DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Centers for Disease Control
and Prevention (CDC)
Memorandum

Date: April 6, 2007

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

Subject: GUINEA WORM WRAP-UP #171

To: Addressees

Countdown to Glory
Consecutive months with zero indigenous cases:
Ethiopia 9
Cote d' Ivoire 5
Burkina Faso 3
Togo 3
Mali 2

"Therefore, since we are surrounded by so great a cloud of witnesses…let us run with perseverance the race that is set before us…." St. Paul

BURKINA FASO HOSTS 12TH MEETING OF NATIONAL COORDINATORS

Nearly one hundred participants attended the 12th Meeting of National Program Coordinators of Dracunculiasis Eradication Programs, which was convened at the Hotel Splendide in Ouagadougou, Burkina Faso on March 27-29, 2007. The meeting, which was opened by Burkina Faso's minister of health, the Honorable Mr. Alain Yoda, included reports by all 9 remaining endemic countries, International Commission for the Certification of Drancunculiasis Eradication member Prof. Ogobara K. Doumbo, director of The Carter Center's Guinea Worm Eradication Program Dr. Ernesto Ruiz-Tiben, UNICEF's Mr. Oluwafemi Odediran, and WHO's Dr. Alhousseini Maiga. The purposes of the conference were to review the status of interventions against dracunculiasis and of the disease in each country, plans of action and budgets for 2007, and formulate recommendations to accelerate progress. The status of interventions and reported cases in 2006 are summarized in Table 1. The numbers of cases reported and contained by country by month during 2006 and so far during 2007 are shown in Table 2 and 3, and Figures 1-6. Other particulars are summarized below.

Burkina Faso reported 5 cases (3 indigenous and 2 imported from Cote d'Ivoire), of which 3 were contained, in 4 villages in 2006. The country is considering establishing in-kind rewards for reporting cases, and plans to establish a national certification commission.

Cote d'Ivoire reported 5 indigenous cases, all from the village of Lendoukro in the northern rebel-held section of the country. All interventions were applied in Lendoukrou during 2006. A cash reward of 5,000 FCFA (~$10) is offered for reporting a case of dracunculiasis. A national certification commission is being established.

Ethiopia reported only 1 indigenous case, in June 2006, plus 2 cases imported from Sudan, all 3 of which were contained. Two other cases were allegedly exported to Sudan form the western Gambella Region,

Table 1

Dracunculiasis Eradication Campaign: Status of Interventions During 2006*

Country	Number of reported cases (indigenous) in 2006	Number of reported cases (imported) in 2006**	% of all cases reported that were contained during 2006	No. of villages/localities where interventions were applied in 2005 and 2006	% Change in cases where interventions were applied in 2005-2006	Villages/Localities							
						No. reporting one or more cases	No. reporting only imported cases	No. reporting indigenous cases	% reporting monthly^	% with filters in all households^	% using Abate^	% with one or more sources of safe water^	% provided health education^
Sudan ***	20,580	2	49%	3,137		3,345	208	3,137	63%	47%	6%	16%	71%
Ghana	4,134	2	75%	732	-12%	606	260	346	100%	95%	66%	47%	98%
Mali	323	6	82%	140	-63%	88	21	67	100%	100%	92%	24%	100%
Niger	108	2	83%	56	-59%	34	16	18	100%	100%	100%	11%	100%
Togo	25	4	79%	26	-67%	10	6	4	100%	100%	67%	50%	100%
Nigeria	16	0	69%	34	-95%	10	3	7	100%	100%	49%	69%	100%
Cote d'ivoire	5	0	100%	5	-50%	1	0	1	100%	100%	100%	100%	100%
Burkina Faso	3	2	60%	12	-88%	4	2	2	100%	100%	100%	50%	100%
Ethiopia	1	2	100%	10	-97%	3	2	1	66%	33%	66%	33%	100%
Total	25,195	20	54%	4,152		4,101	518	3,583	72%	59%	22%	23%	77%

* Provisional

** Uganda reported 2 cases of dracunculiasis imported from Sudan.

^ The base of the percentage is the number of villages/localities where the program applied interventions during 2005-2006

*** Interventions against transmission of dracunculiasis in Sudan were implemented in 3,137 endemic villages in 2006.

Table 2

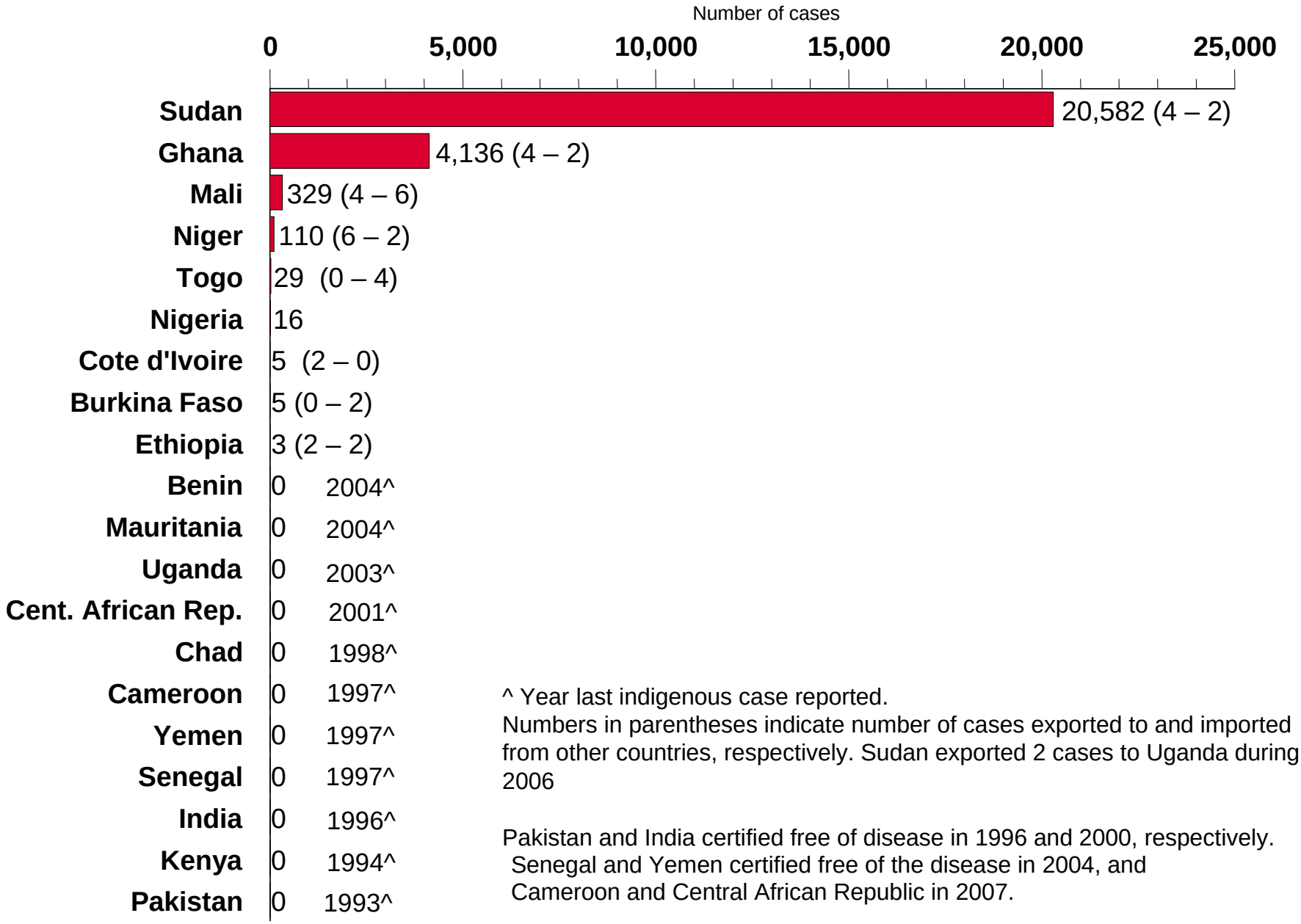
Number of Cases Contained and Number Reported by Month during 2006
(Countries arranged in descending order of cases in 2005)

COUNTRIES REPORTING CASES	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED													% CONT.
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	
SUDAN	0 / 1 / 1	9 / / 12	27 / / 77	249 / / 2613	1932 / / 4367	2202 / / 3734	2160 / / 3349	1314 / / 2214	1195 / / 2141	682 / / 1252	274 / / 608	62 / / 214	10106 / / 20582	49
GHANA	473 / / 621	426 / / 606	281 / / 433	282 / / 403	241 / / 337	201 / / 293	109 / / 162	45 / / 77	21 / / 39	112 / / 144	386 / / 412	517 / / 609	3094 / / 4136	75
MALI	3 / / 3	1 / / 1	0 / / 0	1 / / 1	3 / / 3	14 / / 14	11 / / 14	66 / / 72	79 / / 91	59 / / 81	27 / / 41	7 / / 8	271 / / 329	82
NIGER	2 / / 2	0 / / 0	0 / / 0	1 / / 2	6 / / 6	7 / / 7	11 / / 12	17 / / 21	15 / / 21	17 / / 20	13 / / 17	2 / / 2	91 / / 110	83
NIGERIA	0 / / 0	10 / / 14	0 / / 0	0 / / 0	0 / / 1	0 / / 0	0 / / 0	0 / / 0	0 / / 0	0 / / 0	0 / / 0	1 / / 1	11 / / 16	69
TOGO	1 / / 1	2 / / 3	0 / / 0	0 / / 1	1 / / 1	2 / / 2	0 / / 0	5 / / 5	1 / / 1	1 / / 1	5 / / 7	5 / / 7	23 / / 29	79
BURKINA FASO	0 / / 0	0 / / 0	0 / / 0	0 / / 0	0 / / 0	0 / / 0	1 / / 1	0 / / 1	0 / / 1	1 / / 1	1 / / 1	0 / / 0	3 / / 5	60
COTE D'IVOIRE	0 / / 0	0 / / 0	0 / / 0	0 / / 0	0 / / 0	2 / / 2	2 / / 2	0 / / 0	1 / / 1	0 / / 0	0 / / 0	0 / / 0	5 / / 5	100
ETHIOPIA	1 / / 1	0 / / 0	0 / / 0	0 / / 0	1 / / 1	1 / / 1	0 / / 0	0 / / 0	0 / / 0	0 / / 0	0 / / 0	0 / / 0	3 / / 3	100
UGANDA	0 / / 0	0 / / 0	0 / / 0	0 / / 0	0 / / 0	0 / / 0	1 / / 1	1 / / 1	0 / / 0	0 / / 0	0 / / 0	0 / / 0	2 / / 2	100
TOTAL*	480 / / 629	448 / / 636	308 / / 510	533 / / 3020	2184 / / 4716	2429 / / 4053	2295 / / 3541	1448 / / 2391	1312 / / 2295	872 / / 1499	706 / / 1086	594 / / 841	13609 / / 25217	54
% CONTAINED	76	70	60	18	46	60	65	61	57	58	65	71	54	
% CONT. OUTSIDE SUDAN	76	70	65	70	72	71	70	76	76	77	90	85	76	

Shaded cells denote months when zero indigenous cases were reported. Numbers indicate how many imported cases were reported and contained that month.
For other imported cases see table of imported cases by month and by country

Figure 1

DISTRIBUTION OF 25,217 CASES OF DRACUNCULIASIS REPORTED DURING 2006

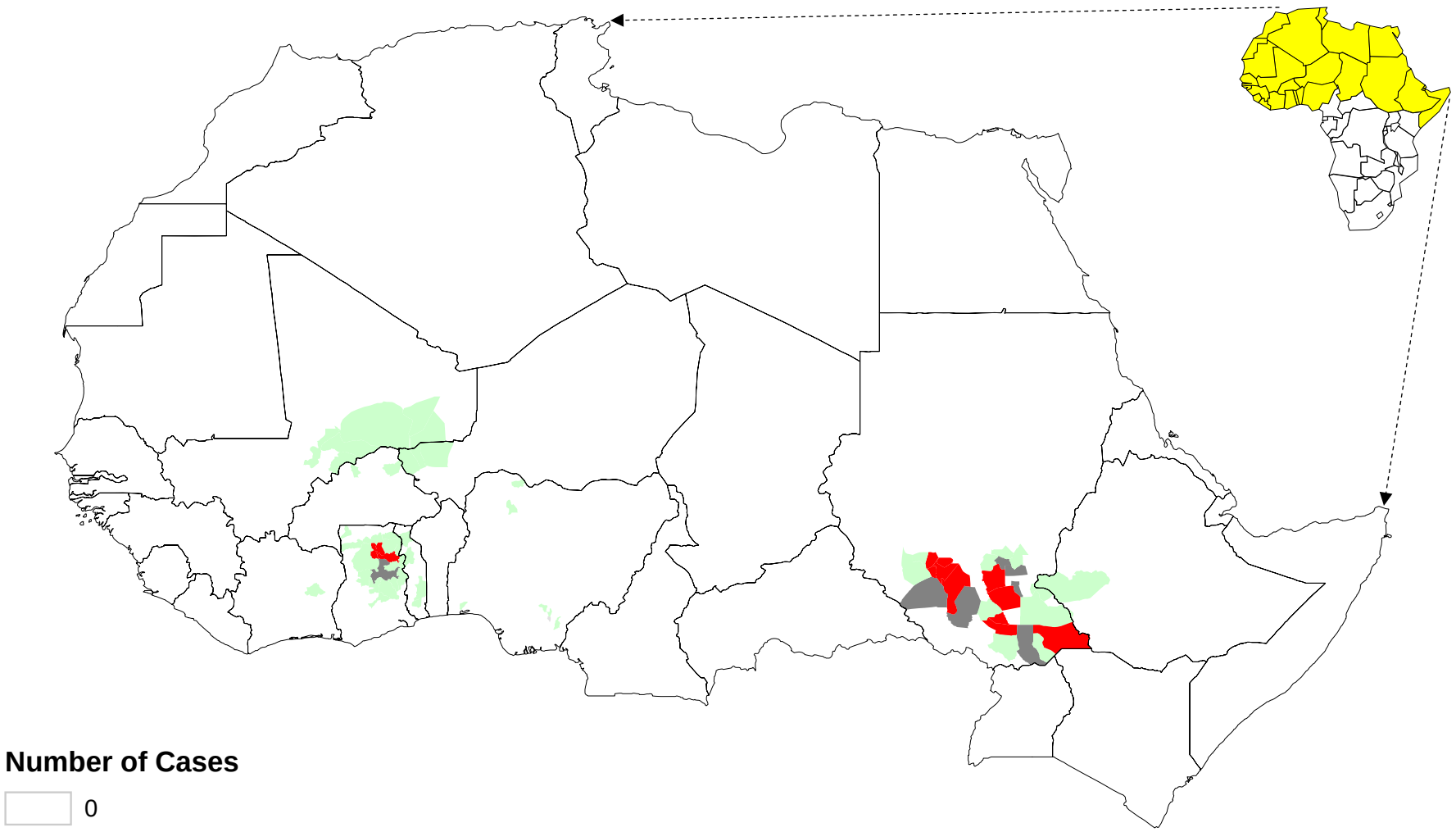


^ Year last indigenous case reported.
Numbers in parentheses indicate number of cases exported to and imported from other countries, respectively. Sudan exported 2 cases to Uganda during 2006

Pakistan and India certified free of disease in 1996 and 2000, respectively. Senegal and Yemen certified free of the disease in 2004, and Cameroon and Central African Republic in 2007.

Figure 2

Distribution of 25,216 Indigenous Cases of Dracunculiasis: 2006*



Number of Cases

- 0
- 1 - 99
- 100 - 199
- 200 +

* provisional

Table 3

Number of Cases Contained and Number Reported by Month during 2007*
(Countries arranged in descending order of cases in 2006)

COUNTRIES REPORTING CASES	NUMBER OF CASES CONTAINED / NUMBER OF CASES REPORTED													%
	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL*	CONT.
SUDAN	/	/	/	/	/	/	/	/	/	/	/	/	0 / 0	
GHANA	901 / 1009	682 / 752	/	/	/	/	/	/	/	/	/	/	1583 / 1761	90
MALI	0 / 0	0 / 0	/	/	/	/	/	/	/	/	/	/	0 / 0	
NIGER	3 / 3	0 / 0	0 / 0	/	/	/	/	/	/	/	/	/	3 / 3	100
TOGO	0 / 0	0 / 1	0 / 0	/	/	/	/	/	/	/	/	/	0 / 1	0
NIGERIA	7 / 32	9 / 9	1 / 1	/	/	/	/	/	/	/	/	/	17 / 42	40
BURKINA FASO	2 / 2	0 / 0	/	/	/	/	/	/	/	/	/	/	2 / 2	100
COTE D'IVOIRE	0 / 0	0 / 0	/	/	/	/	/	/	/	/	/	/	0 / 0	
ETHIOPIA	0 / 0	0 / 0	0 / 0	/	/	/	/	/	/	/	/	/	0 / 0	
TOTAL*	913 / 1046	691 / 762	1 / 1	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	0 / 0	1605 / 1809	89
% CONTAINED	87	91	100										89	
% CONT. OUTSIDE SUDAN	87	91											89	

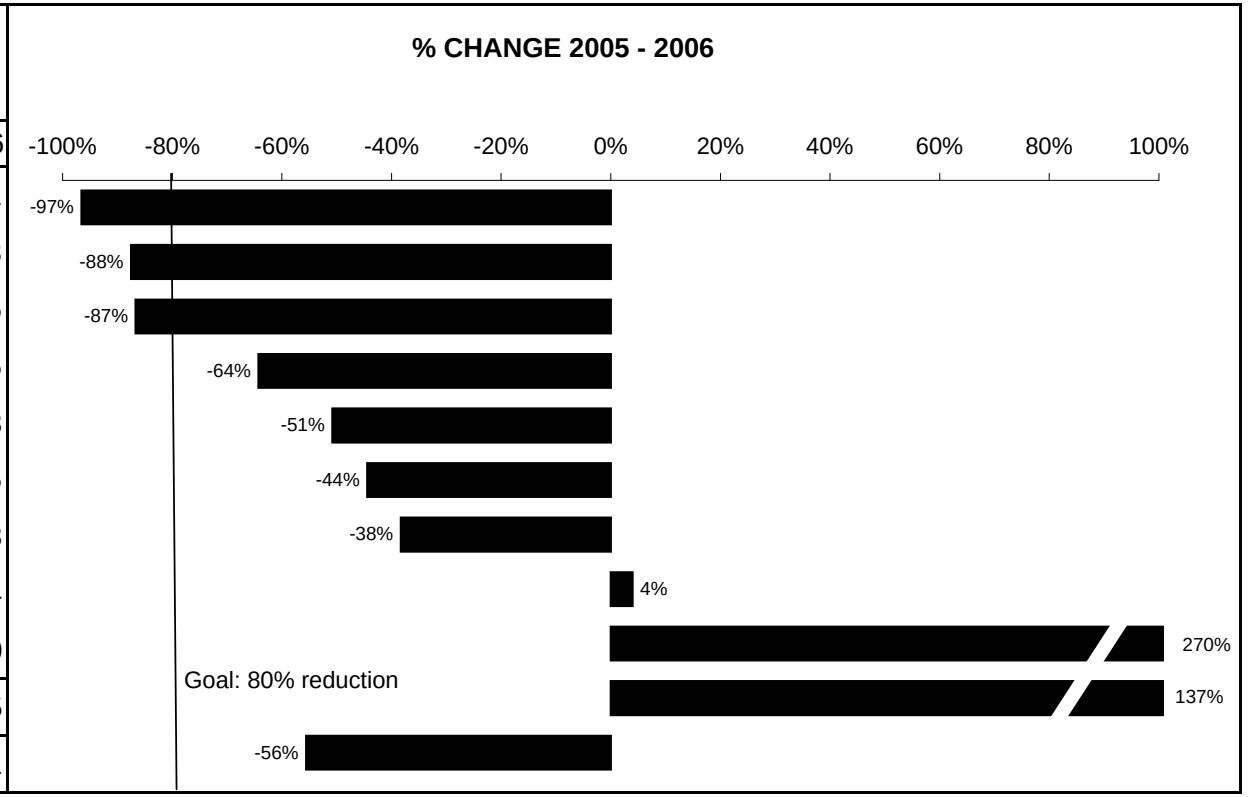
* provisional

Shaded cells denote months when zero indigenous cases were reported. Numbers indicate how many imported cases were reported and contained that month.

Figure 3

Number of Indigenous Cases Reported During the Specified Period in 2005 and 2006, and Percent Change in Cases Reported

Country	Indigenous Cases Reported	
	2005	2006
Ethiopia	29	1
Burkina Faso	24	3
Nigeria	120	16
Togo	70	25
Mali	656	323
Cote d'Ivoire	9	5
Niger	175	108
Ghana	3977	4134
Sudan	5569	20580
Total	10629	25195
All countries, excluding Sudan and Ghana	1083	481



Overall % change outside of Sudan = -9%

Figure 4

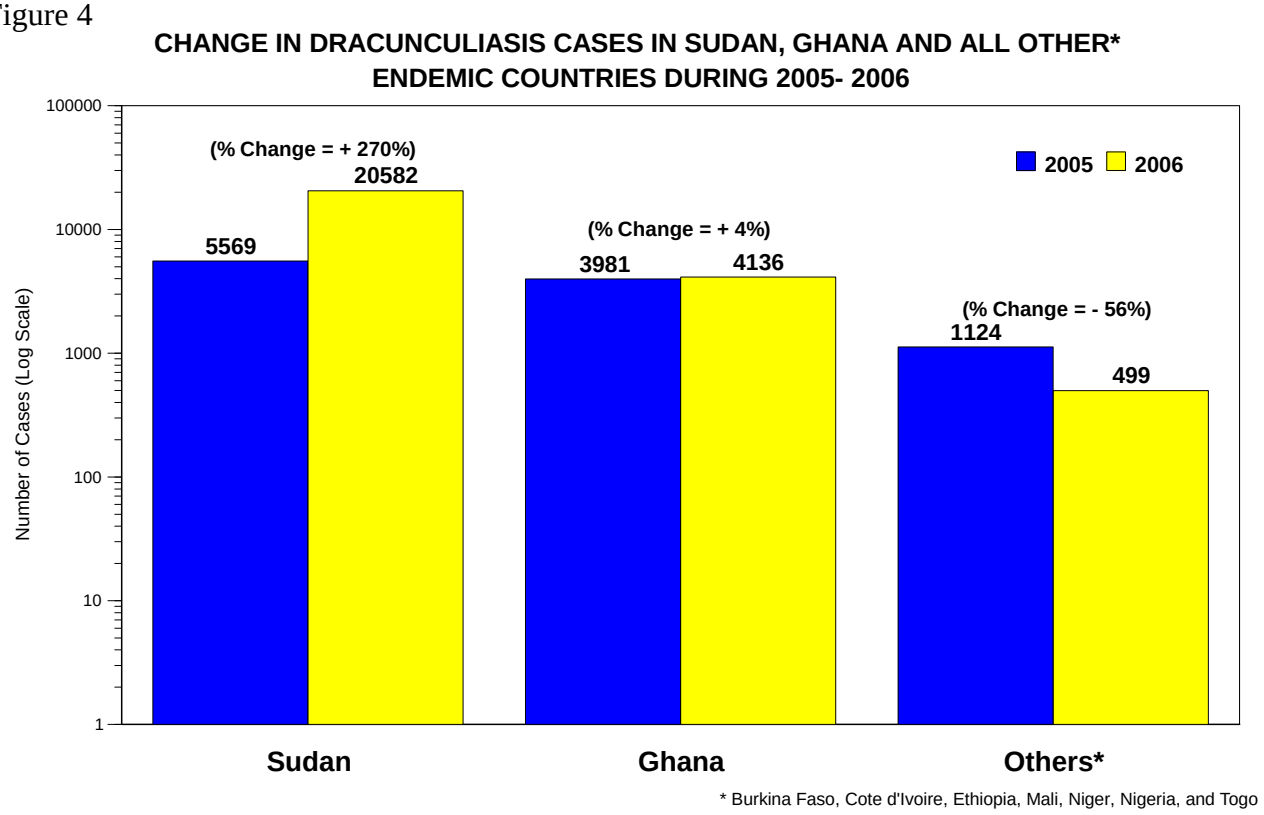


Figure 5

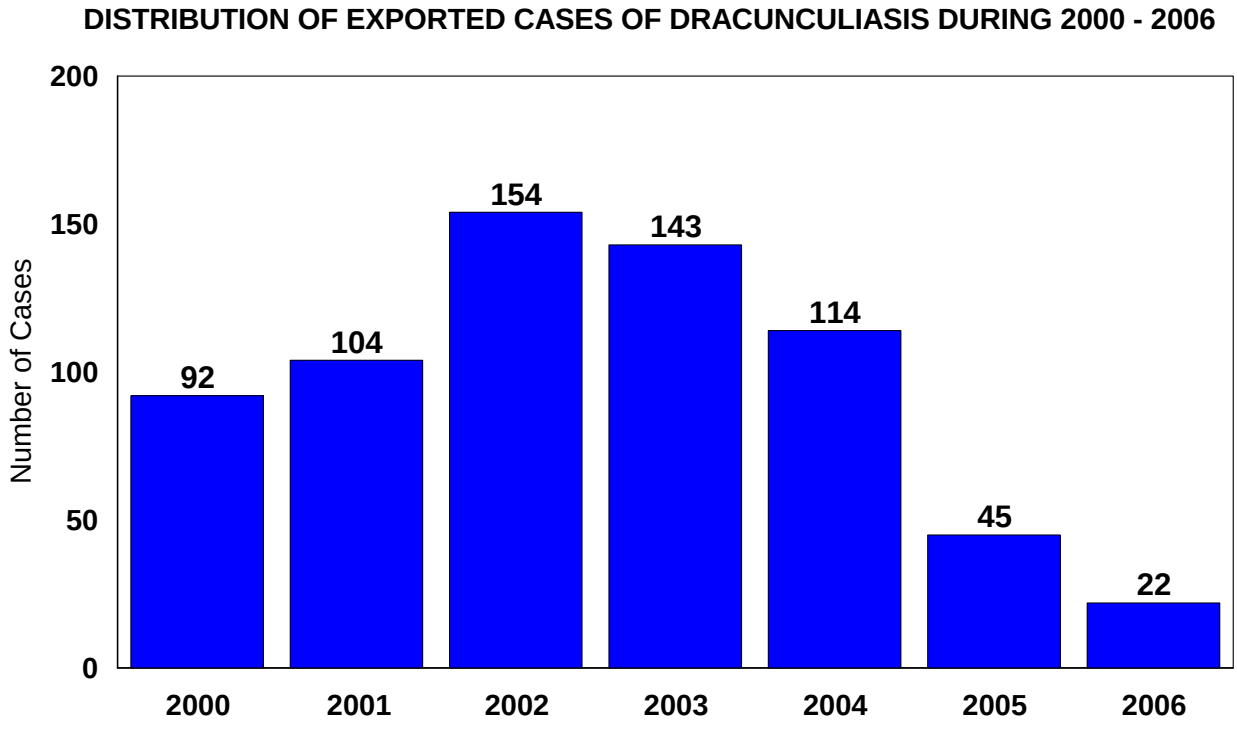
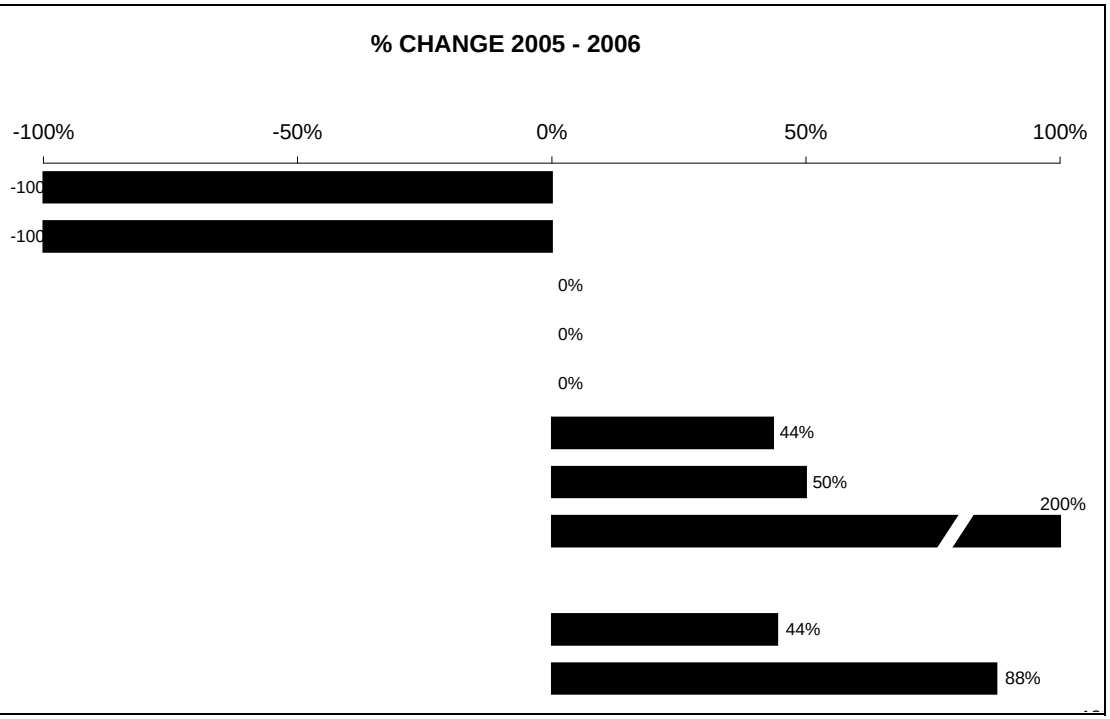


Figure 6

Number of Indigenous Cases Reported During the Specified Period in 2006 and 2007*, and Percent Change in Cases Reported

Country	Indigenous Cases Reported	
	2006	2007
Mali (2)	4	0
Togo (3)	4	0
Ethiopia (3)	0	0
Burkina Faso (2)	0	0
Cote d'Ivoire (2)	0	0
Ghana (2)	1227	1761
Niger (3)	2	3
Nigeria (3)	14	42
Sudan		
Total	1251	1806
All countries, excluding Sudan and Ghana	24	45



Overall % change outside of Sudan = 44%

(2) Indicates months for which reports were received, i.e., Jan. - Feb. 2006

* Provisional

an area with limited access due to insecurity and ethnic conflict. A reward of 100 Ethiopian Birr (~$12) is offered for reporting a case, and the national certification commission (established in 2002) is being revitalized.

Ghana reported 4,134 indigenous cases, most of which were from 5 districts in the central part of the Northern Region, and 2 cases imported from Mali. 606 villages reported one or more cases, including 346 endemic villages with indigenous transmission. Four cases were exported to Togo during 2006. A Program Review held at The Carter Center in Atlanta in August 2006 and a follow up visit to Ghana by Former U.S. President Jimmy Carter in February 2007 generated high-level attention to Ghana's eradication program by Ghanaian officials, intensive coverage of the recent increase in cases in local and international media, and recent improvements in interventions, especially case containment rates (89% and 91% in January, February 2007). There is no cash reward for reporting and a national certification commission has not been established yet.

Mali reported 323 indigenous cases in 88 localities and 6 cases imported from Niger (82% of the 329 cases reported were contained). Virtually all cases were reported from 4 contiguous districts: Ansongo (178), Gao (103), Mopti (16) and Gourma Rharous (15). None of the top 20 endemic localities has a source of safe drinking water. There is a reward of 5000 FCFA (~$10) for reporting a case. A national certification committee will be established in 2008.

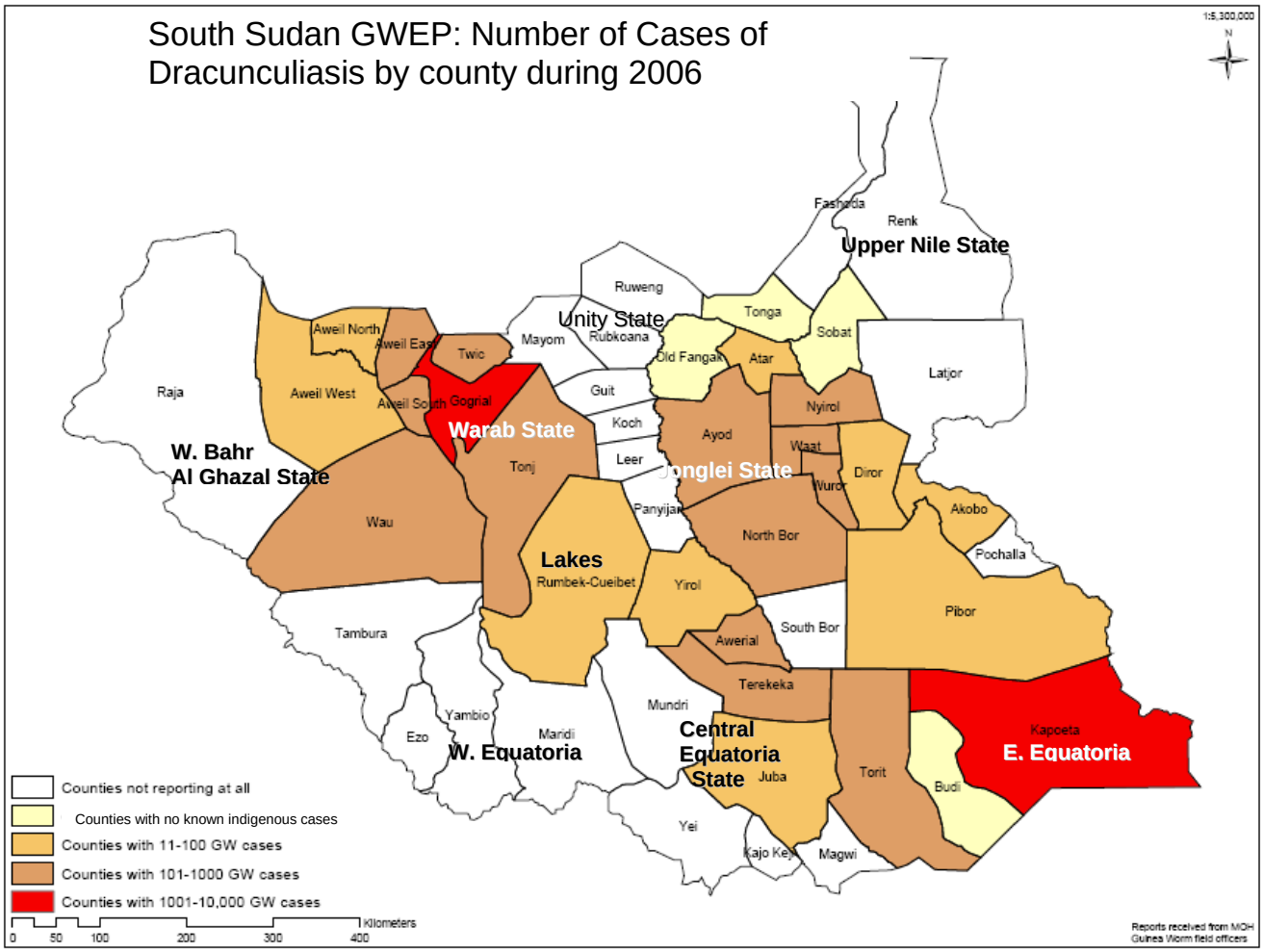
Niger reported 108 indigenous and 2 cases imported from Niger, of which 83% were contained, in 18 localities in 2006. Tillaberi District reported 64 of the cases, a 20% increase from the number of cases it reported in 2005. There is a reward of 5000 FCFA (~$10) for reporting a case. A national certification committee will be established in May 2007.

Nigeria reported 16 indigenous cases, 69% of them contained, in 10 villages in 2006, but detected a recent outbreak that has generated 41 cases in January-February 2007 (see Guinea Worm Wrap-Up #170). The cash reward for reporting a case is 1000 Naira (~$8). A national certification committee was established in May 2005. National coordinator Dr. K.A. Ojodu announced his retirement from government service effective June 2007.

Sudan reported 20,580 indigenous cases from 3,137 endemic villages of South Sudan, including one case exported from South Sudan into the northern states, plus two cases imported from Ethiopia, and contained 49% of the cases in 2006 (vs. 3% in 2005). The reporting rate improved to 62% (vs. 50% in 2005). All focus areas and most at-risk areas, together comprising 48 counties, are now under surveillance (almost 20,000 villages are under surveillance by the South Sudan Guinea Worm Eradication Program-SSGWEP, which was formed early in 2006). Only one county (Magwi, bordering Uganda) is inaccessible to the SSGWEP, due to insecurity created by the "Lord's Resistance Army". Three of the ten southern states (Western Equatoria, Upper Nile, Unity) have no evidence of indigenous transmission (Figure 7). The most intensive interventions with Abate (18% of endemic villages), water supply improvements (12 new water points provided by UNICEF & WHO), full coverage with cloth filters (68%), health education (89%), and case containment (58%), were in Eastern Equatoria State's three Kapoeta Counties, which together reported 13,674 cases in 2006, with a reporting rate of 73%. There is no reward for reporting of a case and no national certification committee.

Togo reported 29 cases, including 4 cases imported from Ghana, in 10 villages in 2006. 79% of the cases were contained, including 17 cases isolated in one of the Case Containment Centers. Togo only rewards patients who are isolated in a Case Containment Center. A national certification committee was established in July 2006.

Figure 7



ICCDE APPROVES CAMEROON, C.A.R. AND OTHER COUNTRIES

The International Commission for the Certification of Dracunculiasis Eradication (ICCDE) held its Sixth Meeting at the World Health Organization's headquarters in Geneva on 5-7 March 2007. The Commission reviewed reports submitted by several countries and noted significant progress towards eradication since its Fifth Meeting in 2004, including the reduction in the number of endemic countries from 20 in 1986 to 12 in 2003 to 9 in 2006; the latter 9 all in sub-Saharan Africa. The Commission recommended certifying 12 countries as free from transmission of dracunculiasis (Guinea worm disease): Afghanistan, Algeria, Cameroon, Central African Republic, Djibouti, Gabon, Liberia, Mozambique, Sierra Leone, Swaziland, Tanzania, and Zambia. A total of 180 countries and territories have now been certified; only the 9 still-endemic countries, 5 countries in the pre-certification stage, and 6 others remain to be certified (Figure 10). Some of the Commission's Conclusions and Recommendations are summarized below (the Commission's full report may be read at www.who.int/wer/en .

Conclusions

1. The ICCDE notes with satisfaction the excellent progress made by several endemic countries, in collaboration with The Carter Center, WHO, UNICEF and other partners, in decreasing transmission and eliminating guinea-worm, since its last meeting in 2004.

2. The Commission noted that dracunculiasis eradication was endorsed by the World Health Assembly in 1991 and 2004. As one of the Organization's two eradication initiatives, the programme requires greatly increased recognition, promotion and support at the highest level of WHO and partner organizations. This is merited because all the endemic countries now reside in sub-Saharan Africa and the most vulnerable populations are affected by this neglected tropical disease (NTD)

3. Despite the substantial progress made by the eradication programme, numerous operational and administrative challenges and obstacles to success remain, particularly in Ghana and Sudan.

4. As activities accelerate for completing eradication in endemic countries, certification actions will increase. These activities require careful coordination and cooperation between countries and partner organizations.

5. WHO staffing, operational and financial resources for strengthening surveillance, certification, documentation, communication, and coordination activities at HQ and in the field are inadequate. This requires urgent consideration in view of activities to be carried out for completion of the programme.

6. The ICCDE should participate more actively in review of field activities in countries preparing for certification and in endemic countries. The epidemiological situation and operational activities in Ghana and Sudan merit special field evaluation by the ICCDE.

7. Research at the WHO collaborating Center for Research, Training and Eradication of Dracunculiasis of the Centers for Disease Control and Prevention, Atlanta, on molecular identification of Dracunculus medinensis and related species has proceeded successfully and the CDC is congratulated by the Commission for this work; it is now possible to differentiate Dracunculus medinensis from other Dracunculus. This research, necessary to understand the biology, epidemiology, ecology and other operational research tied to disease elimination of guinea worm should continue.

8. Attention to the considerable progress and challenges to the programme need to be brought to the attention of the World Health Assembly (WHA) through the Executive Board (EB)

Recommendations

1. The leaders of countries involved in guinea-worm eradication and heads of partner organizations, including WHO, The Carter Center, UNICEF and others should speak and write publicly about the programme, citing the considerable progress made and challenges that remain. ICCDE members should also publicize the successes and status of' the programme in their countries, regions and through their professional societies.

2. Another meeting of the Ministers of Health of the programmes in endemic countries, especially Ghana and Sudan should be convened, with the regional directors of AFRO and EMRO and partner organizations, to define needs and accelerate global eradication: focus of this meeting should be on acceleration of transmission interruption and preparation for certification.

3. Monthly or quarterly updates should be given to Heads of State in endemic countries. Guinea-worm reports should be given to the leadership of the African Union during monthly calls as part of intensified efforts to increase high level advocacy for eradication and certification noting the unique African nature of the disease and the challenges and solutions needed for eradication and certification.

4. The current programme problems and possible solutions should be presented in April 2007 in Johannesburg at an African Union Ministers of Health Meeting.

5. An ICCDE representative should join the strategy review to be planned for May 2007 of the World Health Assembly to include Ministers from Ghana and Sudan and the Regional Director of AFRO and EMRO.

6. More frequent articles in the Weekly Epidemiological Record, other WHO publications and the general scientific and lay press are needed to inform the scientific and lay communities of programme progress: this requires coordination with The Carter Center and the CDC Collaborating Center which publishes the Guinea Worm Wrap-Up.

7. A guinea-worm website on the NTD page should be established at WHO to include up-to-date surveillance information and other dracunculiasis-related materials

8. In addition to improved surveillance and containment, increasing attention to provision of safe and accessible water to endemic villages and areas of epidemiological importance is required. This mandates that the guinea worm programme coordinate actively with UNICEF and other groups focusing on clean water, vector control and rural development.

9. More WHO human, financial, and other resources devoted entirely to guinea worm eradication are needed urgently and a detailed plan, including budget should reflect these needs and be prepared by April 2007.

10. The ICCDE should be informed well in advance of when national and regional guinea worm programme meetings are being held. Sub-groups of the ICCDE should participate in program reviews in the field with a view towards helping countries prepare for certification, including counseling and working with national commissions.

11. Worm specimens from the field should continue to be properly collected, conserved (in alcohol) and sent to the CDC WHO Collaborating Center for molecular characterization. A research agenda should be defined by CDC with others, to address epidemiology (i.e. reproduction rates and spreads, diagnosis, ecology, and importance of intermediate-host copepods, including the possibility of resistance to Abate) in endemic areas. The agenda should address social science research to better implement eradication programmes.

13. All countries, particularly those at immediate peril from endemic countries, need to continue guinea-worm surveillance until global eradication is achieved.

14. In view of the WHO strong advocacy for neglected tropical diseases, and eradication of guinea-worm specifically, the ICCDE asks the WHO Secretariat to inform the diplomatic representations to the UN in Geneva of the status of guinea worm eradication and required support for the remaining work. This should be done by oral, written and electronic communications, at the next mission briefing, and periodically thereafter.

15. The status of the eradication programme should be presented to the Executive Board and WHA in 2008 with a supportive resolution.

Detect each case immediately!

INTERAGENCY MEETING HELD AT OUAGADOUGOU

The Interagency Coordinating Group for Dracunculiasis Eradication met immediately after closure of the program managers meeting at Ouagadougou on March 29th. Participants included representatives of The Carter Center, WHO, UNICEF, Health and Development International (HDI), and the International Commission for the Certification of Dracunculiasis Eradication (ICCDE), as well as some of the delegates from Ethiopia, Ghana, Mali and Sudan, and others. Participants discussed outcomes of the program managers meeting and of the recent meeting of the ICCDE, strategies for accelerating progress in Ghana, and tentative venues and dates for Program Reviews later this year and for next year's meeting of program managers. The group was heartened by the ICCDE's intentions to step up advocacy for Guinea worm eradication, participate in subsequent program reviews and international Guinea worm meetings as much as possible, and that the ICCDE has urged WHO to do the same. During this year's World Health Assembly in Geneva, an informal meeting will be held at 6 PM on May 15 with Ghana and Sudan, to hopefully include both of the WHO regional directors concerned, some ICCDE members, and other invitees, including representatives from other endemic countries, The Carter Center and UNICEF. After visits by ICCDE members to Ghana and Sudan later this year, the ICCDE will send a written report to the meeting of WHO's Executive Board in January 2008, recommending a report to the May 2008 World Health Assembly. The Interagency Group also strongly recommended that the ICCDE's next meeting be held in Africa, ideally in association with next year's meeting of program managers or a program review, so that participants to each meeting could benefit from attending both. The group also suggested that the WHO Eastern Mediterranean Regional Office should provide more technical and financial support to Sudan, including the northern states, which have reached the pre-certification stage.

12TH NATIONAL DRACUNCULIASIS ERADICATION
PROGRAMME COORDINATORS' MEETING,
OUAGADOUGOU, BURKINA FASO, 27 – 29 MARCH 2007

GENERAL RECOMMENDATIONS

1. WHO should increase the involvement of members of the International Commission for the Certification of Dracunculiasis Eradication (ICCDE) in:
   - the National Programme Managers' meetings ;
   - the National Programme Review meetings and in ;
   - the International Certification Teams' (ICT) missions.
2. All Guinea Worm Eradication Programmes (GWEPs) should report and monitor, monthly on the functionality of existing boreholes in all endemic and under active surveillance villages.
3. All guinea worm endemic countries should aim to achieve 100 % coverage by vector control intervention, in all eligible villages, during the next transmission season.

COUNTRY SPECIFIC RECOMMENDATIONS

BURKINA FASO

The program of Burkina should:

1. Implement the reward system, to improve nation-wide surveillance for cases of dracunculiasis. The modalities of the reward system should be consistent with those of Mali and Niger;

2. Develop a plan of action and the budget needed to ensure the implementation of a nation-wide reward system in 2007.

The Ministry of Health should:

1. Establish, by October 2007 or sooner, a functioning National Commission/Committee for the Certification of Dracunculiasis Eradication;

2. Appoint, as soon as possible, a National Programme Coordinator.

COTE D'IVOIE

The Ministry of Health should, by October 2007, formalize the National Committee for the Certification of Dracunculiasis Eradication in Côte d'Ivoire.

The programme of Côte d'Ivoire should:

1. Collaborate with "les forces nouvelles" to facilitate the interventions against transmission of dracunculiasis in the endemic or at risk zones in the northern part of the country;

2. Strengthen the cross-border surveillance activities, particularly with Ghana to ensure detection of all cross border cases;

3. Develop a protocol, plan of action, and budget needed to ensure the implementation a nation-wide reward system during 2007.

ETHIOPIA

The programme of Ethiopia should:

1. Remain vigilant in all formerly endemic and high-risk areas in strengthening surveillance activities.

2. Collaborate with the Sudanese programme, particularly with Southern Sudan, to promptly detect and contain any cross border cases as they occur.

3. Revitalize the National Commission for Certification of Dracunculiasis Eradication.

4. Activate surveillance activities in Akobo Woreda, in all villages and cattle camps.

GHANA

The programme of Ghana should:

1. Continue to collaborate with Togo's programme on implementing cross-border coordination meetings and on improving communications through local radio FM stations, with villages along the border with Togo, using the financial support from UNICEF/Togo and UNICEF/Ghana;

2. Recruit persons from recalcitrant communities to help improve the programme interventions, community mobilisation and behaviour changes.

MALI

The programme should start hospitalising cases of dracunculiasis voluntarily as part of its strategy of case containment.

NIGER

1. The government and partners of Niger's programme should seek for additional resources aimed at improving the coverage of endemic villages/localities, particularly the region of Tilaberi, with safe drinking water.

2. The Niger Guinea worm eradication programme should improve the quality and frequency of supervision of village volunteers and of scouts and village animators by the Tillaberi district supervisory staff, and the national secretariat staff.

NIGERIA

The Federal Ministry of Health (FMOH) and its partners should:

1. Strengthen its national integrated disease surveillance and response system, and include reporting case of dracunculiasis to enhance the likelihood of detecting any hidden cases of GWD in the entire country to avoid "surprises".

2. Continue to support and strengthen pre-certification activities: monitoring and supervisory activities, especially in zero case communities/villages.

3. The Nigeria programme should intensify active case detection and reporting, using all possible means, including the cash rewards scheme in areas that have been freed from Guinea worm disease.

SUDAN

The Government of South Sudan should:

1. Increase its support for the GWEP during the period 2007-2009 to ensure that transmission of GWD is stopped by the target date of December 2009.

2. Work with its partners to effectively implement the water supply projects, immediately after the 2007 rainy season.

The South SUDAN programme should:

1. Do its best to get access into the only inaccessible area of Magwi County as soon as possible.

2. Work with its Ethiopian counterparts in order to establish effective cross-border collaboration.

3. Aim at achieving 100% reporting rate in all known endemic villages, during 2007.

4. Scale up its vector control and case containment coverage in 2007.

5. Improve its IEC/BCC (Behaviour Change and Communication) strategies in order to maximize the benefits from all GW interventions.

TOGO

1. The partners of Togo's programme should strengthen their support to the programme: WHO for the pre-certification activities and UNICEF for the activities related to provision of safe water and maintenance of existing pumps.

2. The Government of Togo should, in line with the "Geneva declaration on dracunculiasis eradication" provide financial support to the programme.

Contain each case completely!

Figure 8, depicts the trend in reductions of cases of dracunculiasis during 1989-2006. Changes in the number of endemic villages in Sudan, Ghana, and all other 7 endemic countries combined is shown in Table 4, and the current status of the campaign in terms of countries is shown in Figure 9.

Figure 8

NUMBER OF REPORTED CASES OF DRACUNCULIASIS BY YEAR, 1989- 2006

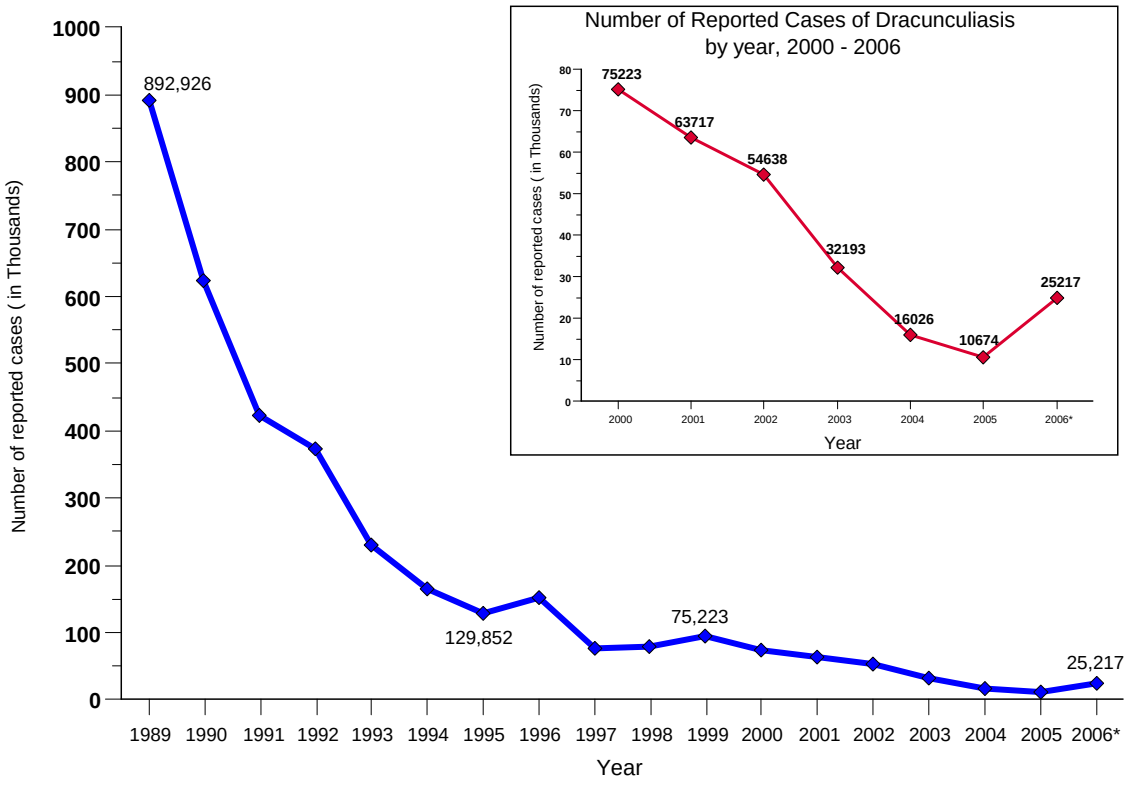


Table 4

DRACUNCULIASIS ERADICATION CAMPAIGN
ENDEMIC VILLAGES AND % CHANGE: 2005 - 2006

Countries	Endemic Villages		% Change
	2005	2006	
Sudan	1085	3137	+189%
Ghana	422	346	-18%
Others*	181	86	-52%
Total	1688	3569	+111%

*Mali, Niger, Togo, Nigeria, Cote d'Ivoire, Burkina Faso, and Ethiopia

Figure 9

Guinea Worm Eradication Program
Status of Eradication Efforts: 2006

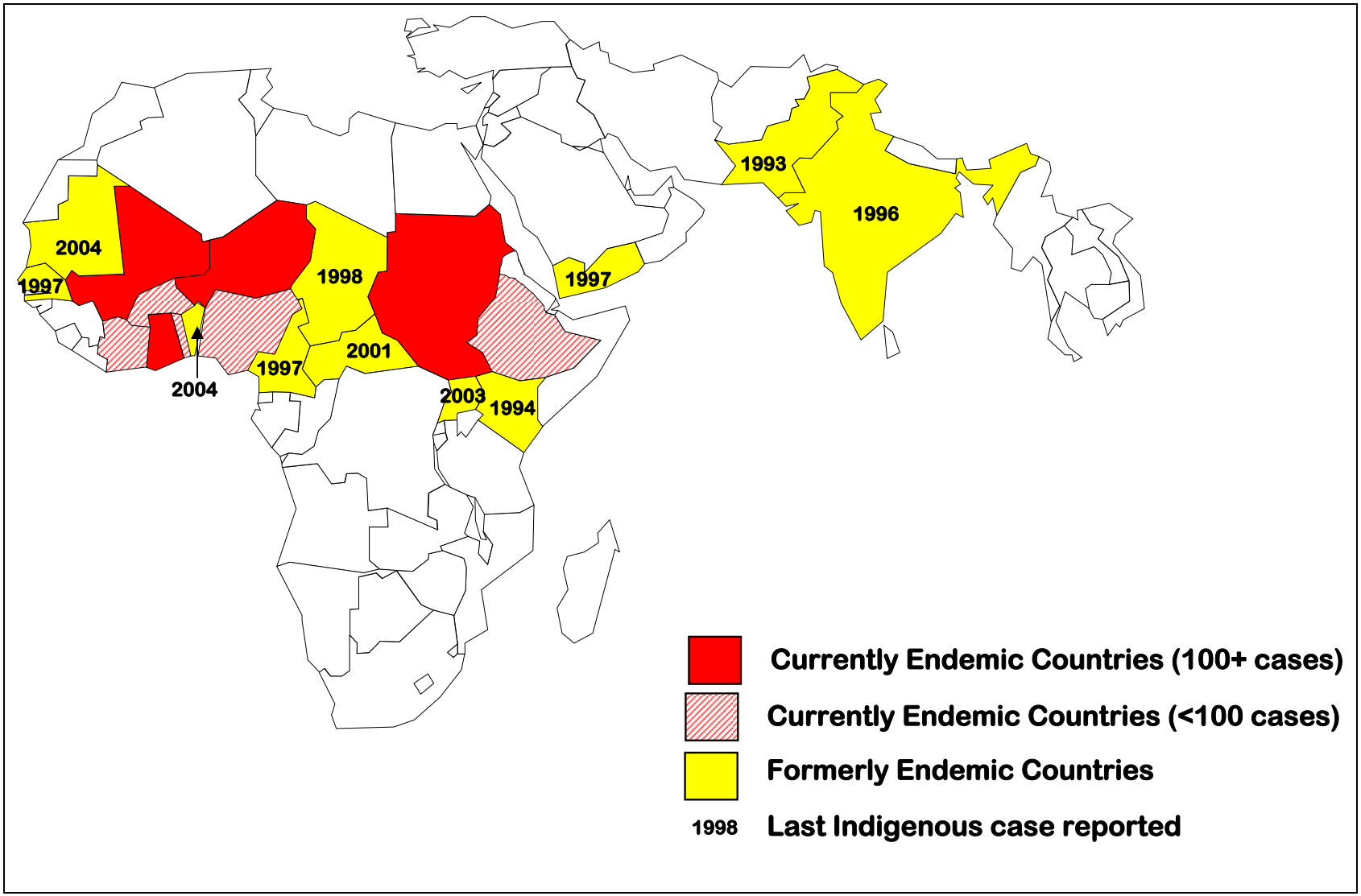
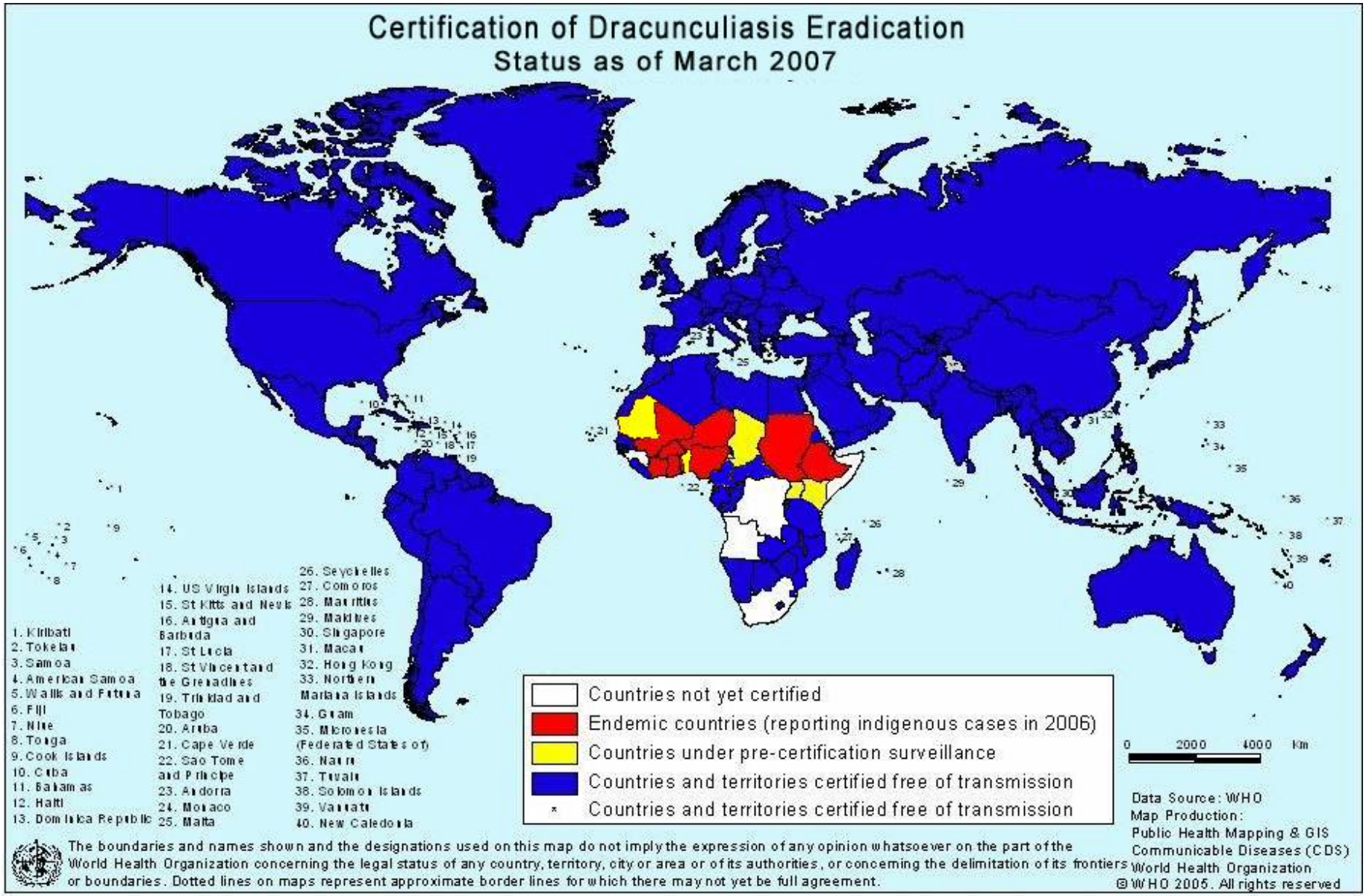


Figure 10


Certification of Dracunculiasis Eradication
Status as of March 2007
1. Kiribati
2. Tokelau
3. Samoa
4. American Samoa
5. Wallis and Futuna
6. Fiji
7. Niue
8. Tonga
9. Cook Islands
10. Cuba
11. Bahamas
12. Haiti
13. Dominica Republic
14. US Virgin Islands
15. St Kitts and Nevis
16. Antigua and Barbuda
17. St Lucia
18. St Vincent and the Grenadines
19. Trinidad and Tobago
20. Aruba
21. Cape Verde
22. Sao Tome and Principe
23. Andorra
24. Monaco
25. Malta
26. Seychelles
27. Comoros
28. Mauritius
29. Maldives
30. Singapore
31. Macau
32. Hong Kong
33. Northern Mariana Islands
34. Guam
35. Micronesia (Federated States of)
36. Nauru
37. Tuvalu
38. Solomon Islands
39. Vanuatu
40. New Caledonia
Countries not yet certified
Endemic countries (reporting indigenous cases in 2006)
Countries under pre-certification surveillance
Countries and territories certified free of transmission
Countries and territories certified free of transmission
0 2000 4000 Km
Data Source: WHO
Map Production:
Public Health Mapping & GIS
Communicable Diseases (CDS)
World Health Organization
The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.
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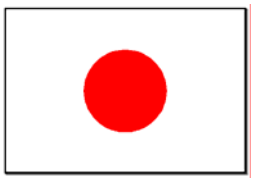
MORE JAPANESE SUPPORT FOR NIGERIA, SUDAN, AND GHANA



On March 16, the Ghana Health Service (GHS) took receipt of 20 motorcycles and three vehicles from the Japan International Cooperation Agency (JICA). The motorcycles and vehicles were presented by Miyuki Tan, Project Coordinator on behalf of Hiroshi Murakami, Resident Representative of JICA. Ten of the motorcycles were forwarded by GHS to the Environmental Protection Unit of Ghana's Ministry of Local Government, Rural Development and Environment, as well as the Ghana National Disaster Management Organization (NADMO) to help enforce bylaws to prevent water point entry by Guinea worm patients in Ghana's most endemic districts. Dr. Andrew Seidu Korkor, National Coordinator of the Ghana Guinea Worm Eradication Program, presented the motorcycles to the Northern Regional Minister, Alhaji Mustapha Ali Idris, in Tamale. The donation is valued at $103,000 and will help support Guinea worm eradication in the five highest endemic districts: Savelugu/Nanton, Tolon/Kumbungu, Tamale, East Gonja, and Yendi.

On March 11 in Sudan, the Embassy of Japan pledged $79,800 to the Southern Sudan Guinea Worm Eradication Program for the purchase of 420,000 Guinea worm pipe filters. The contract was presented by H.E. Ambassador Yuichi Ishii to The Carter Center in the presence of H.E. Dr. Theophilus Ochang Lotti, Minister of Health Government of Southern Sudan; Mr. Primo Celerino, Coordinator for the Ministry of Health, Government of Southern Sudan; and Dr. Nabil Aziz, National Guinea Worm Program Coordinator, Federal Ministry of Health. This is the 6th grant to The Carter Center for Sudan's GWEP by the Government of Japan, which has provided a total of $634,000 for this program in Sudan since 1999.

In Nigeria, H.E. Ambassador Aiko Janaka announced in March the government of Japan's approval of a Small Scale Grant Aid Agreement in the amount of $53,007 to The Carter Center to help support Guinea worm eradication efforts in Nigeria's Enugu and Ogun States. Activities funded by the grant include the construction of two borehole wells, one of which will be in Ezza Nkwubor, the site of the recent outbreak in Enugu State. H.E. Ambassador Aiko Janaka personally visited the project area in Ogun State, and a team from his embassy visited Ezza Nkwubor village.

TRANSITIONS

Mr. Miles Kemplay has replaced Mr. Raymond Stewart as The Carter Center's Resident Technical Advisor to the Sudan Federal Ministry of Health, Khartoum, on Guinea worm disease eradication, trachoma control, and onchocerciasis elimination. Welcome Miles!

Mrs. Chinyere Uzoamaka Maduka, South East Zone Consultant, Nigeria Guinea Worm Eradication Program, successfully completed in February 2007, her academic requirements for a Doctoral Degree (Ph.D) in Public Health Parasitology, from the Department of Biological Sciences, University of Abuja, Nigeria. Congratulations Mrs. Maduka! Well done!!

Explain each case thoroughly!

DEFINITION OF CASE CONTAINMENT

A case of Guinea worm disease is contained if all of the following conditions are met:
1. The patient is detected before or within 24 hours of worm emergence; and
2. The patient has not entered any water source since the worm emerged; and
3. The village volunteer has properly managed the case, by cleaning and bandaging until the worm is fully removed, and by giving health education to discourage the patient from contaminating any water source (if two or more emerging worms are present, the case is not contained until the last worm is pulled out); and
4. The containment process, including verification that it is a case of Guinea worm disease, is validated by a supervisor within 7 days of the emergence of the worm.

RECENT PUBLICATIONS

Anonymous, 2007. Carter: "Fight against Guinea worm disease needs more effort". New African April: 50-51.

Abah B, 2007. The war against worms. Tell, March 5: 47-51.

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

For information about the GW Wrap-Up, contact the WHO Collaborating Center for Research, Training, and Eradication of Dracunculiasis, NCZVED, Centers for Disease Control and Prevention, F-22, 4770 Buford Highway, NE, Atlanta, GA 30341-3724, U.S.A. FAX: 770-488-7761. *The GW Wrap-Up web location is http://www.cdc.gov/ncidod/dpd/parasites/guineaworm/default.htm.*

CDC is the WHO Collaborating Center for Research, Training, and Eradication of Dracunculiasis.