Erratum to: Estimation of country-specific and global prevalence of male circumcision

Brian J. Morris¹, Richard G. Wamai²*, Esther B. Henebeng³, Aaron A. R. Tobian⁴, Jeffrey D. Klausner⁵, Joya Banerjee⁶ and Catherine A. Hankins⁷,⁸

Following publication of the original article in Population Health Metrics [1], the authors wish to alert the reader to the following errors in male circumcision (MC) prevalence for 6 of the 237 countries and territories in Table 1.

– United States: The value for MC prevalence in the United States (US) is shown as 70.1, which is from reference 27, but this value should have been 80.5, as reported in reference 26. The figure of 70.1 is for 222,546 privately insured US males aged 1–18 years, whereas the figure of 80.5 is for 6,294 US males aged 14–59 years drawn from National Health and Nutrition Surveys by researchers at the US Centers for Disease Control and Prevention (CDC). The 80.5 figure is more representative of the overall male population in the US. As stated in the Methods section, circumcision prevalence figures for mature males across this general age range were used for all countries and territories when available. Only for Canada (infants) and Taiwan (boys aged 7–13 years) were the surveys that were available not for mature males.

– Germany: MC prevalence in Table 1 is shown as 10.9 %, but should have been 6.7 %. The former came from a nationwide survey of 8,985 males aged 1–17 (reference 82), whereas the latter is from a survey of 2,490 mature males aged 30–61 (Reference 83).

– Thailand: 11.9 % rather than 23.4 %, which arose from a calculation error.

– Australia: 85 % for males aged 16–64 (reference 36) rather than 26.6 %, which was the weighted average of these older males together with figures of 11 % for males aged 0–6 months (reference 37) and 10.9 % for newborn males (reference 38).

– Zambia: 21.6 % from 2014 data (reference 160) rather than 12.8 % from 2007 data (reference 161).

– Pitcairn Island: 0.1 % rather than 0 % owing to our decision to make 0.1 % the minimum for any country because MC is used commonly to treat foreskin-related medical conditions.

Use of these corrected figures led to estimates of 1,425,692,596 for total number of circumcised males globally based on 2015 CIA data for total males and 907,738,816 based on United Nations and CIA data. MC prevalence was calculated as 39.0 % (95 % CI: 33.7, 44.3) and 37.1 % (95 % CI: 31.8, 42.4), using 2015 CIA data for sex ratio and total population in 237 countries and territories globally and on 2015 United Nations figures for males aged 15–64 years, respectively.

The use of the corrected figures does not alter our rounded estimate for global MC prevalence of 37–39 %.

The corrected Table 1 appears below. Additional files 1, 2 and 3 referred to below are available for this article on-line.

Additional files

Additional file 1: This spreadsheet provides data from published surveys on MC prevalence in all countries for which such studies have been conducted. (XLSX 49 kb)

Additional file 2: This spreadsheet shows data for number of males using CIA data and estimates of number of circumcised males in all 237 countries and territories in the world, as well as basis for the estimate and MC percentage for each. (XLSX 29 kb)

Additional file 3: This spreadsheet shows data for number of males using UN data for all but 45 countries and territories in the world and estimates of number of circumcised males in all but these 45, as well as basis for the estimate and MC percentage for each. (XLSX 31 kb)

Author details

¹School of Medical Sciences and Bosch Institute, University of Sydney, Sydney, NSW 2006, Australia. ²Department of African-American Studies, Northeastern University, Boston, MA 02115, USA. ³College of Science, Northeastern University, Boston, MA 02115, USA. ⁴Department of Pathology, School of Medicine, Johns Hopkins University, Baltimore, MD 21287, USA. ⁵Division of Infectious Diseases and Program in Global Health, David Geffen School of Medicine, University of California Los Angeles (UCLA), Los Angeles, CA 90095, USA. ⁶Jhpiego, an affiliate of Johns Hopkins University, Washington, DC 20009, USA. ⁷Division of Global Health, Academic Medical Centre and Amsterdam Institute for Global Health and Development, University of Amsterdam, Amsterdam 1105 AZ, The

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Reference

1. Morris BJ, Wamai RG, Henebeng EB, Tobian AAR, Klausner JD, Banerjee J, et al. Estimation of country-specific and global prevalence of male circumcision. Popul Health Metr. 2016;14. doi:10.1186/s12963-016-0073-5.
| Country/Territory      | MC % | Country/Territory      | MC % | Country/Territory | MC % |
|------------------------|------|------------------------|------|-------------------|------|
| Afghanistan            | 99.8 | Ghana                  | 91.6 | Oman              | 87.7 |
| Albania                | 47.7 | Gibraltar              | 6    | Pakistan          | 96.4 |
| Algeria                | 97.9 | Greece                 | 4.74 | Palau             | 95   |
| American Samoa         | 95   | Greenland              | 0.1  | Panama            | 95.9 |
| Andorra                | 1.1  | Grenada                | 0.3  | Papua New Guinea  | 10.1 |
| Angola                 | 57.5 | Guam                   | 95   | Paraguay          | 0.11 |
| Anguilla               | 0.3  | Guatemala              | 0.11 | Peru              | 3.7  |
| Antigua & Barbuda      | 0.6  | Guernsey               | 0.1  | Philippines       | 91.7 |
| Argentina              | 2.9  | Guinea                 | 84.2 | Pitcairn Islands  | 0.1  |
| Armenia                | 0.1  | Guinea-Bissau          | 93.3 | Poland            | 0.11 |
| Aruba                  | 0.46 | Guyana                 | 12   | Portugal          | 0.61 |
| Australia              | 58   | Haiti                  | 6.2  | Puerto Rico       | 0.14 |
| Austria                | 5.8  | Holy See (Vatican)     | 0.1  | Qatar             | 77.5 |
| Azerbaijan             | 98.5 | Honduras               | 0.1  | Romania           | 0.34 |
| Bahamas, The           | 0.2  | Hong Kong              | 28   | Russia            | 11.8 |
| Bahrain                | 81.2 | Hungary                | 0.78 | Rwanda            | 13.3 |
| Bangladesh             | 93.2 | Iceland                | 0.1  | Saint Barthelemy  | 0.1  |
| Barbados               | 0.9  | India                  | 13.5 | Saint Helena, Ascens | 0.1 |
| Belarus                | 0.32 | Indonesia              | 92.5 | Saint Kitts & Nevis | 0.3 |
| Belgium                | 22.6 | Iran                   | 99.7 | Saint Lucia       | 0.1  |
| Belize                 | 0.1  | Iraq                   | 98.9 | Saint Martin & Tristan | 0.1 |
| Benin                  | 92.9 | Ireland                | 0.93 | Saint Pierre & Miquel | 0.2 |
| Bermuda                | 0.8  | Isle of Man            | 0.2  | Saint Vincent & Grena | 1.7 |
| Bhutan                 | 1.0  | Israel                 | 91.7 | Samoa             | 95   |
| Bolivia                | 0.11 | Italy                  | 2.6  | San Marino        | 0.1  |
| Bosnia & Herzegovina   | 41.6 | Jamaica                | 14   | Sao Tome & Principe | 0.1 |
| Botswana               | 15.1 | Japan                  | 9    | Saudi Arabia      | 97.1 |
| Brazil                 | 1.3  | Jersey                 | 0.1  | Senegal           | 93.5 |
| British Virgin Islands | 1.2  | Jordan                 | 98.8 | Serbia            | 3.71 |
| Brunei                 | 51.9 | Kazakhstan             | 56.4 | Seychelles        | 1.1  |
| Bulgaria               | 13.4 | Kenya                  | 91.2 | Sierra Leone      | 96.1 |
| Burkina Faso           | 18.3 | Kiribati               | 0.1  | Singapore         | 14.9 |
| Burma                  | 3.5  | Korea, North           | 0.1  | Sint Maarten      | 0.06 |
| Burundi                | 61.7 | Korea, South           | 77.0 | Slovakia          | 0.15 |
| Cabo Verde             | 0.1  | Kosovo Islands         | 91.7 | Slovenia          | 8.5  |
| Cambodia               | 3.5  | Kuwait                 | 86.4 | Solomon Islands   | 95   |
| Cameroon               | 94   | Kyrgyzstan             | 91.9 | Somalia           | 93.5 |
| Canada                 | 31.9 | Laos                   | 0.1  | South Africa      | 44.7 |
| Cayman Islands         | 0.2  | Latvia                 | 0.38 | South Sudan       | 23.6 |
| Central African Republic| 63.0| Lebanon                | 59.7 | Spain             | 6.6  |
| Chad                   | 73.5 | Lesotho                | 52   | Sri Lanka         | 8.5  |
| Chile                  | 0.21 | Liberia                | 97.7 | Sudan             | 39.4 |
| China                  | 14.0 | Libya                  | 96.6 | Suriname          | 15.9 |
| Christmas Island       | 0.1  | Liechtenstein          | 4.8  | Svalbard          | 0.1  |
| Country                  | Percentage | Country     | Percentage | Country               | Percentage |
|--------------------------|------------|-------------|------------|-----------------------|------------|
| Cocos (Keeling)          | 95.0       | Lithuania   | 0.2        | Swaziland             | 8.2        |
| Columbia                 | 4.2        | Luxembourg  | 2.42       | Sweden                | 5.1        |
| Comoros                  | 99.4       | Macau       | 0.1        | Switzerland           | 5.9        |
| Congo, Dem Rep           | 97.2       | Macedonia   | 33.9       | Syria                 | 92.8       |
| Congo, Republic          | 70.0       | Madagascar  | 94.7       | Taiwan                | 8.3        |
| Cook Islands             | 95.0       | Malawi      | 21.6       | Tajikistan            | 99.0       |
| Costa Rica               | 0.15       | Malaysia    | 61.4       | Tanzania              | 72.0       |
| Cote d'Ivoire            | 96.7       | Maldives    | 98.4       | Thailand              | 11.9       |
| Croatia                  | 1.34       | Mali        | 8.6        | Timor-Leste           | 6.4        |
| Cuba                     | 0.11       | Malta       | 0.3        | Togo                  | 95.2       |
| Curacao                  | 0.07       | Marshall Islands | 0.1   | Tokelau               | 95.0       |
| Cyprus                   | 22.7       | Mauritania  | 99.2       | Tonga                 | 95.0       |
| Czech Republic           | 0.14       | Mauritius   | 16.6       | Trinidad & Tobago     | 5.8        |
| Denmark                  | 5.3        | Mexico      | 15.4       | Tunisia               | 99.8       |
| Djibouti                 | 96.5       | Micronesia, Fed States | 0.1 | Turkey                | 96.0       |
| Dominica                 | 0.2        | Moldova     | 0.5        | Turkmenistan          | 93.4       |
| Dominican Repub          | 13.7       | Monaco      | 0.5        | Turks & Caicos Is     | 0.1        |
| Ecuador                  | 0.11       | Mongolia    | 4.4        | Tuvalu                | 95.0       |
| Egypt                    | 94.7       | Montenegro  | 18.5       | Uganda                | 26.7       |
| El Salvador              | 0.11       | Montserrat  | 0.1        | Ukraine               | 2.3        |
| Equatorial Guinea        | 87.0       | Morocco     | 99.9       | United Arab Emirates  | 76.0       |
| Eritrea                  | 97.2       | Mozambique  | 47.4       | United Kingdom        | 20.7       |
| Estonia                  | 0.25       | Namibia     | 25.5       | United States         | 80.5       |
| Ethiopia                 | 92.2       | Nauru       | 95.0       | Uruguay               | 0.62       |
| Falkland Islands         | 0.1        | Nepal       | 4.2        | Uzbekistan            | 96.5       |
| Faroe Islands            | 0.1        | Netherlands | 5.7        | Vanuatu               | 95.0       |
| Fiji                     | 55.0       | New Caledonia | 50.0   | Venezuela             | 0.33       |
| Finland                  | 0.82       | New Zealand | 33.0       | Vietnam               | 0.2        |
| France                   | 14.0       | Nicaragua   | 0.1        | Virgin Islands        | 0.55       |
| French Polynesia         | 78.0       | Niger       | 95.5       | Wallis & Futuna       | 0.1        |
| Gabon                    | 99.2       | Nigeria     | 98.9       | West Bank             | 99.9       |
| Gambia, The              | 94.5       | Niue        | 95.0       | Western Sahara        | 99.6       |
| Gaza Strip               | 99.9       | Norfolk Island | 0.1   | Yemen                 | 99.0       |
| Georgia                  | 10.6       | Northern Mariana Is | 90.0 | Zambia                | 21.6       |
| Germany                  | 6.7        | Norway      | 3.0        | Zimbabwe              | 9.2        |

*The reader is referred to Additional files 1 and 2 in the supplementary material in order to understand the use of our methodology for deriving the values shown in this Table.*