REVIEW

Child health in Africa: 2005 a year of hope?

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The aim of this paper is to give an overview of the most important national and international factors impacting on child health in Africa. Adverse issues are discussed and progress reviewed, including a discussion about the integrated management of childhood illness, which is important both nationally and close to the child's home. The ways in which paediatricians are, or may become, more effectively involved in improving what is a massive tragedy for children are also considered.

In many African countries, one child in five dies before they are 5 years old compared to one in 150 in the UK.[1 2] Eleven million children under 5 die each year, 40% of them in Sub-Saharan Africa (SSA).[1] Factors that affect children's health can be looked at in terms of issues that are proximal to the child (domestic or around the home), such as household income, and issues distal from the child (national or international factors), such as a country's ability to provide free health care.

The link between poor child health and poverty is well established, and more than 99% of the deaths in children <5 years occur in a setting of poverty.[3] Nutrition is highly correlated with income[4] and the leading cause of morbidity and mortality in Africa is malnutrition.[5] More than 50% of all childhood deaths can be attributed to being underweight.[1] The estimated contribution that under-nutrition makes to the individual causes of deaths is 50% in measles related deaths, 60% in pneumonia, 65% in malaria, and 70% in diarrhoea.[6] Since malnutrition and poverty play such a major role in child health, it is appropriate that we, as children's advocates, should be involved in the debate about issues that lead to poverty. Thus while directly supporting projects overseas, we can also advocate for economic justice, which arguably will have a much greater effect on children's health.

FACTORS CAUSING THE GREATEST BURDEN OF DISEASE IN CHILDREN IN AFRICA

The causes of mortality in African children follow four main patterns. (table 1). An individual country's profile of disease largely depends on the impact of malaria and AIDS.[1]

The multiple exposures multiple effects (MEME) model (fig 1)[7] emphasises the complex relations between environmental, social, political, and economic conditions on child health outcomes. Using this model, Briggs looked at the five illnesses that cause the main burden of disease.[7] The factors impacting child health may be broadly categorised into economic, political, social, and environmental (see table 2). 1

ADVERSE FACTORS AFFECTING THE PROVISION OF HEALTH CARE FOR AFRICAN CHILDREN AT THE NATIONAL OR INTERNATIONAL LEVELS

Economic

Africa has a crippling foreign debt and the 48 countries of Sub-Saharan Africa spend $14.5 billion[8] or 10% of exports of goods and services[9] repaying past loans of questionable legitimacy.[10] Between 1998 and 2001, African countries paid out $17.5 billion more in debt repayments than they received in aid or new loans.[11] Many African countries spend more on servicing debt than on health or education. These repayments are made to the world's richest nations and international institutions.[8] Most debt dates from the 1960s and 1970s, when many countries became independent. After the reconstruction of Europe, following the Second World War, the World Bank (WB) started lending money to developing countries for infrastructure such as roads. The International Monetary Fund (IMF) lent money to overcome ''balance of payment'' problems. During the period 1960–80, growth and development showed great gains in terms of improvements in child mortality, life expectancy, and literacy. However, these gains all slowed dramatically between 1980 and 2000. With respect to debt, three events contributed to this:

- In 1968 the World Bank floated bonds on international capital markets—this brought lots of money into the bank's coffers. Staff thereafter were promoted in proportion to the amount of loans they could persuade poor countries to take on as opposed to the quality of projects they financed.[11]
- In 1973 the OPEC (Oil Producing and Exporting Countries) countries quadrupled the price of oil and invested in western banks which then peddled these monies to African states, with little thought about how they

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Abbreviations: CAH, Child and Adolescent Health department; DFID, Department for International Development; FDI, foreign direct investment; HIPC, heavily indebted poor countries; IMCI, integrated management of childhood illness; IMF, International Monetary Fund; LDC, least developed countries; MEME, multiple exposures multiple effects; RCPCH, Royal College of Paediatrics and Child Health; SAP, structural adjustment policies; SSA, Sub-Saharan Africa; TRIPs, Trade Related Intellectual Property Rights; WB, World Bank; WHO, World Health Organisation; WTO, World Trade Organisation

Table 1 Burden of disease in children <5 years of age in Sub-Saharan Africa (SSA)[1]

Main causes of death in children <5 years	Horn of Africa	Eastern SSA	Southern SSA	West and central SSA
Neonatal disorders	34%	28–30%	31%	20–26%
Pneumonia	24%	17–19%	20%	20–26%
Diarrhoeal diseases	24%	17–19%	20%	20–26%
Malaria	<10%	26%	6%	20–26%
AIDS	<10%	>10%	23%	<10%

would be repaid.[11] These loans were not always used to build infrastructure that benefited the population. An example is the Democratic Republic of Congo. This is a country with abundant natural resources but its people are among the poorest in Africa. Until 1997, President Mobutu had been a dictator there for 32 years, receiving heavy support from the USA. He is reported to have amassed a private fortune of between $5 and $10 billion.[12]

- In 1981, the US treasury set interest rates at very high levels. Prior to this, inflation had been higher than interest rates so African countries had been paying the loans with no interest. Suddenly, because their contracts specified variable rather than fixed interest rates, they had to pay real rates of 8–10% and the magnitude of their debts mushroomed.[11]

To repay debts, African countries depend on exporting their products, mostly basic commodities such as food and minerals. Falling global prices for primary commodities began to take a toll.[10]

To ensure African debts were repaid, in the 1980s the International Monetary Fund (IMF) introduced structural adjustment policies (SAP). A typical SAP required a government to liberalise trade, reduce social spending, and increase exports.[13] As a consequence, African countries increased exports to service foreign debts, often at the expense of available food for the local population.[14] SAP result in diminished local health budgets and the introduction of user fees (where patients contribute financially towards their health care). These had major adverse effects on health,[15] with many families resorting to traditional healers and self medication. As a result of user fees, a visit to a doctor could cost up to 15% of a family's monthly income. In the case of Ghana, these policies resulted in a fall in attendance's at healthcare facilities from 10.7 million to 1.57 million between 1971 and 1991.[16]

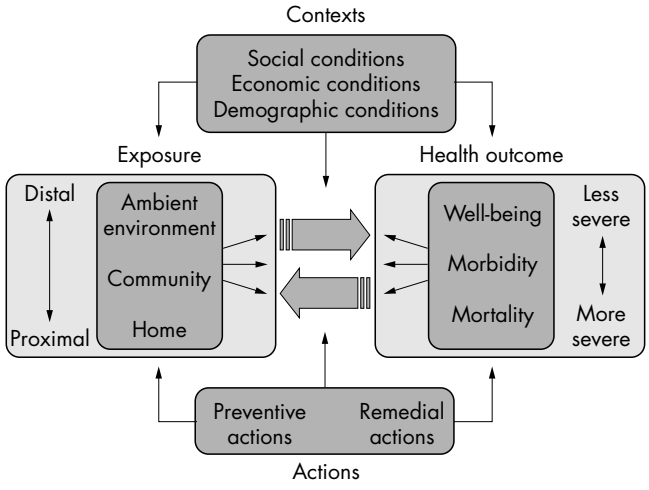

Figure 1 The MEME model.

In many African countries, there are parallel departments within governments, often in the ministry of finance, which support IMF and WB policies. Their priority is debt repayment rather than improving public services and their actions can modify the aims of the elected government. Structural adjustment policies have also contributed to ethnic and regional conflict. In Sierra Leone the misery wrought played a role in the development of the Revolutionary United Front. This faction claimed to represent the needs of the population not being met by the elected government and they played a major part in a subsequent and devastating civil war.[16] Countries with large debts have to follow instructions from the IMF or face international bankruptcy. Without the seal of approval from the IMF, a country cannot gain credit from any source. One consequence of debt in Africa is that it places control in the rich and powerful countries; a form of colonialism. IMF export led policies have ensured a global excess of commodities, thereby ensuring low prices for raw materials from Africa and benefiting transnational companies based in rich countries.[11]

Openness to trade can involve a reduction in tariffs (import duties) and/or decrease trade barriers such as quotas (limits to the amount that a country may accept of certain imports). Although this has raised the standard of living for many, the World Bank recently concluded that such openness to trade has had a negative impact on the world's poorest 2 billion people. In 1948, Africa (excluding South Africa) had a 5.3% share of world trade. In 2002 this had dropped to 1.7%, despite the fact that Africa has 12% of the world's population.[8] Rich countries protect their markets against exports from the poorest countries through import duties and quotas. Africans could earn more from basic crops if they were first allowed to process these for export. For example, Ghana can export raw cocoa duty free to Europe, but a 25% tariff is imposed if they process that cocoa before exporting it.[8] At the same time rich countries subsidise their own agricultural sectors to the tune of a billion dollars a day, making it impossible for African farmers to compete internationally.[8] Loan conditions have also required poor countries to reduce their trade barriers, and as a consequence subsidised food from the EU and USA is sold below the cost of local production in Africa.

In 1947 the General Agreement on Trade and Tariffs (GATT) came into being. Between 1986 and 1993, the Uruguay Round of Talks resulted in a charter for the newly formed World Trade Organisation (WTO). The WTO is the place where rules on trade are written. However, of the 38 African nations, which are members of the WTO, 15 nations have no representative at all in the headquarters in Geneva, and four nations have an office consisting of only one individual.[14] Most rich nations have dozens of staff to protect their trading interests,[8] and transnational companies have professionals to lobby for them to ensure their voice is heard.[11] The WTO oversees agreements made by its 148 members. In theory it is a ''one country one vote'' system, but in practice it is a consensus reached by the USA, EU, Japan, and Canada.[11] African countries opened their markets after

Table 2 Factors impacting the health of children aged <5 years in Africa

	Economic	Political	Social	Environmental
National or international	Debt Trade and investment Quantity and quality of foreign aid	Conflict; inside and with neighbouring countries Population movement—internally displaced persons (IDPs) or refugees Amount of corruption Amount of GDP spent on health, education, and defence	Free and widely available education Population growth Prevalence of HIV and access to antiretroviral medication	The proportion of the population with improved quality water and sanitation Infrastructure to deal with natural disasters
Domestic (in or around the home)	Sufficient food Parents employed Shelter Free or affordable healthcare	Living in a refugee/IDP camp or in a conflict/post-conflict situation	Free education Number of children in the family Family affected by HIV	Access to improved quality water and sanitation

the Uruguay Agreement on Agriculture, while rich countries protected their agriculture by erecting barriers to food imports.[13] This agreement provided special treatment for rich countries. Developing countries accepted the Agreement on Agriculture because they believed they would benefit from subsidy reduction in OECD countries. Loopholes were found and as a result, OECD subsidies actually increased and dumping (the sale of products below the cost of production) has been legitimised rather than illegalised.[19] EU subsidies have actually increased by 36% between 1992 and 1999.[19] This has resulted in many small farmers in Africa being squeezed off their land.[19]

The Trade Related Intellectual Property Rights (TRIPs) agreement, which aims to protect intellectual property, was also reached during the Uruguay Round of Talks. This set of rules was clearly tailored to protect pharmaceutical, software, and biotechnology companies based in rich countries. As an example they extended patent protection worldwide for 20 years, one consequence being that poor countries were unable to manufacture or purchase less expensive antiretroviral medication. Patents are also used to control agricultural products. If a plant is patented, the owner of the patent has exclusive rights over the plant and farmers could be forbidden the use of any seeds coming from that plant.[13]

The General Agreement on Trade and Services (GATS) was introduced at the Uruguay talks. Each country can decide which sector of their market on services (utilities) to open, but they are put under enormous pressure to open their markets. International trade in services is dominated by a few large transnational companies; it is impossible for developing countries to compete with them and the terms of sale are often unfavourable. For example, when a US company was awarded a contract for a power plant in Uganda, the contract required the government to buy all the power produced at a fixed price on foreign exchange markets.[19]

Foreign direct investment (FDI) in the least developed countries (LDC) should produce some capital for development. However, such investment has mostly concentrated in those countries producing oil. In 2002, 63% of all such investment went to five oil producing LDCs, including Angola, Chad, Sudan, and Equatorial Guinea.[4]

Africa receives $14 billion in development assistance (aid) each year.[20] However, much of the money given by rich countries to poor countries is actually ''tied'' to the interests of rich government. This means that poor countries have to spend a portion of their aid buying goods and services from the donor country. One World Bank survey estimated that, not surprisingly, such ''tied'' aid was 20% less effective than untied aid.[8] In the UK, the overseas development assistance is 0.31% of gross national income (GNI),[22] while the UN target is 0.7%. Only five countries have reached the 0.7% target—Denmark, Luxembourg, the Netherlands, Norway, and

Figure 2 Child terminally ill with HIV/AIDS and severely depressed.

Table 3 Examples of advocacy

	Body	Examples of advocacy
National	The UK government and UK media	Highlight examples of where debt and unfair trade practices are impacting on child health in Africa. Highlight the importance of giving a minimum of 0.7% GNI as humanitarian aid untied to conditions which benefit the UK
European	Parts of the European Commission involved in trade and agriculture and the European media	Make representation to the EU trade and agricultural commissioner about how unfair trade is resulting in malnutrition and poor health for African children
International	IMF, World Bank, WTO, G8, US government	Make representation to these bodies about unfair trade rules and structural adjustment policies which have adversely impacted on child health

Sweden.[8] Repayments of debt drain public budgets and naturally results in aid being less effective than it might be.[21]

Political

Armed conflict is associated with poor child health; of the 20 countries with the worse under 5 mortality rates, only three of them were not involved in conflict between 1990 and 2000.[23] Two million children were killed in armed conflict between 1986 and 1996,[24] and 85% of conflicts since World War II have been in poor countries. War disrupts food production, and in some countries up to 35% of arable land cannot be used because of land mines and unexploded ordnance.[13] During the 1970s when foreign debt was accumulating, developing countries would have borrowed 20% less each year had they made no foreign arms purchase. Some country's resources have been used on military spending to keep dictators in power. The main suppliers of arms are the permanent members of the UN Security Council, and the vast majority of sales in major conventional weapons go to developing countries.[23]

Conflict results in displaced populations. In Africa at the end of 2003, there were 4.3 million refugees, asylum seekers, and internally displaced persons.[25] Child mortality in displaced communities is 60% higher than among non-displaced children in the same country.[23]

There is a need for national responsibility when it comes to the provision of health care. Democracy encourages governments to act on matters of public concern,[13] and generally to improve child health there must be investment in promoting democracies.[26] In 1973, when debt was accumulating there were only three elected Heads of State in Africa. However, some responsibility for this debt must lie with the creditors, particularly the World Bank for its failed development projects.[10] The World Bank ranks governments according to certain indicators such as accountability, stability, absence of violence, effectiveness, and control of corruption.[27] IMF dictated adjustments, however, have resulted in a long list of conditions that can restrict the development of responsible governments,[28] for example since the GATS agreement countries have been forced to liberalise trade under structural adjustment policies.[19]

Governments chose what proportion of their central funds are spent on health, education, and defence. For example, between 1992 and 2000, Angola spent 6% on health, 15% on education, and 34% on defence, while Benin spent 6% on health, 31% on education, and 17% on defence.[9] Any pressures from outside Africa, such as the advertising and promotion of weapons and the catalysis of conflict, that increase the proportion of spending on defence, harm children.

Social

The Millennium Development Goals were set up in 2000 with the aim of ensuring that by 2015 all children will be able to complete primary education, avoidable infant deaths would be prevented, and poverty would be halved. This is likely to be achieved in only a very small proportion of African countries, and there is little progress in the remainder.[4] Two thirds of the poorest countries which are unlikely to meet these goals are in Sub-Saharan Africa.[8]

The fertility rate is high in Africa, averaging 5–6 children per woman, and contraceptive prevalence is 22%.[9] The annual population growth rate is 2–4%, with >60% of the population <25 years of age.[29] Uneducated women have more children than educated, and so perpetuate this inequality cycle.[11]

HIV accounts for <3% of the deaths in children less than 5 years, but its impact on families and therefore on the fabric of African society has been, and is, devastating. Average life expectancy in Africa is now 47 years when it would have been 62 years without AIDS. AIDS has stripped away a generation of parents, teachers, and healthcare workers, leaving grandparents and children behind. The economic growth in Africa has also fallen as a result of AIDS. In Burkina Faso, farmers' income fell by 25–50% in 1997 as a result of AIDS. By 2020, the workforce in some African countries will be reduced by up to 30%.[30]

AIDS has put great pressure on hospital beds, staffing, and healthcare budgets. The beds needed for AIDS patients in Swaziland and Namibia could exceed the total available this year, while in Malawi and Zambia there has been a 600% increase in illness and death in health workers.[31] Of the 25 million people who are HIV positive in Africa,[9] only 450 000 currently receive antiretroviral drugs.[8] HIV related illnesses have magnified the negative effects of cost sharing introduced as part of structural adjustment policies. UNICEF has warned that there will be 50 million orphaned children in Sub-Saharan Africa by the end of this decade, and in 12 countries 25–50% of all children will be orphans. Currently an orphan is 20% less likely to go to school than a peer who is not an orphan [9]. The orphan crisis will stretch even the strongest extended family culture and could destabilise the continent.[2]

Environmental

Fifty seven per cent of the total population in SSA use improved drinking water sources and 36% have adequate sanitation.[9]

Poverty and poor infrastructure exacerbate the effects of natural disasters; 98% of the victims of natural disasters are from LDC.[32] After natural disaster, donors and governments may reallocate resources to support emergency efforts, thereby reducing the support available for sustainable development.[31]

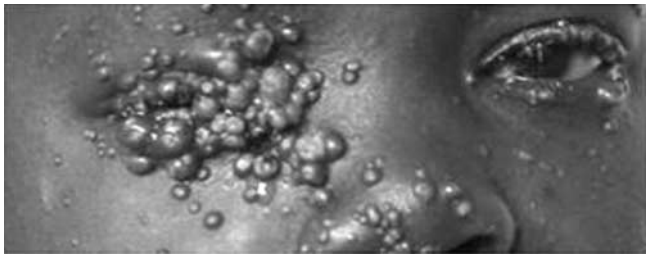

Figure 3 A young boy with HIV and molluscum contagiosum. He has lost the sight in one eye and will soon lose the sight in his second eye. With antiretrovirals these would clear up.

Figure 4 A refugee camp in Africa. Open sewage runs between the houses. When it rains this floods into the houses. Cholera is endemic in this camp.

POSITIVE FACTORS AFFECTING THE PROVISION OF HEALTH CARE FOR AFRICAN CHILDREN AT THE NATIONAL OR INTERNATIONAL LEVEL

Economic

In 1996, to combat the negative effects of debt on health care and education, the World Bank and IMF launched a scheme called the Heavily Indebted Poor Countries (HIPC) Initiative.[33] When the G7 countries met in 1999 they agreed to cancel $100 billion of $370 billion owed by the 42 poorest countries, a concession tied to the HIPC initiative. So far, 23 African countries have qualified for some relief and paid almost $1 billion less on debt in 2002 than they did in 1998.[8] For example in Mauritania, debt service as percentage government revenue fell from 30% in 1999 to 20% in 2002.[4] Debt relief can make a dramatic difference. For example, in Benin, spending on health has risen by 50%, and school fees for children in rural areas have been eliminated.[8]

The British presidency of the G8 (the eight most powerful countries in the world, namely UK, USA, Japan, Italy, Germany, France, Canada, and Russia) began on1 January 2005, with the focus of the presidency being on Africa[17 34] and concentrating on debt relief, aid, and trade. The visit of the British Chancellor of the Exchequer to Africa in early 2005 and the Commission for Africa further demonstrates this commitment.

The British presidency of the EU falls during the latter half of 2005. The EU made an offer in August 2004 to phase out agricultural export subsidies if USA and Japan agree to do the same. The EU trade commissioner writes that it is unacceptable practice to offload surplus food from rich countries onto poor countries. He supports a preferential treatment for poor countries at the next round of WTO talks in December 2005,[17 18] as does the UN Conference on Trade and Development (UNCTAD). In addition, the G20, a powerful group of developing nations, are becoming more vocal in their opposition to the subsidies paid by wealthy nations to their own farmers. The WB has estimated that eliminating all barriers to trade in goods would generate an extra $250–620 billion in global income, which would lift 300 million people out of poverty by 2015. Trade *between* LDC has also increased: imports from 15% to 56%, and exports from 15% to 34% during the 1990s.[4]

The Trade Justice Movement is an important organisation campaigning for a change to the rules and institutions that govern international trade. There are 50 member organisations with 9 million members.[35] Eighteen ''Fair Trade'' labelling organisations also run an international standard setting and monitoring body. Registered producers receive a minimum price for their products and receive an extra premium that is invested in the local community. There are 360 registered producer groups in 40 countries, selling to importers in 18 countries. Sales in these 18 rich countries are growing at 20% per year. The value of Fair Trade products in the UK has increased from £16.7 million in 1998 to £92.3 million in 2003.[36]

A Global Fund to fight HIV, tuberculosis, and malaria was set up in January 2002. The purpose is to generate and distribute funds to reduce the impact of these infections. It is a partnership between governments, charities, and the business sector. $10 billion is needed annually to stem the AIDS epidemic. So far $250 million has been disbursed; 60% to Africa.[37] The UK has committed $280 million to this fund.[38] The UK's Overseas Development Administration was set up in 1962 and became the Department For International Development (DFID) in 1997. Their 2003 budget was £3644 million; £621 million of which was spent on reducing poverty in Africa. By 2005–06, 90% of UK's aid will be spent in the least developed countries[39] The Organisation for Economic Co-operation and Development (OECD) has recommended that aid is untied from debt repayment and the UK and Ireland have already done so.

Political

The long term conflicts in Sierra Leone and Angola have ended and, notwithstanding the devastating ongoing wars in the Democratic Republic of Congo and Sudan, there are presently fewer armed conflicts in Africa than at any time in the past decade.[40] The African Union is becoming increasingly active in peacekeeping activities on their continent, and the New Partnership for Africa's Development (NEPAD) represents a long term agenda for Africa. Over time it seeks to change the terms of engagement between Africa and the international community. Its work aims to eradicate poverty, and place African countries, both individually and collectively, on a path of sustainable growth and development.[41] In 2000, there were 32 elected heads of state in SSA, there having been only three in 1973. At the Organisation of African Unity Summit in 2000, heads of state agreed to spend 15% of their government's annual budget on the health sector. This currently varies from 17% in Zimbabwe to 2% in Guinea-Bissau.

Social

Uganda and Malawi have achieved universal primary school education. Rwanda, Togo, and Benin should have achieved this by 2015.[4] Data from countries who have reached completion of the HIPC initiative indicate that primary school education does increase after debt relief.[8] Success stories in the provision of infant and child health care are usually associated with strategies to provide family planning.[26]

Uganda has proven that AIDS can be subdued. HIV prevalence among pregnant women in Kampala has fallen from 30% in 1992 to 11% in 2000.[31] Nevirapine reduces the mother to child transmission by 50% in breast feeding populations.[42] Manufacturers of Nevirapine and of a rapid HIV test have agreed to provide eligible organisations with free products.[43] The ''3 by 5 Global Initiative'' from WHO and UNAIDS aims to provide 3 million people with antiretroviral medication by 2005. However, there is concern that this initiative might over-ride the management of non-HIV related healthcare problems in Africa. The UN and five pharmaceutical companies initiated an accelerated access of the population to antiretroviral medication by financing partnership between companies and governments. This has resulted in a preferential pricing of antiretroviral drugs for the 18 LDCs that have reached agreement. The use of non-patented medication, from India and Brazil, has resulted in a further reduction in prices of antiretroviral medication. The TRIPs agreement had originally ruled that it was prohibited for pharmaceutical companies to copy drug manufacture,[44] making it difficult to buy non-patented, less expensive medication. In 2001, an exemption clause to TRIPs was secured, the Doha Declaration, which allows LDC to buy lower cost, non-patented drugs in a health crisis, such as HIV.

The emergence of home based care for affected families with AIDS has been valuable,[45] and the caring for orphans by extended families has revealed the great humanity and integrity of African families.

Environmental

Between 1990 and 2000, 5% more people in Africa had access to safe drinking water.[46] The annual cost of improving water and sanitation on a per person basis in Africa depends on the intervention. The initial cost of a stand-post is $31 with $2.40 annual service costs (US$2000 rates), while it is $39 and $5 per annum for a pit latrine.[47] The benefits of improving water and sanitation include improved health care, reduced cost of treating diseases, a saving in water collection time, and

thereby increased productivity of work. A cost benefit analysis has shown that the provision of improved quality water and sanitation is 10 times more cost effective than its basic outlay cost.[47]

EXAMPLE OF A PROGRAMME THAT IS BEING EFFECTIVE AT BOTH THE COMMUNITY AND NATIONAL LEVEL; THE INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS

Integrated management of childhood illness (IMCI) was developed in 1992 by the Child and Adolescent Health department (CAH) of the World Health Organisation (WHO). Healthcare workers at the primary level healthcare facility are taught the early signs, symptoms, and management of the most common childhood illnesses. IMCI has been introduced and is in the early implementation stage or being expanded in most African countries. A multi-country evaluation of IMCI reported improved performance, with some exceptions. For example, there was no difference between IMCI and non-IMCI facilities in the number of children who were leaving health facilities with all required vaccines. Some of the explanation for sub-optimal performance has been the insufficient efforts devoted to implementation, particularly the training of staff.[48] IMCI screening usually results in 20% of patients requiring referral to hospital for the treatment of serious illnesses. Problems with regard to a lack of integration between primary and secondary healthcare and poorly resourced and staffed hospitals have lead to very low uptake rates following referral.[49] The presence of user fees has also acted as a disincentive to the uptake of hospital care.[49]

WHAT CAN PAEDIATRICIANS FROM RICH COUNTRIES DO TO HELP AFRICAN CHILDREN *NOW*?

The Royal College of Paediatrics and Child Health (RCPCH) in the UK, to which around 7000 paediatricians subscribe, has stated that ''we have a responsibility to make a positive contribution to the global situation concerning children''. A survey has shown that around 10% of College members have worked overseas, and College members voted almost unanimous for an additional levy of 2% to be added onto the membership subscriptions to fund overseas development.

In response to a request from the International Child Health Group, a body affiliated to the RCPCH, this journal recently agreed to carry a regular section devoted to international child health issues.[50] The College contributes to education and training by providing fellowships enabling paediatricians to visit the UK. A link between the College and Voluntary Services Overseas allows UK paediatricians to undertake part of their specialist paediatric training in poorly resourced countries. The College has links with many overseas paediatric institutions, such as the International Pediatric Association, and plans to develop distance learning programmes.[51] The international paediatric training scheme has 200 doctors in UK training posts approved by the College. On the negative side, the European Working Time Directive in the UK has left the NHS with insufficient doctors and nurses. Most African countries are critically short of doctors; Mozambique has 500 doctors for a population of 18 million.[52] Our reliance on overseas trained staff comes at the expense of people in the country that trained them, and is scandalous according to the chairman of the BMA.[52]

Research carried out by the Institute of Child Health and the schools of Tropical Medicine in Liverpool and London has made major contributions to the body of knowledge about international child health. Working overseas has allowed many to build relationships with colleagues struggling in poor countries and provide them with ongoing support.

There has been an exponential growth in the number and quality of websites relevant to child health. Published articles pertaining to healthcare in LDC should be available free and the *British Medical Journal* has already taken this step. The majority of health research is conducted in rich countries and is about diseases relevant to their populations. Minimal funding is available for research on the illnesses affecting children in Africa.[53]

ADVOCACY

Perhaps the most effective way for paediatricians to contribute is through advocacy. In terms of African children, the aim of advocacy is to highlight and to call for resolution of the injustices that are responsible for the massive inequalities in the health of children in Africa compared with children in rich countries such as the UK. We can collectively or individually advocate at a national, European, and international level.

2005 is a year when the UK government will be in a position to make real changes in terms of the cancellation of debt and unfair trade practices. As a body, UK paediatricians, on behalf of so many children living in poverty in Africa, could add considerable weight to the arguments for change as outlined in this article.

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REFERENCES

1 **Black RE**, Morris SS, Bryce J. Where and why are 10 million children dying every year? *Lancet* 2003;**361**:2226–34.
2 **UNICEF**. *State of the worlds children* 2004.
3 **Ahmad OB**, Lopez AD, Inoue M. The decline in child mortality: a reappraisal. *Bull World Health Organ* 2000;**78**:1175–91.
4 **UNCTAD (United Nations Conference on Trade and Development)**. *The least developed countries report 2004: linking international trade with development* 2004.
5 **Ezzati M**, Lopez AD, Rodgers A, *et al*. Selected major risk factors and global and regional burden of disease. *Lancet* 2002;**360**:1347–60.
6 **WHO**. *Child health epidemiology. Child and adolescent health and development* 2003.
7 **David Briggs, on behalf of the WHO**. *Making a difference: indicators to improve children's environmental health* 2003.
8 **DATA**. *Debt, AIDS, Trade, Africa* 2004.
9 **UNICEF**. *UNICEF—monitoring and statistics—customised statistical tables* 2005.
10 **Africa Action**. *Africa's Debt—Africa Action position paper by Ann-Louise Colgan, Research Associate, Africa Action* 2001.
11 **George S**. *Another world is possible if*, Verso, 2004.
12 **Mwakikagile G**. *Africa is in a mess; what went wrong and what should be done*, Fultus Corporation, 2004.
13 **Madeley J**. *Hungary for trade*, Zed Books, 2000.
14 **George S**. *A fate worse than debt*, Pelican, 1988.
15 **Costello A**, White H. Reducing global inequalities in child health. *Arch Dis Child* 2001;**84**:98–102.
16 **Mohan G**. *Structural adjustments; theory, practise and impacts*, Routledge, 2004.
17 G8. *Gleneagles 2005* 2005.
18 **Mendelson P**. Rich nations must do more to help the poor. *The Independent* 27 Dec, 2004.
19 **Fatoumata Jawara AK**. *Behind the scenes at the WTO*, Zed Books, 2003.
20 **The World Bank group**. *Global Development Finance 2003: striving for stability in development finance* 2004.
21 **The Debt Channel** 2004.
22 **DFID**. *Statistics on international development* 2004.
23 **Southall DP OB**. Empty arms: the effect of the arms trade on mothers and children. *BMJ* 2002;**325**:1457–61.
24 **Machel G**. *Impact of armed conflict on children*, Report of Graça Machel expert of the secretary general., 1996.
25 **UNHCR**. *UNHCR: the UN Refugee Agency* 2005.

26 **Bhutta ZA**. Beyond Bellagio: addressing the challenge of sustainable child health in developing countries. *Arch Dis Child* 2004;**89**:483–7.
27 **World Bank**. *World Bank Governance data* 2005.
28 **Meltzier AH**. *International Financial Institution Advisory Commission* 2000.
29 **UNCTAD, United Nations Conference on Trade and Development**. *The Least Developed Countries Report 2004: Linking International Trade with Development* 2004.
30 **New Economics Forum**. *Real world economic outlook*, Palgrave, 2003.
31 **UNAIDS**. *Report on the global HIV/AIDS epidemic* 2002.
32 **International Federation of Red Cross and Red Crescent Societies**. *World Disaster Report; Focus on Recovery* 2001.
33 **The World Bank group**. *Debt initiative for heavily indebted poor countries* 2004.
34 **HM Treasury**. *UKG72005* 2005.
35 **TJM**. *Trade Justice Movement* 2004.
36 **Fairtrade Foundation**. *Fairtrade* 2004.
37 **The Global Fund**. *The Global Fund to Fight AIDS, Tuberculosis & Malaria* 2004.
38 **HM Treasury**. *International Development newsletter* 2003.
39 **HM Treasury**. *Growth for all towards a stable and fairer world The UK and the IMF 2003* 2004.
40 **Press Briefing for Commission for Africa; Bob Geldof and Hilary Benn** 2004.
41 **The New Partnership for African Development, NEPAD** 2005.
42 **Guay LA**, Musoke P, Fleming T, *et al*. Intrapartum and neonatal single-dose nevirapine compared with zidovudine for prevention of mother-to-child transmission of HIV-1 in Kampala, Uganda: HIVNET 012 randomised trial. *Lancet* 1998;**354**:795–802.
43 **Abbott/Boehringer Ingelheim**. *Abbott Laboratories and Boehringer Ingelheim donate test kit and AIDS drug to help prevent mother-to-child transmission of HIV* 2004.
44 **Stiglitz J**. *Globalisation and its discontents*, Penguin Politics, 2002.
45 **O'Hare BAM**, Venables J, Nalubeg J, *et al*. *Caring for African orphans*, AIDS Care, 2004.
46 **UNICEF Statistics**. *Water* 2001.
47 **Hutton G**, Haller L, WHO. *Evaluation of the costs and Benefits of water and sanitation improvements at the global level* 2004.
48 **Bryce J**, el Arifeen S, Pariyo G, *et al*. Reducing child mortality: can public health deliver? *Lancet* 2003;**362**:159–64.
49 **Hafeez A**, Riaz R, Shah SU, *et al*. Integrating health care for mothers and children in refugee camps and at district level. *BMJ* 2004;**328**:834–6.
50 **Sullivan PB**. Global child health. *Arch Dis Child* 2004;**89**:397.
51 **RCPCH (The Royal College of Paediatrics and Child Health)**. International Section. 2004.
52 **James J**. One disaster we can help to avert. *Hospital Doctor* 2005.
53 **Donna Staton MHLB**. International child health and the internet. *Ambulatory Child Health* 2001;**7**:127.

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