CARTERS VISIT TWO ENDEMIC VILLAGES IN SOUTHERN SUDAN

During a return visit to Sudan in late July, former U.S. President and Mrs. Jimmy Carter visited two villages in southern Sudan to see for themselves some of the accelerated humanitarian work being conducted during the cease-fire which had been in effect since late March 1995. Accompanied by the Sudanese Federal Minister of Health, Lt. Col. G. Deng Gareng; the National Program Coordinator, Dr. Nabil Aziz; the UNICEF representative to Sudan, Mr. Tarique Farooqui; and media representatives from CNN, Life magazine, and the Associated Press, the Carters flew on July 20 from Khartoum to Juba, in Bahr Al-Jabel State, where they were met by the governor of the state, Mrs. Agnes Poni Lukudu, for a visit to the village of Nyamin, about one hour's drive to the west. In Nyamin, the visitors saw several dozen persons with dracunculiasis being treated, as well as a demonstration of filter cloth usage being conducted for villagers by a health worker. Also present were several persons suffering from onchocerciasis, who were given ivermectin treatment, and a group of children assembled for immunizations. Following a briefing at the Operation Lifeline Sudan's staging base in Lokichokio, Kenya, by OLS director Mr. Philip O'Brien and members of his staff that evening, the Carters flew to the Sudanese village of Tambura in Western Equatoria the next morning. In Tambura, the Carters were accompanied by the secretary for humanitarian affairs of the Sudan Relief and Rehabilitation Association (SRRA), Mr. Arthur Akuien Chol; and the SRRA's acting medical director, Dr. Monywir Arup. Workers from CARE and the International Medical Corps demonstrated onchocercal microfilariads under a microscope, and treatment of river blindness patients with ivermectin, as well as childhood immunizations. One imported case of dracunculiasis (from Bahr Al-Ghazal state) was also seen. Before and after the visits to the two southern villages, the Carters held discussions with political and medical leaders in Khartoum, Nairobi, and Kampala.

Global 2000 senior consultant Dr. Donald Hopkins, Carter Center ambassador in residence Mr. Vince Farley, and the Carters' son "Chip" Carter also accompanied the former president in his visits. After completing the trip, President Carter stated that all sides in the Sudansese conflict "had agreed to continue observing the cease-fire as long as significant progress was being made toward achieving lasting peace." By the end of the first four months of the cease-fire, over 150,000 cloth filters had been distributed to almost 2500 endemic villages in Sudan. Over 50,000 persons have received
Table 1

MONTHLY REPORTING OF CASES OF DRACUNCULIASIS IN 1995
(Countries arranged in descending order of incident cases in 1994)

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>NO. OF CASES IN 1994</th>
<th>JAN</th>
<th>FEB</th>
<th>MAR</th>
<th>APR</th>
<th>MAY</th>
<th>JUN</th>
<th>JUL</th>
<th>AUG</th>
<th>SEPT</th>
<th>OCT</th>
<th>NOV</th>
<th>DEC</th>
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<tbody>
<tr>
<td>SUDAN*</td>
<td>53271</td>
<td>147</td>
<td>454</td>
<td>513</td>
<td>373</td>
<td>13119</td>
<td>5296</td>
<td>419</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>NIGERIA</td>
<td>39774</td>
<td>1882</td>
<td>1860</td>
<td>1394</td>
<td>1357</td>
<td>843</td>
<td>1802</td>
<td>1642</td>
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<td></td>
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<td>NIGER</td>
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<td>55</td>
<td>65</td>
<td>273</td>
<td>1046</td>
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<td></td>
<td></td>
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<td>UGANDA</td>
<td>10425</td>
<td>215</td>
<td>225</td>
<td>295</td>
<td>1114</td>
<td>924</td>
<td>181</td>
<td>735</td>
<td></td>
<td></td>
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<td>GHANA</td>
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<td>1971</td>
<td>1986</td>
<td>1517</td>
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<td>341</td>
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<tr>
<td>BURKINA FASO</td>
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<td>340</td>
<td>19</td>
<td>114</td>
<td>157</td>
<td>286</td>
<td>886</td>
<td>710</td>
<td>68</td>
<td></td>
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<tr>
<td>MALI</td>
<td>5581</td>
<td>29</td>
<td>20</td>
<td>107</td>
<td>255</td>
<td>185</td>
<td>335</td>
<td>485</td>
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<td>COTE D'IVOIRE</td>
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<td>497</td>
<td>699</td>
<td>540</td>
<td>451</td>
<td>273</td>
<td>240</td>
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<td>TOGO</td>
<td>5044</td>
<td>330</td>
<td>118</td>
<td>59</td>
<td>133</td>
<td>177</td>
<td>73</td>
<td>75</td>
<td></td>
<td></td>
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<td>BENIN</td>
<td>4302</td>
<td>438</td>
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<td>61</td>
<td>62</td>
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<td>ETHIOPIA</td>
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<td>8</td>
<td>12</td>
<td>86</td>
<td>94</td>
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<td>19</td>
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<td>3</td>
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<td>4</td>
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<td>8</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>YEMEN</td>
<td>106</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>10</td>
<td>8</td>
<td>9</td>
<td>14</td>
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<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAMEROON</td>
<td>30</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>PAKISTAN</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>164973</td>
<td>5898</td>
<td>5637</td>
<td>4703</td>
<td>5330</td>
<td>17960</td>
<td>13321</td>
<td>8025</td>
<td>138</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

* PROVISIONAL NUMBERS.  * CASES REPORTED FROM ACTIVE AND PASSIVE SURVEILLANCE.
ivermectin to treat or prevent onchocerciasis. In addition to the work of Sudanese health officials on both sides of the conflict, these accomplishments have been greatly assisted by the efforts of UNICEF and Operation Lifeline Sudan, several Non-Governmental Organizations (NGOs), and Global 2000 of The Carter Center. At the end of August, President Carter announced that he would return to Sudan for the third time this year in late September to help continue to promote the search for peace and the eradication of dracunculiasis in Sudan.

Meanwhile, Global 2000 announced that beginning in September 1995, its resident advisor in Khartoum will be Mr. P. Craig Withers, who will transfer from Ouagadougou. Mr. Withers was formerly Global 2000's first resident advisor to the Guinea Worm Eradication Program in Nigeria, beginning in 1988, and subsequently worked at Global 2000 headquarters in Atlanta, Georgia, USA, before moving to Ouagadougou to work with ITECH last year. Mr. Withers worked with the Sudan GWEP in Khartoum temporarily in June and July 1995. In August, Dr. Philippe Ranque and Mr. Pierre Catand of WHO headquarters visited Sudan to review, consult, and be briefed on developments regarding dracunculiasis and trypanosomiasis, respectively.

GLOBAL CASES REDUCED BY 37% IN FIRST SIX MONTHS OF 1995

Overall, the number of cases of dracunculiasis has been reduced from 83,332 in the first six months of 1994, to 52,667 cases in the first six months of 1995, a reduction of 36.8% (Table 1). In those endemic countries which had comparable data during that period in 1994, the rate of reduction is 41% (Table 2, Figure 1). In Figures 1 & 2, attention is also drawn especially to the sharp reductions of cases in Cameroon, Senegal, India, Nigeria, Togo, and Mali, all of which exceed 50%, and to the fact that Kenya has so far had no cases reported during 1995. Pakistan is approaching two years without a case. The completeness of reporting in Chad is uncertain. Over 80% of all known endemic villages now have village-based health workers trained in case containment, even though such training has just begun in some of the 2,400+ endemic villages of Sudan (Figure 4). All endemic countries have now begun to use Abate for vector control in selected endemic villages (Figure 3). A summary of the proportion of 1995 cases which are reported to have been completely contained, and of the completeness of monthly reporting from endemic villages is given in Table 3. These latter two indices are increasingly important in this final stage of the eradication campaign, and those programs which are not yet tracking that information need to begin doing so immediately.

CAMEROON: 6 CASES, 5 OF THEM IMPORTED

Up to mid-August, Cameroon has reported a total of six cases of dracunculiasis in 1995, in four villages. The one indigenous case was detected during the pre-emergent stage in the known endemic village of Kerewa on March 29, and was fully contained. Four of the remaining cases are believed to have been imported from Nigeria into the previously endemic villages of Kangaleri (onset July 24) and Amchide (onsets August 1 & 7); and into the village of Blabodi (onset July 29), which was not previously endemic. The other case was apparently imported from Niger into Amchide, with onset on August 7. The status of containment measures for the five imported cases is not known, nor whether they have been officially cross-notified to Nigeria and Niger through WHO. Cameroon reported 17 cases through the end of July 1994.
### Table 2

**STATUS OF DRACUNCULIASIS ERADICATION**

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>NUMBER OF CASES DETECTED</th>
<th>CHANGE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>JAN.-JUN., 1994</td>
<td>JAN.-JUN., 1995</td>
</tr>
<tr>
<td>KENYA</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td>CAMEROON</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td>SENEGAL</td>
<td>19</td>
<td>2</td>
</tr>
<tr>
<td>CHAD</td>
<td>356</td>
<td>64</td>
</tr>
<tr>
<td>INDIA</td>
<td>90</td>
<td>22</td>
</tr>
<tr>
<td>NIGERIA</td>
<td>25179</td>
<td>9138</td>
</tr>
<tr>
<td>TOGO</td>
<td>1948</td>
<td>890</td>
</tr>
<tr>
<td>MALI</td>
<td>1913</td>
<td>931</td>
</tr>
<tr>
<td>EBENI</td>
<td>1670</td>
<td>853</td>
</tr>
<tr>
<td>UGANDA</td>
<td>6938</td>
<td>3635</td>
</tr>
<tr>
<td>ETHIOPIA</td>
<td>564</td>
<td>320</td>
</tr>
<tr>
<td>SUDAN</td>
<td>32670</td>
<td>19002</td>
</tr>
<tr>
<td>COTE D'IVOIRE</td>
<td>3477</td>
<td>2547</td>
</tr>
<tr>
<td>BURKINA FASO</td>
<td>2533</td>
<td>2522</td>
</tr>
<tr>
<td>PAKISTAN</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>GHANA</td>
<td>4859</td>
<td>7919</td>
</tr>
<tr>
<td>NIGER</td>
<td>*</td>
<td>4463</td>
</tr>
<tr>
<td>MAURITANIA</td>
<td>*</td>
<td>137</td>
</tr>
<tr>
<td>YEMEN</td>
<td>*</td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td>82260</td>
<td>48756**</td>
</tr>
</tbody>
</table>

* denotes no cases reported or incomplete reporting for the period Jan.-Jun., 1994
** This total excludes 4630 cases reported from Niger, Mauritania and Yemen, which recorded no comparable data in the first six months of 1994.

### Figure 1

**PERCENTAGE CHANGE IN NUMBER OF CASES OF DRACUNCULIASIS REPORTED DURING THE PERIOD JAN.-JUN. 1994 AND JAN.-JUN. 1995, BY COUNTRY**

- **KENYA**: -100
- **CAMEROON**: -92
- **SENEGAL**: -89
- **CHAD**: -82
- **INDIA**: -76
- **NIGERIA**: -64
- **TOGO**: -54
- **SUDAN**: -52
- **MALI**: -51
- **UGANDA**: -48
- **ETHIOPIA**: -43
- **COTE D'IVOIRE**: -27
- **BURKINA FASO**: +63
- **PAKISTAN**: 0

* NIGER, MAURITANIA AND YEMEN ARE EXCLUDED BECAUSE THESE COUNTRIES RECORD NO COMPARABLE DATA IN THE FIRST SIX MONTHS OF 1994.
Figure 2

PERCENTAGE OF VILLAGES WITH ENDEMIC DRACUNCULIASIS UNDER VECTOR CONTROL: AUGUST 1995

Table 3

PERCENT OF ENDEMIC VILLAGES REPORTING AND PERCENT OF CASES CONTAINED IN 1995.

<table>
<thead>
<tr>
<th>Country</th>
<th>Percent of endemic villages reporting</th>
<th>Percent of cases contained in 1995</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sudan</td>
<td>NR</td>
<td>NR* (13% case management)</td>
</tr>
<tr>
<td>Nigeria</td>
<td>77% (Jan.- Jul.)</td>
<td>26% (Jan.- Jul.)</td>
</tr>
<tr>
<td>Niger</td>
<td>70% (Jan. Mar.)</td>
<td>65% (Jan.- Jun.)</td>
</tr>
<tr>
<td>Uganda</td>
<td>92% (Jan.- Jul.)</td>
<td>48% (Jan.- Jul.)</td>
</tr>
<tr>
<td>Ghana</td>
<td>98% (Jan.- Jul.)</td>
<td>75% (Jan.- Jul.)</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>NR</td>
<td>51% (Jan.- Mar.)</td>
</tr>
<tr>
<td>Mali</td>
<td>88% (Jan.- Jul.)</td>
<td>68% (Jan.- Jul.)</td>
</tr>
<tr>
<td>Cote d'Ivoire</td>
<td>NR</td>
<td>NR</td>
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<tr>
<td>Togo</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Mauritania</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>Benin</td>
<td>NR</td>
<td>55% (Jan.- Feb.)</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>86% (Jan.- Jul.)</td>
<td>80% (Jan.- Jul.)</td>
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<tr>
<td>Chad</td>
<td>NR</td>
<td>NR</td>
</tr>
<tr>
<td>India</td>
<td>100% (Jan.- Jun.)</td>
<td>100% (Jan.- Jun.)</td>
</tr>
<tr>
<td>Senegal</td>
<td>100% (Jan.- Jul.)</td>
<td>100% (Jan.- Jul.)</td>
</tr>
<tr>
<td>Yemen</td>
<td>100% (Jan.- Jul.)</td>
<td>20% (Jan.- Jul.)</td>
</tr>
<tr>
<td>Kenya</td>
<td>NR</td>
<td>---</td>
</tr>
<tr>
<td>Cameroon</td>
<td>100% (Jan.- Jul.)</td>
<td>100% (Jan.- Jul.)</td>
</tr>
<tr>
<td>Pakistan</td>
<td>100%</td>
<td>---</td>
</tr>
</tbody>
</table>

* case management underway.
NR = No Report

* Pakistan reported zero cases for 1994.
** This intervention may not be appropriate in 100% of endemic villages.
Figure 3

NUMBER OF CASES OF DRACUNCULIASIS REPORTED IN NIGERIA, UGANDA, GHANA, COTE D'IVOIRE, MALI, AND BURKINA FASO: 1994 - 1995

*N* AVERAGE PROPORTION OF VILLAGES REPORTING CASES IN 1995.  N.R. NOT REPORTING.
NUMBER OF CASES OF DRACUNCULIASIS REPORTED IN BENIN, TOGO, ETHIOPIA, SENEGAL, INDIA, AND CAMEROON: 1994 - 1995

* AVERAGE PROPORTION OF VILLAGES REPORTING CASES IN 1995.

N.R. NOT REPORTING.
GHANA: IMPROVED REDUCTION OF CASES

Ghana appears to have regained its momentum towards eradicating dracunculiasis. Whereas it reported an increase of 115% in the number of cases reported during the first four months of 1995 as compared to the same period of 1994, which resulted from the disruption caused by ethnic disturbances in highly endemic parts of the Northern Region in early 1994, it has recorded a decrease of 26.8% in the number of cases reported during May-July this year, as compared to last year. Moreover, the decrease of cases reported in July rose to 41.9%, in comparison with July 1994. Although the months of lowest incidence of dracunculiasis in Ghana are August, September, and October, already in July this year, two of the ten regions (Northern and Volta), reported 315 (92.3%) of the 341 cases that month. Of the 123 cases reported in Volta Region, 92% were reportedly fully contained, as compared to 69% of the 192 cases in Northern Region. Of the remaining eight regions, two (Western, Upper East) reported no cases; one (Greater Accra) reported only 2 imported cases, both of which were contained; another (Brong Ahafo, formerly the second-most endemic region in the country) reported only 5 indigenous cases, all of which were fully contained, and Central and Upper West Regions reported 6 and 9 cases, respectively, all of which were fully contained. Eastern and Ashanti Regions each reported 1 indigenous and 1 imported case, and each contained 1 of its two cases, while providing controlled immersion and/or bandaging to both cases. Overall, 79% of the cases in Ghana in July were contained. Through the end of July, cases had been reported from a total of 962 different villages in Ghana in 1995, including 409 new endemic villages.

MALI: CONTINUED DRAMATIC DECLINE IN CASES IN KAYES

In the first six months of 1995, Kayes Region has reduced cases of dracunculiasis by 81.5%, from 325 cases in that period of 1994 to only 60 cases during the same period of 1995. 89% of the 220 endemic villages in Kayes, which is the second highest endemic region of Mali, submitted reports in June. In Mopti, the highest endemic region, cases of the disease declined by 44.3% over the same six-month period, from 1,585 to 883. 94% of the 355 endemic villages in Mopti reported in June. In the same period, Koulikoro Region reported only three cases, two of which were imported from outside that region. Seventeen cases were reported in Segou. Segou has begun using Abate for vector control in 19 villages that have had cases in the past year, and Mopti is using it in 10 endemic villages. Provisional results of active surveillance in Gao Region indicate that there is much less disease there than had been suggested by earlier unconfirmed reports. Training for case containment has been completed in 80% of endemic villages.

NIGERIA CONTINUES SHARP REDUCTION OF CASES

With 81% of 3,133 villages reporting, Nigeria in July recorded 1,642 cases of dracunculiasis, which is a reduction of 57.3% from the 3,848 cases reported in July 1994. The largest number of cases for the month was reported from Katsina (594), followed by Sokoto (296) and Bauchi (227) States. During the first seven months of 1995, cases have been reported from a total of 1,187 different villages in Nigeria, including 35 new endemic villages. Special intensive interventions in the 12 most endemic Local Government Areas (LGAs) of the Southeast Zone were completed in August. Eight teams visited a total of 395 villages, with a total population of over 500,000. External consultants assisting the program in July included former
U.S. Peace Corps Volunteers Ms. Noml Fuchs, who worked in Southeast Zone with the special interventions, and Ms. Michelle Ellefsen, who worked in Oyo State, as well as Dr. Patrick Kachur of CDC, who worked in three of the most highly endemic LGAs of Sokoto State. The British Overseas Development Administration (ODA) has begun preparing to assist a community water and sanitation project in Oju LGA, which is the most highly endemic LGA in Benue State. The Canadian High Commission has approved construction of 52 hand-dug wells in the Southeast Zone, and the U.S. ambassador has also agreed to provide funding for several hand-dug wells in endemic communities. The UNICEF mission to Nigeria and Global 2000 continue to provide strong support to this program. In early August, Dr. K. Ojodu was appointed the new national program coordinator for the Nigerian GWEP (NIGEP).

USE OF DONATED NYLON FILTER MATERIAL IN 1995 AND 1996

The attention of National Program Coordinators and of all others concerned is drawn to the urgent need to use donated nylon filter cloth very carefully during the remainder of 1995 and 1996. Over 1.7 million square yards of this material, which is one of the most important and expensive components of this eradication campaign, have been generously donated already to The Carter Center for use in Africa since 1990 by the DuPont Corporation and Precision Fabrics Group. However, supplies are not unlimited. In particular, programs should distribute this material only to those villages which currently have cases of dracunculiasis, and to those households in endemic villages which need a replacement filter. Villages which are only under surveillance, but which do not have current cases of dracunculiasis, should NOT receive cloth filters. Designs of filters which waste material are to be avoided. Villagers should be warned not to dry the filters in direct sunlight, which is deleterious to nylon, or hang them on sharp points; not to scrub the filter material aggressively when washing it; and not to use the material for any purpose other than filtering their drinking water. Programs should focus this valuable resource on those villages and households which need it, and only on them, and regardless of their ability or willingness to pay for it.

Existing commitments by the donors call for a total of 229,000 more square yards of nylon filter material to be shipped later this year (1995) to programs needing it, and for a total of 49,000 square yards to be provided for shipment in 1996.

For this and other reasons, national program coordinators are therefore reminded of the need to use all available interventions (health education, cloth filters, Abate, provision of safe water supply, and case management of individual patients) in the most efficient manner possible, and to focus their programs' interventions on currently endemic villages in order to complete the eradication of dracunculiasis expeditiously. Effective active surveillance, case containment, and social mobilization are the unavoidable keys to doing so.

IN BRIEF

Benin. As of July, Benin had 420 endemic villages. Twelve of 36 cases reported in July were contained, and 100% of endemic villages sent surveillance reports that month.
Ethiopia has cross-notified eight cases of dracunculiasis imported from Sudan into the Gambella region. All eight cases, which ranged in age from 16-28 years, and included five females and three males, had the worm to emerge in June 1995. Of the 144 villages under surveillance, 72 (excluding refugee camps and big towns with imported cases) have reported cases so far in 1995 (up to the end of July). A new national program coordinator has been appointed for the Dracunculiasis Eradication Program: Dr. Desta Alamere of the Epidemiology and AIDS Department of the Ministry of Health. Mr. Teshome Gebre will continue to work full-time in the program.

India. The former National Program Coordinator, Dr. Ashok Kumar, has been promoted to Assistant Director General of Health Services, Government of India, effective July 25, 1995. A new head for the national Guinea Worm Eradication Program has not yet been named. We extend our heartiest congratulations to Dr. Kumar.

Niger. The correct telephone numbers for the National Program Coordinator, Mr. Sadi Moussa, are: (227) 73 54 59 or 73 28 57; his fax number is (227) 73 28 87.

Senegal. The 21 cases found up to mid-August 1995 have occurred in only six endemic villages. All of the cases have been contained, and Abate has been used for vector control in all six currently endemic villages.

Uganda has cross-notified eight cases of dracunculiasis imported from Sudan into Arua District (Rhino Camp) of Uganda during March 1995. Worms were emerging from the patients, who ranged in age from 11 to 37 years and who originated in the Bahr Al-Ghazal Zone of southern Sudan, when they entered the camp.

**OCCGE NATIONAL GUINEA WORM ERADICATION DAY**

**O.C.C.G.E.**

We have been informed by Dr. Alhousseini Maiga of ITECH that in addition to Mali, Niger and Senegal, whose celebrations were described in the previous issue of Guinea Worm Wrap-Up, the 1995 Guinea Worm Eradication Day for francophone countries was also observed in Benin, Togo, and in some provinces of Burkina Faso. In Benin, it was celebrated on April 25 in Zou Province, where two villages (Foki and Glokougou) were visited by representatives of the ministries of health and of hydraulics, delegations from all 6 provinces, and representatives of UNICEF, WHO, and U.S. Peace Corps. Activities included social mobilization, health education, demonstration of filters, and an exhibition of photographs at the peoples' house of Abomey. In Burkina Faso, the day was celebrated in the provinces as part of the "National Week for Health" in June, and included some sporting events. In Togo, Guinea Worm Eradication Day was celebrated on February 18 in Notsé, prefecture of Haho, in the presence of the minister of health, Dr. Afatsao Amedome, and of General Amadou Toumani Touré of Mali. The main activities included health education activities and broadcasts on radio and television.
EDITORIAL

ERADICATION - OUR NUMBER ONE PRIORITY

As we proceed through the final phase of the campaign to eradicate dracunculiasis, it has been suggested that surveillance or other aspects of dracunculiasis eradication programs be integrated with or into other disease control activities. While it is desirable to maximize the benefits of Guinea Worm Eradication Programs, in seeking to do so we dare not lose sight of the fact that the primary goal of this campaign is to eradicate dracunculiasis. Achieving that goal as soon as possible is the criterion by which success or failure of the campaign will be measured. The benefits of eradicating dracunculiasis alone are sufficient justification for the investments being made to achieve eradication. Any other considerations which do not contribute to reducing transmission of dracunculiasis should be judged 1) in view of the extent to which they affect attainment of the primary objective, and 2) in view of their potential benefit(s), if properly implemented.

Public health experience counsels that a sensible approach to combining surveillance of dracunculiasis with surveillance of other diseases would be to begin by ensuring that those who are responsible at the national level for controlling the other diseases should also be responsible for the additional effort involved in conducting surveillance of those other diseases, and that they need to begin using the data which result for disease prevention/control. If we take measles or polio as an example, any meaningful surveillance for these diseases must also encompass villages which do not have dracunculiasis. Common sense suggests that the immunization program should logically ensure the identification, training, supervision, and feedback of information to the health workers concerned in all such villages, including those where dracunculiasis is or was recently endemic. Thus, village-based health workers working primarily with the national Guinea Worm Eradication Program could be smoothly transferred to working primarily with the national Expanded Program on Immunization, and to being supported by that network, while remaining alert for imported cases of dracunculiasis. Responsibility for health education might be handled similarly. Responsibility for ensuring appropriate rapid response to suspected cases of dracunculiasis, according to established case containment criteria, should remain with the Guinea Worm Eradication Program until eradication is achieved. Offering and publicizing a cash reward for reporting of a case of dracunculiasis is probably the most reliable means of increasing sensitivity of dracunculiasis surveillance just before and after eradication is achieved.

When adding other activities besides those pertaining to dracunculiasis to a village-based health worker and his/her supervisor, policy makers must not assume that the work to be done against dracunculiasis declines at the same time and to the same degree as the number of cases. On the contrary, as cases decline, more intensive work is required to detect and contain each case as quickly and effectively as possible. Thus, as cases decline, the work load and cost to contain each case increases. That truth is an inevitable part of the price of eradication, in return for which control measures for the disease can be halted and the cost of eradication amortized forever. For these reasons, leaders of Guinea Worm Eradication Programs should give first priority to improving containment of cases and supervision of health workers, to intensifying active surveillance for new cases of dracunculiasis, and to raising the level of social mobilization.
Figure 4

PERCENTAGE OF VILLAGES WITH ENDEMIC DRACUNCULIASIS UNDER CASE CONTAINMENT*
(AUGUST 1995)

<table>
<thead>
<tr>
<th>Country</th>
<th>Percent</th>
<th>Total No. of Endemic Villages**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benin</td>
<td>100%</td>
<td>535</td>
</tr>
<tr>
<td>Cameroon</td>
<td>100%</td>
<td>18</td>
</tr>
<tr>
<td>Côte d'Ivoire</td>
<td>100%</td>
<td>244</td>
</tr>
<tr>
<td>Ghana</td>
<td>100%</td>
<td>1741</td>
</tr>
<tr>
<td>India</td>
<td>100%</td>
<td>70</td>
</tr>
<tr>
<td>Senegal</td>
<td>100%</td>
<td>49</td>
</tr>
<tr>
<td>Togo</td>
<td>100%</td>
<td>508</td>
</tr>
<tr>
<td>Uganda</td>
<td>100%</td>
<td>1237</td>
</tr>
<tr>
<td>Chad</td>
<td>100%</td>
<td>62</td>
</tr>
<tr>
<td>Niger</td>
<td>100%</td>
<td>870</td>
</tr>
<tr>
<td>Yemen</td>
<td>100%</td>
<td>28</td>
</tr>
<tr>
<td>Nigeria</td>
<td>99%</td>
<td>3130</td>
</tr>
<tr>
<td>Mauritania</td>
<td>98%</td>
<td>420</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>86%</td>
<td>115</td>
</tr>
<tr>
<td>Kenya</td>
<td>84%</td>
<td>19</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>83%</td>
<td>479</td>
</tr>
<tr>
<td>Mali</td>
<td>80%</td>
<td>637</td>
</tr>
<tr>
<td>Sudan</td>
<td>2%</td>
<td>2374</td>
</tr>
<tr>
<td>Average</td>
<td>80%</td>
<td>12,536</td>
</tr>
</tbody>
</table>

* Trained and supplied village-based health workers.
** Pakistan reported zero cases for 1994.
KEIDANREN VEHICLES ARRIVE

All forty (40) four-wheel drive vehicles donated to The Carter Center by the Keidanren for use by Guinea Worm Eradication Programs in Africa have arrived in the 14 countries concerned: Benin, Burkina Faso, Chad, Côte d'Ivoire, Ethiopia, Ghana, Mali, Mauritania, Niger, Nigeria, Senegal, Sudan, Togo, and Uganda. As reported in Guinea Worm Wrap-Up #48, the Keidanren is a federation of about 1,000 private Japanese corporations, which made this generous donation in response to a personal appeal by President Jimmy Carter. All of the 72 donated motorcycles have also arrived in nine of the countries (Côte d'Ivoire, Ethiopia, Mali, Muritania, and Senegal will not receive motorcycles from this donation). So far, the motorcycles for Benin (5), Ghana (5), Nigeria (12), and Uganda (8) have been cleared through Customs. Sudan has received 12 four-wheel drive vehicles and 25 motorcycles from this source.

RECENT PUBLICATIONS


50th ISSUE OF GUINEA WORM WRAP-UP !!

On January 31, 1983, The Guinea Worm Wrap-Up was first printed and distributed, in English only, to less than 50 individuals. Beginning with issue #15 (March 30, 1987), the Guinea Worm Wrap-Up was translated and distributed to interested French-speakers in Africa and Europe. With this issue, the 50th, we mark 12 years and 9 months of efforts to inform the coalition of individuals (including national and international leaders) and supporting organizations about the status of national efforts in eradicating Guinea worm disease from affected countries in Africa and Asia. As the goal of achieving the eradication of Guinea worm disease looms closer and closer, we re-commit ourselves to maintaining and keeping informed all who need to know about the status of this global campaign.

The editors of Guinea Worm Wrap-Up thank the national coordinators of eradication programs in the 18 affected countries who continue to provide much of the substance of this publication and all others who, at one time or another, have contributed information to this administrative communication.

Inclusion of information in the Guinea Worm Wrap-Up does not constitute "publication" of that information.

The GW Wrap-Up is published in memory of BOB KAISER.

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ERADICATION OF DRACUNCULIASIS

The Forty-fourth World Health Assembly,

Recalling resolutions WHA39.21 and WHA42.29;

Having considered the report of the Director-General on the eradication of dracunculiasis;

Encouraged by the considerable progress achieved in many countries toward elimination of the disease;

Aware that country-by-country elimination of dracunculiasis is considered to be the last step before global eradication can be declared;

Recognizing the support to national control activities provided by the international community;

Deploring, none the less, the continuing adverse effects of dracunculiasis on health, including that of mothers and children, as well as its constraining effects on agriculture, sustainable development and education in endemic areas of Africa and Asia, where over 100 million persons remain at risk of infection;

Aware that in the face of such problems a number of countries have set national goals aimed at ensuring that by the end of 1995 they have no more indigenous cases;

1. EXPRESSES its satisfaction with the progress made by affected Member States in eliminating dracunculiasis;

2. DECLARES its commitment to the goal of eradicating dracunculiasis by the end of 1995, this being technically feasible given appropriate political, social and economic support;

3. ENDORSES a combined strategy of provision of safe water, active surveillance, health education, community mobilization, vector control, and personal prophylaxis;

4. CALLS ON all Member States still affected by dracunculiasis to determine the full extent of the disease and elaborate regional plans of action; establish intersectoral steering committees; initiate certification of elimination; coordinate the contributions of the international community, including multilateral and bilateral agencies and nongovernmental organizations; and explore possibilities for mobilizing additional resources to eradicate the infection within the context of primary health care;

5. INVITES donors, including bilateral and international development agencies, nongovernmental organizations, foundations and appropriate regional organizations, to continue to support countries’ efforts to eradicate dracunculiasis by helping to ensure that funds are available to accelerate and sustain them;

6. URGES the Director-General:
   (1) to immediately initiate country-by-country certification of elimination so that the certification process can be completed by the end of the 1990s;
   (2) to support global efforts to eradicate dracunculiasis during the 1990s particularly by the certification by WHO of the elimination of the disease country by country;
   (3) to support Member States in surveillance, programme development and implementation;
   (4) to continue to seek extrabudgetary resources for this purpose;
   (5) to keep the Executive Board and the Health Assembly informed of progress.

Eleventh plenary meeting, 13 May 1991
A44/VR/II