
"If the dara generated by the indicators come from quality sources of information that are accurate and verifiable, decision-making will be better informed and lead to increased opportunities for more effective interventions that have a greater impact on health outcomes. "

## Carissa F. Erienne

For the $24^{\text {th }}$ consecutive year, PAHO has published the report Health Situation in the Americas: Core Indicators featuring the latest information on key indicators for the Region of the Americas.

This 2018 edition includes data on the 82 core indicators for the countries, territories, and subregions of the Americas, grouped into the following categories: demographic-socioeconomic, health status, risk factors, service coverage, and health systems. Information is also presented on 22 indicators of the Sustainable Development Goals (SDGs). For the complete set of core indicator data, we encourage you to visit PAHO's online Platform for Health Information at www.paho.org/plisa.

When used as part of a monitoring and evaluation process, indicators are an essential element in the production of evidence in health to inform decision-making. With the continuing advances in technology, data collection has become more frequent and timely, making monitoring and follow-up possible on a routine basis at the global, regional, subregional, national, and subnational levels. If the data generated by the indicators come from quality sources of information that are accurate and verifiable, decision-making will be better informed and lead to increased opportunities for more effective interventions that have a greater impact on health outcomes.

This year's publication includes discussions on the following topics:

- Air pollution as the main environmental risk to health. The adverse health effects of outdoor air pollution in urban or industrial areas, and breathing smoke from burning wood, coal, organic waste, or kerosene in the home are highlighted. This analysis emphasizes the challenge and commitment from countries within the Region of the Americas to reduce the impact of air pollution on health, particularly those problems related to respiratory and cardiovascular diseases.
- Handling small numbers in epidemiological analyses. Recommendations are presented to overcome the limitations of epidemiological analysis when handling small numbers. Small numbers could occur in countries with a small population or in countries with large populations when analyses are disaggregated by age groups, causes of death, or at the subnational level, all of which cause the number of events to decrease. Such limitations in data sets result in indicators that are difficult to compare and are not representative.
- Homicide rates in the Americas. The homicide rate distribution in the countries of the Region is presented as a map that visually highlights the inequalities that exist in the Americas.

The data presented in this publication were collected from the countries and validated by the technical entities of the Organization. Collaborations with ministries of health and national statistical institutes in countries and territories of the Region of the Americas, as well as various specialized agencies of the United Nations system, were essential in the preparation of this publication.

I am confident that these data on the health situation of the population of the Americas will continue to be an invaluable source of information.


Dr. Carissa F. Etienne, Director

| INEORMATION PRESENTED IN THIS PUBLICATION SUPERSEDES THAT OF PREVIOUS EDITIONS. <br> users are adulsed not to compare data SERIES between different editions. | $\begin{array}{r} 1 \\ \text { Total } \\ \text { population } \\ \text { (thousands) } \\ 2018 \end{array}$ | $\begin{array}{r} 2 \\ \text { Median age } \\ \\ \text { (years) } \\ 2018 \end{array}$ | $\begin{array}{r} 3 \\ \text { Population } \\ \text { aged }<15 \\ (\%) \\ 2018 \end{array}$ | 4 <br> Population aged $\geq 65$ (\%) 2018 | $\begin{array}{r} 5 \\ \text { Births } \\ \text { (thoousands) } \\ 2018 \end{array}$ | $\begin{array}{r} 6 \\ \text { Deaths } \\ \text { (thousands) } \\ 2018 \end{array}$ | 7 <br> Annual population growth rate (\%) 2018 | 8 <br> Total fertility rate (children/woman) | Adolescent fertility rate (births/ 1,000 women aged 15-19) 2018 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| The Americas | 1,015,753 | 33 | 23 | 12 | 15,152.3 | 6,952.0 | 0.9 | 2.0 | 48.1 |
| North America | 363,792 | 38 | 19 | 16 | 4,518.9 | 3,011.9 | 0.7 | 1.8 | 17.9 |
| Bermuda | 71 | 44 | 17 | 19 | 0.8 | 0.6 | 0.4 | 1.9 | 36.2 |
| Canada | 36,954 | 41 | 16 | 17 | 388.8 | 278.9 | 0.9 | 1.6 | 9.4 |
| United States of America | 326,767 | 38 | 19 | 16 | 4,129.3 | 2,732.3 | 0.7 | 1.9 | 18.8 |
| Latin America and the Caribbean | 651,962 | 30 | 25 | 9 | 10,633.4 | 3,940.2 | 1.0 | 2.0 | 61.3 |
| Latin America | 644,481 | 30 | 25 | 9 | 10,517.6 | 3,880.7 | 1.0 | 2.0 | 61.4 |
| Mexico | 130,759 | 29 | 26 | 7 | 2,286.3 | 641.7 | 1.2 | 2.1 | 60.3 |
| Central American Isthmus | 48,857 | 25 | 31 | 7 | 1,012.8 | 250.0 | 1.4 | 2.4 | 71.8 |
| Belize | 382 | 24 | 31 | 4 | 8.4 | 2.1 | 2.0 | 2.4 | 63.5 |
| Costa Rica | 4,953 | 33 | 21 | 10 | 68.5 | 25.1 | 0.9 | 1.8 | 53.5 |
| El Salvador | 6,412 | 27 | 27 | 8 | 116.7 | 43.6 | 0.5 | 2.0 | 69.5 |
| Guatemala | 17,245 | 22 | 34 | 5 | 423.9 | 82.7 | 1.9 | 2.9 | 70.9 |
| Honduras | 9,417 | 24 | 31 | 5 | 199.2 | 45.3 | 1.6 | 2.4 | 70.8 |
| Nicaragua | 6,285 | 26 | 29 | 6 | 117.5 | 30.3 | 1.1 | 2.1 | 85.4 |
| Panama | 4,163 | 29 | 27 | 8 | 78.7 | 21.1 | 1.5 | 2.5 | 81.8 |
| Latin Caribbean | 38,268 | 32 | 27 | 12 | 649.2 | 292.9 | 0.7 | 2.2 | 56.6 |
| Cuba | 11,489 | 42 | 16 | 15 | 122.1 | 94.3 | 0.0 | 1.7 | 43.6 |
| Dominican Republic | 10,883 | 27 | 29 | 7 | 212.2 | 66.9 | 1.1 | 2.4 | 95.0 |
| French Guiana | 290 | 25 | 33 | 5 | 6.8 | 0.9 | 2.4 | 3.2 | 56.7 |
| Guadeloupe | 449 | 43 | 18 | 18 | 4.8 | 3.7 | -0.1 | 1.9 | 13.7 |
| Haiti | 11,113 | 24 | 33 | 5 | 260.8 | 94.4 | 1.2 | 2.8 | 37.5 |
| Martinique | 385 | 45 | 18 | 19 | 4.2 | 3.3 | 0.1 | 1.9 | 18.6 |
| Puerto Rico | 3,659 | 37 | 18 | 15 | 38.4 | 29.4 | -0.1 | 1.5 | 36.7 |
| Andean Area | 142,477 | 29 | 26 | 7 | 2,511.5 | 840.5 | 1.1 | 2.2 | 61.2 |
| Bolivia (Plurinational State) | 11,216 | 25 | 31 | 7 | 254.6 | 80.9 | 1.5 | 2.8 | 68.1 |
| Colombia | 49,465 | 31 | 23 | 8 | 724.8 | 304.3 | 0.8 | 1.8 | 47.5 |
| Ecuador | 16,863 | 28 | 28 | 7 | 330.0 | 86.4 | 1.4 | 2.4 | 73.9 |
| Peru | 32,552 | 28 | 27 | 7 | 605.0 | 184.4 | 1.2 | 2.3 | 47.5 |
| Venezuela (Bolivarian Republic) | 32,381 | 28 | 27 | 7 | 597.1 | 184.4 | 1.2 | 2.3 | 85.3 |
| Brazil | 210,868 | 33 | 21 | 9 | 2,882.1 | 1,332.3 | 0.7 | 1.7 | 61.6 |
| Southern Cone | 73,253 | 32 | 24 | 11 | 1,175.6 | 523.4 | 0.9 | 2.1 | 57.6 |
| Argentina | 44,689 | 31 | 25 | 11 | 749.6 | 337.6 | 0.9 | 2.3 | 62.8 |
| Chile | 18,197 | 35 | 20 | 11 | 236.4 | 113.1 | 0.8 | 1.8 | 45.6 |
| Paraguay | 6,897 | 26 | 29 | 7 | 141.6 | 40.2 | 1.2 | 2.4 | 55.7 |
| Uruguay | 3,470 | 35 | 21 | 15 | 48.0 | 32.6 | 0.4 | 2.0 | 54.7 |
| Non-Latin Caribbean | 7,480 | 32 | 23 | 10 | 115.9 | 59.4 | 0.4 | 2.0 | 47.1 |
| Anguilla | 17 | 35 | 22 | 9 | 0.2 | 0.1 | 1.9 | 1.7 | 17.8 |
| Antigua and Barbuda | 103 | 31 | 24 | 7 | 1.6 | 0.6 | 1.0 | 2.0 | 26.7 |
| Aruba | 106 | 41 | 18 | 14 | 1.2 | 1.0 | 0.4 | 1.8 | 45.9 |
| Bahamas | 399 | 34 | 20 | , | 5.6 | 2.6 | 1.0 | 1.8 | 26.7 |
| Barbados | 286 | 39 | 19 | 15 | 3.4 | 3.1 | 0.2 | 1.8 | 20.7 |
| Cayman Islands | 60 | 40 | 18 | 13 | 0.7 | 0.4 | 2.0 | 1.8 | 40.4 |
| Curacao | 162 | 42 | 19 | 17 | 2.0 | 1.4 | 0.6 | 2.0 | 32.1 |
| Dominica | 74 | 34 | 22 | 11 | 1.1 | 0.6 | 0.2 | 2.0 | 27.8 |
| Grenada | 108 | 29 | 26 | 7 | 1.9 | 0.8 | 0.5 | 2.1 | 28.8 |
| Guyana | 782 | 26 | 29 | 5 | 15.8 | 6.5 | 0.6 | 2.5 | 85.8 |
| Jamaica | 2,899 | 31 | 23 | 10 | 47.0 | 20.6 | 0.3 | 2.0 | 52.8 |
| Montserrat | 5 | 34 | 16 | 7 | 0.1 | 0.0 | 0.4 | 1.3 | 8.2 |
| Saint Kitts and Nevis | 44 | 36 | 24 | 8 | 0.7 | 0.4 | 0.7 | 1.8 | 40.5 |
| Saint Lucia | 180 | 34 | 18 | 10 | 2.1 | 1.4 | 0.4 | 1.4 | 17.4 |
| Saint Vincent and the Grenadines | 110 | 31 | 24 | 8 | 1.7 | 0.8 | 0.3 | 1.9 | 15.1 |
| Sint Maurten (Dutch) | 43 | 41 | 18 | 10 | 0.6 | 0.2 | 1.4 | 2.0 | 44.3 |
| Suriname | 568 | 29 | 26 | 7 | 10.1 | 4.2 | 0.9 | 2.3 | 46.0 |
| Trinidad and Tobago | 1,373 | 35 | 21 | 10 | 17.7 | 13.5 | 0.2 | 1.7 | 30.1 |
| Turks and Caicos Islands | 28 | 34 | 27 | 7 | 0.8 | 0.2 | 2.1 | 1.7 | 10.0 |
| Virgin Islands (UK) | 28 | 37 | 19 | 9 | 0.4 | 0.2 | 2.2 | 1.3 | 18.4 |
| Virgin Islands (US) | 105 | 42 | 20 | 19 | 1.3 | 0.9 | 0.0 | 2.2 | 9.5 |





BI 26-29: (K) Imported or related to importation; (L) Confirmed cases only, the national surveillance system did not notify suspected cases of dengue. Different case definition. BI 31: (M) Unpublished

|  |  |  |  |  | 35 |  |  | 36 |  |  | 37 |  |  | 38 |  |  | 39 | 40 | 41 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Information Presented in this publication SUPERSEDES THAT OF PREVIOUS EDITIONS. |  |  | General mortality rate |  |  | Communicable diseases |  |  | Non-communicable diseases |  |  | External causes |  |  |  | Lung cancer |  | Prostate cancer | Breast cancer |
| users are advised not to compare data SERIES BETWEEN DIFFERENT EDITIONS. |  |  |  |  | 2016 |  |  | 2016 |  |  | 2016 |  |  | 2016 |  |  | 2016 | 2016 | 2016 |
|  |  |  | Total | Male | Female | Total | Male | Female | Total | Male | Female | Total | Male | Female | Total | Male | Female | Male | Female |
| The Americas |  |  | 5.5 | 6.8 | 4.4 | 59.9 | 71.1 | 50.7 | 427.6 | 507.8 | 362.6 | 64.0 | 101.3 | 27.9 | 18.1 | 22.9 | 14.3 | 15.4 | 14.5 |
| North America |  |  | 4.8 | 5.8 | 4.0 | 29.5 | 33.1 | 26.3 | 392.3 | 458.9 | 335.9 | 61.9 | 89.0 | 35.1 | 27.8 | 33.3 | 23.4 | 11.5 | 15.4 |
| Bermuda |  |  | 3.5 | 4.7 | 2.5 | 11.6 | 16.7 | 5.9 | 301.4 | 389.9 | 234.5 | 33.7 | 62.6 | 5.1 | 18.5 | 29.3 | 9.2 | 21.8 | 15.7 |
| Canada |  | 2015 | 3.6 | 4.3 | 3.0 | 21.9 | 24.6 | 19.6 | 304.9 | 357.7 | 260.3 | 34.7 | 48.7 | 21.0 | 29.7 | 34.1 | 26.4 | 11.6 | 15.1 |
| United States of America |  |  | 5.0 | 6.0 | 4.1 | 30.3 | 34.1 | 27.1 | 402.2 | 470.4 | 344.5 | 64.9 | 93.6 | 36.7 | 27.6 | 33.2 | 23.1 | 11.5 | 15.4 |
| Latin America and the Caribbean |  |  | 5.9 | 7.4 | 4.7 | 79.4 | 95.4 | 66.1 | 450.1 | 539.0 | 379.7 | 65.4 | 109.2 | 23.3 | 12.0 | 16.3 | 8.6 | 17.9 | 13.9 |
| Latin America |  |  | 5.9 | 7.4 | 4.7 | 79.2 | 95.1 | 66.0 | 449.1 | 538.1 | 378.8 | 65.4 | 109.4 | 23.3 | 12.0 | 16.3 | 8.6 | 17.7 | 13.8 |
| Mexico |  |  | 5.8 | 7.0 | 4.7 | 52.1 | 62.5 | 42.8 | 469.6 | 541.0 | 408.0 | 56.6 | 93.9 | 20.5 | 6.4 | 8.7 | 4.6 | 13.8 | 11.2 |
| Central American Isthmus |  |  | 6.5 | 8.0 | 5.3 | 106.2 | 122.8 | 92.2 | 467.0 | 534.7 | 411.2 | 77.8 | 138.1 | 23.8 | 5.4 | 6.5 | 4.5 | 14.9 | 8.5 |
| BelizeCosta Rica |  |  | 9.5 | 11.2 | 7.8 | 132.7 | 152.7 | 113.0 | 727.1 | 822.8 | 633.5 | 90.2 | 146.8 | 34.1 | 14.0 | 22.4 | 5.5 | 38.1 | 14.5 |
|  |  |  | ... |  |  | ... | ... |  | ... | ... | ... | ... | ... | ... |  | ... | ... | ... | ... |
| El Salvador Guatemala | N | 2014 | 6.9 | 9.0 | 5.2 | 106.9 | 127.3 | 90.7 | 476.8 | 573.6 | 402.0 | 107.9 | 204.1 | 28.0 | 6.0 | 6.8 | 5.3 | 12.9 | 8.8 |
|  |  |  | 6.9 | 8.2 | 5.7 | 132.2 | 149.4 | 117.8 | 471.4 | 527.5 | 425.3 | 82.5 | 145.3 | 26.5 | 4.6 | 5.4 | 4.0 | 14.6 | 6.4 |
| Honduras |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nicaragua | N |  | 6.0 | 7.2 | 4.9 | 58.0 | 67.4 | 49.9 | 483.8 | 560.1 | 421.1 | 53.8 | 91.4 | 18.7 | 5.3 | 6.1 | 4.6 | 14.9 | 10.7 |
| Panama | N |  | 5.0 | 6.1 | 3.9 | 68.0 | 87.3 | 49.4 | 384.8 | 444.1 | 331.0 | 47.2 | 82.2 | 12.3 | 7.5 | 10.0 | 5.2 | 16.5 | 13.2 |
| Latin Caribbean |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cuba <br> Dominican Republic |  |  | 4.9 | 5.9 | 4.0 | 42.6 | 51.0 | 35.2 | 404.3 | 478.8 | 338.2 | 44.2 | 61.6 | 26.6 | 29.2 | 38.8 | 20.6 | 30.1 | 15.5 |
|  |  |  | $\ldots$ |  | ... | ... | ... |  | ... | ... | . | ... | ... | ... | ... |  | ... |  | $\ldots$ |
| French Guiana Guadeloupe |  | 2015 | 4.3 | 5.3 | 3.5 | 41.5 | 40.0 | 42.4 | 339.8 | 418.7 | 278.8 | 49.9 | 71.4 | 29.0 | 18.6 | 31.5 | 8.9 | 24.7 | 14.1 |
|  |  | 2015 | 3.3 | 4.7 | 2.3 | 25.1 | 34.5 | 16.6 | 273.5 | 367.1 | 199.7 | 35.7 | 64.0 | 12.0 | 9.5 | 13.9 | 6.0 | 21.6 | 11.7 |
| Haiti |  |  |  |  |  | ... | ... |  | ... |  |  | ... |  |  |  |  |  | ... |  |
| Puerto Rico |  | 2015 | 3.5 | 4.4 | 2.8 | 30.4 | 34.6 | 27.2 | 290.3 | 348.4 | 244.8 | 33.1 | 61.9 | 10.4 | 9.6 | 14.5 | 5.7 | 25.0 | 15.9 |
|  |  |  | 4.6 | 6.1 | 3.4 | 42.5 | 55.9 | 32.0 | 372.8 | 483.0 | 290.1 | 42.8 | 74.0 | 14.1 | 8.8 | 12.8 | 5.8 | 16.0 | 15.0 |
| Andean Area |  |  | 6.1 | 7.4 | 4.9 | 91.2 | 108.5 | 75.8 | 437.4 | 504.2 | 383.1 | 78.5 | 129.5 | 29.4 | 12.0 | 15.0 | 9.6 | 19.6 | 14.1 |
| Bolivia (Plurinational State) |  |  | ... |  | ... | ... | ... |  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Colombia | N | 2015 | 6.3 | 7.9 | 4.9 | 64.5 | 78.2 | 52.5 | 472.0 | 552.2 | 408.9 | 89.8 | 157.4 | 25.1 | 14.0 | 18.3 | 10.7 | 18.9 | 16.1 |
| Ecuador | N |  | 5.5 | 6.5 | 4.6 | 74.7 | 87.8 | 62.4 | 407.1 | 452.9 | 367.4 | 70.9 | 110.1 | 32.7 | 6.7 | 7.5 | 5.9 | 18.7 | 11.4 |
| PeruVenezuela (Bolivarian Republic) | N | 2015 | 6.1 | 7.2 | 5.0 | 140.2 | 164.5 | 118.6 | 400.5 | 459.0 | 351.4 | 65.4 | 97.9 | 34.4 | 11.8 | 14.0 | 10.0 | 21.2 | 12.5 |
|  |  |  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Brazil |  |  | 6.1 | 7.8 | 4.6 | 89.4 | 107.7 | 74.5 | 446.3 | 550.6 | 365.9 | 72.0 | 122.3 | 23.6 | 13.5 | 18.4 | 9.9 | 18.4 | 14.2 |
| Southern Cone |  |  | 5.6 | 7.2 | 4.4 | 77.4 | 96.6 | 63.8 | 441.3 | 559.1 | 356.0 | 43.8 | 69.3 | 19.5 | 17.7 | 27.0 | 10.6 | 19.1 | 18.9 |
| Argentina |  |  | 5.9 | 7.8 | 4.5 | 96.0 | 122.1 | 78.1 | 453.2 | 590.1 | 356.8 | 40.6 | 64.7 | 17.8 | 18.9 | 29.4 | 11.0 | 17.2 | 20.8 |
| Paraguay |  |  | 4.6 | 5.9 | 3.6 | 34.5 | 42.9 | 27.5 | 386.3 | 478.1 | 317.3 | 40.4 | 64.8 | 17.0 | 14.8 | 20.3 | 10.6 | 22.7 | 13.0 |
|  |  |  | 6.6 | 7.4 | 5.7 | 87.8 | 94.7 | 81.3 | 500.9 | 548.2 | 457.9 | 67.6 | 100.1 | 33.8 | 12.6 | 19.2 | 6.4 | 18.8 | 18.8 |
| Uruguay |  |  | 5.6 | 7.6 | 4.1 | 43.3 | 55.5 | 34.3 | 457.7 | 612.4 | 352.3 | 55.5 | 87.4 | 26.2 | 28.1 | 46.8 | 14.2 | 24.8 | 24.5 |
| Non-Latin Caribbean |  |  | 7.1 | 8.4 | 5.8 | 103.2 | 122.6 | 85.3 | 547.2 | 632.4 | 476.5 | 55.3 | 88.8 | 22.9 | 11.8 | 18.3 | 6.2 | 44.4 | 23.9 |
| Anguilla <br> Antigua and Barbuda |  |  | 4.8 | 6.2 | 3.5 | 18.4 | 20.8 | 17.9 | 397.8 | 461.1 | 332.1 | 62.7 | 134.8 | - | 4.3 | 9.6 | - | 49.5 | 8.0 |
|  |  |  | 6.6 | 8.2 | 5.3 | 60.6 | 75.2 | 50.3 | 557.2 | 674.9 | 469.8 | 39.6 | 68.0 | 14.6 | 11.5 | 19.8 | 4.4 | 50.4 | 44.7 |
| Aruba |  |  | 5.2 | 6.5 | 4.3 | 39.4 | 49.5 | 30.9 | 441.2 | 531.1 | 380.7 | 38.2 | 65.9 | 13.5 | 16.0 | 25.6 | 9.7 | 19.2 | 39.7 |
| Bahamas | N | 2014 | 6.2 | 7.7 | 5.0 | 85.6 | 97.3 | 76.3 | 474.3 | 566.2 | 409.0 | 59.3 | 102.4 | 17.9 | 6.0 | 8.9 | 3.6 | 36.4 | 29.0 |
| Barbados |  |  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Cayman Islands |  |  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Curacao |  |  |  |  |  | ... | ... | ... | ... | ... |  | ... |  | ... |  | ... |  | ... | ... |
| Dominica 2015 |  |  | 6.8 | 8.9 | 5.0 | 94.1 | 128.2 | 69.4 | 519.2 | 668.7 | 400.1 | 63.1 | 96.5 | 29.1 | 9.7 | 13.6 | 6.9 | 91.4 | 17.1 |
| Grenada |  |  | 8.7 | 11.4 | 6.7 | 87.7 | 104.9 | 72.7 | 730.6 | 949.3 | 575.9 | 51.1 | 86.8 | 16.5 | 23.9 | 34.5 | 16.9 | 90.3 | 43.5 |
| Guyana | N | 2014 | 11.5 | 13.0 | 10.0 | 188.9 | 208.0 | 170.3 | 827.9 | 883.5 | 775.8 | 129.5 | 205.2 | 55.3 | 5.0 | 6.7 | 3.6 | 42.3 | 22.1 |
| Jamaica N |  | 2014 | 5.9 | 7.0 | 4.9 | 84.9 | 104.3 | 66.2 | 474.9 | 543.3 | 413.9 | 30.0 | 47.9 | 12.3 | 12.8 | 20.0 | 6.2 | 42.7 | 23.4 |
|  |  |  | 10.3 | 10.4 | 18.9 | 43.8 | 57.9 | - | 981.7 | 978.8 | 1,887.3 | - | - | - | 22.7 | 25.4 | - | 99.8 | - |
| Saint Kitts and Nevis |  |  | 6.8 | 8.9 | 4.9 | 66.2 | 79.1 | 54.6 | 535.5 | 669.4 | 419.8 | 77.2 | 145.9 | 13.0 | 13.2 | 24.1 | 2.6 | 89.9 | 31.3 |
| Saint Kitis and NevisSaint Lucia |  |  |  |  |  |  |  |  | ... |  |  | ... |  | ... | ... | ... | ... | ... |  |
| Saint Vincent and the Grenadines Sint Maurten (Dutch) |  | 2015 | 8.2 | 10.3 | 6.4 | 109.4 | 123.2 | 94.3 | 642.8 | 798.1 | 518.7 | 66.2 | 108.5 | 24.2 | 10.1 | 13.5 | 6.5 | 115.2 | 22.6 |
|  |  |  | ... |  | ... |  |  |  | ... |  |  | ... | ... | ... | ... | ... | ... | ... | ... |
| Trinidad and Tobago |  | 2014 | 8.3 | 10.4 | 6.6 | 137.7 | 167.1 | 113.7 | 615.9 | 755.6 | 505.7 | 79.4 | 117.6 | 42.5 | 18.9 | 29.9 | 10.0 | 38.6 | 18.5 |
|  |  |  |  |  |  |  |  |  | ... |  |  | ... |  | ... | ... |  | ... | ... | ... |
| Turks and Caicos Islands |  | 2015 | 2.5 | 3.0 | 1.9 | 24.4 | 27.9 | 17.8 | 196.9 | 241.4 | 154.2 | 24.0 | 32.5 | 14.0 | 8.4 | 18.1 | - | 4.9 | 11.4 |
| Virgin Islands (UK) |  |  |  |  | ... | ... |  |  | ... |  |  | ... | ... | ... | ... |  | ... | ... |  |
| Virgin Islands (US) |  |  | 3.9 | 5.4 | 2.5 | 24.7 | 22.2 | 27.8 | 284.8 | 384.7 | 203.4 | 76.2 | 135.3 | 23.4 | 7.5 | 10.9 | 5.1 | 18.0 | 14.5 |

BI 35-48: All data is from 2016 unless indicated otherwise with the relevant year next to the country name. (N) Corrected rates for underregistration.

SELECTED CAUSE-OF-DEATH RATES, AGE-ADJUSTED ( 100,000 pop)


BI 35-48: All data is from 2016 unless indicated otherwise with the relevant year next to the country name. (N) Corrected rates for underregistration.


BI 49: (B) Preliminary; (C) Annual report; (D) Survey; (F) Public sector only. BI 53-54: (0) Data not standardized, provided by 2014 STEPS country survey; (P) Data not standardized from the National Health Survey 2017. BI 55: (Q) Data from the National School Survey 2015. Only prevalence of current cigarette use among students 12-18; (R) Prevalence of cigarefte use from the National Study on Consumption of Psychoactive Substance in school population. It uses different case definition; (S) Global School-based Student Health Survey (GSHS); (T) It refers to the current consumption of cigarettes in students in grades 9-12.


BI 56: (P) Data not standardized from the National Health Survey 2017. BI 58-59:(U) Data not standardized, provided by the 2014 STEPS country survey. It uses different case definition; (P) Data not standardized from the National Health Survey 2017.


BI 63-68: (V) Reported coverage > 100\%; ( $W$ ) < 2 years of age; ( $X$ ) Children aged 19-35 months; ( $Y$ ) Given from 1 month to 2 years old ( 11 months and 29 days); ( 2 ) PCV2 coverage; (ZA) Coverage report for measeles-rubella vaccine in children < 1 years old. BI 72-73: (B) Preliminary; (C) Annual report; (D) Survey; (F) Public sector only; (ZB) Different case definition.

| 74 | $\begin{array}{cr} \text { SDG: 3.c. } 1  \tag{81}\\ 75 & 76 \\ \text { Human resources } \\ \text { per } \\ \text { (10,000 pop) } \\ \text { cira } 2017 \end{array}$ |  | 77National healthexpenditure as \%of GDP2015 |  | Out-of-pocket expenditure as \% total health expenditure 2015 | Proportion of voluntary non remunerated blood donation (\%) 2015 | $\begin{array}{r} 80 \\ \text { Mortality } \\ \text { under-registration } \\ (\%) \\ \text { circa } 2016 \end{array}$ | III-defined and unknown causes of death <br> (\%) circa 2016 | 82 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Mortality garbage codes (\%) $\text { circa } 2016$ | INFORMATION PRESENTED IN THIS PUBLICATION SUPERSEDES THAT OF PREVIOUS EDITIONS. <br> USERS ARE ADVISED NOT TO COMPARE DATA SERIES BETWEEN DIFFERENT EDITIONS. |  |  |  |  |
| Physicians | Nurses | Dentists |  |  | public |  |  |  | private |  |  |
| 18.0 | 59.7 | 6.7 | 5.3 | 5.0 |  | 22.2 | 62 | 5.1 | 2.9 | 14.8 | The Americas |
| 11.4 | 84.8 | 6.1 | 8.4 | 7.8 | 11.0 | 100 | 3.4 | 1.2 | 14.6 | North America |
| 26.32016 | $78.1{ }^{2016}$ | 6.32016 | ... | ... | ... | 100 | 16.2 | 0.8 | 14.6 | Bermuda |
| 23.02016 | $78.2^{2016}$ | 6.42016 | 7.7 | 2.8 | 14.0 | 1002014 | - | 1.3 | 10.9 | Canada |
| $10.1{ }^{2013}$ | 85.52015 | 6.12015 | 8.5 | 8.4 | 10.7 | 1002014 | 3.7 | 1.2 | 14.9 | United States of America |
| 21.7 | 45.7 | 7.1 | 3.6 | 3.4 | 28.6 | 40 | 6.7 | 4.4 | 15.0 | Latin America and the Caribbean |
| 21.8 | 46.0 | 7.2 | 3.6 | 3.4 | 28.6 | 40 | 6.6 | 4.4 | 15.0 | Latin America |
| 24.02016 | 29.02016 | 1.02016 | 3.1 | 2.8 | 40.8 | 4 | - | 1.3 | 11.6 | Mexico |
| 9.3 | 6.4 | 1.5 | 3.4 | 3.2 | 42.0 | 27 | 7.3 | 10.7 | 18.1 | Central American Isthmus |
| 11.52012 | 11.12012 | 0.42010 | 4.1 | 1.7 | 22.7 | 14 | 10.9 | 0.9 | 12.9 | Belize |
| 1.5 | 0.9 | 0.1 | 6.2 | 2.0 | 20.9 | 60 | ... | ... | ... | Costa Rica |
| 26.9 | 22.1 | 8.5 | 4.4 | 2.3 | 27.9 | 17 | 10.1 | 21.0 | 23.6 | El Salvador |
| 2.8 | 1.0 | 0.1 | 1.8 | 3.8 | 54.9 | 5 | 0.7 | 10.5 | 17.2 | Guatemala |
| $10.0{ }^{2013}$ | 3.82013 | 0.32008 | 2.9 | 4.1 | 49.1 | 19 | ... | ... | ... | Honduras |
| 10.0 | 8.0 | 0.4 | 4.4 | 3.0 | 35.6 | 100 | 19.7 | 1.6 | 12.2 | Nicaragua |
| 15.72016 | 14.12016 | 2.82016 | 4.3 | 2.6 | 30.5 | 7 | 8.9 | 3.7 | 19.5 | Panama |
| 32.9 | 33.8 | 6.5 | 1.6 | 3.0 | 38.9 | 55 |  |  |  | Latin Caribbean |
| 81.9 | 77.9 | 16.6 | ... |  | ... | 100 | 0.6 | 0.7 | 9.8 | Cuba |
| 15.6 | 3.1 | 2.1 | 2.5 | 3.3 | 42.5 | 12 | ... | ... | ... | Dominican Republic |
| 23.02016 | 69.02016 | 3.02016 | ... | ... | ... | $\ldots$ | - | 13.8 | 17.4 | French Guiana |
| 8.02016 | 4.72016 | 37.72016 |  |  | ... | 100 | 18.6 | 16.6 | 18.8 | Guadeloupe |
| 2.32013 | 3.52013 | 0.12013 | 0.7 | 2.8 | 35.5 | 48 | ... | ... | ... | Haiti |
| 26.22010 | 81.72010 | 4.32010 | ... | ... | ... | 100 | 5.7 | 9.5 | 20.4 | Martinique |
| 28.22016 | 74.22016 | 3.82016 | ... | ... | ... | ... | - | 2.1 | 16.3 | Puerto Rico |
| 16.6 | 13.3 | 4.6 | 3.4 | 2.1 | 26.5 | 45 | 28.5 | 2.1 | 13.7 | Andean Area |
| 8.02016 | 3.92016 | 1.52016 | 4.4 | 1.9 | 22.5 | 41 | ... | ... |  | Bolivia (Plurinational State) |
| 19.42015 | 11.42015 | 9.62015 | 4.1 | 1.8 | 18.3 | 91 | 21.6 | 1.8 | 11.2 | Colombia |
| 20.52016 | 12.02016 | 3.22016 | 4.2 | 4.3 | 41.6 | 68 | 20.2 | 7.2 | 11.4 | Ecuador |
| 12.72016 | 13.52016 | 1.82016 | 3.2 | 2.0 | 30.9 | $5^{2013}$ | 43.9 | 0.3 | 18.9 | Peru |
| 17.3 | 20.1 | 1.4 | 1.5 | 1.7 | 28.2 | 6 | ... | ... | ... | Venezuela (Bolivarian Republic) |
| 22.0 | 99.4 | 14.82016 | 3.8 | 5.0 | 20.3 | 61 | 2.4 | 5.8 | 14.0 | Brazil |
| 29.5 | 19.2 |  | 4.9 | 2.4 | 22.5 | 38 | 2.6 | 5.8 | 22.7 | Southern Cone |
| 39.6 | 25.8 | ... | 4.9 | 1.9 | 17.6 | 46 | - | 6.4 | 27.8 | Argentina |
| $10.8{ }^{2016}$ | 8.62016 | $1.6{ }^{2016}$ | 4.9 | 3.2 | 31.0 | 28 | 6.7 | 2.6 | 12.0 | Chile |
| 2.4 | 4.0 | 1.0 | 4.2 | 3.6 | 35.4 | 10 | 14.5 | 8.4 | 13.2 | Paraguay |
| 50.5 | 19.3 | 14.8 | 6.4 | 2.8 | 16.2 | 51 | - | 8.3 | 18.2 | Uruguay |
|  |  |  |  |  |  |  |  |  |  |  |
| 15.9 14.0 | 21.0 50.1 | 1.8 | 3.2 | 2.5 | 28.7 | 45 | 10.4 | 1.7 | 14.0 | Non-Latin Caribbean Anguilla |
| 27.7 | 31.2 | , | 3.2 | 1.6 | 24.3 | 52009 | 15.7 | 0.6 | 24.4 | Antigua and Barbuda |
| 15.9 | 22.2 | 5.9 | ... |  |  | 100 | 16.7 | 3.1 | 21.3 | Aruba |
| 19.4 | 31.4 | 2.6 | 3.6 | 3.7 | 27.8 | 28 | 11.1 | 1.3 | 17.7 | Bahamas |
| 24.9 | 60.3 | 3.1 | 3.4 | 3.9 | 44.1 | 122014 | ... | ... | ... | Barbados |
| 36.6 | 71.6 | 5.8 | ... | ... | ... | 100 | ... | ... | ... | Cayman Islands |
| 12.4 |  | 2.5 | ... | ... | ... | 100 | ... | ... | ... | Curacao |
| 10.9 | 59.0 | 0.7 | 3.7 | 1.6 | 28.4 | 7 | - | 5.3 | 19.5 | Dominica |
| 14.5 | 31.5 | 1.6 | 1.9 | 2.8 | 57.0 | 402014 | - | 0.6 | 15.0 | Grenada |
| 6.92010 | 10.12010 | 0.42009 | 2.3 | 1.8 | 40.5 | 100 | 12.6 | 0.7 | 19.5 | Guyana |
| 13.2 | $11.4{ }^{2013}$ | 0.9 | 3.5 | 2.3 | 23.7 | 36 | 7.4 | 0.3 | 14.4 | Jamaica |
| 3.8 | 22.3 | 0.5 | ... | ... | ... | 1002011 | - | 2.3 | 18.6 | Montserrat |
| 25.32015 | 39.82015 | 3.72015 | 2.1 | 3.5 | 37.8 | 10 | - | 0.2 | 12.5 | Saint Kitts and Nevis |
| 19.32014 | 15.92014 | 2.32014 | 2.5 | 3.1 | 40.9 | 64 | ... | ... | ... | Saint Lucia |
| 9.52012 | 22.92012 | 1.72012 | 2.9 | 1.0 | 19.4 | 14 | - | 2.3 | 14.9 | Saint Vincent and the Grenadines |
| 82.0 | ... | 14.0 | ... |  | ... | $\ldots$ | ... | ... | ... | Sint Maarten (Dutch) |
| 0.82016 | 4.3 | 1.02012 | 3.3 | 2.7 | 7.6 | 100 | 20.6 | 9.7 | 15.7 | Suriname |
| 26.72015 | 35.12011 | 3.62015 | 3.2 | 2.8 | 35.6 | 18 | ... | ... | ... | Trinidad and Tobago |
| 18.72015 | 60.0 | 4.1 | ... | ... | ... | 54 | 42.3 | - | 18.9 | Turks and Caicos Islands |
| 18.6 | 64.3 | 3.0 | ... | $\ldots$ | ... | -2013 | .. | $\ldots$ | ... | Virgin Islands (UK) |
| ... | ... | ... | $\cdots$ | $\ldots$ | $\ldots$ | ... | 27.6 | 3.6 | 13.3 | Virgin Islands (US) |

Globally, air pollution is the primary environmental risk to health. 9 out of 10 people in the world breathe air that does not meet with the World Health Organization's (WHO) air quality guidelines, either through exposure to outdoor ambient air pollution in urban or industrial areas, or to smoke from the burning of wood, coal, organic waste or kerosene in the household. This increases the risk of respiratory and cardiovascular diseases (1).

Emissions of gaseous and aerosol contaminants precursors generally resulf from industrial activity, road transport, open waste burning, dust, biogenic sources, and indoor household sources. In addition, black carbon, whose main sources are solid fuels and transport, is increasingly recognized as an important short-lived climate pollutant and a contributor to climate change.

Country response to adverse health effects attributable to air pollution depends on policy and program implementation to efficiently and effectively reduce emissions from the above sources. Existing policies and programs were recently documented by the United Nations Environment Programme (UNEP) (2). According to the report, air quality standards exist in 21 countries of the Americas, but only 13 countries have laws, policies or regulations to enforce them. Furthermore, 20 countries have gathered data on outdoor ambient air quality at the ground level in at least one city, but only 9 countries have quality assurance and quality control programs in place ( 3,4 ), and 7 have established plans that identify specific actions to improve outdoor air quality at the national level or in at least one city. In those seven countries, plans are primarily coordinated and implemented by the environment sector with limited health sector engagement.

Everyone can be exposed to air pollution. However, exposure may vary significantly among different population groups and geographic areas. People living near busy roads or industrial sites, for example, are often exposed to higher levels of outdoor air pollution, while those who live in households that rely on solid fuels for energy experience higher exposure to household air pollution. In some instances, exposure differences among population groups may also be linked to inequities in the development, implementation, and enforcement of environmental laws, regulations, and policies.

In the Region of the Americas, levels of outdoor ambient air pollution specifically particles of less than 2.5 microns (PM2.5) are below WHO guideline value in Canada, the United States of America and Uruguay, while levels are up to 2.5 times higher than the recommended value in countries such as Guatemala, Perv and Suriname (Figure 1). Likewise, the use of household solid fuels and kerosene varies greatly among and within countries (Figure 2), with the most common use in the rural areas of most countries in the Region, as well as urban areas of Haiti, Guatemala, Honduras, Nicaragua, Mexico, Paraguay, and Peru.

Figure 1

- Estimate of average particle concentrations less than 2.5 microns (PM2.5) at the national level in selected countries of the Americas, 2016


[^0]Figure 2

- Estimate of the percentage of people who used household polluting fuels (solid fuels and kerosene) in selected countries of the Americas, 2016


Source: World Health Organization. Global Plafform on Air Quality and Health. 2018. Available at: hitp://www.who.int/airpollution/data/en/

A 2016 WHO report estimated that approximately 249,000 premature deaths ( $95 \%$ confidence interval ( $95 \% \mathrm{Cl}$ ) between 194,000 and 315,000 deaths) in the Americas were attributable to outdoor ambient air polluted by PM2.5, and approximately 83,000 premature deaths ( $95 \%$ CI between 46,000 and 146,000 deaths) were attributable to household air polluted by PM2.5 due to the combustion of solid fuels and kerosene (5). Of these deaths, $44 \%$ were caused by heart disease, $35 \%$ by lung diseases, $15 \%$ by cerebrovascular diseases, and 6\% by lung cancer (5).

Air pollution has gained recognition and prominence in global agendas. In September 2015, the General Assembly of the United Nations adopted the 2030 Agenda for Sustainable Development, which makes explicit references to air pollution in Goals 3, 7, and 11. Specifically within the health sector, in May 2015, the World Health Assembly (WHA) adopted the resolution, "Health and the environment: addressing the health impact of air pollution" (6), and in 2016, endorsed the resolution on the "road map for an enhanced global response to adverse health effects of air pollution" (7).

Through the UN's adoption of the 2030 Agenda for Sustainable Development in 2015 and the WHA's endorsement of the air pollution road map in 2016, the region of the Americas has shown its commitment to reducing the adverse health impact of air pollution. To meet these commitments, a key challenge will be to reinforce regional, national, and local responses through the inclusion of health in air quality management. Specific actions include ensuring and expanding accessibility to regional information and evidence on the health impacts of outdoor and household air pollution, and the effectiveness of policies and interventions to address these impacts; enhancing regional efforts to monitor and report trends associated with human exposure to outdoor and household air pollution; engaging health actors in coordinated action with relevant stakeholders to enable an appropriate response to reduce the adverse health effects of outdoor and household air pollution in the Americas while ensuring synergies; and strengthening the capacity of responsible sectors.

## References

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When performing analysis using health data, indicators are routinely used to describe trends over time and differences between geographical areas. In general, most epidemiological events provide stable indicators (which do not vary much over time). However, sometimes we are confronted with the situation of dealing with small numbers, which can occur in populations with few inhabitants or larger populations when a disaggregated analysis is carried out by age groups, causes of death or at subnational levels, making the number of events decrease. Rare or very low frequency diseases also fall within this definition. In these cases, the indicators based on small numbers, both in the numerator and in the denominator, can fluctuate substantially from one year to another or differ considerably from one place to another. Thus, the measurement of the indicators can present very large variations that could lead to imprecise conclusions of the analysis. An example is maternal deaths, which have reached very low levels in some countries, making it difficult to obtain accurate estimates. For this reason, it is necessary to have specific guidelines for data analysis in populations with small numbers to adequately monitor the populations' indicators and health status, particularly in countries with less than 90,000 inhabitants (1).

The objective of this short article is to provide a set of concise and feasible recommendations to support countries in the data analysis for indicators based on small numbers.
Although there are different options, it is recommended to adopt less than 20 events as a cut-off point to define a small number. Several governmental institutions have adopted this value (2-4). This number comes from a probabilistic model that allows the occurrence of events to be described as a random variable, thus quantifying the inherent variability of the indicator (5). If the number of events or deaths are very low (<5), additional restrictions are imposed on the dissemination of data to protect the confidentiality of people, especially in small geographic areas and for causes of death that are sensitive (6).

## STRATEGIES FOR THE TREATMENT OF A SMALL NUMBER

To estimate indicators, both mortality and morbidity, equal to or less than 20 events, the following simple procedures are recommended:

1. Know the absolute number of events and examine the numerator ( $<20$ events) and the denominator (population $<90,000$ ).
2. Use time aggregation of periods (between 2 and 5 years) to increase accuracy and avoid abrupt changes in indicators such as rates or reasons. Although there are different alternatives, this method is the most common. For the trend analysis, the mortality rate will be calculated by adding the deaths of the period over the sum of the populations of each year that make up the period. It is necessary to consider that in this method the data do not reflect the situation of a year, but of the period. Figures 1 and 2 show an example of time aggregation.
3. Use aggregation of geographic areas to strengthen the available information. For this, a geographical criterion for the selection of neighboring areas is defined. In general, one area has more than one neighbor or shares a border and has similarities in socioeconomic or demographic conditions. Subsequently, the rate for the aggregate areas for the period studied is calculated.
4. Include notes at the bottom of the table or the page to: a) warn the reader about the need to interpret the results with caution due to the low number of events, b) provide the numerator and denominator on which the rate is based, and c) provide the quantities recorded in previous years in order to provide an idea of the variation of the figures.
5. Carefully examine the data and suppress the data as a last resort when the data are too imprecise to be used effectively to plan policies and programs. Some publications recommend not showing the calculated rates when there are less than 5 events. However, if the number of events is less than 5 , it is recommended to suppress the presentation of data if the confidentiality of the individuals is compromised.

Figure 1

- Annual mortality rates due to malignant neoplasm (per 100,000 pop). Anguilla, 2002-2016


Source: PAHO Regional Mortality database (update on June 14,2018 )

Figure 2

- Mortality rates due to malignant neoplasm (per 100,000 pop) for three-year periods. Anguilla, 2002-2016


Source: PAHO Regional Mortality database (update on June 14,2018 )

## References:

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Violence has an important impact on the health and well-being of people and families. The Region of the Americas has the highest homicide rates in the world which are more than double the global average (estimates for 2016). The map shows that homicide rates vary widely among countries in the Region. The rate in El Salvador $(65.2 / 100,000)$ is 50 times that of Canada ( $1.3 / 100,000$ ). The Andean Area, Brazil, Central America and Mexico have rates above the average in the Americas ( $16.3 / 100,000$ ). It is important to highlight that violence is preventable. The Sustainable Development Goals (SDGs) have called countries to action on Target 16.1 to "Significantly reduce all forms of violence and related death rates everywhere". Therefore, countries need to identify precisely the factors that contribute to the problem and apply effective prevention measures.

## $\triangleright$ DEFINITIONS

## Median age (BI 2)

Divides the population in two parts of equal size, that is, there are as many persons with ages above the median as there are with ages below the median. UN estimates.

## - Mean years of schooling (BI 12)

Is the average number of completed years of education of a country's population aged 25 years and older, excluding years spent repeating individual grades. UNESCO estimates.

## - Gini Index (BI 16)

Measures income inequality. The Gini is zero if everyone had the same income and is 100 if a single person had all the income. World Bank estimates.

Maternal mortality ratio (BI 17), infant mortality rate (BI 20), neonatal mortality rate (BI 22) and under-5-mortality (BI 23)

Country reported data to PAHO from vital registration, survey, special studies, or national estimates. An increase may reflect an improvement in data coverage and quality. Country Data.
Dengue cases (BI 27)
The number of suspected and laboratory confirmed cases from dengue and severe dengue. Country Data.

## Leprosy cases (BI 31)

Cases registered for treatment as of 31 December of a given year. Country data.

## Mortality indicators (BI 35-48)

Presented according to the Global Burden of Disease list study: communicable diseases, noncommunicable diseases, and external causes as well as specific selected causes.

- All rates are age-adjusted death rates using the WHO World Standard Population. (http://www.who. int/healthinfo/paper31.pdf)
- Corrected mortality rates are computed based on registered mortality data, applying a correction algorithm for mortality under-registration and a redistribution algorithm for deaths from ill-defined causes and events of undermined intent as presented in Health Statistics from the Americas, 2006 edition (hittp://www.paho.org/HSA2O06).
- Rates are presented for the years 2014,2015 or 2016. Data was excluded when the latest mortality rates were already shown twice: Costa Rica 2014 and Saint Lucia 2014. Data was excluded for Barbados 2013, Bolivia 2003, Curacao 2007, Haiti 2004, Honduras 2013, Cayman Islands 2013, Virgin Islands (UK) 2010, Dominican Republic 2013, Trinidad and Tobago 2012 and Venezuela 2013. Data not available for Sint Maarten (Dutch). PAHO/WHO estimates.
- Stunting in children (BI 51 )

Defined as children aged $<5$ years and height-for-age less than -2 standard deviations of the WHO Child Growth Standards median. WHO estimates.
$>$ Overweight in children (BI 52)
Defined as children aged $<5$ years with overweight of over two standard deviations from the median weight-for-height of the WHO Child Growth Standards. WHO estimates.
$>$ Overweight and obesity in adults, age-adjusted (BI 53)
Refers to persons aged 18 years and over with overweight and obesity defined as a body mass index $(B M I) \geq 25.0 \mathrm{~kg} / \mathrm{m} 2$, age-adjusted. These estimates are based on models adjusted when amendments/ corrections exist for data. WHO estimates.
$>$ Insufficient physical activity in adults, age-adjusted (BI 54)
Refers to adults aged 18 years and over that attain less than 150 minutes of moderate intensity physical activity per week, age-adjusted. WHO estimates.

Prevalence of current tobacco use in adolescents (BI 55)
Refers to persons aged 13-15 years which have used at least once any tobacco product, smoked or smokeless, during the 30 days prior to the survey. Country Data.
$>$ Prevalence of current tobacco smoking in adults, age-adjusted (BI 56)
Refers to persons aged 15 years and over that smoked any tobacco product during the 30 days prior to the survey, age-adjusted. This includes daily and occasional smoker. WHO estimates.
$>$ Alcohol consumption in adults (litres/per person/year) (BI 57)
Refers to the total amount (recorded plus estimated unrecorded) of pure alcohol (ethanol) consumption per person (liter/per capita) aged 15 years and older, within a calendar year. WHO estimates.

## $>$ Prevalence of raised blood pressure, age-adjusted (BI 58)

Refers to persons aged 18 years and over with raised blood pressure defined as systolic blood pressure $\geq 140 \mathrm{~mm} \mathrm{Hg}$ or diastolic blood pressure $\geq 90 \mathrm{~mm} \mathrm{Hg}$ ), age-adjusted. WHO estimates.
$>$ Prevalence of raised fasting blood glucose/diabetes, age-adjusted (BI 59)
Refers to persons aged 18 years and over with fasting glucose $\geq 126 \mathrm{mg} / \mathrm{dl}(7.0 \mathrm{mmol} / \mathrm{l})$ or on medication for raised blood glucose, age-adjusted. WHO estimates.

Proportion of population using improved water supplies (BI 60)
Refers to the proportion of population using an improved basic drinking water source which is located on premises, available when needed and free of faecal (and priority chemical) contamination. 'Improved' drinking water sources include: piped water into dwelling, yard or plot; public taps or standpipes; boreholes or tubewells; protected dug wells; protected springs; packaged water; delivered water and rainwater. WHO and UNICEF estimates.

## Proportion of population using improved sanitation facilities (excluding shared), safely

 managed (B1 6l)Refers to the proportion of population using safely managed sanitation services, including a handwashing facility with soap and water is currently being measured by the proportion of the population using a basic sanitation facility which is not shared with other households and where excreta is safely disposed in situ or treated off-site. 'Improved' sanitation facilities include: flush or pour flush toilets to sewer systems, septic tanks or pit latrines, ventilated improved pit latrines, pit latrines with a slab, and composting toilets. WHO and UNICEF estimates.

Population using clean fuels and technology (B1 62)
It is defined as the total proportion of households that use fuels and clean technologies for cooking, heating, lighting, among others. Excludes solid fuels and/or kerosene. WHO estimates.

## - Contraceptive prevalence, modern methods (BI 70)

Refers to women aged 15 to 49 years, married or in union, who are currently using (or whose sexual partner) one modern method of contraception. Modern contraceptive methods include female and male sterilization, injectable and oral hormonal pills, intrauterine devices, implant (including Norplant), vaginal barrier methods, diaphragm, the female condom and emergency contraception. UN Estimates.

Unmet need for family planning: women (BI 71)
Refers to women who are fecund and sexually active but are not using any modern method of contraception, and report not wanting any more children or wanting to delay the next child, expressed as percentage of fecund women who are married or in union. UN Estimates.

## Public and private health expenditure as \% of GDP (BI 77)

- Public expenditure is the sum of health outlays paid for in cash or supplied in kind by general government entities, at the central, regional and local level and social security agencies (avoiding double counting government transfers to social security and extra budgetary funds). It includes transfer payments to households (mainly the reimbursement of health services and medicines expenses) and extrabudgetary funds to finance health services and goods. Revenues can come from multiple domestic sources and external funds.
- Private expenditure is the sum of outlays for health by private entities, such as commercial or mutual health insurance, non-profit institutions serving households, resident corporations and quasi-corporations that provide or finance health services and household direct or out-of-pocket expenditures. WHO estimates.


## Out-of-pocket expenditure as \% of total health expenditure (BI 78)

Includes payments made by an individual or households at the point of service regardless if the service is provided in a formal setting (clinic, hospital, pharmacy) or informal setting (complementary medicine) and always deducting any refund. WHO estimates.

## Mortality garbage codes (BI 82)

Proportion of deaths that were assigned to causes that are not considered useful for public health purposes; Naghavi et al (2010): Algorithms for enhancing public health utility of national causes-ofdeath data and were adapted by PAHO/CRAES. WHO/PAHO estimates based on country data.

For more information regarding:
Sustainable development indicators (SDI) https://unstats.un.org/sdgs/indicators/database/

Basic indicators time series
http://www.paho.org/data/index.php/en/

## $\square$ NOTES

## INFORMATION PRESENTED IN THIS PUBLICATION SUPERSEDES THAT OF PREVIOUS EDITIONS. USERS ARE ADVISED NOT TO COMPARE DATA SERIES BETWEEN DIFFERENT EDTIIONS.

- Data presented is the latest available information at PAHO/WHO as of July 2018
- In this edition, the most recent available year is presented; the lower year limit is 2008 .
- Rates are calculated based on population data from World Population Prospects (WPP) and the US Census Bureau International databases.
- International agencies are continuously revising and improving their methodologies which can result in differences to previously reported data.
- Data was reviewed for completeness, consistency, and comparability but users should interpret data with caution as definitions and estimates may differ among countries. Data sources were defined to ensure comparability between countries in this edition. Therefore, the data presented in this publication may differ from national statistics.
- Rates of the following countries should be viewed with caution due to small number of events: Anguilla, Antigua and Barbuda, Aruba, Barbados, Bermuda, Cayman Islands, Curacao, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Sint Maarten (Dutch), Saint Lucia, Turks and Caicos Islands, UK and US Virgin Islands.
- We continue to collect core indicators from Bonaire, San Eustatius and Saba (BES). In this edition, BES is not included.
- The regional and subregional aggregates for rates, ratios and proportions are weighted averages using population, age-specific population group, births, deaths, urban and rural population as appropriate. Sums are presented for absolute numbers.
- Subregionals figures are only shown when data are available for at least $50 \%$ of the population within the subregion.


## Punctuation:

(...) means that data is not available or not shown because it is out of the cut-off date.
$(-)$ indicates that the value is zero.
$(0)$ indicates that the magnitude is less than half the measurement.

## For this publication:

- Latin America: includes Mexico, the Central American Isthmus, the Latin Caribbean, the Andean Area, Brazil, and the Southern Cone.
- Latin America and the Caribbean: comprise Latin America and Non-Latin Caribbean.
- Brazil and Mexico are being shown separately due to their population size.


## $>$ DATA SOURCES

## $\checkmark$ Demographic - Socioeconomic Indicators

- BI 1-11, except 10: United Nations, Department of Economic and Social Affairs, Population Division (2017). World Population Prospects: The 2017 Revision. New York. Accessed July 4, 2018 (http://esa.un.org/wpp/). For countries not included in the UN World Population Prospects: U.S. Bureau of the Census. International Data Base. August 2017 Update. Accessed July 11, 2018 (https://www.census.gov/data-tools/demo/idb/informationGateway.php).
- BI 10: United Nations, Department of Economic and Social Affairs, Population Division (2018). World Urbanization Prospects: The 2018 Revision. New York. Accessed July 5, 2018. (http://esa.un.org/unpd/wup/).
- BI 12: UNESCO. Institute for Statistics (UIS). Data Centre, UIS Estimates. Accessed July 5, 2018. (http://data.uis.unesco.org).
- BI 13-16: The World Bank (2018). World Development Indicators 2017. Washington, D.C. June 2018 Update. Accessed July 5, 2018. (http://databank.worldbank.org/data/home.aspx)


## $\nabla$ Health Status Indicators

- BI 17-23, except 19: PAHO/WHO. Data provided by Ministries of Health or Health Agencies of countries. Washington D.C., 2018. As of July 10, 2018.
- BI 19: WHO (2015). Trends in Maternal Mortality: 1990 to 2015. Estimates by WHO, UNICEF, UNFPA, World Bank, and the United Nations Population Division. Geneva. Accessed July 4, 2018. (http://www. who.int/reproductivehealth/publications/monitoring/maternal-mortality-2015/en/).
- BI 24-25, 35-48: PAHO/WHO and CARPHA. Regional Mortality Database. Washington D.C. As of July 4, 2018.
- BI 26-31: PAHO/WHO. Data compiled by the Departments of Communicable Diseases and Environmental Determinants of Health; Family, Health Promotion and Life Course; and Health Emergencies Office from the Ministries of Health or Health Agencies of countries. Washington D.C., 2018. As of May 15, 2018.
- BI 32-33: PAHO/WHO. Estimates of the Health Analysis, Metrics and Evidence Unit based on data provided by Ministries of Health or Health Agencies of countries. Washington D.C., 2018. As of July 10, 2018.
- BI 34: WHO (2016). Global Tuberculosis Report 2016. Accessed July 4, 2018.
(http://www.who.int/tb/publications/global_report/en/).


## - Risk Factors Indicators

- BI 49: PAHO/WHO. Data provided by Ministries of Health or Health Agencies of countries. Washington D.C., 2018. As of July 11, 2018.
- BI 50-59 (except 55, 56 and 57): PAHO/WHO. Data compiled by the Department of Non Communicable Diseases and Mental Health from the WHO Global Health Observatory, accessed June 2018 (http://apps.who.int/gho/data/node.home).
- BI 55: PAHO/WHO. Data compiled by the Department of Non Communicable Diseases and Mental Health from Ministries of Health or Health Agencies of countries. Washington D.C., 2018. As of June 2018.
- BI 56: PAHO/WHO. Data compiled by the Department of Non Communicable Diseases and Mental Health from the WHO global report on trends in prevalence of tobacco smoking 2000-2025 (in publication process). Washington D.C., 2018. As of June 2018.
- BI 57: PAHO/WHO. Data compiled by the Department of Non Communicable Diseases and Mental Health from the Global Information System on Alcohol and Health (GISAH), accessed May 2018 (http://apps.who.int/gho/data/node.gisah.GISAH_key_ind?showonly=GISAH).
- BI 60-61: WHO/UNICEF. Joint Monitoring Programme (JMP) for Water Supply and Sanitation. Accessed July 4, 2018. (https://washdata.org/data).
- BI 62: PAHO/WHO. Data compiled by the Department of Communicable Diseases and Environmental Determinants of Health from the WHO Global Health Observatory, 2018. Washington D.C., 2016. Accessed July 4, 2018. (http://apps.who.int/gho/data/node.imr).


## $\nabla$ Health Coverage Indicators

- BI 63-69: PAHO/WHO. Data compiled by the Department of Family, Health Promotion and Life Course. Washington D.C., 2018. As of August 30, 2018.
- BI70-71:UnitedNations,DepartmentofEconomicandSocialAffairs,PopulationDivision(2017).Model-based Estimates and Projections ofFamily Planning Indicators2018.Accessed July5,2018. New York: United Nations. (http://www.un.org/en/development/desa/population/theme/family-planning/cp_model.shtml)
- BI 72-73: PAHO/WHO. Data provided by Ministries of Health or Health Agencies of countries. Washington D.C., 2018. As of July 10, 2018.


## $\checkmark$ Health Systems Indicators

- BI 74-76: PAHO/WHO. Data provided by Ministries of Health or Health Agencies of countries. Washington D.C., 2018. As of July 10, 2018.
- BI 77-78: PAHO/WHO. Data compiled by the Department of Health Systems and Services from the Global Health Expenditure Database. Washington D.C., 2018. As of May 15, 2018. (http://www.who.int/health-accounts/ghed/en/).
- BI 79: PAHO/WHO. Data compiled by the Department of Health Systems and Services. As of May 15, 2018.
- BI 80-82: PAHO/WHO and CARPHA. Regional Mortality Database. Washington D.C. As of July 4, 2018.


## $\triangle$ ABBREVIATIONS

( $\mathrm{n} / \mathrm{a}$ ) not applicable
(BI) basic indicator
(pop) population
(lb) live birth
(ppp) purchasing power parity
(GDP) gross domestic product
(ADD) acute diarrheal diseases: ICD-10: A00-A09
(ARI) acute respiratory infections: ICD-10: J00-J22
(HIV) human immunodeficiency virus
(BCG) anti-tuberculosis vaccine (bacille Calmette-Guérin)
(Polio 3) third dose of oral polio vaccine or inactivated polio vaccine
(DTP3-vc) third dose of diphtheria-tetanus-pertussis containing vaccine
(PCV3) third dose of pneumococcal conjugate vaccine
(MMR1) first dose of measles, mumps and rubella vaccine


[^0]:    Source: World Health Organization. Global Platform on Air Quality and Health. 2018. Available at: hitp://www.who.int/airpollution/data/en/

