.69)
Argentina	3.79 (2.46, 5.41)	8.72 (5.67, 12.45)	8.23 (5.38, 11.63)	11.18 (7.97, 14.44)	25.75 (18.36, 33.26)	24.17 (17.10, 31.29)
Armenia	1.35 (0.86, 1.93)	44.80 (28.75, 64.14)	38.16 (24.70, 53.90)	1.57 (1.14, 2.01)	52.35 (37.83, 66.75)	44.76 (32.53, 57.09)
Australia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Austria	1.39 (0.91, 1.97)	16.06 (10.46, 22.69)	9.76 (6.33, 13.77)	3.31 (2.39, 4.23)	38.18 (27.54, 48.85)	20.31 (14.58, 25.97)
Azerbaijan	3.37 (2.15, 4.82)	34.42 (21.96, 49.26)	39.75 (25.46, 56.39)	7.84 (5.42, 10.57)	80.15 (55.38, 108.05)	85.05 (59.61, 114.53)
Bahrain	0.45 (0.29, 0.64)	33.23 (21.28, 46.95)	45.79 (30.36, 63.51)	0.80 (0.53, 1.10)	58.73 (39.05, 80.81)	122.97 (81.37, 170.08)

Bangladesh	37.08 (23.69, 52.70)	23.04 (14.72, 32.74)	32.69 (20.97, 46.84)	121.54 (86.25, 157.96)	75.51 (53.59, 98.13)	99.06 (70.79, 128.22)
Barbados	0.04 (0.02, 0.05)	13.42 (8.66, 19.25)	10.15 (6.51, 14.53)	0.14 (0.10, 0.19)	51.08 (36.17, 66.61)	38.98 (27.74, 50.58)
Belarus	1.97 (1.24, 2.84)	20.52 (12.95, 29.55)	14.79 (9.32, 21.28)	1.97 (1.38, 2.61)	20.53 (14.38, 27.16)	15.50 (10.78, 20.51)
Belgium	1.32 (0.85, 1.89)	11.67 (7.52, 16.67)	7.23 (4.69, 10.30)	2.35 (1.67, 3.07)	20.73 (14.76, 27.09)	11.06 (7.87, 14.31)
Belize	0.08 (0.05, 0.11)	20.92 (13.45, 29.53)	33.49 (21.07, 47.66)	0.50 (0.35, 0.65)	139.14 (98.42, 182.17)	223.10 (160.26, 290.39)
Benin	3.10 (1.99, 4.44)	28.39 (18.23, 40.69)	58.86 (37.41, 83.26)	8.58 (5.84, 11.62)	78.58 (53.52, 106.50)	124.46 (85.32, 168.16)
Bermuda	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Bhutan	0.20 (0.13, 0.29)	26.43 (17.18, 37.83)	37.69 (24.18, 53.67)	0.70 (0.44, 0.99)	89.89 (57.38, 127.53)	120.96 (78.99, 170.14)
Bolivia	2.16 (1.39, 3.05)	20.03 (12.91, 28.34)	27.69 (17.71, 39.25)	16.08 (10.71, 22.15)	149.34 (99.51, 205.76)	199.67 (131.35, 277.55)
Bosnia and Herzegovina	1.31 (0.86, 1.84)	34.35 (22.45, 48.37)	23.40 (15.40, 32.78)	2.71 (1.91, 3.59)	71.24 (50.11, 94.22)	48.35 (34.13, 63.61)
Botswana	0.35 (0.22, 0.50)	15.37 (9.81, 22.02)	24.81 (15.85, 35.70)	0.71 (0.33, 1.18)	31.32 (14.44, 52.24)	53.00 (26.08, 85.70)
Brazil	4.41 (2.80, 6.34)	2.12 (1.34, 3.05)	2.33 (1.50, 3.35)	16.97 (12.08, 21.84)	8.17 (5.81, 10.51)	8.80 (6.27, 11.28)
Brunei	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Bulgaria	2.50 (1.59, 3.61)	34.41 (21.82, 49.60)	20.53 (13.08, 29.27)	6.27 (4.42, 8.25)	86.29 (60.85, 113.56)	55.44 (39.18, 73.03)
Burkina Faso	4.35 (2.73, 6.24)	24.04 (15.12, 34.48)	56.15 (35.78, 79.70)	8.55 (6.01, 11.37)	47.26 (33.19, 62.82)	81.24 (58.85, 103.59)
Burundi	2.31 (1.43, 3.36)	20.52 (12.68, 29.88)	44.99 (28.60, 64.69)	3.99 (2.70, 5.41)	35.45 (24.04, 48.15)	62.29 (42.49, 84.83)
Cambodia	1.98 (1.26, 2.83)	12.68 (8.08, 18.16)	19.94 (12.95, 28.24)	12.83 (9.19, 16.42)	82.28 (58.93, 105.28)	119.54 (85.88, 153.06)
Cameroon	5.81 (3.63, 8.39)	24.83 (15.52, 35.84)	50.15 (31.94, 71.52)	21.11 (12.83, 30.99)	90.19 (54.82, 132.44)	133.16 (81.95, 194.45)
Canada	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)

Cape Verde	0.19 (0.13, 0.28)	37.42 (24.19, 53.26)	56.20 (36.22, 79.52)	0.36 (0.26, 0.48)	70.08 (49.24, 92.83)	95.20 (67.30, 125.84)
Central African Republic	1.29 (0.84, 1.85)	26.40 (17.04, 37.66)	49.12 (31.59, 70.11)	2.83 (1.89, 3.88)	57.76 (38.53, 79.11)	88.58 (59.53, 120.91)
Chad	3.68 (2.33, 5.29)	26.15 (16.56, 37.60)	62.49 (39.21, 89.07)	12.53 (8.60, 16.88)	89.10 (61.14, 120.06)	127.12 (88.85, 171.12)
Chile	5.86 (3.93, 8.15)	32.67 (21.89, 45.40)	28.63 (18.99, 39.72)	12.46 (8.21, 17.15)	69.41 (45.76, 95.58)	60.53 (40.65, 83.93)
China	331.78 (218.42, 466.00)	23.98 (15.79, 33.68)	21.03 (13.78, 29.52)	856.85 (624.59, 1,078.57)	61.94 (45.15, 77.96)	54.86 (40.22, 69.46)
Colombia	8.95 (5.86, 12.53)	18.55 (12.15, 25.96)	21.15 (13.94, 29.73)	22.82 (16.39, 29.50)	47.28 (33.95, 61.12)	56.01 (39.94, 71.97)
Comoros	0.11 (0.07, 0.16)	13.94 (8.47, 20.30)	26.87 (16.31, 39.51)	0.14 (0.08, 0.21)	17.18 (9.56, 26.49)	29.47 (16.21, 46.31)
Congo	1.11 (0.71, 1.58)	24.06 (15.39, 34.22)	46.15 (29.49, 65.68)	1.93 (1.27, 2.70)	41.69 (27.52, 58.39)	72.35 (47.47, 102.93)
Costa Rica	1.26 (0.82, 1.80)	26.29 (17.00, 37.51)	26.52 (16.89, 37.76)	4.34 (3.15, 5.51)	90.21 (65.46, 114.55)	90.06 (65.08, 114.16)
Cote d'Ivoire	6.07 (3.80, 8.80)	26.76 (16.73, 38.79)	54.16 (34.62, 77.47)	18.89 (12.82, 25.99)	83.25 (56.49, 114.55)	126.83 (83.68, 176.27)
Croatia	1.16 (0.76, 1.63)	27.24 (17.86, 38.51)	16.60 (10.83, 23.33)	2.35 (1.68, 3.03)	55.34 (39.71, 71.43)	31.67 (22.90, 40.74)
Cuba	1.78 (1.12, 2.57)	15.61 (9.86, 22.60)	11.49 (7.11, 16.73)	5.75 (4.12, 7.40)	50.51 (36.15, 64.94)	37.56 (27.06, 48.30)
Cyprus	0.13 (0.08, 0.19)	14.74 (9.42, 20.94)	11.20 (7.27, 15.77)	0.46 (0.33, 0.59)	51.55 (37.19, 66.01)	37.05 (26.77, 47.23)
Czech Republic	2.97 (1.93, 4.18)	27.72 (18.07, 39.04)	17.92 (11.67, 25.29)	3.88 (2.81, 4.91)	36.31 (26.31, 45.88)	22.97 (16.70, 28.99)
Democratic Republic of the Congo	16.28 (10.49, 23.09)	21.03 (13.55, 29.83)	47.02 (30.71, 66.80)	24.29 (17.18, 32.09)	31.38 (22.20, 41.45)	56.41 (39.94, 73.63)
Denmark	0.09 (0.06, 0.13)	1.57 (1.01, 2.25)	1.02 (0.65, 1.45)	0.16 (0.11, 0.21)	2.79 (1.94, 3.72)	1.68 (1.17, 2.23)
Djibouti	0.26 (0.16, 0.37)	28.73 (17.91, 41.12)	49.96 (31.19, 72.63)	0.37 (0.23, 0.54)	41.87 (26.26, 60.66)	63.99 (40.03, 92.06)
Dominica	0.01 (0.00, 0.01)	8.68 (5.45, 12.45)	8.83 (5.54, 12.83)	0.03 (0.02, 0.04)	45.61 (31.89, 60.63)	46.29 (32.37, 61.20)
Dominican Republic	1.36 (0.88, 1.93)	12.89 (8.38, 18.30)	15.83 (10.23, 22.46)	6.44 (4.54, 8.57)	61.16 (43.10, 81.36)	74.13 (51.99, 98.03)

Ecuador	0.70 (0.44, 1.00)	4.31 (2.70, 6.16)	5.33 (3.34, 7.71)	5.26 (3.72, 6.80)	32.54 (23.05, 42.11)	40.58 (28.89, 52.39)
Egypt	37.61 (24.40, 53.11)	41.26 (26.77, 58.26)	56.31 (37.08, 78.54)	86.38 (52.51, 126.17)	94.76 (57.61, 138.42)	140.01 (83.80, 210.08)
El Salvador	2.36 (1.56, 3.28)	38.47 (25.48, 53.52)	43.60 (29.03, 60.66)	18.89 (13.48, 24.53)	307.81 (219.64, 399.65)	346.83 (246.67, 453.72)
Equatorial Guinea	0.22 (0.14, 0.31)	26.05 (16.43, 37.21)	45.32 (29.33, 64.00)	0.24 (0.10, 0.40)	27.94 (11.75, 47.08)	46.88 (20.55, 77.19)
Eritrea	1.14 (0.71, 1.63)	21.69 (13.54, 31.09)	47.04 (29.89, 68.11)	1.83 (1.23, 2.51)	34.92 (23.54, 47.90)	64.88 (44.43, 89.00)
Estonia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Ethiopia	23.83 (15.00, 34.32)	23.97 (15.09, 34.52)	48.77 (30.22, 71.45)	44.18 (30.67, 58.65)	44.43 (30.85, 58.98)	79.02 (55.61, 105.48)
Federated States of Micronesia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Fiji	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Finland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
France	3.11 (2.03, 4.41)	4.76 (3.11, 6.77)	2.95 (1.91, 4.20)	4.23 (3.00, 5.48)	6.49 (4.60, 8.40)	3.31 (2.35, 4.27)
Gabon	0.50 (0.32, 0.70)	28.69 (18.34, 40.78)	46.46 (29.80, 66.25)	0.84 (0.53, 1.21)	48.90 (30.79, 70.37)	74.79 (47.27, 107.42)
Georgia	1.86 (1.20, 2.65)	46.54 (30.03, 66.21)	35.34 (23.26, 49.51)	3.65 (2.63, 4.71)	91.14 (65.70, 117.61)	72.98 (52.61, 94.05)
Germany	8.06 (5.24, 11.45)	9.63 (6.27, 13.69)	5.28 (3.45, 7.55)	20.35 (14.52, 26.20)	24.33 (17.36, 31.33)	11.19 (7.93, 14.43)
Ghana	8.84 (5.59, 12.70)	32.23 (20.38, 46.34)	58.37 (37.61, 83.81)	18.51 (13.07, 24.49)	67.52 (47.67, 89.31)	99.14 (69.87, 131.27)
Greece	1.07 (0.70, 1.50)	9.83 (6.44, 13.75)	5.43 (3.51, 7.64)	2.44 (1.73, 3.16)	22.35 (15.82, 28.97)	10.75 (7.65, 13.89)
Greenland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Grenada	0.01 (0.01, 0.02)	10.16 (6.56, 14.37)	11.75 (7.54, 16.63)	0.08 (0.05, 0.10)	70.22 (49.43, 92.89)	81.18 (56.83, 106.89)
Guam	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)

Guatemala	4.73 (3.07, 6.64)	28.94 (18.78, 40.59)	46.99 (30.68, 65.82)	26.09 (17.47, 35.84)	159.50 (106.84, 219.12)	246.08 (164.39, 337.58)
Guinea	3.04 (1.91, 4.35)	24.19 (15.18, 34.62)	48.23 (30.41, 69.71)	6.97 (4.64, 9.66)	55.45 (36.87, 76.79)	82.86 (55.23, 114.90)
Guinea-Bissau	0.68 (0.43, 0.97)	36.93 (23.20, 52.74)	70.17 (44.44, 100.88)	2.21 (1.53, 3.01)	119.33 (82.89, 162.89)	180.09 (123.43, 245.78)
Guyana	0.08 (0.05, 0.11)	9.99 (6.40, 14.25)	13.15 (8.41, 18.83)	0.52 (0.37, 0.68)	67.28 (47.75, 88.08)	80.77 (57.43, 105.42)
Haiti	2.23 (1.43, 3.18)	20.84 (13.32, 29.67)	33.43 (21.78, 47.35)	15.78 (9.78, 22.75)	147.20 (91.19, 212.16)	207.97 (129.75, 304.16)
Honduras	2.10 (1.34, 3.00)	25.89 (16.50, 37.04)	40.84 (26.30, 57.89)	13.57 (8.47, 19.78)	167.57 (104.57, 244.32)	269.11 (169.22, 385.92)
Hungary	3.19 (2.09, 4.53)	31.41 (20.59, 44.56)	20.06 (13.09, 28.12)	5.26 (3.84, 6.69)	51.78 (37.80, 65.79)	32.64 (23.78, 41.63)
Iceland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
India	321.95 (209.02, 458.60)	24.55 (15.94, 34.96)	32.64 (21.08, 46.40)	1,474.63 (1,061.17, 1,912.57)	112.43 (80.90, 145.82)	138.74 (99.54, 179.15)
Indonesia	20.12 (12.80, 28.94)	7.81 (4.97, 11.23)	9.92 (6.37, 14.17)	111.23 (80.12, 141.74)	43.18 (31.10, 55.02)	50.58 (36.47, 64.90)
Iran	28.80 (18.43, 40.61)	36.44 (23.32, 51.38)	45.00 (29.25, 63.43)	46.01 (31.39, 62.97)	58.22 (39.72, 79.67)	81.82 (54.70, 112.73)
Iraq	13.83 (8.95, 19.67)	37.97 (24.58, 54.01)	73.16 (47.17, 102.82)	40.16 (26.07, 56.62)	110.27 (71.57, 155.45)	229.39 (149.71, 321.96)
Ireland	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Israel	2.09 (1.40, 2.89)	25.95 (17.34, 35.89)	23.94 (15.95, 33.16)	5.65 (3.94, 7.62)	70.20 (48.95, 94.67)	61.63 (42.72, 83.12)
Italy	14.15 (9.32, 20.00)	22.53 (14.84, 31.85)	12.06 (7.69, 17.11)	27.87 (20.24, 35.52)	44.38 (32.22, 56.56)	19.95 (14.40, 25.31)
Jamaica	0.48 (0.31, 0.69)	17.14 (11.12, 24.35)	17.84 (11.51, 25.43)	2.32 (1.45, 3.35)	82.00 (51.19, 118.28)	85.43 (54.56, 123.21)
Japan	21.47 (14.32, 30.11)	16.73 (11.16, 23.46)	8.23 (5.40, 11.60)	26.97 (19.23, 34.38)	21.02 (14.99, 26.79)	8.66 (6.18, 11.05)
Jordan	2.44 (1.58, 3.45)	32.19 (20.85, 45.56)	53.15 (34.73, 74.27)	6.45 (4.23, 9.15)	85.19 (55.83, 120.81)	159.42 (103.99, 222.47)
Kazakhstan	3.82 (2.42, 5.48)	21.77 (13.80, 31.22)	25.86 (16.34, 37.22)	6.30 (4.37, 8.45)	35.91 (24.95, 48.21)	39.04 (27.02, 52.79)

Kenya	3.80 (2.34, 5.50)	8.22 (5.06, 11.90)	17.10 (10.69, 24.81)	4.75 (3.21, 6.52)	10.28 (6.95, 14.12)	18.54 (12.62, 25.56)
Kiribati	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Kuwait	1.20 (0.77, 1.70)	30.72 (19.84, 43.62)	44.74 (29.67, 62.64)	1.05 (0.68, 1.49)	26.96 (17.38, 38.24)	69.41 (45.60, 96.77)
Kyrgyzstan	0.87 (0.56, 1.26)	14.82 (9.44, 21.32)	21.74 (13.81, 31.04)	2.17 (1.56, 2.81)	36.88 (26.53, 47.67)	42.44 (30.47, 54.85)
Laos	1.01 (0.65, 1.42)	14.81 (9.55, 20.85)	25.84 (16.91, 36.11)	7.60 (5.42, 10.03)	111.81 (79.72, 147.52)	162.90 (116.05, 212.45)
Latvia	0.77 (0.48, 1.11)	34.81 (21.71, 50.28)	20.85 (13.31, 30.06)	0.82 (0.60, 1.06)	37.18 (26.91, 48.02)	23.97 (17.24, 30.85)
Lebanon	2.04 (1.33, 2.89)	35.47 (23.14, 50.11)	37.86 (24.58, 53.38)	2.28 (1.59, 3.04)	39.53 (27.52, 52.77)	43.56 (30.06, 58.69)
Lesotho	0.57 (0.36, 0.80)	26.65 (16.99, 37.80)	46.85 (30.05, 66.51)	1.45 (0.88, 2.08)	68.07 (41.32, 97.76)	121.69 (77.01, 173.73)
Liberia	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Libya	2.23 (1.42, 3.19)	35.36 (22.49, 50.60)	46.50 (29.87, 65.78)	7.14 (4.85, 9.72)	113.45 (77.09, 154.34)	172.32 (119.22, 232.55)
Lithuania	0.89 (0.56, 1.28)	28.24 (17.74, 40.50)	17.04 (10.74, 24.36)	0.78 (0.56, 0.99)	24.78 (17.86, 31.54)	16.42 (11.84, 20.85)
Luxembourg	0.06 (0.04, 0.09)	11.11 (7.24, 15.74)	8.10 (5.21, 11.45)	0.11 (0.08, 0.14)	19.89 (14.17, 25.87)	13.41 (9.60, 17.33)
Macedonia	0.65 (0.42, 0.91)	31.14 (20.16, 43.97)	24.97 (16.15, 35.05)	1.60 (1.16, 2.03)	76.95 (56.06, 97.74)	60.84 (44.31, 77.06)
Madagascar	3.36 (2.10, 4.87)	13.87 (8.68, 20.13)	28.95 (18.03, 41.75)	5.80 (3.78, 8.11)	23.98 (15.64, 33.53)	39.25 (26.46, 54.52)
Malawi	3.00 (1.86, 4.35)	17.44 (10.78, 25.27)	39.69 (24.63, 58.00)	6.15 (4.15, 8.45)	35.72 (24.11, 49.08)	63.21 (42.89, 86.75)
Malaysia	2.42 (1.53, 3.50)	7.99 (5.04, 11.55)	9.96 (6.17, 14.52)	8.82 (6.28, 11.47)	29.11 (20.73, 37.88)	37.66 (26.80, 48.94)
Maldives	0.06 (0.04, 0.08)	16.04 (10.34, 22.99)	22.73 (14.69, 32.24)	0.35 (0.24, 0.48)	96.76 (64.94, 132.54)	148.14 (101.30, 203.53)
Mali	4.56 (2.88, 6.50)	25.95 (16.37, 36.99)	60.85 (38.91, 87.43)	11.76 (7.72, 16.48)	66.94 (43.93, 93.80)	100.92 (66.62, 141.60)
Malta	0.05 (0.03, 0.08)	12.63 (8.13, 18.04)	8.13 (5.27, 11.59)	0.12 (0.08, 0.16)	28.88 (19.97, 38.96)	17.53 (12.08, 23.68)

Marshall Islands	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Mauritania	1.32 (0.83, 1.90)	32.38 (20.25, 46.54)	58.81 (37.13, 84.70)	2.48 (1.61, 3.53)	60.69 (39.30, 86.46)	96.33 (62.60, 135.98)
Mauritius	0.24 (0.16, 0.35)	19.01 (12.30, 27.24)	17.24 (11.10, 24.57)	1.86 (1.30, 2.46)	146.16 (101.76, 192.74)	129.09 (90.56, 170.44)
Mexico	50.01 (33.33, 69.50)	39.37 (26.24, 54.71)	48.23 (31.98, 67.07)	260.98 (191.44, 327.02)	205.43 (150.69, 257.41)	255.19 (187.29, 320.56)
Moldova	0.63 (0.39, 0.92)	15.53 (9.66, 22.71)	13.72 (8.48, 20.01)	0.71 (0.51, 0.94)	17.51 (12.42, 23.01)	14.85 (10.67, 19.38)
Mongolia	1.04 (0.65, 1.49)	35.07 (21.99, 50.37)	51.89 (32.88, 74.65)	2.83 (1.30, 4.60)	95.77 (44.00, 155.77)	115.55 (59.53, 182.08)
Montenegro	0.17 (0.11, 0.25)	27.41 (17.04, 39.88)	20.89 (12.93, 30.41)	0.50 (0.36, 0.65)	80.06 (57.23, 103.50)	61.29 (44.27, 79.51)
Morocco	11.42 (7.35, 16.31)	33.22 (21.39, 47.46)	38.65 (24.66, 55.35)	42.69 (28.30, 59.15)	124.18 (82.33, 172.09)	151.44 (98.73, 213.29)
Mozambique	3.79 (2.38, 5.51)	13.53 (8.51, 19.68)	28.99 (18.34, 41.69)	6.78 (3.59, 10.58)	24.23 (12.83, 37.80)	40.01 (21.40, 62.78)
Myanmar	10.37 (6.58, 14.75)	19.20 (12.19, 27.30)	24.72 (15.88, 35.01)	61.62 (43.47, 81.51)	114.05 (80.47, 150.87)	139.84 (99.41, 183.83)
Namibia	0.48 (0.30, 0.68)	19.39 (12.30, 27.69)	34.76 (21.93, 49.98)	0.91 (0.55, 1.35)	37.20 (22.42, 54.94)	68.14 (41.46, 101.42)
Nepal	7.76 (5.03, 10.96)	27.19 (17.61, 38.40)	40.74 (25.91, 58.14)	26.15 (17.54, 36.12)	91.60 (61.45, 126.50)	130.76 (87.57, 179.62)
Netherlands	1.41 (0.93, 2.00)	8.20 (5.41, 11.61)	5.30 (3.47, 7.47)	2.42 (1.73, 3.16)	14.10 (10.06, 18.35)	8.19 (5.83, 10.64)
New Zealand	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Nicaragua	1.77 (1.16, 2.46)	29.07 (18.97, 40.43)	40.26 (26.36, 57.18)	13.96 (9.76, 18.71)	229.28 (160.23, 307.36)	310.15 (217.89, 411.28)
Niger	5.20 (3.31, 7.42)	26.20 (16.65, 37.37)	60.33 (38.50, 85.59)	13.81 (8.60, 20.07)	69.55 (43.33, 101.09)	105.32 (66.30, 150.45)
Nigeria	43.99 (27.51, 63.27)	24.11 (15.07, 34.67)	52.00 (33.07, 74.66)	41.45 (27.56, 58.05)	22.71 (15.10, 31.81)	32.30 (21.25, 45.22)
North Korea	7.11 (4.68, 9.91)	28.27 (18.59, 39.40)	29.04 (19.01, 40.78)	20.75 (14.76, 27.05)	82.46 (58.68, 107.52)	81.68 (58.19, 106.40)
Northern Mariana Islands	0.00 (0.00, 0.00)	2.71 (1.71, 3.93)	5.04 (3.25, 7.38)	0.01 (0.01, 0.02)	11.17 (7.31, 15.58)	24.92 (16.91, 34.15)

Norway	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Oman	1.47 (0.95, 2.08)	32.74 (21.18, 46.50)	51.15 (33.37, 71.18)	1.64 (1.19, 2.10)	36.53 (26.50, 46.90)	81.73 (59.02, 104.40)
Pakistan	34.42 (21.89, 48.96)	18.20 (11.58, 25.90)	28.80 (18.48, 41.01)	210.88 (125.43, 314.47)	111.54 (66.35, 166.34)	154.47 (89.68, 232.29)
Palestine	1.25 (0.78, 1.78)	26.71 (16.74, 38.13)	52.66 (33.84, 74.28)	4.32 (3.14, 5.52)	92.41 (67.13, 118.05)	212.38 (153.03, 269.56)
Panama	0.28 (0.18, 0.40)	7.09 (4.52, 10.09)	8.00 (5.19, 11.49)	1.05 (0.73, 1.41)	26.83 (18.48, 36.00)	30.07 (20.90, 40.10)
Papua New Guinea	0.07 (0.04, 0.10)	0.93 (0.58, 1.36)	1.67 (1.06, 2.43)	0.52 (0.30, 0.81)	6.86 (3.87, 10.63)	11.46 (6.63, 17.44)
Paraguay	0.49 (0.31, 0.70)	7.36 (4.69, 10.55)	10.05 (6.38, 14.56)	3.30 (2.33, 4.34)	49.62 (34.99, 65.31)	67.85 (47.96, 89.29)
Peru	4.64 (2.96, 6.61)	14.79 (9.43, 21.04)	18.57 (11.82, 26.30)	24.48 (16.62, 33.12)	77.98 (52.94, 105.51)	96.60 (65.85, 131.90)
Philippines	20.80 (13.13, 29.53)	20.63 (13.02, 29.29)	29.10 (18.93, 41.54)	186.82 (133.90, 240.91)	185.33 (132.84, 238.99)	255.18 (182.55, 330.77)
Poland	11.96 (7.93, 16.76)	30.74 (20.37, 43.07)	20.94 (13.63, 29.43)	17.47 (12.68, 22.34)	44.89 (32.60, 57.40)	30.18 (21.90, 38.44)
Portugal	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Puerto Rico	0.86 (0.57, 1.22)	23.38 (15.40, 32.99)	17.72 (11.58, 25.08)	3.16 (2.28, 4.09)	85.78 (61.78, 110.89)	65.23 (46.53, 84.36)
Qatar	0.64 (0.41, 0.91)	28.76 (18.45, 41.08)	43.44 (28.83, 60.48)	0.60 (0.37, 0.89)	27.23 (16.48, 40.22)	85.38 (52.42, 125.21)
Romania	4.50 (2.95, 6.27)	23.05 (15.11, 32.11)	14.65 (9.64, 20.51)	9.22 (6.64, 11.78)	47.22 (34.00, 60.35)	30.85 (22.35, 39.37)
Russia	24.25 (14.97, 35.25)	16.37 (10.11, 23.80)	12.26 (7.66, 17.92)	28.83 (17.30, 42.90)	19.46 (11.68, 28.96)	15.07 (9.09, 22.33)
Rwanda	2.16 (1.34, 3.16)	18.59 (11.49, 27.16)	38.97 (23.92, 56.67)	3.09 (1.85, 4.56)	26.57 (15.90, 39.25)	48.01 (27.89, 71.57)
Saint Lucia	0.02 (0.01, 0.02)	8.62 (5.35, 12.60)	8.46 (5.30, 12.23)	0.07 (0.05, 0.09)	39.69 (28.34, 51.29)	38.79 (27.60, 50.27)
Saint Vincent and the Grenadines	0.01 (0.01, 0.01)	8.60 (5.41, 12.47)	9.38 (5.98, 13.62)	0.05 (0.04, 0.07)	46.42 (32.95, 60.58)	49.69 (35.22, 64.45)
Samoa	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)

Sao Tome and Principe	0.02 (0.01, 0.02)	8.42 (5.27, 12.30)	16.18 (10.16, 23.39)	0.06 (0.04, 0.08)	30.25 (19.95, 42.51)	50.89 (34.43, 70.03)
Saudi Arabia	9.55 (6.17, 13.59)	30.39 (19.64, 43.22)	45.30 (29.76, 63.49)	24.50 (17.61, 31.42)	77.94 (56.01, 99.95)	163.92 (119.09, 209.47)
Senegal	4.70 (2.98, 6.76)	31.09 (19.73, 44.71)	64.85 (41.07, 93.06)	12.48 (8.87, 16.46)	82.62 (58.69, 108.93)	136.81 (98.45, 176.64)
Serbia	2.52 (1.62, 3.55)	28.40 (18.33, 40.09)	18.58 (12.08, 26.25)	7.15 (5.19, 9.13)	80.74 (58.65, 103.06)	52.76 (38.15, 66.92)
Seychelles	0.01 (0.00, 0.01)	5.72 (3.48, 8.36)	5.94 (3.76, 8.61)	0.05 (0.04, 0.07)	53.82 (37.25, 72.00)	56.39 (38.89, 75.12)
Sierra Leone	0.87 (0.54, 1.26)	13.52 (8.40, 19.57)	28.68 (17.81, 41.78)	2.50 (1.64, 3.50)	38.71 (25.34, 54.12)	56.96 (38.11, 79.27)
Singapore	0.95 (0.63, 1.33)	24.28 (16.15, 33.90)	19.00 (12.57, 26.55)	1.73 (1.19, 2.35)	44.08 (30.37, 59.92)	36.25 (24.74, 49.52)
Slovakia	1.39 (0.89, 1.98)	24.98 (15.97, 35.70)	18.19 (11.63, 26.15)	2.49 (1.77, 3.23)	44.78 (31.88, 58.16)	32.63 (23.12, 42.46)
Slovenia	0.51 (0.33, 0.73)	24.86 (16.15, 35.49)	15.15 (9.85, 21.15)	0.49 (0.35, 0.64)	23.98 (17.15, 31.24)	12.93 (9.30, 16.75)
Solomon Islands	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Somalia	1.70 (1.06, 2.46)	15.65 (9.79, 22.69)	32.99 (20.74, 47.70)	3.16 (2.08, 4.47)	29.12 (19.22, 41.19)	51.46 (33.43, 72.91)
South Africa	19.72 (12.80, 27.66)	36.70 (23.82, 51.49)	48.91 (31.84, 68.99)	58.33 (42.65, 73.98)	108.58 (79.39, 137.71)	137.43 (99.68, 173.95)
South Korea	17.38 (11.76, 23.83)	34.56 (23.38, 47.39)	25.33 (17.04, 34.81)	23.55 (15.11, 33.25)	46.84 (30.04, 66.12)	34.25 (22.30, 47.93)
South Sudan	2.99 (1.89, 4.30)	24.33 (15.36, 34.97)	51.75 (32.09, 75.36)	4.35 (2.72, 6.21)	35.39 (22.17, 50.52)	59.89 (37.95, 85.45)
Spain	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Sri Lanka	4.86 (3.15, 6.82)	23.41 (15.19, 32.87)	23.28 (14.92, 33.03)	22.08 (14.85, 30.20)	106.42 (71.55, 145.57)	105.07 (70.89, 142.32)
Sudan	12.33 (7.95, 17.47)	30.53 (19.68, 43.26)	54.58 (36.28, 75.67)	39.11 (26.35, 54.08)	96.84 (65.23, 133.89)	169.37 (111.48, 238.89)
Suriname	0.07 (0.05, 0.10)	13.05 (8.47, 18.56)	14.93 (9.48, 21.37)	0.47 (0.33, 0.61)	85.96 (60.88, 112.08)	97.82 (69.19, 128.13)
Swaziland	0.27 (0.18, 0.39)	21.09 (13.74, 29.99)	40.62 (26.32, 58.01)	0.66 (0.34, 1.02)	50.88 (26.32, 78.97)	97.54 (51.30, 152.07)

Sweden	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Switzerland	0.57 (0.36, 0.82)	6.86 (4.36, 9.91)	4.31 (2.76, 6.29)	0.70 (0.47, 0.98)	8.48 (5.71, 11.87)	4.52 (2.97, 6.31)
Syria	5.14 (3.24, 7.40)	27.61 (17.38, 39.72)	43.40 (27.65, 62.59)	11.80 (7.54, 16.82)	63.35 (40.48, 90.33)	102.17 (57.85, 152.97)
Tajikistan	2.03 (1.29, 2.92)	23.91 (15.12, 34.36)	42.03 (26.52, 59.98)	5.11 (3.56, 6.86)	60.10 (41.84, 80.63)	75.56 (52.60, 101.68)
Tanzania	9.90 (6.17, 14.29)	18.55 (11.56, 26.78)	40.10 (25.68, 57.59)	19.58 (13.68, 25.94)	36.68 (25.63, 48.61)	62.52 (43.89, 83.87)
Thailand	19.46 (12.54, 27.84)	28.66 (18.47, 41.01)	24.40 (15.75, 34.46)	100.91 (72.11, 129.44)	148.63 (106.22, 190.66)	123.20 (88.60, 158.83)
The Bahamas	0.02 (0.02, 0.04)	6.44 (4.06, 9.24)	6.61 (4.24, 9.53)	0.14 (0.10, 0.18)	35.02 (24.58, 45.95)	34.98 (24.53, 46.16)
The Gambia	0.49 (0.30, 0.70)	24.38 (15.15, 35.15)	58.57 (36.46, 83.32)	1.07 (0.72, 1.46)	53.54 (36.11, 73.20)	94.33 (64.94, 127.22)
Timor-Leste	0.06 (0.04, 0.08)	4.88 (3.09, 7.11)	8.33 (5.23, 12.16)	0.26 (0.15, 0.38)	21.44 (12.65, 32.18)	33.00 (19.72, 49.20)
Togo	2.07 (1.31, 2.98)	28.36 (17.92, 40.75)	56.83 (36.28, 81.33)	4.67 (2.87, 6.81)	64.00 (39.31, 93.21)	101.35 (62.08, 148.63)
Tonga	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Trinidad and Tobago	0.13 (0.09, 0.19)	9.87 (6.43, 14.19)	9.21 (5.95, 13.14)	0.66 (0.47, 0.86)	48.28 (34.29, 62.87)	43.77 (30.97, 56.85)
Tunisia	5.07 (3.34, 7.12)	45.09 (29.67, 63.28)	46.29 (30.89, 65.29)	12.17 (7.73, 17.42)	108.15 (68.69, 154.83)	119.91 (75.89, 170.51)
Turkey	45.45 (29.94, 63.66)	57.96 (38.18, 81.17)	61.97 (41.33, 87.17)	57.26 (39.37, 77.22)	73.02 (50.20, 98.47)	81.84 (56.78, 110.38)
Turkmenistan	1.83 (1.16, 2.62)	33.95 (21.59, 48.71)	48.87 (30.36, 70.58)	6.24 (4.59, 7.85)	115.93 (85.24, 145.79)	142.94 (104.59, 179.26)
Uganda	6.61 (4.18, 9.36)	16.88 (10.68, 23.90)	43.89 (27.79, 62.74)	13.81 (9.65, 18.39)	35.28 (24.65, 46.98)	68.61 (48.46, 90.65)
Ukraine	7.71 (4.83, 11.11)	16.57 (10.39, 23.89)	11.49 (7.25, 16.69)	7.50 (4.90, 10.53)	16.13 (10.54, 22.64)	12.08 (7.91, 17.11)
United Arab Emirates	3.57 (2.31, 5.03)	39.03 (25.29, 54.98)	53.70 (34.58, 75.47)	8.00 (4.68, 11.84)	87.50 (51.13, 129.41)	163.20 (100.84, 238.05)
United Kingdom	2.83 (1.83, 4.04)	4.41 (2.85, 6.29)	2.86 (1.84, 4.08)	3.50 (2.51, 4.47)	5.45 (3.90, 6.95)	3.25 (2.33, 4.16)

United States	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Uruguay	0.13 (0.08, 0.19)	3.82 (2.45, 5.46)	2.89 (1.87, 4.11)	0.28 (0.20, 0.37)	8.20 (5.80, 10.65)	6.08 (4.30, 7.89)
Uzbekistan	8.33 (5.38, 11.72)	27.84 (17.96, 39.15)	38.59 (24.71, 54.94)	28.11 (20.38, 36.24)	93.89 (68.06, 121.04)	106.63 (77.03, 136.37)
Vanuatu	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)	0.00 (0.00, 0.00)
Venezuela	7.91 (5.20, 11.19)	25.44 (16.70, 35.98)	31.92 (20.84, 45.23)	40.84 (28.56, 54.04)	131.29 (91.82, 173.73)	161.68 (113.49, 214.22)
Vietnam	14.83 (9.73, 20.94)	15.86 (10.41, 22.41)	17.29 (11.43, 24.17)	88.96 (63.22, 116.91)	95.17 (67.64, 125.08)	105.85 (75.39, 138.02)
Virgin Islands, U.S.	0.02 (0.01, 0.02)	15.19 (9.45, 22.03)	10.49 (6.59, 15.10)	0.08 (0.06, 0.11)	76.75 (53.39, 102.08)	51.16 (35.43, 68.56)
Yemen	7.74 (4.93, 11.13)	28.77 (18.33, 41.37)	59.85 (38.83, 84.91)	22.09 (13.44, 32.34)	82.07 (49.93, 120.17)	175.22 (107.99, 256.20)
Zambia	3.18 (2.01, 4.54)	19.56 (12.36, 27.95)	43.73 (27.72, 62.35)	7.69 (5.13, 10.63)	47.32 (31.59, 65.40)	86.42 (57.46, 119.13)
Zimbabwe	3.53 (2.25, 5.09)	22.69 (14.45, 32.70)	48.08 (30.43, 68.21)	10.03 (6.54, 14.17)	64.40 (41.97, 90.99)	137.14 (89.08, 194.76)

Years living with disability, YLD; Years of life lost, YLL

Checklist of information that should be included in new reports of global health estimates

Item #	Checklist item	Reported on page #
Objectives and funding		
1	Define the indicator(s), populations (including age, sex, and geographic entities), and time period(s) for which estimates were made.	Abstract, 3-4
2	List the funding sources for the work.	16
Data Inputs		
For all data inputs from multiple sources that are synthesized as part of the study:		
3	Describe how the data were identified and how the data were accessed.	3-4
4	Specify the inclusion and exclusion criteria. Identify all ad-hoc exclusions.	3-4
5	Provide information on all included data sources and their main characteristics. For each data source used, report reference information or contact name/institution, population represented, data collection method, year(s) of data collection, sex and age range, diagnostic criteria or measurement method, and sample size, as relevant.	3-4
6	Identify and describe any categories of input data that have potentially important biases (e.g., based on characteristics listed in item 5).	3-4, 14-15
For data inputs that contribute to the analysis but were not synthesized as part of the study:		
7	Describe and give sources for any other data inputs.	3-4
For all data inputs:		
8	Provide all data inputs in a file format from which data can be efficiently extracted (e.g., a spreadsheet rather than a PDF), including all relevant meta-data listed in item 5. For any data inputs that cannot be shared because of ethical or legal reasons, such as third-party ownership, provide a contact name or the name of the institution that retains the right to the data.	All data is publicly available. References are provided.
Data analysis		
9	Provide a conceptual overview of the data analysis method. A diagram may be helpful.	7
10	Provide a detailed description of all steps of the analysis, including mathematical formulae. This description should cover, as relevant, data cleaning, data pre-processing, data adjustments and weighting of data sources, and mathematical or statistical model(s).	4-8
11	Describe how candidate models were evaluated and how the final model(s) were selected.	N/A
12	Provide the results of an evaluation of model performance, if done, as well as the results of any relevant sensitivity analysis.	N/A
13	Describe methods for calculating uncertainty of the estimates. State which sources of uncertainty were, and were not, accounted for in the uncertainty analysis.	7
14	State how analytic or statistical source code used to generate estimates can be accessed.	N/A
Results and Discussion		
15	Provide published estimates in a file format from which data can be efficiently extracted.	Supplemental table 1-5
16	Report a quantitative measure of the uncertainty of the estimates (e.g. uncertainty intervals).	All estimates come with 95% Uncertainty Intervals
17	Interpret results in light of existing evidence. If updating a previous set of estimates, describe the reasons for changes in estimates.	12-15

18	Discuss limitations of the estimates. Include a discussion of any modelling assumptions or data limitations that affect interpretation of the estimates.	15-16

This checklist should be used in conjunction with the GATHER statement and Explanation and Elaboration document, found on gather-statement.org