

# Reported Cases of Dracunculiasis by Country, 1972 to 2005

## Description

Dracunculiasis, or guinea worm disease, is the result of contact with water contaminated with a parasite, and hence directly related to drinking unclean water. A global campaign is under way to eradicate guinea worm. Although the original goal of elimination by the year 2000 has failed, substantial progress continues to be made. We have reported on this disease in *The World's Water 1998–1999* and in *The World's Water 2002–2003*. This update adds the last five years of data and summarizes the successes made in reducing the number of cases and endemic countries. Complete elimination could occur within five to seven years.

Guinea worm cases are reported here by country. Figure DT 15.1 shows reported cases from 1972 to 2005. Comprehensive monitoring began in the late 1980s. By 2005, the number of cases had declined to just 10,674 in twelve countries, down from a peak of nearly a million in the late 1980s in twenty countries. Moreover, nine of the twelve countries that still report the disease have fewer than 200 cases each. The vast majority of cases are in the Sudan and Ghana, with several hundred still reported annually in Mali. The Sudan continues to be racked by a genocidal civil war, limiting the ability of health workers to implement a comprehensive guinea worm detection and prevention program. The total number of cases reported from 1990 to 1996 may not equal the totals obtained by adding the country numbers. In these cases, the World Health Organization (WHO) adjusted totals to reflect estimates for countries not reporting at the time, or reporting by a different system than that used by the WHO.

## Limitations

Dracunculiasis cases occur primarily in remote, rural areas. Reporting has improved tremendously in the past decade through implementation of comprehensive monitoring programs, but some cases may still be missed or underreported. Data for early years should be viewed with care, because many national reporting programs were not established before the late 1980s or early 1990s. For some countries, the totals reflect imported cases only. Cameroon, Chad, and Central African Republic have stopped reporting, or report zero cases, but they have yet to be certified as free of the disease—a process that takes several years.

## Sources

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- World Health Organization (WHO). 2001. Dracunculiasis global surveillance summary, 2000. *Weekly Epidemiological Record*, 76(18):133–140, May 4, 2001. <http://childinfo.org/eddb/gw/countdata/>
- United States Department of Health and Human Services (DHHS). 2006. Public Health Service, Centers for Disease Control and Prevention (CDC).
- Guinea Worm Wrap-Up #121. March 25, 2002. <http://www.cdc.gov/ncidod/dpd/parasites/dracunculiasis/wrapup/word121.pdf>.
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- Guinea Worm Wrap-Up #142. April 12, 2004. <http://www.cdc.gov/ncidod/dpd/parasites/dracunculiasis/wrapup/word142.pdf>.
- Guinea Worm Wrap-Up #152. April 15, 2005. <http://www.cdc.gov/ncidod/dpd/parasites/dracunculiasis/wrapup/word152.pdf>.
- Guinea Worm Wrap-Up #161. April 10, 2006. <http://www.cdc.gov/ncidod/dpd/parasites/dracunculiasis/wrapup/161.pdf>.

**DATA TABLE 15** Reported Dracunculiasis Cases, by Country, 1972 to 2005

| Region and Country              | 1972   | 1973   | 1974   | 1975   | 1976   | 1977   | 1978   | 1979  | 1980   | 1981   | 1982   | 1983   | 1984   | 1985   | 1986   | 1987    | 1988    |
|---------------------------------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| <b>AFRICA</b>                   |        |        |        |        |        |        |        |       |        |        |        |        |        |        |        |         |         |
| Benin                           | 1,480  |        | 820    |        |        |        |        |       |        |        |        |        |        |        |        | 400     | 33,962  |
| Burkina Faso                    | 5,822  | 4,404  | 4,008  | 6,277  | 1,557  |        | 2,885  | 2,694 | 2,565  |        |        | 4,362  | 1,739  | 458    | 2,558  | 1,957   | 1,266   |
| Cameroon                        |        |        |        | 251    |        |        |        |       |        |        |        |        | 0      | 168    | 86     |         | 752     |
| <b>Central African Republic</b> |        |        |        |        |        |        |        |       |        |        |        |        |        |        |        |         |         |
| Chad                            |        |        |        |        |        |        | 172    |       |        |        |        |        | 1,472  | 9      | 314    |         |         |
| Cote d'Ivoire                   | 4,891  | 4,654  | 6,283  | 4,971  | 4,656  | 5,207  | 6,993  |       | 6,712  | 7,978  |        | 2,259  | 2,573  | 1,889  | 1,177  | 1,272   | 1,370   |
| Ethiopia                        |        |        |        |        |        |        |        |       |        |        |        |        | 2,882  | 1,467  | 3,385  | 2,302   | 1,487   |
| Ghana                           | 693    | 1,606  | 1,226  | 4,052  | 1,421  | 1,617  | 1,676  |       | 2,703  | 853    | 3,413  | 3,040  | 4,244  | 4,501  | 4,717  | 18,398  | 71,767  |
| <b>Kenya</b>                    |        |        |        |        |        |        |        |       |        |        |        |        |        |        |        |         |         |
| Mali                            | 668    | 786    | 737    | 542    | 760    | 1,084  |        |       | 816    | 777    | 401    | 428    | 5,008  | 4,072  | 5,640  | 435     | 564     |
| Mauritania                      |        |        |        |        |        | 127    |        |       | 651    | 663    | 903    | 1,612  | 1,241  | 1,291  |        | 227     | 608     |
| Niger                           |        |        |        |        | 2,600  | 3,000  | 5,560  |       | 1,906  | 2,113  | 1,530  |        |        | 1,373  |        | 699     |         |
| Nigeria                         | 98     |        |        | 1,007  |        |        |        |       | 1,693  |        |        |        | 8,777  | 5,234  | 2,821  | 216,484 | 653,492 |
| Senegal                         |        |        |        |        | 137    |        |        |       | 161    |        |        |        |        | 62     | 128    | 132     | 138     |
| Sudan                           |        |        |        |        |        |        |        |       |        |        |        |        |        |        | 822    | 399     | 542     |
| Togo                            |        |        |        | 3,261  | 1,648  |        | 2,617  | 2,673 | 1,748  | 951    | 2,592  |        | 1,839  | 1,456  | 1,325  |         | 178     |
| Uganda                          |        |        |        |        |        |        |        |       |        |        |        |        | 6,230  | 4,070  |        |         | 1,960   |
| <b>ASIA AND THE MIDDLE EAST</b> |        |        |        |        |        |        |        |       |        |        |        |        |        |        |        |         |         |
| India                           |        |        |        |        |        | 7,052  | 6,827  | 2,846 | 2,729  | 5,406  | 42,926 | 44,818 | 39,792 | 30,950 | 23,070 | 17,031  | 12,023  |
| Pakistan                        |        |        |        |        |        |        | 250    |       | 14,155 |        |        |        |        |        |        | 2,400   | 1,110   |
| Yemen                           |        |        |        |        |        |        |        |       |        |        |        |        |        |        |        |         |         |
| Number of countries reporting   | 6      | 6      | 6      | 8      | 7      | 6      | 8      | 3     | 11     | 7      | 6      | 6      | 12     | 14     | 12     | 13      | 15      |
| Number of Cases                 | 13,652 | 11,809 | 13,282 | 20,426 | 12,779 | 18,087 | 26,980 | 8,213 | 35,839 | 18,741 | 51,765 | 56,519 | 75,797 | 57,000 | 46,043 | 262,136 | 781,219 |

*continues*

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| Region and Country            | 1989    | 1990    | 1991    | 1992    | 1993    | 1994    | 1995    | 1996    | 1997   | 1998   | 1999   | 2000   | 2001   | 2002   | 2003   | 2004   | 2005   |
|-------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| AFRICA                        |         |         |         |         |         |         |         |         |        |        |        |        |        |        |        |        |        |
| Benin                         | 7,172   | 37,414  | 4,006   | 4,315   | 13,887  | 4,302   | 2,273   | 1,472   | 855    | 695    | 492    | 186    | 172    | 181    | 30     | 3      | 1      |
| Burkina Faso                  | 45,004  | 42,187  |         | 11,784  | 8,281   | 6,861   | 6,281   | 3,241   | 2,477  | 2,227  | 2,184  | 1,956  | 1,032  | 591    | 203    | 60     | 30     |
| Cameroon                      | 871     | 742     | 393     | 127     | 72      | 30      | 15      | 17      | 19     | 23     | 8      | 5      | 5      | 3      | 0      | 0      | 0      |
| Central African Republic      |         |         |         |         |         |         |         |         |        |        |        |        |        |        |        |        |        |
| Chad                          |         |         |         | 156     | 1,231   | 640     | 149     | 127     | 25     | 3      | 1      | 3      | 0      | 0      | 0      | 0      | 0      |
| Cote d'Ivoire                 | 1,555   | 1,360   | 12,690  |         | 8,034   | 5,061   | 3,801   | 2,794   | 1,254  | 1,414  | 476    | 297    | 231    | 198    | 42     | 21     | 10     |
| Ethiopia                      | 3,565   | 2,333   |         | 303     | 1,120   | 1,252   | 514     | 371     | 451    | 366    | 249    | 60     | 29     | 47     | 28     | 17     | 37     |
| Ghana                         | 179,556 | 123,793 | 66,697  | 33,464  | 17,918  | 8,432   | 8,894   | 4,877   | 8,921  | 5,473  | 9,027  | 7,402  | 4,739  | 5,611  | 8,290  | 7,275  | 3,981  |
| Kenya                         | 5       | 6       |         |         | 35      | 53      | 23      | 0       | 6      | 7      | 1      | 4      | 8      | 17     | 12     | 7      | 2      |
| Mali                          | 1,111   | 884     | 16,024  |         | 12,011  | 5,581   | 4,218   | 2,402   | 1,099  | 650    | 410    | 290    | 718    | 861    | 829    | 357    | 659    |
| Mauritania                    | 447     | 8,036   |         | 1,557   | 3,533   | 5,029   | 1,762   | 562     | 388    | 379    | 255    | 136    | 94     | 42     | 13     | 3      | 0      |
| Niger                         | 288     |         | 32,829  | 500     | 21,564  | 18,562  | 13,821  | 2,956   | 3,030  | 2,700  | 1,920  | 1,166  | 417    | 248    | 293    | 240    | 183    |
| Nigeria                       | 640,008 | 394,082 | 281,937 | 183,169 | 75,752  | 39,774  | 16,374  | 12,282  | 12,590 | 13,420 | 13,237 | 7,869  | 5,355  | 3,820  | 1,459  | 495    | 120    |
| Senegal                       |         | 38      | 1,341   | 728     | 630     | 195     | 76      | 19      | 4      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Sudan                         |         |         |         | 2,447   | 2,984   | 53,271  | 64,608  | 118,578 | 43,596 | 47,977 | 66,097 | 54,890 | 49,471 | 41,493 | 20,299 | 7,266  | 5,569  |
| Togo                          | 2,749   | 3,042   | 5,118   | 8,179   | 10,349  | 5,044   | 2,073   | 1,626   | 1,762  | 2,128  | 1,589  | 828    | 1,354  | 1,502  | 669    | 278    | 73     |
| Uganda                        | 1,309   | 4,704   |         | 126,369 | 42,852  | 10,425  | 4,810   | 1,455   | 1,374  | 1,061  | 321    | 96     | 55     | 24     | 26     | 4      | 9      |
| ASIA AND THE MIDDLE EAST      |         |         |         |         |         |         |         |         |        |        |        |        |        |        |        |        |        |
| India                         | 7,881   | 4,798   | 2,185   | 1,081   | 755     | 371     | 60      | 9       | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Pakistan                      | 534     | 160     | 106     | 23      | 2       | 0       | 0       | 0       | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Yemen                         |         |         |         |         | 94      | 94      | 82      | 62      | 7      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Number of countries reporting | 15      | 15      | 11      | 15      | 18      | 19      | 20      | 20      | 20     | 20     | 20     | 20     | 17     | 16     | 16     | 16     | 16     |
| Number of Cases               | 892,055 | 623,579 | 423,326 | 374,202 | 221,010 | 164,977 | 129,852 | 152,859 | 77,863 | 78,557 | 96,293 | 75,223 | 63,716 | 54,638 | 32,193 | 16,026 | 10,674 |

### Number of Dracunculiasis Cases Reported

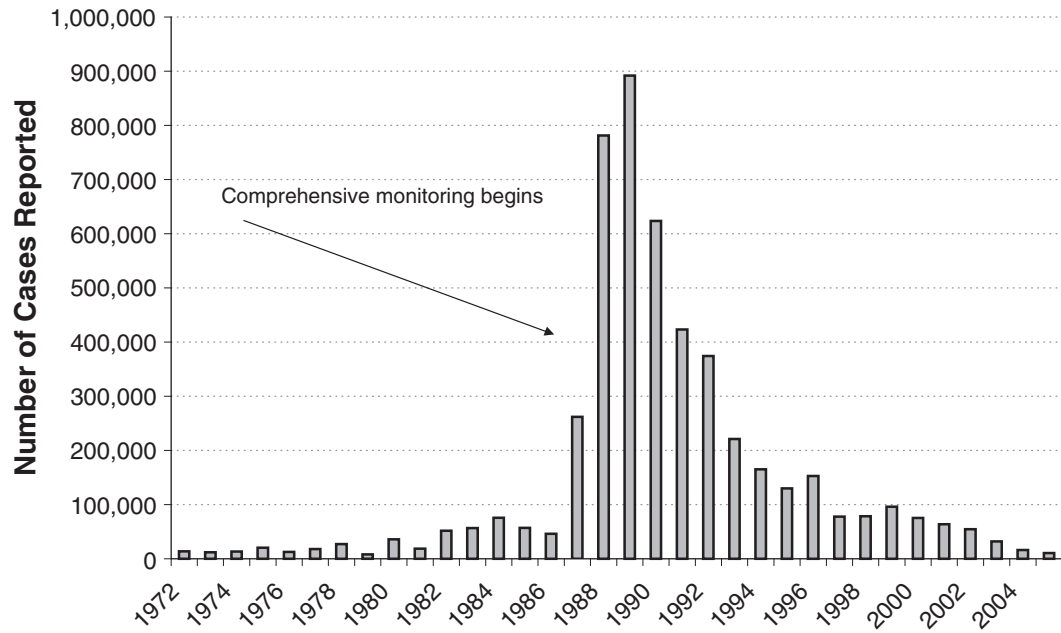


FIGURE DT 15.1 Reported Dracunculiasis cases, 1972-2005.