Date: October 30, 2006

From: WHO Collaborating Center for Research, Training and Eradication of Dracunculiasis

Subject: GUINEA WORM WRAP-UP #167

To: Addressees

Count Down to Glory
Consecutive months with zero indigenous cases:
Burkina Faso 9
Nigeria 5
Ethiopia 3

Detect every case. Contain each worm. Trace the source of every sporadic case.

UPDATE ON IMPLEMENTATION OF GHANA’S ACTION PLAN

Ghana’s Guinea Worm Eradication Program (GWEP) has now reported 2,968 cases of Guinea worm disease (GWD) in January-September 2006, which is an increase of 1% from the 2,943 cases reported during the same period of 2003 (See Table 1, and Figures 1, 3 and 4). This year’s case containment rate is stalled at 61% overall. Figure 2 compares the monthly percentage of persons with GWD in 2006 which were prevented from transmitting their infection to others to the GWEP’s monthly targets for case containment rates. The 38 reported cases of GWD in September is a reduction of -32%, compared to 56 cases during the same month in 2005, but the case containment rate for the 38 cases reported in September 2006 is only 44% (compared to September’s target of 76% for case containment in the Plan of Action). The status of program indicators in 528 known endemic villages during September were: 99% sent reports about cases, 95% had cloth filters in all households, 96% received one or more health education/mobilization sessions, 59% were protected with ABATE® Larvicide at least once in 2006, and 47% have access to one or more safe sources of drinking water.

Other measures that have been taken in follow up to the Plan of Action developed during the Program Review held in Atlanta in August include replacement of 2 regional and 3 district Guinea worm coordinators, and preparations for an intensive media blitz to inform the public about the state of the campaign and mobilize populations in the remaining endemic areas. Unfortunately, Ghana’s electrical power crisis created by the low water level in Lake Volta is exacerbating problems with delivery of clean drinking water to the towns of Tamale and Savelugu in the Northern Region.

On October 26, Mr. Abraham Odoom, Deputy Minister of Local Government, Rural Development and Environment announced in Tamale that the government of Ghana is committing 9.5 billion Cedis (circa US $ 1 million) towards the eradication of Guinea worm disease. The Northern Region Poverty Reduction Program is to receive 5.5 billion Cedis for provision of 62 borehole wells to the highest endemic districts, i.e., Yendi, Tolon-Kumbungu, and Savelugu-Nanton. The Ministry of Finance and Economic Planning is to receive the remaining 4 billion Cedis for a special Guinea worm eradication fund which will be used to provide sources of safe drinking water to other lesser endemic districts.
Ghana Guinea Worm Eradication Program
Cases Reported, % Contained and % Change: During Jan. 2005 - Sept. 2006

Figure 1

Number of Cases of Dracunculiasis and Percent Contained: 2005 and 2006*

% Change in Cases of Dracunculiasis Compared to the Same Month in the Previous Year: Jan. 2005 - Sept. 2006*
Ghana Guinea Worm Eradication Program Major Indicators by month
% Cases Contained by month 2006 - 2007

* March 2007 is Ghana's Target for stopping transmission of Guinea worm disease.
<table>
<thead>
<tr>
<th>COUNTRIES REPORTING CASES</th>
<th>JANUARY</th>
<th>FEBRUARY</th>
<th>MARCH</th>
<th>APRIL</th>
<th>MAY</th>
<th>JUNE</th>
<th>JULY</th>
<th>AUGUST</th>
<th>SEPTEMBER</th>
<th>OCTOBER</th>
<th>NOVEMBER</th>
<th>DECEMBER</th>
<th>TOTAL*</th>
<th>% CONT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUDAN</td>
<td>0</td>
<td>10</td>
<td>68</td>
<td>226</td>
<td>2574</td>
<td>2469</td>
<td>2223</td>
<td>1192</td>
<td>819</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>9700</td>
<td>51</td>
</tr>
<tr>
<td>GHANA</td>
<td>396</td>
<td>621</td>
<td>244</td>
<td>403</td>
<td>337</td>
<td>293</td>
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<td>44</td>
<td>13</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>18872</td>
<td>61</td>
</tr>
<tr>
<td>MALI</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>14</td>
<td>11</td>
<td>66</td>
<td>79</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>174</td>
<td>89</td>
</tr>
<tr>
<td>NIGER</td>
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<td>0</td>
<td>0</td>
<td>0</td>
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<td>0</td>
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<td>/</td>
<td>/</td>
<td>/</td>
<td>10</td>
<td>67</td>
</tr>
<tr>
<td>TOGO</td>
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<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
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<td>0</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>12</td>
<td>86</td>
</tr>
<tr>
<td>BURKINA FASO</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>COTE D'IVOIRE</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td>ETHIOPIA</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
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<td>1</td>
<td>1</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td>UGANDA</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>/</td>
<td>/</td>
<td>/</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td>TOTAL*</td>
<td>403</td>
<td>596</td>
<td>335</td>
<td>365</td>
<td>584</td>
<td>552</td>
<td>4475</td>
<td>3525</td>
<td>2311</td>
<td>1385</td>
<td>1357</td>
<td>/</td>
<td>11762</td>
<td>53</td>
</tr>
</tbody>
</table>

% CONTAINED 63 61 57 14 53 60 66 61 69
% CONT. OUTSIDE SUDAN 53

* provisional

Shaded cells denote months when zero indigenous cases were reported. Numbers indicate how many imported cases were reported and contained that month.
Distribution by Country of 22,140 Indigenous Cases of Dracunculiasis Reported During 2006*

Number of cases

0 2,000 4,000 6,000 8,000 10,000 12,000 14,000 16,000 18,000 20,000

Sudan (9)  18,872
Ghana (9)  2,968
Mali (9)  195
Niger (9)  70
Nigeria (10)  15
Togo (9)  14
Cote d'Ivoire (9)  5
Ethiopia (9)  1
Burkina Faso (9)  0

Target Dates for Last Case

2006 – 2007
Burkina Faso
Cote d'Ivoire
Ethiopia
Mali
Niger
Nigeria
Togo

2007 – 2008
Ghana

2009
Sudan

* Provisional
(9) Number of months for which reports have been received, e.g. Jan. - Sept. 2006
Figure 4
Number of Indigenous Cases Reported During the Specified Period in 2005 and 2006*, and Percent Change in Cases Reported

<table>
<thead>
<tr>
<th>Country</th>
<th>Indigenous Cases Reported</th>
<th>% CHANGE 2005 - 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2005</td>
<td>2006</td>
</tr>
<tr>
<td>Burkina Faso (9)</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>Ethiopia (9)</td>
<td>29</td>
<td>1</td>
</tr>
<tr>
<td>Nigeria (10)</td>
<td>116</td>
<td>15</td>
</tr>
<tr>
<td>Togo (9)</td>
<td>56</td>
<td>14</td>
</tr>
<tr>
<td>Mali (9)</td>
<td>415</td>
<td>195</td>
</tr>
<tr>
<td>Cote d'Ivoire (9)</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Ghana (9)</td>
<td>2943</td>
<td>2968</td>
</tr>
<tr>
<td>Niger (9)</td>
<td>60</td>
<td>70</td>
</tr>
<tr>
<td>Sudan (9)</td>
<td>4896</td>
<td>18872</td>
</tr>
<tr>
<td>Total</td>
<td>8544</td>
<td>22140</td>
</tr>
<tr>
<td>All countries, excluding Sudan and Ghana</td>
<td>705</td>
<td>300</td>
</tr>
</tbody>
</table>

Overall % change outside of Sudan = -10%
(9) Indicates months for which reports were received, i.e., Jan. -Sept. 2006
* Provisional
SUDAN GUINEA WORM ERADICATION PROGRAM
NUMBER OF REPORTED CASES OF DRACUNCULIASIS: 2005 AND 2006*

<table>
<thead>
<tr>
<th>Month</th>
<th>2005</th>
<th>2006</th>
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<td>Jan</td>
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<td>66</td>
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<tr>
<td>Feb</td>
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<tr>
<td>Mar</td>
<td>101</td>
<td>151</td>
</tr>
<tr>
<td>Apr</td>
<td>151</td>
<td>2,857</td>
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<tr>
<td>May</td>
<td>2,857</td>
<td>5,175</td>
</tr>
<tr>
<td>Jun</td>
<td>5,175</td>
<td>4,156</td>
</tr>
<tr>
<td>Jul</td>
<td>4,156</td>
<td>3,335</td>
</tr>
<tr>
<td>Aug</td>
<td>3,335</td>
<td>1,955</td>
</tr>
<tr>
<td>Sep</td>
<td>1,955</td>
<td>1,203</td>
</tr>
<tr>
<td>Oct</td>
<td>1,203</td>
<td>66</td>
</tr>
<tr>
<td>Nov</td>
<td>66</td>
<td>102</td>
</tr>
<tr>
<td>Dec</td>
<td>102</td>
<td>151</td>
</tr>
</tbody>
</table>

Number of cases

* Provisional

Figure 5

SUDAN GUINEA WORM ERADICATION PROGRAM
ENDEMIC COUNTIES BY STATE REPORTING 17,789 (94%) OF 18,872 CASES OF DRACUNCULIASIS
DURING JANUARY - SEPTEMBER 2006*

Kapoeta North, E. Equatoria: 7,697 cases
Kapoeta East, E. Equatoria: 4,318 cases
Gogrial East, Warrab: 1,612 cases
Kapoeta South, E. Equatoria: 1,049 cases
Ayod, Jonglei: 710 cases
Gogrial West, Warrab: 528 cases
Wuror, Jonglei: 496 cases
Aweil East, N. BAG: 435 cases
Terekeka, Cent. Equatoria: 340 cases
Awerial, Lakes: 270 cases
Nyirol, Jonglei: 236 cases
Duken, Jonglei: 198 cases

* Provisional

Figure 6
SUDAN

Provisional data from the southern Sudan GWEP during January –September indicates a total of 18,872 cases of GWD reported from 2,611 endemic villages, a 285% increase in cases compared to the 4,896 cases reported during the same period in 2005 (Table 1, Figures 3 and 4). The 2,611 endemic villages in 2006 is already a 141% increase over the 1,085 endemic villages reported during 2005. Figure 5 ranks the most endemic counties in southern Sudan in descending order of cases reported so far.

The reporting rate from endemic villages so far during 2006 is 63%, but the goal is to improve it to 75% or better by the end of the dry season in May 2007 or before, if possible. Full filter coverage (cloth filters in every household) in each endemic village is 16%, and 25% of endemic villages have achieved full pipe filter coverage (70% of total population or 53% of 333,907 eligible individuals). One or more health education sessions have been provided to 66% of the endemic villages, and 7% of these have been protected with the use of ABATE® Larvicide. Only 16% of endemic villages have access to one or more safe sources of drinking water.

The increases in cases of GWD and endemic villages in 2006 are a result of improved accessibility to areas of southern Sudan during 2006, unprecedented support since December 2005 by the Government of Southern Sudan and The Carter Center to intensify the GWEP, ongoing assessments of the extent of GWD in southern Sudan, and the speed and diligence with which the GWEP has been able to establish a program infrastructure and logistical support to immediately activate surveillance and monthly reporting of cases and to implement interventions in newly discovered endemic areas. UNICEF is assisting with the provision of safe sources of drinking water and WHO with surveillance in non-endemic areas.

IN BRIEF:

**Togo.** Dr. Bakaye Awani Su Keya DOTSE has been named the new national coordinator of Togo’s GWEP. The Togolese GWEP held regional reviews in all five regions of Togo the first week of October.

**MEETINGS**

- 14-15 November 2006  Program Review for Burkina Faso, Cote d’Ivoire, Mali, Niger, Togo, The Carter Center, Atlanta, USA
- 15 November 2006  Ceremony to honor Benin, CAR, Mauritania, Uganda The Carter Center, Atlanta, USA
- 5-6 December 2006  Program Review for South Sudan GWEP Juba, Sudan
- 5-7 December 2006  National Review for Niger GWEP Dosso, Niger
- 5-7 March 2007  Sixth Meeting of the International Commission for the Certification of Dracunculiasis Eradication WHO, Geneva, Switzerland
Inclusion of information in the Guinea Worm Wrap-Up does not constitute “publication” of that information.

In memory of BOB KAISER