

Anopheles mosquito feeding.

A young child comatose with cerebral malaria in the children's ward at Ifakara Hospital, Tanzania.

表1 重症熱帯熱マラリアの病態と合併症¹⁾

Defining criteria of severe disease

1. Cerebral malaria (unrousable coma)
2. Severe normocytic anaemia
3. Renal failure
4. Pulmonary oedema
5. Hypoglycaemia
6. Circulatory collapse, shock
7. Spontaneous bleeding/disseminated intravascular coagulation
8. Repeated generalized convulsions
9. Acidaemia/acidosis
10. Malarial hemoglobinuria

other manifestations

1. Impaired consciousness but rousable
2. Prostration, extreme weakness
3. Hyperparasitaemia
4. Jaundice
5. Hyperpyrexia

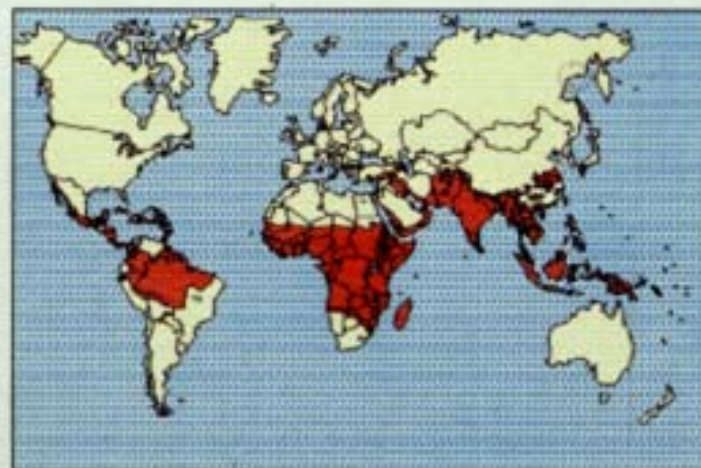
MALARIA DISTRIBUTION 1946 - 1967 - 1996



1946



1967



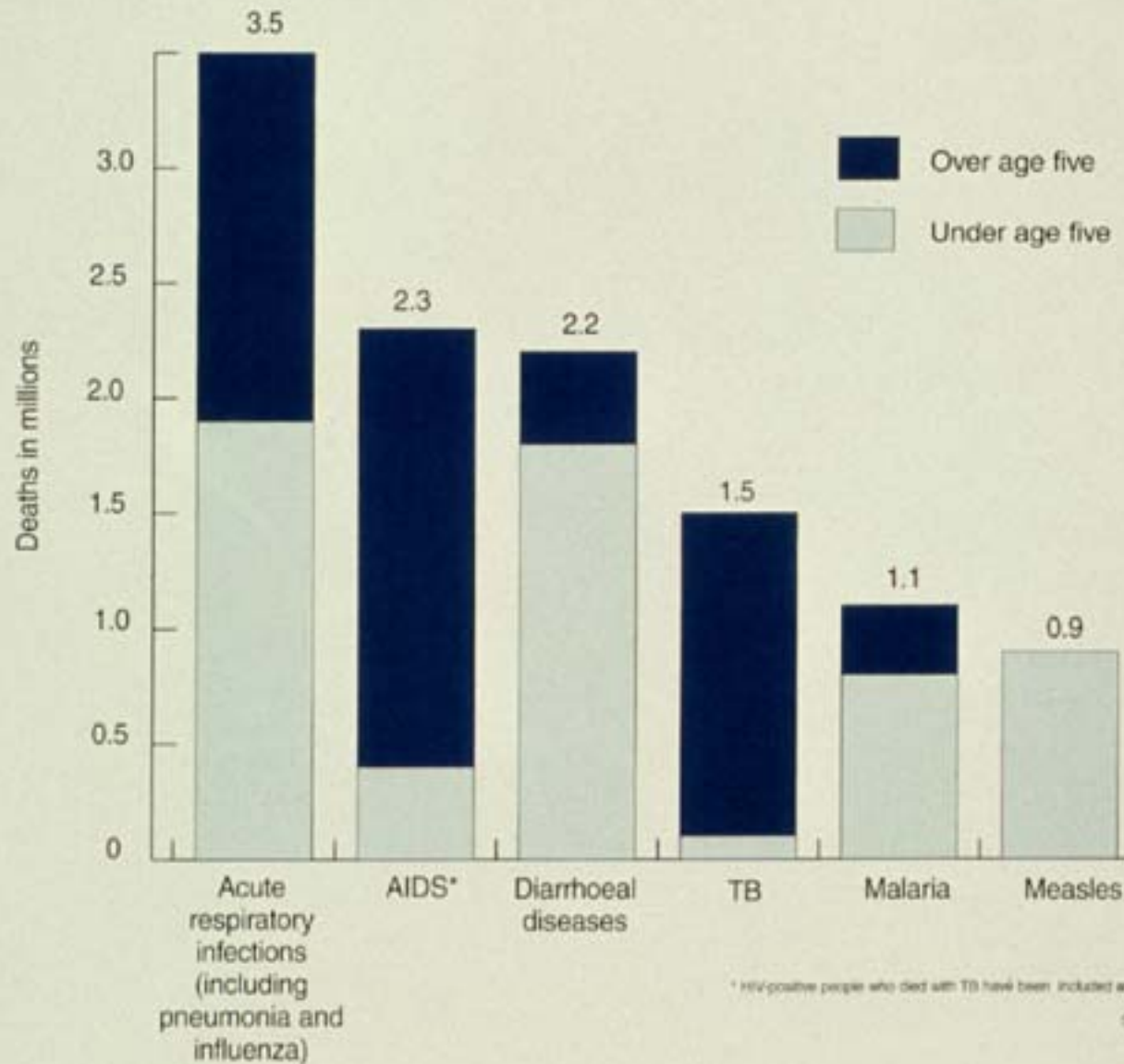
1996



WHO/CTD

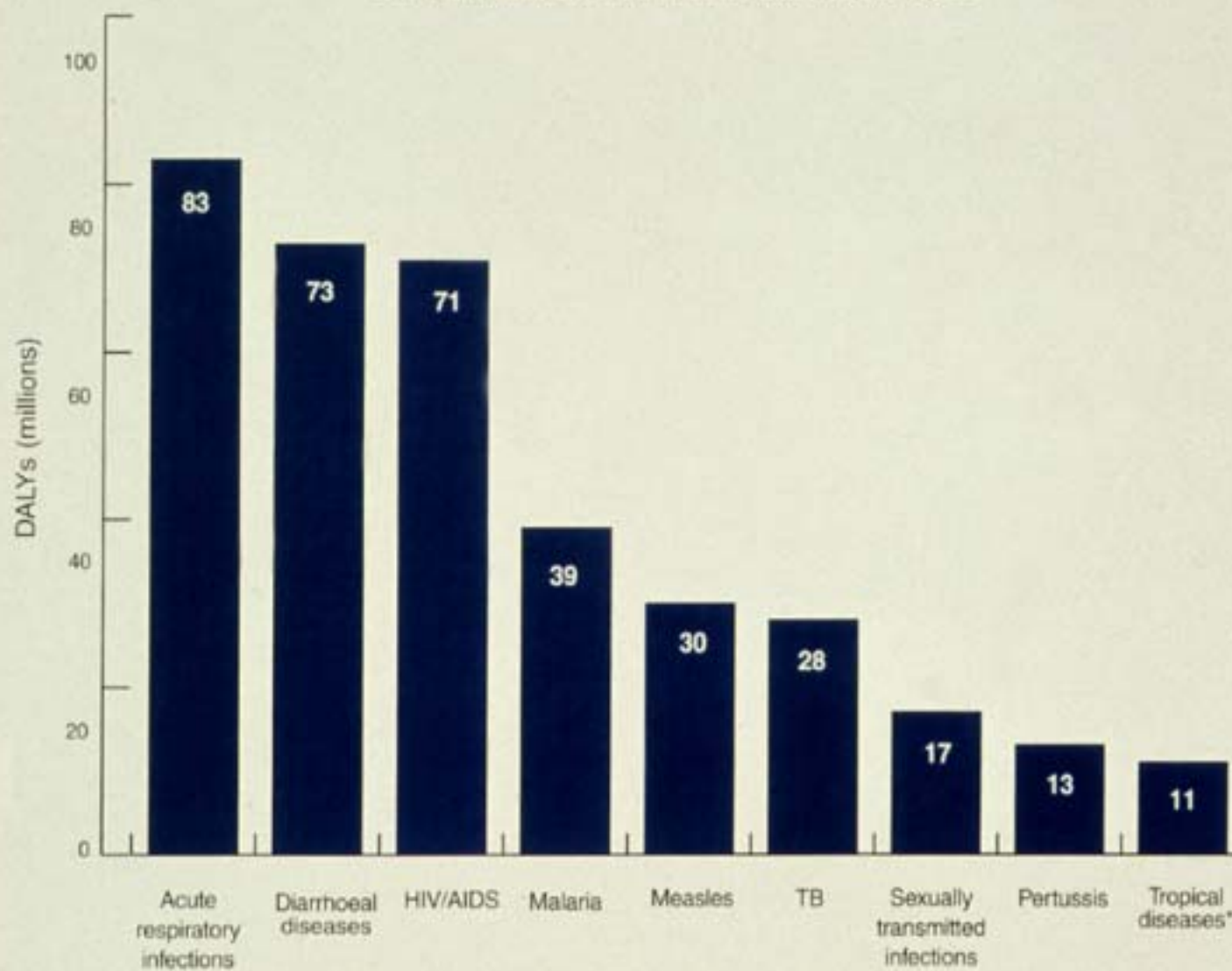
Leading infectious killers

Millions of deaths, worldwide, all ages, 1998



Burden of disease

DALYs (Disability Adjusted Life Years) lost in 1998
due to infectious diseases, millions, all ages




* Tropical diseases include trypanosomiasis, Chagas disease, schistosomiasis, leishmaniasis, lymphatic filariasis and onchocerciasis.
Note: One DALY is one lost year of healthy life.

Source: WHO, 1999

マラリア流行のきっかけ

- 大規模な開発事業
- 大規模な人口移動
- 都市の拡張
- 気象異常
- 自然災害、戦争、森林破壊
- マラリア対策の成功
- 対策組織の崩壊、人的資源の崩壊



エイズ、結核、マラリアの経済負荷

- HIV/AIDS
 - ①GDP projected to drop by up to 8% in Sub-Saharan Africa by 2010, and by more than 20% by 2020
 - ②It is estimated that governments of some countries lose as much as 20% of public revenue by 2010
- Tuberculosis
 - ①3-4 months lost work time wit 20-30% lost household income
 - ②15% greater health expenditure
- Malaria
 - ①GDP in Sub-Saharan Africa would be US\$ 100 billion greater if malaria had been controlled 35 years ago
 - ②Poor families spend up to 25% of their annual income for malaria treatment, adding to the burden of those who are already most deprived

Recent commitment against Malaria

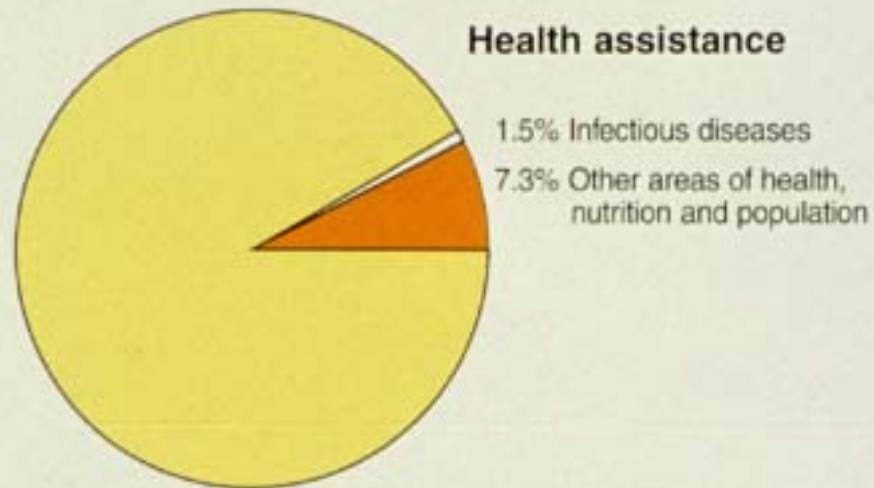
- 1991~1998: Malaria control expertise and capacity were expanded and strengthened particularly in Africa, especially through the project for Accelerated Implementation of Malaria Control (1997~1998)
- 1997: Task Force against Malaria Control and Prevention (WHO)
- 1997: New research collaborations, notably the Multilateral Initiative on Malaria
- 1998: The Roll Back Malaria Partnership was launched and consensus on the core technical strategies for tackling malaria established
- 2000: The United Nations declared 2001~2010 the Decade to Roll Back Malaria in developing countries, particularly in Africa (UN General Assembly, Resolution 55/284)
- 2000: Malaria figured prominently in the United Nations' Millennium Development Goals (General Assembly Official Records, 27th Special Session)
- 2000: African heads of state met in a historic summit in Abuja, Nigeria, to express their personal commitment to tackling malaria and to establish targets for implementing the technical strategies to Roll Back Malaria
- 2001: Resources for controlling malaria were significantly boosted with the establishment of GFATM

The Global Fund: A new resource to fight malaria(Africa, global fund component approvals as of January,2003

■ Country	Total commitment over two years (US\$)
■ Benin	2,389,185
■ Burkina Faso	7,144,703
■ Comoros	1,534,631
■ Ethiopia	37,915,012
■ Ghana	4,596,111
■ Kenya	10,506,880
■ Malawi	20,872,000
■ Mozambique	12,273,573
■ Somalia	8,890,497
■ Tanzania	11,959,076
■ Uganda	23,211,300
■ Multicountry Africa	7,424,815
■ Total	256,206,713

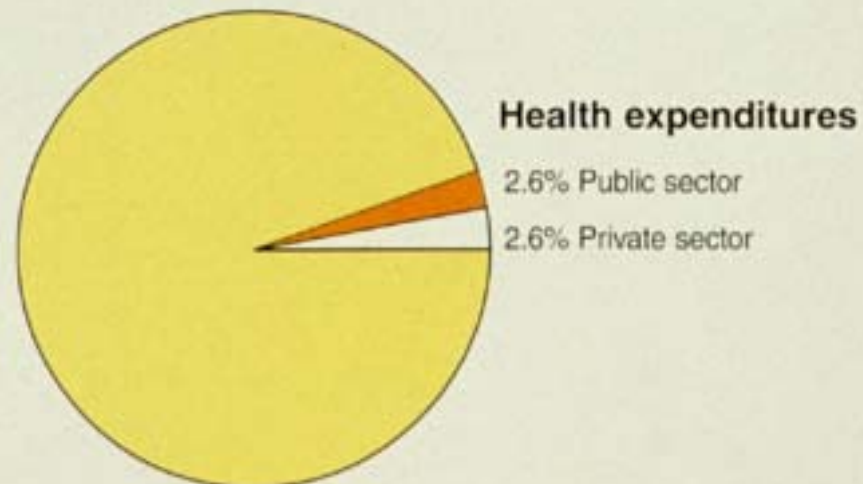
Limited funding

**Total donor
assistance
worldwide**



Source: Global Comparative Assessments in the Health Sector

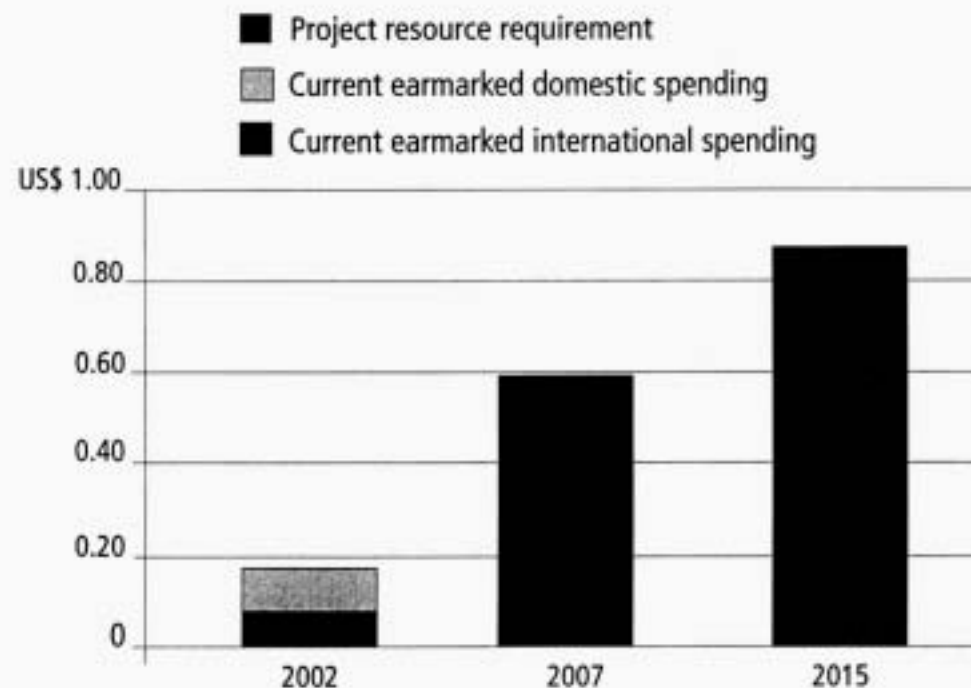
**Total GDP
worldwide**



Source: WHO, 1999

Countries and donors still need to increase spending for malaria

Recent estimates of what is financially necessary for malaria control with available tools suggest an approximate US\$ 0.6–0.9 (2002 US\$) per capita by 2007 and 2015, respectively, a significant increase from current levels of financing.

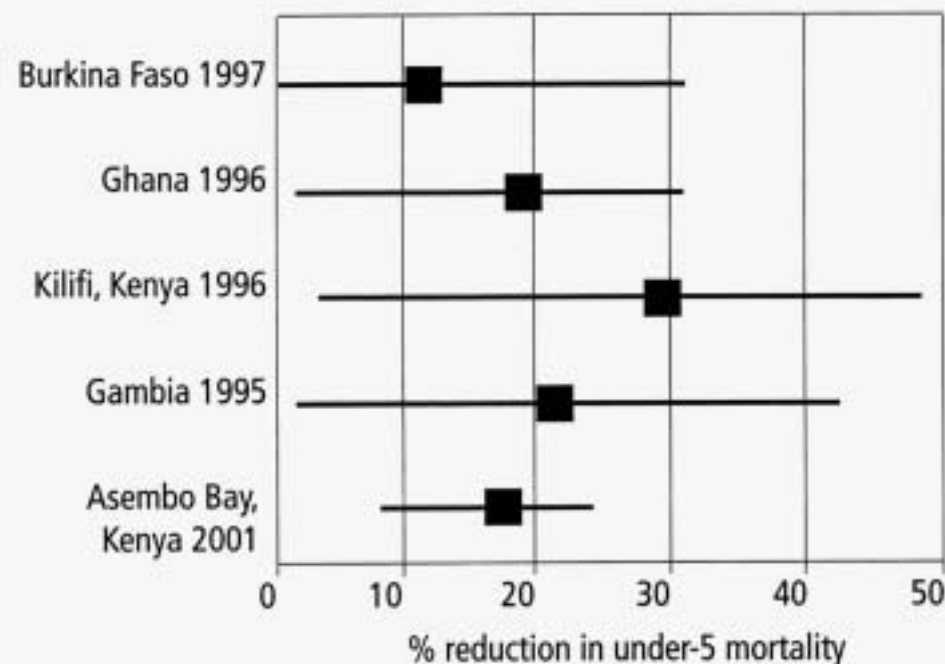


Note: Chart refers to malaria control in Africa south of the Sahara

Source: reference 1

Figure 6.7

ITNs reduce under-5 mortality

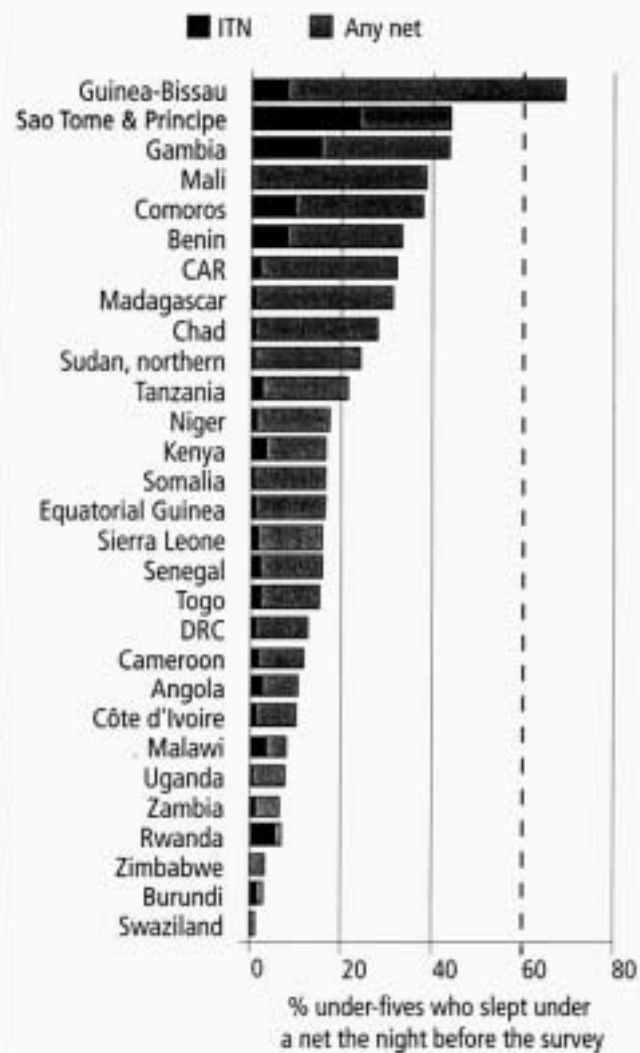


Randomized controlled trials showed an overall under-5 mortality reduction of 17% in communities provided with ITNs compared with communities not provided with ITNs. The impact was similar across a range of malaria endemicities. Impact derives not only from a reduction in malaria deaths, but also from reductions in child deaths due to other causes that are associated with, or exacerbated by, malaria, such as acute respiratory infection, low birth weight, and malnutrition.

Source: reference 5, 24

Figure 2.1

Use of nets in Africa



Note: Dotted line indicates Abuja target.
For Mali and Zimbabwe no data on ITNs available.

Source: MICS and DHS, 1998–2001

Figure 2.3

Hashimoto Initiative

Former Prime Minister Mr. Hashimoto raised the issue at Denver Summit in June 1997



Set up the working group//International Workshop



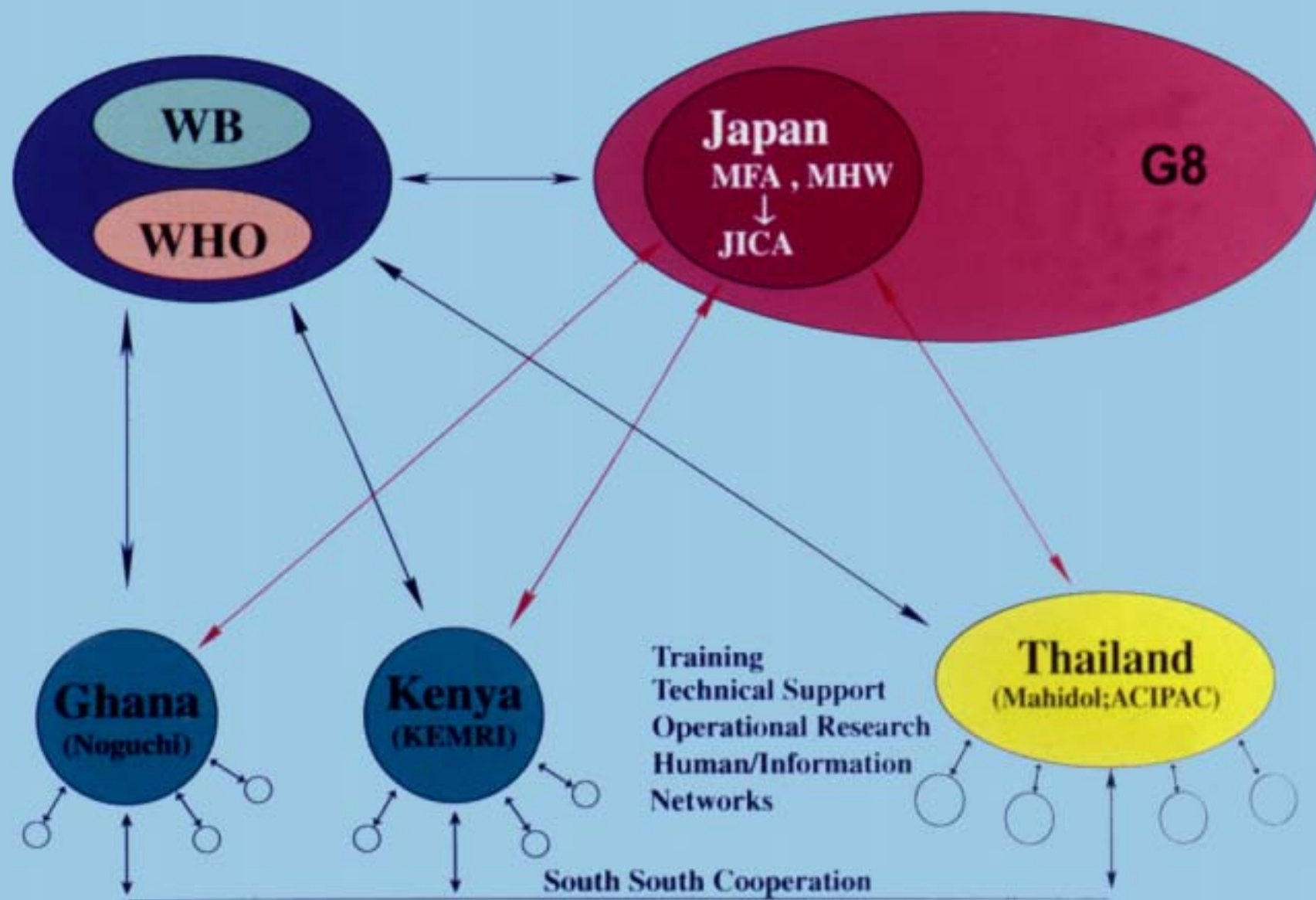
Report

Proposed by Mr. Hashimoto and discussed at Birmingham Summit in May 1998

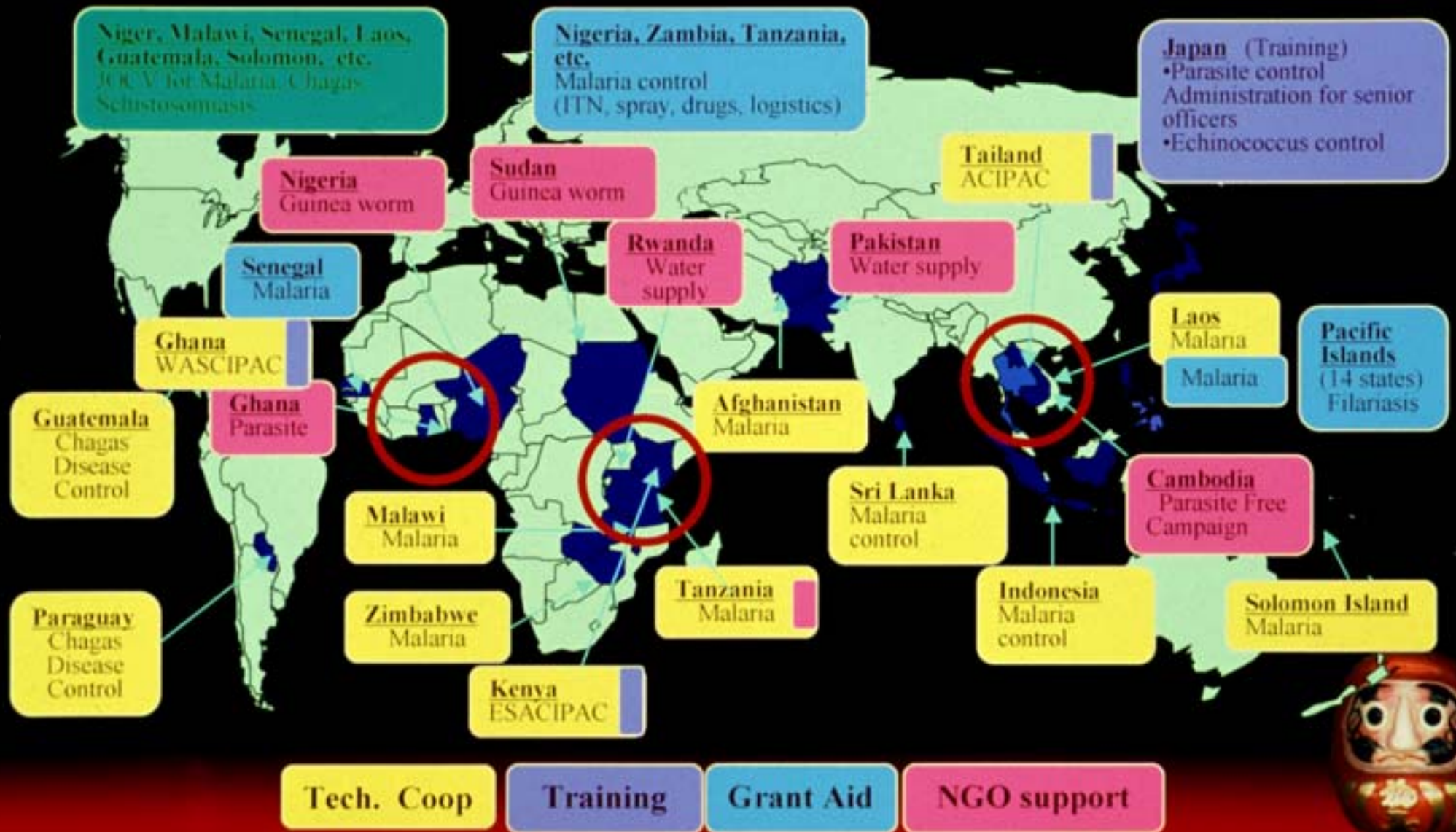
Communique



High Level Political Commitment



Contribution to Global Parasite Control



Not only a health problem

Minor, indirect or no factor
 Important factor
 Very important factor

	Malaria	TB	AIDS and STIs	Schistosomiasis	Influenza	ARI	Diarrhoeal disease	Measles	Cholera	Yellow fever	Dengue
Deforestation	Important factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Important factor	Minor, indirect or no factor
Climate change	Very important factor	Minor, indirect or no factor	Minor, indirect or no factor	Important factor	Important factor	Important factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Important factor	Important factor
Irrigation projects and dams	Important factor	Minor, indirect or no factor	Minor, indirect or no factor	Very important factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor
Poor sanitation and hygiene	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Very important factor	Minor, indirect or no factor	Minor, indirect or no factor	Very important factor	Minor, indirect or no factor	Very important factor	Very important factor	Very important factor
Hunger and malnutrition	Minor, indirect or no factor	Important factor	Minor, indirect or no factor	Minor, indirect or no factor	Important factor	Very important factor	Very important factor	Very important factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor
Illiteracy	Important factor	Minor, indirect or no factor	Important factor	Important factor	Minor, indirect or no factor	Minor, indirect or no factor	Important factor	Important factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor
Low status of women	Important factor	Important factor	Very important factor	Minor, indirect or no factor	Minor, indirect or no factor	Important factor	Important factor	Important factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor
Lack of adequate housing	Very important factor	Very important factor	Minor, indirect or no factor	Minor, indirect or no factor	Important factor	Important factor	Important factor	Very important factor	Very important factor	Important factor	Very important factor
Increased travel and migration	Important factor	Minor, indirect or no factor	Important factor	Important factor	Very important factor	Minor, indirect or no factor	Very important factor	Very important factor	Very important factor	Very important factor	Very important factor
Lack of multisector coordination	Very important factor	Important factor	Very important factor	Very important factor	Important factor	Important factor	Important factor	Minor, indirect or no factor	Very important factor	Very important factor	Very important factor
Lack of surveillance system	Very important factor	Minor, indirect or no factor	Important factor	Minor, indirect or no factor	Very important factor	Minor, indirect or no factor	Minor, indirect or no factor	Very important factor	Very important factor	Very important factor	Very important factor
Unavailability of health services	Very important factor	Very important factor	Very important factor	Very important factor	Very important factor	Very important factor	Very important factor	Very important factor	Very important factor	Important factor	Important factor
Lack of prevention tools or strategies	Minor, indirect or no factor	Minor, indirect or no factor	Important factor	Minor, indirect or no factor	Important factor	Important factor	Minor, indirect or no factor	Minor, indirect or no factor	Very important factor	Minor, indirect or no factor	Important factor
Failure to use prevention strategies	Very important factor	Very important factor	Very important factor	Very important factor	Very important factor	Very important factor	Very important factor	Very important factor	Very important factor	Very important factor	Very important factor
Lack of effective treatment	Minor, indirect or no factor	Minor, indirect or no factor	Very important factor	Minor, indirect or no factor	Minor, indirect or no factor	Important factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor
Failure to use treatment strategies	Very important factor	Very important factor	Minor, indirect or no factor	Very important factor	Very important factor	Very important factor	Very important factor	Minor, indirect or no factor	Very important factor	Minor, indirect or no factor	Very important factor
Lack of effective vaccine	Very important factor	Very important factor	Very important factor	Very important factor	Minor, indirect or no factor	Important factor	Important factor	Minor, indirect or no factor	Important factor	Minor, indirect or no factor	Very important factor
Failure to use vaccine	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Very important factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Minor, indirect or no factor	Very important factor	Minor, indirect or no factor
Other factors	Minor, indirect or no factor	Misuse of antibiotics	Religious factors	Minor, indirect or no factor	Minor, indirect or no factor	Gender as problem	Minor, indirect or no factor	Minor, indirect or no factor	War and disaster	Urbanization	Urbanization

Source: WHO estimates, based on available information.