



Partnerships to Build Healthier Societies in the Developing World



International Federation of Pharmaceutical Manufacturers & Associations

Cover photo : Two men whose sight has been impaired by onchocerciasis or river blindness are led by a boy, who is too young to be affected yet. 2007 is the 20th anniversary of the Mectizan® Donation Program, through which Merck & Co., Inc. has committed to donate its Mectizan® treatment for this condition until it is eliminated. (Merck & Co., Inc., Bill VanderDecker)



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Table of Contents

Introduction	5
HIV/AIDS	6
ARV Access	8
Accelerating Access Initiative (AAI)	8
Abbott Program for Expanding Access to Testing and Treatment	8
Boehringer Ingelheim Access	9
Bristol-Myers Squibb Global Access Program	9
Gilead Access Program	10
GlaxoSmithKline Access to ARVs	10
Merck & Co., Inc. Access to ARVs	11
Roche Access to ARVs	11
Mother & Child Programs	12
Abbott Fund's Program for Supporting Children Affected by AIDS	12
Elizabeth Glaser Pediatric AIDS Foundation (EGPAF)	12
Helping Prevent Mother-to-Child Transmission (PMTCT)	13
Life Skills: Community Support for Children Affected by HIV/AIDS	13
Mothers 2 Mothers Mentoring Program	14
PMTCT: Abbott Rapid HIV Test Donation Program	14
PMTCT: Viamune® Donation Program	15
Regional Psycho-Social Support Initiative	15
Roche Employee AIDS Walk1	16
Secure The Future® Children's Clinics & PMTCT	16
Capacity Building	17
ARV Licensing in Developing Countries	17
Abbott Fund's Program to Strengthen Health Care Systems	18
African Comprehensive HIV/AIDS Partnerships (ACHAP)	18
Associação Saúde Da Família HIV/AIDS Awareness	19
Cambodia Treatment Access Program	19
CARE Program	20
Diflucan® Partnership Program	20
GlaxoSmithKline's Positive Action on HIV/AIDS	21
GSK - Other HIV/AIDS Capacity-Building Initiatives	21
HIV South Africa	22
Humana: Total Control of the Epidemic	22
IMIFAP: HIV/AIDS Education	23
Infectious Diseases Institute	23
Johnson & Johnson/UCLA Management Development Institute	24
JPMA's HIV/AIDS Training Program	24
Medical Mission Sisters	25
Merck & Co., Inc. HIV/AIDS programs - Africa	25
Merck & Co., Inc. HIV/AIDS programs - Asia-Pacific	26
Merck & Co., Inc. HIV/AIDS programs - Caribbean	26
Merck & Co., Inc. HIV/AIDS programs - Latin America	27
The Mildmay Centre and GlaxoSmithKline partnership	27
Secure The Future®	28
Sikiliza Leo Project, Uganda	28
Tibotec Cost Recovery Distribution Program	29
"Youth Speak-Up!" HIV Peer Education	29
R&D	30
Atripla™ Fixed Dose Combination Development	30
Gilead Clinical Development Partnerships	30
GSK's HIV-collaborative research program for resource-poor settings	31
International AIDS Vaccine Initiative (IAVI)	31
International Partnership for Microbicides (IPM)	32
Merck & Co., Inc. HIV Vaccine R&D	32
Pediatric Formulations for ARVs	33
PEPFAR Partnership for Pediatric AIDS Treatment	34
Women's Global Health Imperative	34

MALARIA 36

Access & Capacity Building	38
ACCESS - Understanding and Improving Access to Effective Malaria Treatment	38
GSK and Access to Malaria Care	38
Impact Malaria	39
Novartis Coartem®	39
Pfizer Malaria Partnership	40
Roll Back Malaria Partnership	40
R&D	41
Artekin® International Development Program	41
Dacart™ (chlorproguanil/dapsone/artesunate - CDA)	41
GSK and Malaria R&D	42
Malaria Vaccine Initiative (MVI)	42
Medicines for Malaria Venture (MMV)	43
Novartis R&D for Malaria	43
sanofi-aventis - DNDi Malaria Drug Development	44

TUBERCULOSIS 46

Access & Capacity Building	48
AstraZeneca - AMREF: Strengthening TB Control	48
AstraZeneca - Red Cross: Fight against TB in Central Asia	48
Lilly MDR-TB Partnership	49
Novartis TB DOTS Donation	49
Stop TB Partnership	50
TB Free & other initiatives	50
R&D	51
Aeras Global TB Vaccine Foundation	51
AstraZeneca Bangalore Research Institute	51
Global Alliance for TB Drug Development (TB Alliance)	52
GSK - TB Alliance Drug Discovery Program	52
Moxifloxacin TB Clinical Trials (Bayer HealthCare)	53
Novartis Institute for Tropical Diseases (NITD)	53
sanofi-aventis R&D for TB	54

TROPICAL DISEASES 56

Access & Capacity Building	58
Bayer HealthCare Dengue Fever Health Campaign	58
Bayer HealthCare: Fight Against Chagas	58
Bayer HealthCare and Sleeping Sickness	59
Gilead-WHO MoU for Leishmaniasis	59
Global Alliance to Eliminate Lymphatic Filariasis (GAELF)	60
Guinea Worm Eradication Program (GWEP)	60
International Trachoma Initiative (ITI)	61
Leprosy Elimination	61
Merck Mectizan® Donation Program	62
Merck KGaA-WHO Partnership to fight Schistosomiasis	62
sanofi-aventis "Most Neglected Disease" Program	63
sanofi-aventis Sleeping Sickness Program	63
Schering-Plough – Infectious Diseases Fellows Program	64
Soil-Transmitted Helminthiasis	64
R&D	65
GSK's Sitamaquine for Leishmaniasis	65
Next-Generation Onchocerciasis Treatment R&D	65
Pfizer WHO/TDR Collaboration	66
Schering-Plough & Chagas R&D	66
Singapore Dengue Consortium	67

VACCINE-PREVENTABLE DISEASES**68**

Access & Capacity Building	70
EPIVAC	70
HPV Vaccine & Cervical Cancer	70
GAVI Alliance	71
Global Polio Eradication Initiative	71
Merck Vaccine Network - Africa (MVN-A)	72
Rotavirus Vaccine Program	72
R&D	73
IFPMA Influenza Vaccine Supply International Task Force	73
Infectious Disease Research Institute (IDRI)	73
Pediatric Dengue Vaccine Initiative (PDVI)	74
Wyeth Pneumococcal Vaccine Studies in Africa	74

CHILD & MATERNAL HEALTH**76**

Abbott Program to Improve Maternal and Child Health in Afghanistan	78
AfriKids	78
AstraZeneca - Promoting Safe Motherhood in India	79
Bayer Schering Pharma & Family Planning	79
Bidan Delima Midwife Training Program	80
Freedom of Breath, Fountain of Life	80
Fuyang AIDS Orphan Salvation	81
Global Campaign to End Fistula	81
Global Fund for Women	82
GSK and Integrated Management of Childhood Illness	82
GSK's Midwife Training in Vietnam	83
GSK's Personal Hygiene & Sanitation Education (PHASE) program	83
International Rescue Committee	84
Project Pampalusog Bata	84
Renascere: Helping Poor Mothers in Brazil	85
Safe Motherhood Initiative	85
Unamos al Mundo por la Vida	86

CHRONIC DISEASES**88**

Abbott Program to Advance Diabetes Care in Bolivia	90
AstraZeneca Breast Cancer Program in Ethiopia	90
AstraZeneca South Africa Asthma Project	91
Diabetes Prevention	91
Glivec International Patient Assistance Program (GIPAP™)	92
My Child Matters	92
Novo Nordisk: Best Possible Pricing on Insulin	93
Novo Nordisk: World Partner Project	93
Novo Nordisk Haemophilia Foundation	94
sanofi-aventis against Epilepsy	94
The World Diabetes Foundation	95

ADDITIONAL HEALTH INITIATIVES**96****EMERGENCY RELIEF EFFORTS****106****COMPLETED PROGRAMS****110**

Note: "Merck & Co., Inc." has its headquarters in Whitehouse Station, NJ, USA and operates in most countries outside the U.S. as Merck Sharp & Dohme. "Merck KGaA" has its headquarters in Darmstadt, Germany; "Bayer Schering Pharma AG", with its headquarters in Berlin, Germany, is a division of "Bayer HealthCare AG", which has its headquarters in Leverkusen, Germany; "Schering-Plough" has its headquarters in Kenilworth, NJ, USA. Merck & Co. Inc., Merck KGaA, Bayer HealthCare and Schering-Plough are all members of the IFPMA.

INTRODUCTION

This publication is intended to provide an overview of programs implemented by the research-based pharmaceutical industry and its partners to help achieve the health related Millennium Development Goals (MDGs) and other activities designed to improve health outcomes in resource-poor countries.

Eight Millennium Development Goals (MDGs) were adopted by 189 United Nations' member states in 2000. Some target poverty and illiteracy, but three specifically target health: 4) Reduce child mortality, 5) Improve maternal health and 6) combat HIV/AIDS, malaria and other diseases.

Improving the health of poorer populations in resource-poor countries presents society with a complex challenge that requires a far larger mobilization of resources, capacities and skills than either the public sector or any single industry can achieve on its own. Public-Private Partnerships have now become a distinctive feature of the healthcare landscape in low- and middle-income countries. Carrying the burden of some of the world's worst diseases whilst also facing severe shortages of all kinds, these countries need very broad health interventions, which experience has shown can only be delivered through multi-sector partnerships.

To help make sense of the growing number of programs, this edition features two new sections. One is devoted to Child and Maternal Health programs, aimed at MDGs 4 and 5. Another is devoted to programs addressing Chronic Diseases, which pose a growing health challenge for middle- and even low-income countries. For greater clarity, within each therapeutic area section, R&D programs have been separated from those which focus on access and capacity building.

A broad, holistic approach is required to address all the obstacles to improving global health, of which access to medicines is but one. The number of industry projects documented in this book which involve capacity building aspects, such as creation of medical infrastructure and provision health care training, bears testimony to this, as does the number of R&D projects. For, as we have seen with HIV/AIDS, Malaria and Tuberculosis, there is no guarantee that the treatments which are effective today will remain so for very much longer. New ones will be required sooner or later if progress is to be maintained.

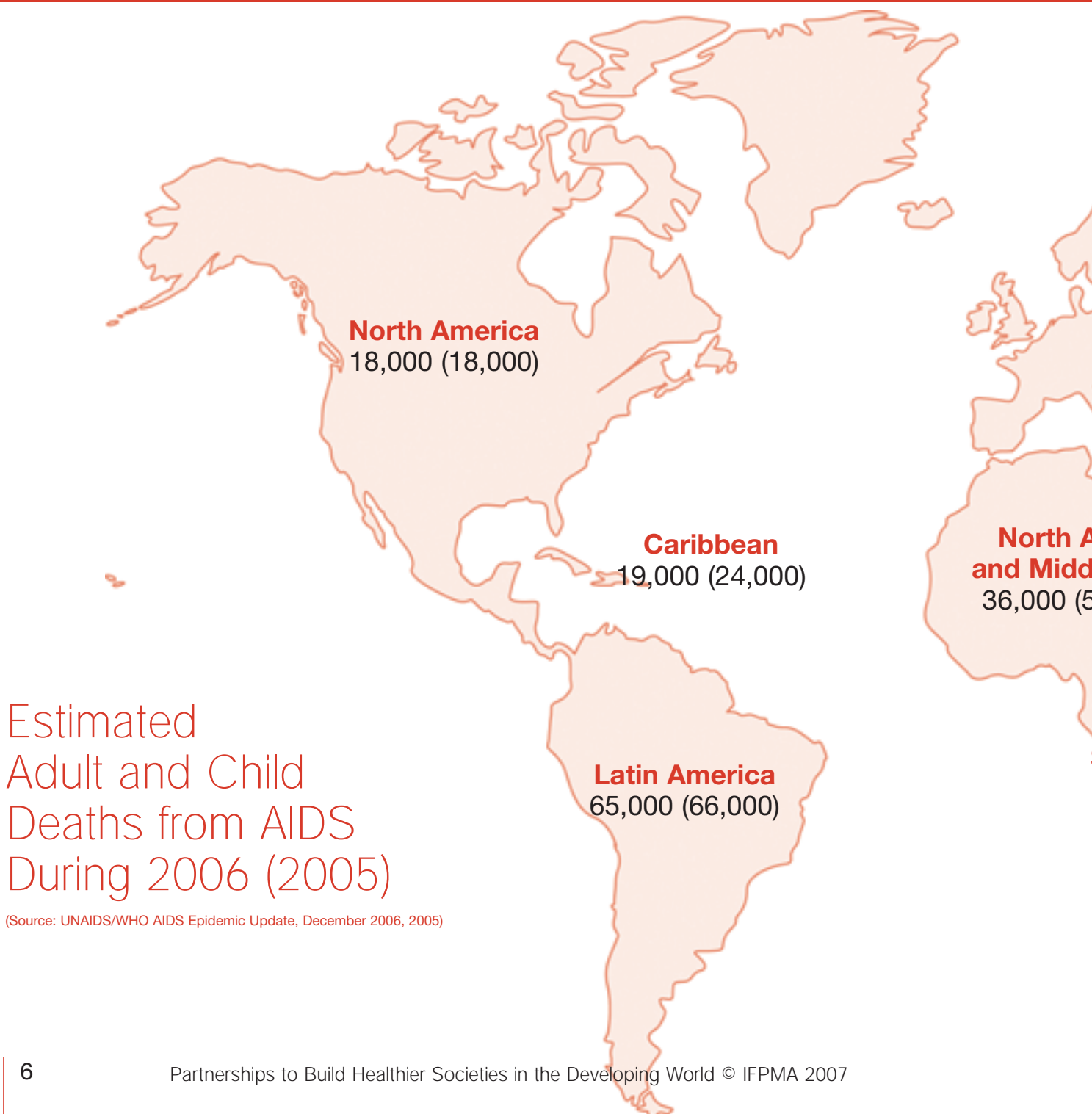
Pharmaceutical companies' contributions to help achieve the MDGs are substantial and constitute a significant part of the overall resources provided by the global community. In 2005, the IFPMA conducted a Health Partnerships Survey to measure the industry's total contribution to the MDGs. The survey showed that, in the period 2000-2005, the industry provided enough health interventions to help up to 539 million people, or more than two-thirds the population of sub-Saharan Africa, with a conservatively calculated value of USD 4.4 billion. The survey methodology and data were validated by the London School of Economics and Political Science.

Whilst this publication it is not exhaustive, it does cover the majority of initiatives currently underway in resource-poor countries. The short description of each program provides a general overview of objectives and achievements but cannot do justice to the economic, organization and even political challenges that have to be overcome.

The essence of any partnership is that it can only succeed through a collaborative effort on the part of all those willing and able to contribute. The pharmaceutical industry will continue to play its part, acting in partnership or alone, in working to secure achievement of the Millennium Development Goals by making a sustained contribution to *building healthier societies*.

Dr. Harvey E. Bale
Director General
IFPMA

HIV/AIDS



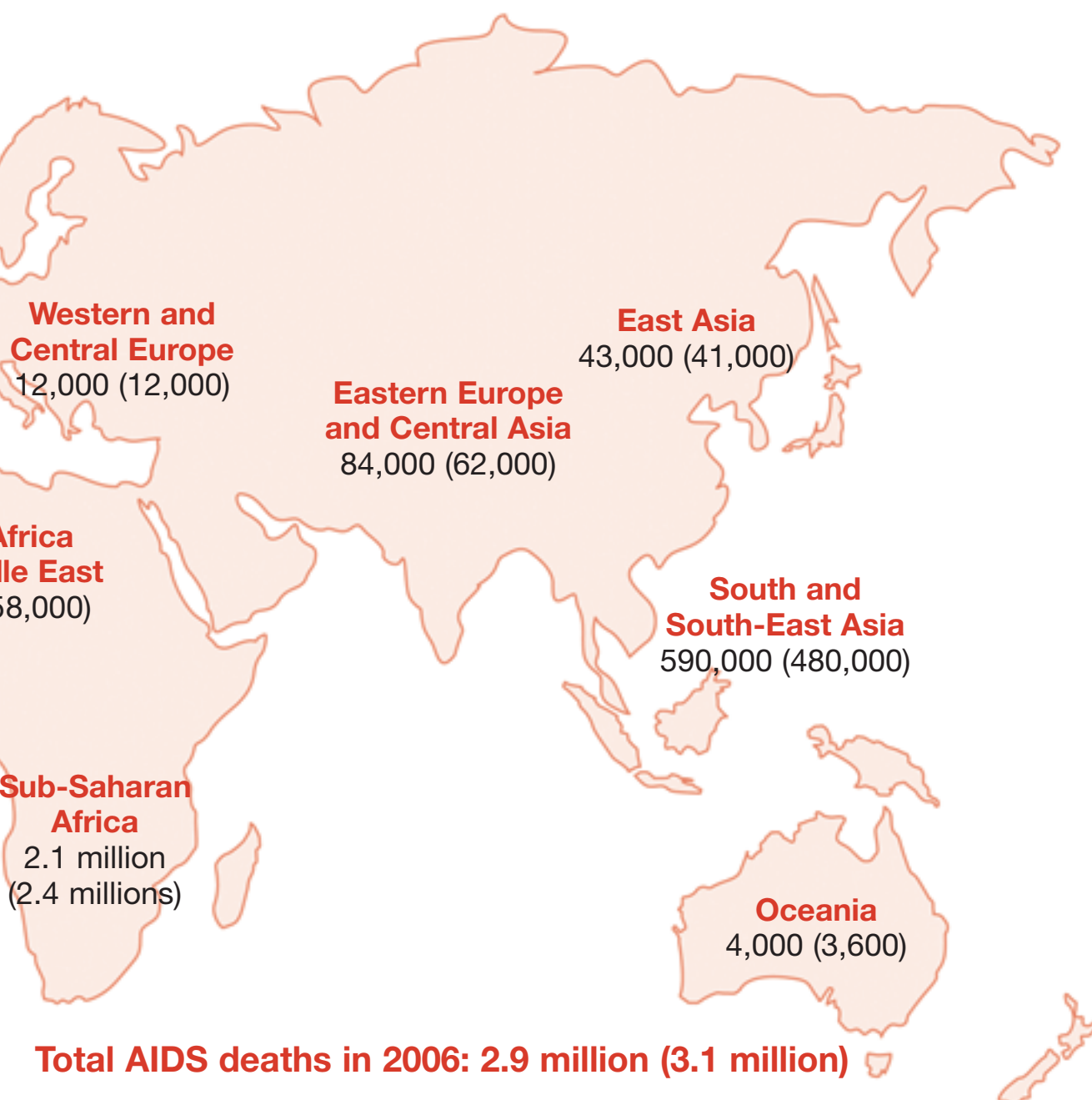
The number of people living with HIV continues to grow. A total of 39.5 million people were living with HIV in 2006; 2.6 million more than in 2004. This figure includes the estimated 4.3 million adults and children who were newly infected with HIV in 2006, which is about 400,000 more than in 2004.

Sub-Saharan Africa remains the most affected region: two thirds of all people living with HIV live in this region; 24.7 million people in 2006. However, the number of people living with HIV has increased in every region in the past two years, notably in Central Asia, East Asia and East Europe. New HIV infections are heavily concentrated among young people and more adult women than ever before are now living with HIV.

Antiretroviral therapy coverage increased from 7% at the end of 2003 to 24% in June 2006. UNAIDS/WHO data show 2.9 million deaths from HIV/AIDS deaths in 2006, a slight decline from the 3.1 million recorded in 2005. This reversal may be at least partly attributable to increased access to antiretrovirals. However, the growing number of infected people, coupled with increasing resistance to first line antiretroviral therapies, underlines the need for greater progress in prevention, plus continued R&D to develop new therapies.

In 2006, biopharmaceutical companies were developing 77 candidate medicines and 19 vaccines for HIV/AIDS and relat-

(Sources: UNAIDS/WHO AIDS Epidemic Update: December 2006; PhRMA 2006 Report: Medicines in Development for HIV/AIDS)



Accelerating Access Initiative (AAI)

HIV/AIDS – ARV Access

Abbott, Boehringer Ingelheim, Bristol-Myers Squibb, Gilead, GlaxoSmithKline, Merck & Co., Inc. & Roche

Since 2000

Access: medicines at no profit, preferential pricing

Developing countries

www.who.int/hiv/AAI_fs_4Q2005.pdf

The Accelerating Access Initiative (AAI), begun in 2000, is a partnership between UNAIDS, the World Health Organization, UNICEF, the UN Population Fund, the World Bank and seven research-based pharmaceutical companies (Abbott, Boehringer Ingelheim, Bristol-Myers Squibb, GlaxoSmithKline, Gilead Sciences, Merck & Co., Inc. and Roche). Participants in AAI are committed to working with governments, international organizations and other stakeholders to find ways to broaden access, whilst ensuring rational, safe and effective use of medicines for HIV/AIDS.

Whilst it is widely recognized that price is just one of the many issues to be addressed in improving access, the companies have individually offered to improve substantially access to a range of antiretroviral medicines by providing more affordable prices in developing countries.

A report from the AAI indicated that, by September 2006, more than 738,000 people living with HIV/AIDS in developing countries were receiving treatment with at least one antiretroviral supplied by the seven pharmaceutical companies in the AAI (compared with 403,000 people receiving treatment in developing countries at the end of 2004). In the past two years, the total number of patients in developing countries receiving treatment from the AAI companies has more than doubled, with an increase of 104% since September 2004.

The September 2006 total included 424,000 patients in Africa, an increase of 11% over 12 months. There has been a 45-fold increase in the number of people being treated with medicines supplied by AAI companies in Africa since the establishment of the program in May 2000.



Josphat & Elizabeth in Kenya are treated with Abbott HIV medicines. Elizabeth coordinates patient home visits and Josphat leads a local support group. (Abbott)

Abbott Program for Expanding Access to Testing and Treatment

HIV/AIDS – ARV Access

Abbott

Since 2001

Access: medicines at no profit

Africa & least developed countries

www.accesstohivcare.org

Rapid on-site testing can have a significant impact in the fight against HIV/AIDS. Abbott provides a rapid (15 minute) HIV test at no profit to testing programs in 69 countries, covering all of Africa and the world's poorest countries. Using a small amount of whole blood, serum or plasma, any hospital or program in a remote setting can obtain results regardless of access to laboratory equipment or electricity. To date, Abbott has shipped more than 65 million rapid HIV tests at no profit.

Since 2001, Abbott has made its HIV medicines ritonavir and lopinavir/ritonavir widely available at no profit in 69 countries, covering all of Africa and the world's poorest countries. Abbott's HIV medicines are among the lowest-priced protease inhibitors in these countries. In 2006, Abbott introduced a new tiered-pricing program for lopinavir/ritonavir in 45 low- and low-middle income countries.

Designed to ensure long-term sustainable access to high-quality HIV medicines in these 114 countries and around the world, this program includes:

- Sustainable pricing for governments, non-governmental organizations (NGOs), and public funders of HIV medicines in developing countries;
- Broad registration of the new, non-refrigerated lopinavir/ritonavir tablet formulation throughout the world, including Africa, Asia, Latin America and the Caribbean;
- Investment in additional manufacturing capacity to meet demand for high-quality second-line HIV treatments; and
- Development of a pediatric low-dose tablet formulation of lopinavir/ritonavir to meet the treatment needs of HIV-positive children worldwide.

In addition to providing increased access to HIV testing and treatment, Abbott is working with government and NGO partners to support children affected by HIV/AIDS, strengthen health care systems and prevent mother-to-child transmission of HIV.

Boehringer Ingelheim Access

Boehringer Ingelheim
Since 2000
Access: medicines at no profit
Africa & least developed countries
www.boehringer-ingelheim.com

As part of its policy to extend access to Viramune®, Boehringer Ingelheim offers its product Viramune® (nevirapine) for single-dose use in the prevention of mother-to-child transmission for free through the Viramune® Donation Program. So far, almost 1 million mother/child doses have been made available.

For chronic treatment, Boehringer Ingelheim charges a substantially reduced price for all countries classified by the World Bank as low income and for all countries in sub-Saharan Africa - a total of 64 countries. In addition, all lower middle income countries qualify for price reductions, according to their economic situation and medical need.

For more information on the company's other HIV/AIDS activities, see the HIV/AIDS – Mother & Child Programs section, ARV Licensing in Developing Countries and Additional Health Initiatives.

Bristol-Myers Squibb Global Access Program

HIV/AIDS – ARV Access
Bristol-Myers Squibb
Since 2001
Access: medicines at no profit
Africa & least developed countries
www.bms.com

The goal of the Bristol-Myers Squibb Global Access program is to enable broad access to the company's HIV medicines at no-profit prices in the regions most impacted by HIV and with limited ability to pay, notably sub-Saharan Africa. The Global Access program is based on three essential pillars of activity and policy: 1) no-profit pricing policy; 2) patent policy; and 3) efforts to enable generic manufacturing. Information on the latter two activities can be found below under the heading "ARV Licensing in Developing Countries".

In 2001, BMS announced that it would provide all of its HIV medicines at no-profit prices in sub-Saharan Africa, because of the extreme burden of disease there, combined with the region's limited ability to pay for HIV medicines. In July 2005, the company announced a further reduction in the price of pediatric formulations from no-profit to significantly below cost in an attempt to reduce all barriers hampering accelerated, broad access to treatment for the millions of children in sub-Saharan Africa who need these medicines most. BMS has also implemented a differential pricing policy globally, to enable collaboration with and support for government activities in regions with high incidence and low ability to pay for HIV medicines.



Bristol-Myers Squibb and Baylor College of Medicine have created the Pediatric AIDS Corps initiative, which will send 50 doctors a year to Africa to treat HIV-positive children and train African health care workers. (BMS)

Gilead Access Program

HIV/AIDS – ARV Access
Gilead
Since 2003
Access: medicines at no profit, information & research
Least-developed countries
www.gileadaccess.org

The Gilead Access Program is an initiative by Gilead Sciences, a U.S.-based biopharmaceutical company, to expand access to its once-daily anti-HIV medicines, Viread® (tenofovir disoproxil fumarate) and Truvada® (emtricitabine and tenofovir disoproxil fumarate). These products are available in 97 resource-limited countries at the significantly reduced prices of USD 17.00 and USD 26.25 per month, respectively.

Since the establishment of its Access Program in 2003, Gilead has worked to improve it. The company is in the process of registering its products in all of the Access Program countries and has secured distribution partners for Viread® and Truvada® in Access Program countries in Asia, Latin America, the Caribbean, and Eastern Europe.

Gilead has a system of tiered pricing that the company believes will help expand access to its products in lower and upper middle income countries. The approach allows Gilead to price products based on a country's ability to pay and, at the same time, allows Gilead to continue its research and development aimed at delivering new medications for the treatment of life-threatening diseases.



GlaxoSmithKline's Positive Action on HIV/AIDS capacity building program works with a wide range of organizations, including the Elizabeth Glaser Pediatric AIDS Foundation. (GSK)

GlaxoSmithKline Access to ARVs

HIV/AIDS – ARV Access
GlaxoSmithKline
Since 1997
Access: no profit pricing
Developing Countries
www.gsk.com

GlaxoSmithKline has offered sustainable preferential pricing for certain antiretrovirals (ARVs) since 1997. All its ARVs are now available at not-for-profit prices to public sector customers and not-for-profit organizations in all Least Developed Countries (LDCs) and all of sub-Saharan Africa - 64 countries in total. In addition, all private employers in sub-Saharan Africa who provide care and treatment to their uninsured staff can purchase its ARVs at not-for-profit prices. All CCM projects fully funded by the Global Fund to Fight AIDS, TB and Malaria and projects funded by the US President's Emergency Plan for AIDS Relief (PEPFAR) are also eligible.

GSK's prices are sustainable – it does not make a profit on them, but it does cover its costs. This means that it can sustain supply of these high-quality products for as long as they are needed. GSK's not-for-profit prices are applicable to orders of any size and are not dependent on large order quantities. They also include insurance and freight costs. In May 2006, GSK announced further reductions in the not-for-profit price of its abacavir-containing ARVs and also added two new ARVs, Kivexa® and Telzir® – to its not-for-profit offer.

In 2006, GSK shipped 27 million tablets of not-for-profit Combivir® and 59 million tablets of not-for-profit Epivir® to the developing world compared with 45 million and 81 million tablets respectively in 2005. This decrease was expected and is primarily due to more customers purchasing ARVs from generic manufacturers, including those licensed by GSK. In 2006, GSK licensees supplied more than 120 million tablets of their versions of Epivir® and Combivir® to Africa. In many ways, this is a positive indication that GSK's licensing policy is working. (see section on GSK's Voluntary Licensing)

Merck & Co., Inc. Access to ARVs

HIV/AIDS – ARV Access
Merck & Co., Inc.
Since 2001
Access: no profit pricing, preferential pricing
Developing Countries
www.merck.com/cr/enabling_access/developing_world/hiv/hiv_access.htm
I

Consistent with its commitment to increasing access as demonstrated by AAI, Merck & Co., Inc., provides its current antiretroviral (ARV) medicines to developing world and emerging market countries at deeply discounted prices. In 2001, Merck announced price reduction guidelines for its current HIV/AIDS medicines, Crixivan® (indinavir sulfate) and Stocrin® (efavirenz), based on the generally accepted United Nations Development Program (UNDP) Human Development Index (HDI) and UNAIDS adult HIV prevalence data. Based on these guidelines, Merck makes no profit on the sale of its current HIV/AIDS medicines in the world's poorest countries and medium HDI countries with an adult HIV prevalence of 1% or greater. For medium HDI countries with an adult HIV prevalence of less than 1 percent, Merck's two HIV/AIDS medicines are available at significantly reduced prices. For high HDI countries, Merck makes its ARVs available at market-based prices that take into account local purchasing power and competitive products.

Since 2001, Merck has twice further reduced the price for the 600 mg formulation of Stocrin® in all developing countries due to new efficiencies and cost savings resulting from improved manufacturing processes, most recently in March 2007. To date, Merck has offered these medicines at discounted prices to purchasers in the public and private sectors in more than 130 countries. The offer extends not only to developing country governments, but also to other stakeholders undertaking care and treatment programs, including non-governmental organizations, charitable organizations and private-sector employers, if they can provide reasonable assurance of their capacity to ensure increased patient access. As of September 2006, nearly 500,000 patients in more than 75 developing world countries were being treated with regimens containing Merck HIV/AIDS medicines.

Roche Access to ARVs

HIV/AIDS – ARV Access
Roche
Since 2002
Access: no profit pricing, preferential pricing
Developing Countries
www.roche.com

In 2002, Roche recognised that, as efforts to scale up the number of people on first-line therapy in resource-limited countries became successful and greater numbers of people received treatment, the need for second-line treatment options would also become increasingly important. In response, Roche committed to innovative, transparent policies to remove barriers to its second-line HIV protease inhibitor medicines in countries where resources are fewest and the need for treatment is greatest.

Roche supplies its HIV protease inhibitors, Invirase® and Viracept® (including pediatric powder), at no profit prices for people living in Least Developed Countries (as defined by the United Nations) and in sub-Saharan Africa. These prices are the lowest at which these medicines can be produced in a sustained, long-term manner, and have been shown to be similar or less than that of generic versions of the medicine.

In addition, Roche established significantly reduced pricing for Invirase® and Viracept® for low and lower middle income countries (as defined by the World Bank), where there is need for access to HIV/AIDS treatments, and where local governments are able to play a greater role and make a more significant contribution towards the provision of public healthcare and treatment.

The no profit prices for Least Developed Countries and sub-Saharan Africa, together with the reduced prices for low and lower middle income countries, apply to more than 87% of all people living with HIV/AIDS worldwide.

Abbott Fund's Program for Supporting Children Affected by AIDS

HIV/AIDS – Mother & Child Programs
Abbott
Since 2000
Access: counseling, education, infrastructure, pediatric treatment, testing, etc.
Burkina Faso, India, Malawi & Tanzania
www.abbottglobalcare.org

Abbott has been a longstanding leader in improving the lives of children affected by HIV/AIDS and continues to make a significant contribution to advancing pediatric HIV treatment. Specific Abbott programs focusing on HIV-affected children include:

In 69 developing countries including all of Africa, Abbott provides liquid formulations of its Protease Inhibitor (PIs) at a price that is the lowest for any PI liquid formulation in Africa, either branded or generic.

Abbott Fund supported the Baylor College of Medicine in establishing a pediatric HIV/AIDS treatment program in Romania that reduced the death rate for children with HIV by more than 90 percent. Baylor is now replicating this model program across Africa, including opening the first pediatric treatment center in Malawi in 2006 with the support of the Government of Malawi and Abbott Fund.

Baylor and Abbott Fund also partnered to establish the Baylor Children's Clinical Centers of Excellence Network to train health professionals and share best practices in HIV care. These pediatric health workers together treat 12,000 children with HIV – the largest number of children with HIV in any treatment program worldwide. Additionally, Abbott Fund supports Baylor's International Pediatric HIV/AIDS Fellowship program, which allows physicians from developing countries to further their postgraduate education at Baylor, with a focus on HIV/AIDS.

Abbott Fund provides care and support for orphans and vulnerable children through innovative model programs that address specific community needs, including HIV testing, legal assistance for women and children, child-focused counseling and support groups, and vocational training. Since 2001, nearly 600,000 children and adults have received services in Burkina Faso, India, Kenya, Malawi and Tanzania, in addition to those in Romania.

Elizabeth Glaser Pediatric AIDS Foundation (EGPAF)

HIV/AIDS – Mother & Child Programs
Abbott, Boehringer Ingelheim & Johnson & Johnson
Since 1999
Access: medicines provision, testing, training, counseling & education.
Worldwide
www.pedaids.org

The Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) was set up in 1988 to prevent pediatric HIV infection and to eradicate pediatric AIDS through research, advocacy, and prevention and treatment programs. It works in two broad program areas: HIV/AIDS Research and Training Programs, and International Family AIDS Initiatives. Abbott, Boehringer Ingelheim and Johnson & Johnson are major supporters of EGPAF and its work.

Through its International Family AIDS Initiatives, EGPAF funds international healthcare facilities, non-governmental organizations and community-based organizations to plan, implement and/or expand programs. It also provides funding for community mobilization and training of health care workers, HIV counseling and testing, mother-to-child prevention regimes and infant feeding education.

Since program inception, more than 2.6 million women have accessed the PMTCT sites and almost 2.5 million have been counseled. Of those counseled, 83% (over 2 million) were tested and 1.8 million have received their test results. A total of 220,500 HIV-positive women were identified. The vast majority of infected women and infants received single dose nevirapine. EGPAF is expanding its operations to include prevention, diagnosis and treatment of opportunistic infections such as pneumonia, malaria and tuberculosis. Boehringer Ingelheim is assisting EGPAF and also has a direct collaboration in the PMTCT Donation Program, for instance in Swaziland and Tanzania.

Since 2003, Johnson & Johnson has partnered with the EGPAF's Call to Action Program to support HIV/AIDS initiatives that prevent mother-to-child transmission of the disease in resource-poor settings. Following a successful pilot program in India that reached almost 19,000 women in 2003, J&J expanded its partnership with the EGPAF in 2004 and then again in 2005.

The partnership has expanded to seven nations and included training of health care workers, plus delivery of HIV counseling, voluntary testing, critical drug intervention, and referrals for care and support. This combination of services significantly reduces the chances of a mother passing HIV to her newborn. Through the EGPAF partnership, J&J now supports over 200 healthcare delivery sites in China, India, Russia, Malawi, the Republic of Georgia, Zimbabwe and the Dominican Republic, reaching more than 300,000 pregnant women.

Helping Prevent Mother-to-Child Transmission (PMTCT)

HIV/AIDS – Mother & Child Programs
 Abbott & Boehringer Ingelheim
 Since 2003
 Access: donation of HIV tests & ARV treatment
 For developing world
www.pmtctdonations.org

In 2003, Abbott and Boehringer Ingelheim established a cooperative arrangement that helps prevent the transmission of HIV from mother to child in the developing world through their respective donation programs. Through this arrangement, organizations can receive Determine® HIV rapid tests and Viramune® (nevirapine), an anti-retroviral medicine developed by Boehringer Ingelheim (see Viramune® Donation Program).

In addition to providing tests and treatment, the two companies are committed to provide greater access to these donated products while making it easier for organizations to receive the donated products and encouraging the creation of new PMTCT programs in developing countries.

Any organization that provides testing and treatment for PMTCT through a sound and sustainable program of care may request a donation of Determine® HIV through Axios International, which administers the application process for both programs. A common web site has also been established to simplify the process by which PMTCT programs obtain free HIV tests and Viramune® (nevirapine): www.pmtctdonations.org

Abbott, Boehringer Ingelheim and WHO recognize the potential for PMTCT sites to serve as a natural entry point for providing access to chronic treatment. Functioning PMTCT sites catalyze the improvement of infrastructure and access to healthcare in resource-poor settings. This is primarily due to the multi-disciplinary approach required for a successful program.

Life Skills: Community Support for Children Affected by HIV/AIDS

HIV/AIDS – Mother & Child Programs
 Johnson & Johnson
 Since 2005
 Access: education, training
 Thailand
www.lifeskills-stl.org

There are some 150,000 AIDS orphans in the Upper Northern region of Thailand. From economic struggle and emotional hardship to social stigma and isolation, they face many problems. The Life Skills Development Foundation, a NGO that provides life skills education and training for children, youth, women and families, works in many districts to reach children affected by HIV/AIDS. With the help of Johnson & Johnson, the foundation provides assistance to these children and their caregivers through HIV/AIDS education, psychological and financial support, and community education. Using a holistic approach, the foundation extends its support to the people it serves, and to the communities and schools that have a stake in the well-being of their children.



Abbott works with Baylor College of Medicine to treat thousands of children with AIDS. (Abbott)

Mothers 2 Mothers Mentoring Program

HIV/AIDS – Mother & Child Programs
Johnson & Johnson
Since 2005
Access: education & training
South Africa
www.m2m.org

Mothers 2 Mothers (M2M) provides training for South African HIV-positive pregnant women about how to prevent mother-to-child transmission of the disease and later mentor other HIV-positive pregnant women. Program participants learn about medications, nutrition, formula feeding, and how to combat stigma and societal pressures. After their infants are born, the women become mentors to new women entering the program. Mentors are paid a small salary and participate in other entrepreneurial projects, such as beading and blanket-making groups, giving them a chance to become financially independent.

Johnson & Johnson began its partnership with M2M in 2005 in East London, focusing on hospitals with high numbers of HIV-positive patients who needed better health care. Since the Company's association with M2M, 50% more women in the area are now getting tested for HIV. Through 2006, six sites had been established with Johnson & Johnson funding in East London. M2M has established itself in five provinces in South Africa, and is looking to expand its efforts to countries such as Kenya, Rwanda and Zambia.

PMTCT: Abbott Rapid HIV Test Donation Program

HIV/AIDS – Mother & Child Programs
Abbott
Since 2002
Access: testing donations
69 countries, including all of Africa
www.pmtctdonations.org

Each year, approximately 800,000 babies around the world become infected with HIV during their mothers' pregnancy, during birth or through breastfeeding. Enabling pregnant women to know their HIV status before they give birth is the first step in preventing mother-to-child transmission (PMTCT) of HIV. However, for many pregnant women living in the developing world, testing is limited because of cost, time required to receive results, and lack of trained health care staff and testing facilities.

Rapid on-site testing can have a significant impact in the fight against HIV/AIDS. To facilitate access to rapid HIV testing, Abbott has made a commitment to donate a rapid (15 minute) HIV test to PMTCT programs in 69 countries, including all of Africa. Abbott also has extended its PMTCT donations to include testing of spouses and children of pregnant women who are found to be HIV positive through the program. Using a small amount of whole blood, serum or plasma, any program in a remote setting can obtain results regardless of access to laboratory equipment or electricity.

To date, Abbott has donated more than 5 million rapid HIV tests.



While pregnant, Margaret received free HIV testing at Kijabe Hospital, Kenya. Today, she's receiving HIV therapy and her son Fielder is HIV-negative. (Abbott)

PMTCT: Viramune® Donation Program

HIV/AIDS – Mother & Child Programs
Boehringer Ingelheim
Since 2000
Access: medicine donations & training
59 countries in Sub-Saharan Africa, Eastern Europe, Central & Southeast Asia & Latin America
www.pmtctdonations.org

Boehringer Ingelheim's Viramune® Donation Program was announced in July 2000 as a program that offers the antiretroviral medicine Viramune® free-of-charge to developing countries and has been designed to prevent Mother-To-Child-Transmission of HIV-1 (MTCT). There are about 120 countries eligible according to the World Bank list of developing and transient economies. Since 2003, it has been a part of the PMTCT Donations Program.

Boehringer Ingelheim donates Viramune® in accordance with the WHO Guidelines for Medicine donations, free of charge, based on the expressed interest of governments, NGOs, charitable organizations or other healthcare providers with comprehensive Mother-to-Child-Transmission prevention programs.

The first deliveries in this program by Boehringer Ingelheim were made in late 2000 to the Republic of Congo (Brazzaville) and the Senegal, and since then more than 156 programs in 59 countries have been approved to receive Viramune®. Most of them are countries in Sub-Saharan Africa, but also in Eastern Europe, Central and Southeast Asia, and Latin America.

Boehringer Ingelheim also works with both governmental and private organizations to develop training programs, locally and internationally. On the local level, cooperation has been strengthened with many key PMTCT implementers, such as Ministries of Health, the Elisabeth Glaser Pediatric AIDS Foundation (EGPAF), Rotary International, church-based organizations and UNICEF.

Regional Psycho-Social Support Initiative

HIV/AIDS – Mother & Child Programs
Novartis
Since 2002
Access: support for children affected by AIDS
Eastern & Southern Africa
www.novartisfoundation.org

In Southern and East Africa, the Novartis Foundation, in collaboration with the Swiss and Swedish Development Agencies, supports the Regional Psycho-Social Support Initiative to improve livelihoods and future prospects of children and adolescents affected by HIV/AIDS through individual counseling to help them cope with their situation. It also provides capacity building assistance for teachers, social workers and other care-givers, as well as social and economic empowerment skills development, access to credit and income generating activities.



Midwife Sister Adelaide Ayiecha with a mother and child.
(Boehringer Ingelheim)

Roche Employee AIDS Walk

HIV/AIDS – Mother & Child Programs
 Roche
 Since 2003
 Access: support for AIDS orphans
 Malawi
www.roche.com

In 2003, a pilot Roche Employee AIDS Walk took place across three sites in Switzerland and the USA to support children orphaned as a result of AIDS in Africa. The event is now conducted each year, across Roche sites worldwide. To date, over 21,000 Roche employees across almost 90 sites have taken part in the annual walk. Roche contributes company funds to double the amount of money raised.

The funding raised through the annual Global Roche Employee AIDS Walk is used to establish and support orphan centers in the Mulanje district of Southern Malawi. These are supported via the work of the European Coalition of Positive People, a UK-Malawi NGO, led by and for people living with HIV and AIDS. The orphan centers currently provide for approximately 3,000 children. A further partnership was announced in 2006 with UNICEF, to strengthen the local schools these children attend.

Currently, only 26% of girls and 32% of boys in Malawi attend secondary school. Evidence has shown that getting and keeping young people in school, particularly girls, can dramatically decrease their vulnerability to HIV/AIDS and that HIV infection rates are at least twice as high among young people who do not finish primary school, compared to those who do.

Money raised by the Global Roche Employee AIDS Walk has paid for construction, repair and equipment of the orphan centers, including the drilling of bore holes for water, purchasing land to grow maize and corn, building and renovation of accommodation, as well as educational equipment, including schoolbooks. All efforts are designed to make a visible, long term and sustainable difference in the lives of these children orphaned by AIDS.



Kebba Jobarteh MD was a Bristol-Myers Squibb Pediatric AIDS Corps Fellow at the Baylor Children's Clinic in Gabarone, Botswana. (BMS)

Secure The Future® Children's Clinics & PMTCT

HIV/AIDS – Mother & Child Programs
 Bristol-Myers Squibb
 Since 1999
 Access, care, treatment, research & training
 Botswana, Burkina Faso, Kenya, Lesotho, Malawi, Swaziland, Tanzania & Uganda
www.securethefuture.com

Bristol-Myers Squibb's Secure The Future® initiative (see HIV/AIDS Capacity Building), in partnership with Baylor College of Medicine, Houston, Texas, USA, funded the first clinical center in Africa for children and families with HIV/AIDS, located in Botswana. This center now has more than 1,500 children under treatment. Additional children's clinical centers have now been opened in Lesotho and Swaziland, and three more will open in Burkina Faso, Kenya and Uganda. These centers add capacity to fight HIV/AIDS by providing modern facilities for testing, treating and monitoring children and their families, as well as training of local health care professionals.

To increase the number of trained pediatric specialists, Secure The Future® and Baylor College of Medicine created the Pediatric AIDS Corps, which will send 50 doctors a year over five years to Africa to treat some 100,000 children and train local health care professionals. The first class of 50 doctors arrived in Africa in August 2006. Additional Secure The Future® projects provide education, psychosocial care and support for orphans and vulnerable children, training, food security and income-generating projects for caregivers; and works to reduce stigma and encourage testing.

Secure the Future® has linked a prevention of mother-to-child-transmission of HIV (PMTCT) program with the children's clinic in Mbabane, Swaziland, providing PMTCT-Plus services to pregnant women, their partners and families. PMTCT-Plus services provide a continuum of care, including pre-natal testing, antiretroviral therapy, voluntary counseling, nutritional advice and security, community support and pediatric care.

Since 2004, the PMTCT-Plus program has had a mother-to-child HIV transmission rate of some 7%, while the Swazi national rate is 12%. Most significantly, the program has tracked all its babies to 12 months age, when they can be definitively tested for HIV. Such close follow-up is rare in developing world PMTCT programs. The program is now being replicated at the Pigg's Peak Government Hospital, Swaziland and its associated clinics in the rural northern Hhohho area, with a goal of reaching 3,000 mothers per annum.

ARV Licensing in Developing Countries

HIV/AIDS – Capacity Building

Boehringer Ingelheim, Bristol-Myers Squibb, Gilead, GlaxoSmithKline, Merck & Co., Inc.

Since 2001

Capacity Building: voluntary licensing

Developing Countries

www.gsk.com; www.merck.com

Pharmaceutical companies' preferential pricing of antiretrovirals make effective, safe, high quality HIV/AIDS treatments available to developing countries. In some cases, companies also issue voluntary licenses (VLs) which allow local manufacturers in developing countries to produce and sell generic versions of their products. VLs are not a universal solution to HIV/AIDS but a response to specific circumstances. Local factors encouraging VL use include a severe HIV/AIDS epidemic, adequate health care infrastructure, suitable economic conditions and sufficient manufacturing expertise. Local manufacturers must ensure a long-term supply of good-quality medicines and implement safeguards to prevent diversion of medicines to wealthier markets.

Along with its policy to expand access to nevirapine in Least Developed Countries, low income countries and all countries in Africa, Boehringer Ingelheim offers a non-assert declaration to all WHO pre-qualified manufacturers, stating that it will not enforce its nevirapine patent rights in these countries, in order to ensure supply at lowest possible cost.

Since 2001, Bristol-Myers Squibb has had a policy of not enforcing its patents for HIV products in sub-Saharan Africa and has immunity from suit agreements for stavudine and didanosine with five African generic companies. In February 2006, it concluded technology transfer agreements with generic companies Aspen PharmaCare (South Africa) and Emcure Pharmaceuticals (India), for its newest antiretroviral, atazanavir (sold as Reyataz® in the US). Bristol-Myers Squibb has transferred intellectual property and technical know-how related to the manufacturing, testing, packaging, storage and handling of the active pharmaceutical ingredient and finished dosage form. Aspen and Emcure are now working on regulatory submissions for sub-Saharan Africa and India.

Gilead has partnered with Aspen Pharmacare in South Africa to manufacture and distribute Viread® and Truvada® in Access Program countries. In 2006, Gilead also entered into non-exclusive licensing agreements with 11 Indian generic companies. Gilead allows them to distribute generic versions of Viread® in 95 developing countries, as well as Thailand. The agreements include technology transfer to allow production of high quality products, and the generic companies are free to establish their own pricing for their products. Multiple manufacturers will ensure competitive pricing and the broadest access possible for patients.

GlaxoSmithKline granted its first VL in 2001 and has now negotiated eight licensing agreements for its ARVs in Africa. This includes a new licence agreed in 2006 with a South African company. In 2006, GSK-licensed manufacturers significantly increased their manufacturing capacity to supply larger quantities of ARVs at lower prices. This trend is welcome, as it gives customers in sub-Saharan Africa greater choice and improves security of supply. In 2006, GSK licensees supplied more than 120 million tablets of their versions of Epivir® and Combivir® to Africa.

In 2005, Merck & Co., Inc. granted a non-exclusive, royalty-free patent license for the manufacture and supply of a generic version of its antiretroviral Stocrin® (efavirenz) to Africa's leading generics manufacturer, Aspen Pharmacare in South Africa.

Roche has committed not to file any new patent or enforce existing patents for any of its medicines in UN-defined Least Developed Countries. Nor will it file new patents or enforce existing patents for its antiretrovirals in sub-Saharan Africa. As a result, generic versions can be produced in these countries, encompassing 87% of all people living with HIV, without a license. In 2006, Roche committed to a new "AIDS Technology Transfer Initiative" to help manufacturers in these countries to produce Roche's HIV protease inhibitor, saquinavir, recommended by the WHO as a second-line treatment in resource-limited settings. By September 2006, Roche announced technology transfer agreements with three companies in Africa, which allow them to supply saquinavir to any sub-Saharan or UN-defined Least Developed Country.

Abbott Fund's Program to Strengthen Health Care Systems

HIV/AIDS – Capacity Building

Abbott

Since 2003

Access: health infrastructure, testing & treatment

Tanzania

www.abbottglobalcare.org

Abbott Fund and the Government of Tanzania have formed a unique public-private partnership to address critical needs in the fight against HIV/AIDS. In total, Abbott has invested \$44 million to modernize the health care system and expand access to HIV testing and treatment. The partnership is implemented through Axios, Elizabeth Glaser Pediatric AIDS Foundation and Family Health International.

Centered at the Muhimbili National Hospital in Dar-es-Salaam, the country's leading teaching and reference hospital, the Abbott Fund initiative also supports more than 80 additional hospitals and rural health facilities. Key components include a modern, three-story outpatient treatment center and laboratories at Muhimbili Hospital. The center, which serves hundreds of patients a day, has 34 patient examination rooms, a pharmacy and training facilities. The full-service laboratory facilities provide accurate, automated diagnostic testing, crucial for lifelong monitoring of HIV and other chronic diseases. Donated laboratory equipment is maintained by field service engineers supported by Abbott Fund.

Training of more than 10,500 health care workers, with 7,200 trained in effective HIV patient care, including testing, counseling and treatment. At Muhimbili Hospital, 200 physicians now serve as trainers for other health staff. More than 250 staff have been trained in lab equipment operation, while 600 senior doctors and hospital directors have received management training.

One of the most extensive hospital IT systems in East Africa has been installed at Muhimbili to track health history, referrals, test results and drug prescriptions. Volunteer Abbott employees provide technical support in construction, engineering, infection control, IT, waste management, security and laboratory management.

The Abbott Fund initiative is accelerating availability of voluntary counseling and testing (VCT) and HIV treatment programs. Nine hospitals are receiving training and support to provide comprehensive HIV care and treatment so that, with funding from sources including PEPFAR and the Global Fund, they can expand their ARV therapy programs. Facilities, systems and training have been upgraded at 84 sites throughout the country to improve VCT services and prepare for treatment programs. Due to these improvements, more than 130,000 people have received VCT services. For many in rural locations, this was the first time they could do so.

Dr. Ferdinand Mugusi is an HIV physician at Muhimbili Hospital in Tanzania, where Abbott Fund has helped modernize hospital facilities. (Abbott)



African Comprehensive HIV/AIDS Partnerships (ACHAP)

HIV/AIDS – Capacity Building

Merck & Co., Inc.

Since 2000

Capacity building: care, counseling, education, medicine donation, prevention & treatment

Botswana

www.achap.org

The African Comprehensive HIV/AIDS Partnerships (ACHAP) was established in 2000 by the Government of Botswana, the Merck Company Foundation, Merck & Co., Inc. and the Bill & Melinda Gates Foundation, to enhance Botswana's response to the HIV/AIDS epidemic through a comprehensive approach to prevention, care, treatment and support. The two foundations are each contributing \$56.5 million over several years and Merck is donating its antiretroviral (ARV) medicines Crixivan® and Stocrin® to Botswana's national ARV treatment program, Masa (dawn), for the partnership's duration. Masa is one of the largest government-sponsored HIV/AIDS treatment programs in Africa.

As of December 2006, Botswana had a total of 79,490 patients (including private clinics) on anti-retroviral therapy. The program has achieved a visible decline in adult mortality rate, especially in the districts where ARV therapy was first made available and where ARV coverage is most extensive: the first large-scale evidence in Africa that ARVs can extend life expectancy. From 2003 to 2005, the percentage of HIV-positive 15 to 19-year-olds declined by 22 percent and the percentage of HIV-positive infants born to HIV-positive mothers has declined from some 40% at inception of the program to about 6%, according to a Health Ministry study in one major site in 2005.

The partnership has built 32 regional treatment centers, conducted disease awareness and de-stigmatization education for nearly 21,000 school teachers, and is helping to provide counseling, disease information and support for people living with HIV/AIDS. It also helped develop laboratory testing capacity and information technology systems to track patient adherence. With its help, more than 3,200 local health care workers have been given hands-on clinical training by HIV/AIDS experts.

In 2006, ACHAP expanded its support to target tuberculosis, as HIV has fuelled an explosive increase in TB cases since the early 1990s, so that Botswana now has one of the world's highest rates of TB. It is estimated that 75 to 80 percent of TB patients are HIV positive, and TB is the leading cause of death among adult AIDS patients.

The partnership's strength lies in integrating government strategy with private-sector expertise, and its success to date demonstrates the importance of public-private partnerships in the fight against HIV/AIDS. Priorities for ACHAP beyond 2006 include improving prevention programs, ARV program support, expansion of HIV testing and strengthening post-test services.

Associacao Saude Da Familia HIV/AIDS Awareness

HIV/AIDS – Capacity building

Johnson & Johnson

Since 2004

Access: education, support

Brazil

www.saudedafamilia.org

The *Associacao Saude da Familia* (ASF) mobilizes community support in poor *favelas* in Sao Paulo, Brazil, to protect young people from unwanted pregnancies and sexually transmitted diseases. This includes raising awareness and spreading information about HIV/AIDS. In these teeming slums, where drugs and violent crime are a constant reminder of the fragility of civil societies, ASF works with local community leaders, and municipal and state governments, to implement its programs to encourage safer and healthier behavior.

In its newest program, ASF trains laypersons in poor communities to become outreach workers. They make door-to-door visits providing HIV prevention education and offer voluntary testing and counseling services. With a grant from Johnson & Johnson, ASF was able to expand the scope of this program, and to help local health care units to provide diagnosis, prevention, treatment and care for people living with HIV/AIDS.

Cambodia Treatment Access Program

HIV/AIDS – Capacity Building

Roche

Since 2003

Access: HIV testing, treatment, training & advocacy

Cambodia

www.roche.com/

The Cambodia Treatment Access Program (CTAP) was launched in 2003 by the Cambodian Ministry of Health, the National Centre in HIV Epidemiology and Clinical Research at the University of New South Wales in Australia and Roche. The aim of CTAP aims to widen access to sustainable HIV healthcare, including antiretrovirals and train healthcare professionals in Cambodia, where the adult prevalence of HIV is estimated to be the highest in Asia.

In 2004, a treatment centre for people living with HIV/AIDS was established in Phnom Penh, to provide counseling, clinical care, treatment for opportunistic infections and HIV therapy, and to support HIV training and research. By 2006, Roche's support had enabled the CTAP to enroll more than 1,200 men, women and children for free care and treatment.

In September 2006, Roche funded a training event for 400 health-care professionals from all over Cambodia, allowing them to expand their knowledge and share their experience in treating HIV/AIDS. The event also saw the opening of CTAP's new Social Health Clinic for HIV outpatient care in Phnom Penh.

In recognition of the impact that CTAP has had on HIV/AIDS treatment, the Royal Government of Cambodia have presented the program's founding partners with an Award of Recognition, the highest possible distinction for such a contribution.

Cambodia has constantly improved its HIV care and treatment and is one of very few countries which exceeded its WHO treatment target for 2005. Recent figures show that HIV prevalence there is now in decline.



Johnson & Johnson partners with *Associacao Saude da Familia* in Sao Paulo, Brazil, to provide door-to-door HIV awareness and education. (Johnson & Johnson, Kelly Shimoda)

CARE Program

HIV/AIDS – Capacity Building
Roche
Since 2001
Access: advocacy, testing, training & treatment
Africa
www.roche.com/

CARE, the Cohort program to evaluate Access to antiRetroviral treatment and Education, is designed to provide antiretroviral medicines to people living with HIV/AIDS and serve as a model for providing HIV healthcare in resource-limited countries worldwide.

The program was launched in 2001 by PharmAccess Foundation and Roche in four major urban treatment centers in Cote d'Ivoire, Kenya, Senegal and Uganda. Funding, ARV treatment, diagnostic and monitoring tests, as well as support for training of healthcare professionals and education for patients, were provided by Roche.

Since the program's launch, Roche and PharmAccess Foundation have held four CARE training and experience exchange events, which have brought together over 500 healthcare professionals from more than 15 African countries to discuss HIV/AIDS and share knowledge, to help improve care and treatment, and to develop strategies to overcome challenges.

In 2006, a new three-day HIV/AIDS education event was organised for over 150 healthcare professionals, which focused on local issues faced by African healthcare professionals. A high tech interactive session helped ascertain the real challenges faced by African healthcare professionals and their patients. More than 1,400 insights and comments were received, providing a unique overview of the needs of Africans and how their perspectives differ from those in the West. Roche is committed to supporting a 5th CARE experience exchange event in the 1st half of 2008.

Diflucan® Partnership Program

HIV/AIDS – Capacity Building
Pfizer
Since 2000
Access: product donation & training
44 countries in Africa, Asia, the Caribbean & Latin America
www.diflucanpartnership.org

Pfizer has been collaborating with governments and non-governmental organizations (NGOs) since 2000, to donate its antifungal medicine, Diflucan® (fluconazole), to HIV/AIDS patients in the developing countries hardest hit by HIV/AIDS. Although not a cure for HIV/AIDS, Diflucan® is efficacious in treating two AIDS-related opportunistic infections: cryptococcal meningitis and oesophageal candidiasis.

Through the Diflucan® Partnership Program, Pfizer is providing the medicine free of charge and without time limits to public health clinics for distribution to patients. Partners include Axios International, Interchurch Medical Assistance and the International Dispensarz Association (IDA).

As of December 2006, Pfizer had donated medicine worth more than \$500 million to governments and NGOs operating in more than 47 countries, in Africa, Asia, the Caribbean and Latin America. This medicine has been used to treat more than 200,000 patients. More than 20,000 health care providers have been trained in the countries participating in the program.



GlaxoSmithKline's Positive Action program helps people living with HIV/AIDS in resource-poor countries around the world, including Mexico. (GSK)

GlaxoSmithKline's Positive Action on HIV/AIDS

HIV/AIDS – Capacity Building

GlaxoSmithKline

Since 1992

Access: capacity strengthening, testing, treatment, support & advocacy

17 countries, including India, Kenya, Mexico and South East Asia

www.gsk.com/positiveaction/

Set up in 1992, Positive Action on HIV/AIDS is GlaxoSmithKline's international HIV education, care and community support program, which aims to strengthen the capacity of community-based organizations providing HIV/AIDS healthcare services and to increase the number of people coming forward for testing and treatment by reducing stigma and discrimination. It recognizes that involving people affected by HIV/AIDS is key to controlling the pandemic. During 2006, Positive Action supported 19 international programs in 17 countries.

Positive Action helps the Reach India project to make HIV/AIDS prevention, financial and business education available to millions of poor women in rural India. GSK is giving \$500,000 over three years to develop the capacity of community organizations and self-help groups to reach 500,000 women and 2.5 million family members in rural areas. Reach India is a Freedom from Hunger project, supported by Catholic Relief Services and Positive Action.

In Kenya, GSK is giving \$1.8 million over three years to integrate HIV/AIDS treatment and support services into 60 general healthcare clinics, to enable patients to avoid the stigma of visiting an HIV clinic. Fewer than 10% of Kenyans know their HIV status and fear of stigmatization is a significant barrier to seeking testing. Positive Action also helps to train healthcare professionals and create patient self-help groups, to increase awareness and adherence to treatment. Other partners include AMREF (the African Medical and Research Foundation), Elizabeth Glaser Pediatric AIDS Foundation and the National Empowerment Network of People Living with HIV and AIDS in Kenya.

In Mexico, GSK has launched a three-year project with the International HIV/AIDS Alliance and its Mexican partner, Colectivo Sol, to improve quality of life for people with HIV/AIDS, reduce stigma and discrimination, and educate people about HIV/AIDS.

The TREAT Asia program is run by the Foundation for AIDS Research (amfAR) with support from Positive Action and seeks to teach proper, safe and effective use of HIV therapies, working with clinicians and other health care workers in 25 clinics across twelve Asian countries, including Cambodia, China, Thailand and Vietnam. Clinics and hospitals are being linked with patient support groups to educate and prepare communities for the treatment and care that is being introduced.



GlaxoSmithKline's Cradle of Life program allows employees to work in Hope After HIV clinics. (GSK)

GSK - Other HIV/AIDS Capacity-Building Initiatives

HIV/AIDS – Capacity Building

GlaxoSmithKline

Since 1998

Access: care, education, prevention, testing and treatment

Worldwide

www.gsk.com

The GlaxoSmithKline Foundation supports a range of HIV/AIDS-related programs around the world. Since 1998, the GSK France Foundation has supported 77 programs in 13 countries. These focus on people living with HIV and AIDS in developing countries and aim to improve healthcare through prevention, education and training. During 2006, 23 new programs were implemented in 6 countries with grants of \$868,000. The GSK Foundation Canada focuses on hospice care, helping terminally ill patients and their families. It also supports community programs in Africa, including AIDS Orphans Uganda, a three-year program building community support for vulnerable children in the Luweero District, working with the African Medical Research Foundation (AMREF).

GlaxoSmithKline's business in sub-Saharan Africa supports many community programs, providing treatment of HIV/AIDS patients, counseling and testing, home-based care, training for health care professionals and community volunteers, life skills training for orphans, hospice care, day care centers, feeding schemes, as well as support for basic primary healthcare and HIV/AIDS clinics. GSK supports such programs in Cote d'Ivoire, Ethiopia, Ghana, Malawi, Mozambique, Nigeria, South Africa, Swaziland, Tanzania, Uganda and Zambia.

For example, GSK has supported the AIDS Care, Treatment and Support (ACTS) initiative in Masoyi, South Africa, since 1999. GSK provided funds to buy land, build a dedicated HIV/AIDS primary health care clinic and training center, and to cover all running costs for the first three years. The clinic opened in May 2001 and by the end of 2005 had served more than 12,000. An outpatient clinic for AIDS care now sees 1,000 patients a month, complemented by a home-based care team consisting of a primary health care trained nurse and a community-care giver and an eight-bed community hospice.

In 2004, GSK's US HIV Business Unit launched "Hope After HIV: Africa" with the Children's AIDS Fund. This program sponsors six clinics in Malawi, South Africa, Uganda and Zambia, providing HIV tests and medicines, education, mother-to-child transmission care, counseling and follow-up care to more than 8,000 patients in communities devastated by HIV/AIDS. More than 1,500 volunteers help provide support, adherence counseling, education for family members and palliative care. The Hope After HIV 501(c)(3) Fund allows GSK employees and others to donate funds to support life-enhancing, non-medical needs of patients at the clinics and a "Cradle of Life" program allows to GSK employees to work in Hope After HIV-sponsored clinics.

HIV South Africa

HIV/AIDS – Capacity Building
Johnson & Johnson
Since 2003
Access: healthcare products, training & logistical support
South Africa
www.hivsa.com/hivsa/index.stm

With the support of Johnson & Johnson, HIV South Africa (a program of the Baragwanath Hospital Perinatal HIV Research Unit) has provided a wide variety of Johnson & Johnson healthcare products to community-based organizations that provide care and support to HIV patients in their homes.

The project has both an urban and a rural component, which together serve approximately 3,500 households at any given time. The product donation is complemented by distribution support, caregiver training and program monitoring. Supplemental support also is provided to selected hospice organizations.

Humana: Total Control of the Epidemic

HIV/AIDS – Capacity building
Johnson & Johnson
Since 2003
Access: education
South Africa
www.humana.org

“Only people can liberate themselves from the AIDS epidemic.” These are the motivating words behind the Total Control of the Epidemic (TCE) program, which was created by the International Humana People to People Movement. Driven by a grassroots door-to-door approach, TCE has reached more than 4.5 million individuals. Created “by the people, for the people,” TCE informs communities through HIV risk assessments and prevention education.

For the past four years, Johnson & Johnson has sponsored TCE efforts in four South African communities. Through 2006, the Company's collective support has achieved: 89,000 homes registered; 393,000 one-on-one counseling sessions; 7,800 briefings for pregnant women about preventing transmission of disease to their newborns and 2.3 million condoms distributed.



Total Control of the Epidemic is a door-to-door campaign to educate people in South Africa about HIV, created by the International Humana People to People Movement with Johnson & Johnson support. (Johnson & Johnson, Willie Davis)

IMIFAP: HIV/AIDS Education

HIV/AIDS – Capacity building
Johnson & Johnson
Since 2005
Access: education
Mexico
www.imifap.org.mx

"I Want to, I Can... prevent HIV/AIDS," is the slogan behind the *Instituto Mexicano de Investigación de Familia y Población* (IMIFAP) HIV prevention programs, which mobilize citizens to raise neighborhood HIV/AIDS awareness in Mexico.

Johnson & Johnson supports an educational program for youth that utilizes the existing national network of middle schools to teach students about HIV prevention before they become sexually active, increasing the likelihood that these adolescents will practice safe sex in the future. IMIFAP engages all levels of the community from the Ministries of Health and Education, to the school administrators and local politicians, to the teachers and students.

The program includes teacher training, a software program, and Web site support. The 10,400 schools in Mexico with Internet access bring this program to more than 300,000 students. For those schools without Internet access, IMIFAP trains teachers and students to run the program, and has partnered with UNETE, a member of The Resource Fund, to raise educational levels using technology to distribute the program in more rural and remote areas.

Infectious Diseases Institute

HIV/AIDS – Capacity Building
Pfizer
Since 2002
Access: training, care, treatment and research
Uganda
www.academicalliancefoundation.org

In recognition of African health care professionals' growing need for training in the latest treatment options for HIV/AIDS, Pfizer and the Pfizer Foundation helped to establish the Infectious Diseases Institute (IDI), a regional training, research and treatment center headquartered at Makerere University Medical School in Kampala, Uganda. Pfizer partnered with the Academic Alliance for AIDS Care and Prevention (an association of African and North American infectious disease experts) and several non-governmental organizations (including the Academic Alliance Foundation, the Pangaea Global AIDS Foundation, the Infectious Diseases Society of America and the AIDS Support Organization (TASO) in Uganda) to establish the center.

The IDI currently provides high-quality HIV/AIDS care and treatment to some 10,000 patients each year and trains health care professionals from throughout Africa. IDI has also formed a partnership with Kampala city clinics, in which former focuses on the most complicated AIDS cases while the latter care take care of more routine cases. Since its establishment in 2002, the IDI has trained approximately 1,200 health care professionals from 26 African countries in HIV/AIDS care, with 250 trained in 2006 alone. Institute staff members also conduct operational research. IDI is building research capacity in Africa by pairing promising new investigators with established researchers from North America and Europe, and through mentoring arrangements and fellowships.

Johnson & Johnson/UCLA Management Development Institute

HIV/AIDS – Capacity Building
Johnson & Johnson
Since 2006
Capacity building: education
East Africa
www.anderson.ucla.edu/x13888.xml

The Johnson & Johnson/UCLA Management Development Institute (MDI) was created in 2006 as an intensive one-week program designed to enhance the management skills of health care leaders of East African organizations devoted to the care, treatment and support of people and their families living with HIV/AIDS.

Dr. Ernest O. Nyamato, director of services at Liverpool Voluntary Counseling & Testing (LVCT) care & treatment centers in Kenya, attended the program in 2006. “MDI changed the way I oversee operations at 15 voluntary counseling and testing sites across Kenya,” he said. “My involvement in the program has helped me to more effectively get our patients treated.”

“Attending the MDI training... pointed me in the right direction,” noted Dr. Nyamato. With a new mental picture of how his LVCT sites should operate, he began building better communication channels between the staff, creating new human resources and compensation policies, and focusing more on patients’ perspectives, expectations and feedback.

JPMA's HIV/AIDS Training Program

HIV/AIDS – Capacity Building
JPMA
Since 2004
Capacity building: training
ASEAN countries
www.jpma.or.jp

The Japan Pharmaceutical Manufacturers Association (JPMA) has entered into a contract with the ASEAN Institute for Health Development (AIHD) to provide training for medical professionals and health authority staff in ASEAN member countries as part of the regional HIV/AIDS prevention and control program. The first training course sponsored by JPMA was held in Bangkok in 2004 for ASEAN health authorities’ personnel responsible for HIV/AIDS control and for HIV/AIDS specialists in member states’ government hospitals. The training program focused on HIV/AIDS prevention measures and the care and counseling of AIDS patients in hospitals and patient communities in Thailand. This training course has been repeated twice a year; a total of 55 health care professionals have been trained to date.



A lab worker at Nyumbani Diagnostic Laboratory, Nairobi, Kenya, which provides specialized HIV tests and other general diagnostic lab services for abandoned and orphaned children. (Johnson & Johnson, Willie Davis)

Medical Mission Sisters

HIV/AIDS – Capacity Building
Johnson & Johnson
Since 2005
Capacity building: community care, education
Kenya
www.medicalmissionsisters.org

In 1989, Sister Gill Horsfield began training local health workers to provide home-based care to individuals suffering from HIV/AIDS and related illnesses in one of the poorest areas of Nairobi, Kenya. The program offered medical, pastoral counseling, and social services. Today, the Medical Mission Sisters group cares for more than 1,000 people affected by the disease. The program also includes a hospice facility and IV Rehydration Unit, distribution of prepared meals and dry food to families with sick parents, nutrition and social support for children, and educational programs for deaf and handicapped youth. Funding from Johnson & Johnson supports Sister Gill's continued involvement in caring for people with HIV/AIDS.

Merck & Co., Inc. HIV/AIDS programs - Africa

HIV/AIDS – Capacity Building
Merck & Co., Inc.
Since 1997
Capacity building: care, counseling, education, prevention & treatment
African countries
www.merck.com

Merck & Co., Inc. has helped provide 2,200 African doctors from 24 countries with clinical HIV training since 1997. It supports the West Africa HIV/AIDS Degree Program run by Ouagadougou University, the Pierre et Marie Curie University and the *Société française de lutte contre le SIDA*, which trains 100 professionals each year. It also helped the Avicenne Hospital/Bobigny Medical University and the Kamege Hospital Medical University, Bujumbura, to launch the Great Lakes Region HIV/AIDS Degree Program in 2006, which aims to train 40 professionals per year.

Since 1998, Merck has helped Rwanda's National Aids Control Program to train 12 physicians and 240 other health professionals in ARV therapy and HIV prevention, care and counseling. Also in 2006, Merck funded an International Rescue Committee HIV/AIDS training course in Addis Ababa, Ethiopia, for 23 health care workers and a Health Coordinators Conference in Uganda, for 45 more. Merck funds the Health Economics and HIV/AIDS Research Division of the University of KwaZulu-Natal, South Africa. Its 2005 HIV/AIDS Mainstreaming Workshop in Durban was attended by 6 African ministries, UNAIDS and DANIDA, and over 350 administrators have attended its courses on Planning for HIV/AIDS in Sub-Saharan Africa.

Merck's partnership with the Côte d'Ivoire's National Agency for Support to Rural Development (ANADER) began with an HIV prevention and workplace care program, including ARV treatment access for its 2,500 employees. ANADER has since extended its services to 3.8 million people in rural areas. In Nigeria, Merck supports a community program on Bonny Island, to modify behavior, promote safe sex, manage sexually transmitted infections; prevent and treat malaria, and provide access to ARV medicines. Merck also helps the energy company AREVA, the Niger government, the Global Fund and the *Ensemble pour une Solidarité Thérapeutique Hospitalière en Réseau* to provide HIV/AIDS prevention, testing, treatment and care in Arlit, northern Niger.

Merck and the Harvard School of Public Health have helped the University of Cape Town set up the Ratanang HIV/AIDS Peer Education Programme Framework for young people. Since 2002, Merck has supported Voluntary Services Overseas / Regional AIDS Intervention Southern Africa, which works with 80 partner organizations to overcome local HIV/AIDS challenges.

Since 2005, Merck has worked with the UNHCR to improve refugees' access to quality HIV/AIDS programs, promote their integration into host country HIV/AIDS strategies, combat discrimination and provide HIV/AIDS information.

Merck & Co., Inc. HIV/AIDS programs - Asia-Pacific

HIV/AIDS – Capacity Building
Merck & Co., Inc.
Since 2005
Capacity building: care, counseling, education, prevention & treatment
Asia-Pacific region countries
www.merck.com

Merck & Co., Inc. and the Chinese Ministry of Health set up the China-MSD HIV/AIDS Partnership (C-MAP) in 2005 to develop a comprehensive program to address HIV/AIDS. Merck and the Merck Company Foundation have committed \$30 million over five years to this, the largest public-private HIV/AIDS partnership to date in China. C-MAP's initial focus is in Liangshan Prefecture in southern Sichuan.

In 2006, C-MAP provided 14 Liangshan doctors with three months' training by a leading western HIV/AIDS specialist and furnished 4 more doctors and 36 health workers with various other forms of HIV/AIDS and ARV training. It donated \$93,160-worth of laboratory equipment and reagents to the Liangshan Disease Control Center, to help improve testing and diagnosis, and also provided various forms of practical assistance and education to 70 families in villages which have been particularly hard hit by AIDS. C-MAP helped four local organizations to carry out a range of HIV/AIDS education and awareness activities on World AIDS Day 2006, focused on high risk populations. C-MAP also worked with national and local bodies to help plan surveys and develop programs for Prevention of Mother to Child Transmission, Voluntary Testing and Counseling.

Merck supports the Malaysian AIDS Council's "It Begins With You" program to encourage medical students to become HIV/AIDS specialists. Along with several Australian companies. Merck is also helping to address Papua New Guinea's burgeoning AIDS epidemic by strengthening local HIV/AIDS health care teams, which also address HIV/AIDS stigma issues and encourage better diet.

Merck & Co., Inc. HIV/AIDS programs - Caribbean

HIV/AIDS – Capacity Building
Merck & Co., Inc.
Since 2003
Capacity building: care, counseling, education, prevention & treatment
Caribbean countries
www.merck.com

Merck & Co., Inc. helps address HIV/AIDS in the Caribbean through education, prevention, treatment, care and advocacy, in partnership with people living with HIV/AIDS, caregivers, the business community and the public sector. Merck has provided more than \$500,000 to Caribbean NGOs to address HIV/AIDS, funding initiatives to assist people living with HIV/AIDS, helping health care professionals improve treatment and care, encouraging private and public sector responses and addressing stigma and discrimination.

In 2005-06, Merck funded the *Agua Buena* Human Rights Association, which advocates treatment, access and respect for human rights in the Dominican Republic and other countries, via meetings, statements, articles, reports and conferences. It also educates on HIV/AIDS and TB issues. In 2004-5, Merck gave the Jamaica AIDS Support community counseling and care group a \$40,000 grant and USAID will provide technical assistance and related program support over the next five years.

Merck, the U.S. Agency for International Development, the University of the West Indies, the University of Washington and others provide HIV training for health care providers through the Caribbean HIV/AIDS Regional Training Network (CHART), centers in Jamaica, Bahamas, Haiti and Barbados. Merck made CHART a \$150,000 grant in 2005 and in-kind donation and technical assistance continued into 2006. The University of the West Indies HIV/AIDS Response Program used a \$51,000 grant from Merck to survey 480 pharmacists in Jamaica, Bahamas, Barbados and St. Lucia to assess attitudes to HIV/AIDS patients. Results were passed to CHART, to help direct pharmacist training.

To launch the Jamaica Business Council on HIV/AIDS in 2006, the AIDS Responsibility Project and Futures Group surveyed 23 companies. It found that 61% did not have HIV policies and that discrimination was significant. Merck and USAID each granted \$50,000 to support this survey. Merck also provided funding in 2005 for the Caribbean Association for Industry and Commerce's Pan-Caribbean Executive Forum on HIV/AIDS and is committed to provide ongoing technical expertise.

Merck & Co., Inc. HIV/AIDS programs - Latin America

HIV/AIDS – Capacity Building

Merck & Co., Inc.

Since 2003

Capacity building: care, counseling, education, prevention & treatment
Latin America

Merck & Co., Inc. helps organizations throughout Latin America to fight AIDS, supporting awareness and prevention programs in Argentina and Brazil, treatment and care programs in Chile, Peru, and Venezuela, empowerment and advocacy groups in Central America and Colombia, outreach to healthcare professionals in Argentina, Brazil, Chile and Mexico, and creating HIV/AIDS business coalitions in Mexico and Venezuela. Merck helped the Pan American Health Organization and the Voice of America to create an innovative health journalism CD-ROM to help journalists to report the HIV/AIDS pandemic better. Workshops, such as a seminar in Argentina attended by 25 journalists from 13 countries, also helped promote better health journalism.

Brazil has 600,000 people infected with HIV/AIDS; one-third of Latin America's infected population. To support the Brazilian Government's recognized commitment to address AIDS, Merck & Co., Inc. has donated more than \$400,000 to local NGOs' HIV programs, focused on prevention, education and awareness. The *Centro Corsini's* "Prevention Just in Time" project is aimed at increasing screening, diagnosis and early treatment of HIV/AIDS and other sexually transmitted diseases among low-income people in Campinas. This program has trained 12 peer educators who have helped reach over 2,000 people.

In 2005, Merck granted \$37,000 to the INMED Partnership for Children 2005-06 project, "Prevention: The Sooner, The Better," which supports sexual health education and HIV/STD prevention programs for young people in the town of Francisco Morato, Sao Paulo and has already reached over 30,000 adolescents. Merck also supported INMED itself with a grant of US\$ 50,000.

In 2006, Merck provided US\$25,000 to *Fundacion SPES*, a non-profit NGO in Buenos Aires, Argentina, dedicated to improving the quality of life of people living with HIV/AIDS through free-of-charge community services, including counseling, clinical services, a treatment hot-line, and training services.

In 2006 in Mexico, MSD and The Merck Company Foundation provided a grant of US\$35,000 to support the Integral Telecommunications HIV/AIDS Prevention Program for Mexican Youth, a health education initiative developed by the *Instituto Mexicano de Investigación de Familia y Población* targeting more than 300,000 teenagers throughout the country over the course of two years.

Also in 2006, Merck provided a US\$22,000 grant to *Vivo Positivo*, an HIV/AIDS-focused NGO in Chile, to help set up a training center to increase disease awareness among HIV patients and improve treatment adherence.

The Mildmay Centre and GlaxoSmithKline partnership

HIV/AIDS – Capacity Building

GlaxoSmithKline

Since 2001

Capacity building: education & training
Sub-Saharan Africa

The Mildmay Centre in Kampala, Uganda, works together with GlaxoSmithKline to provide affordable drugs for HIV/AIDS, as well as improve existing health systems' ability to administer proper care. This is being done through the provision of appropriate training in HIV/AIDS care for Community/ Home Based Health Care providers in various community projects in Sub-Saharan Africa; including the Mpatamatu Community Home Based Care Program in Zambia and the Baptist Medical Clinic in Malawi.

As part of GSK's commitment to build capacity in project sites, it has, in partnership with Mildmay, developed a training program to increase the skills and knowledge needed to improve the quality and effectiveness of care offered to people infected with HIV/AIDS. These courses, which are held at the project sites, last 7 – 10 days, depending on need and availability, and attract great attention within the area. Attendance usually includes not only staff from the project site but also healthcare workers from government hospitals and clinics, NGOs, faith-based organizations and military health facilities in the surrounding district.



The virus that causes AIDS can become resistant to current treatments, so it is important to continue R&D to develop new generations of medicines. (Merck & Co., Inc.)

Secure The Future®

HIV/AIDS – Capacity building

Bristol-Myers Squibb

Since 1999

Access: care, treatment, research & training

Botswana, Burkina Faso, Côte d'Ivoire, Lesotho, Malawi, Mali, Namibia, Senegal, South Africa, Swaziland & Uganda

www.securethefuture.com

Secure The Future® is a comprehensive initiative to fight HIV/AIDS in sub-Saharan Africa, sponsored by Bristol-Myers Squibb and the Bristol-Myers Squibb Foundation. It combines medical treatment and care, access to antiretroviral medicines, with research, social support with community education, and training for health care professionals with new facilities and infrastructure investments in remote areas of sub-Saharan Africa where resources are extremely limited. The initiative now is reaching women, children, their families and communities in 12 nations: Botswana, Burkina Faso, Côte d'Ivoire, Kenya, Lesotho, Malawi, Mali, Namibia, Senegal, South Africa, Swaziland and Uganda.

Secure The Future®'s six Community-Based Treatment Support Centers are showing for the first time that comprehensive medical treatment and care, combined with broad-based community support, can be successful in fighting HIV/AIDS in resource-poor settings. Located in remote areas where healthcare and other resources are limited, the CBTS programs integrate strong community support services such as nutrition, psychosocial care, income generation and home-based care with medical treatment to achieve and sustain good clinical outcomes.

Bristol-Myers Squibb's Secure The Future® program has created the first African NGO Institute to develop NGO's organizational and individual skills in the delivery of support and care for people living with HIV/AIDS. The NGO Institute, which has created training modules in management, finance, good governance and leadership, runs training programs in Botswana, Lesotho, Namibia, South Africa and Swaziland. More than 2,000 NGO leaders and managers have been trained since the Institute was started in 2003.

Secure The Future® has funded a distance learning fellowship program hosted by the National School of Public Health at the Medical University of Southern Africa to provide training in community-based program strategy and design, implementation and evaluation, health systems management, health policy development; and HIV/AIDS biology and epidemiology. To date, over 250 professionals have benefited from the program which has been expanded to four countries in West Africa, via Cheick Anta Diop University, Dakar. Secure the Future® has also provided Good Clinical Practice and Bioethics training to more than 800 health research professionals in seven sub-Saharan African countries.

Sikiliza Leo Project, Uganda

HIV/AIDS – Capacity Building

Johnson & Johnson

Since 2003

Access: care, counseling, donated medicines, testing & treatment Uganda

www.tibotec.com

Johnson & Johnson, its Tibotec subsidiary and the African Medical Research Foundation help the Ugandan NGO *Sikiliza Leo* to provide HIV testing, counseling, treatment and care in rural Uganda. Since March 2003, HIV testing and counseling have been offered to 3,586 community members, of whom 559 have tested positive for HIV. A total of 272 persons receive Home Based Care and a first group of 20 are now receiving ARV therapy. Basic drug kits containing a variety of essential medicines, including miconazole MAT and co-trimoxazole prophylaxis, are among the tools used by home care volunteers.

The program has also established two day-care facilities that support some 250 orphans and vulnerable children in Mulanda and Lwala parishes. Psychosocial development, education, nutrition and care are offered to children from 3 to 8 years of age. The program has been recognized by the American Embassy, and a grant has been provided to improve facilities and food.



Bristol-Myers Squibb's Secure The Future® initiative is helping to strengthen health care infrastructure in sub-Saharan Africa. (Bristol-Myers Squibb)

Tibotec Cost Recovery Distribution Program

HIV/AIDS – Capacity Building
Johnson & Johnson
Since 2003
Access: at cost & donated medicines
Sub-Saharan Africa
www.tibotec.com

Johnson & Johnson's Tibotec subsidiary makes Tibozole™ Miconazole MAT, a muco-adhesive buccal tablet that can treat oral thrush in AIDS patients. To date, Tibotec has sold at cost or donated over two million patient treatments of Miconazole nitrate 10 mg MAT for use in sub-Saharan Africa. Of these, more than 1,300,000 treatment units have been sold to international procurement agencies for distribution in resource poor settings, through Tibotec's Cost recovery distribution program. Tibotec collaborates with major not-for-profit suppliers to the developing world, such as IDA and MSF, to maximize access and ensure sustainable product supply. Pilot collaborations with voluntary organizations have led to an increase in donations of patient treatments in a number of sub-Saharan African countries.

One community-based program benefiting from at-cost miconazole is the Comprehensive Community Based Rehabilitation center in Dar es Salaam, Tanzania (CCBRT). Dr. Geert Vanneste, Medical Director of the holistic HIV program at CCBRT, said "the product has really provided us with a convenient, fast acting topical product, which can be used at the lowest level of care, and represents a real advance in the armamentarium for our home based care workers." The home based care providers working in the program have also spoken out regarding the product benefits: its efficacy, minimal side effects and good compliance.

"Youth Speak-Up!" HIV Peer Education

HIV/AIDS – Capacity Building
Johnson & Johnson
Since 2006
Capacity building: education
Indonesia
www.jnj.com

Young people in Indonesia account for 46 percent of all HIV/AIDS infections. "Youth Speak-Up!" was initiated by the Indonesian Youth Partnership (IYP), a nationwide network of youth leaders fighting for Adolescent Reproductive Health and Rights. "Youth Speak-Up!" uses a network of peer educators to raise awareness about HIV/AIDS transmission and prevention.

Johnson & Johnson supports "Youth Speak-Up!" programs in which adolescents from 12 provinces are trained to educate others in their communities. With the support of the IYP, the program is growing into a sustainable network of peer educators with the capacity to ensure education in the provinces. The IYP collaborates with the national media to spread the importance of their message.

Atripla™ Fixed Dose Combination Development

HIV/AIDS – R&D

Bristol-Myers Squibb, Gilead & Merck & Co., Inc.

Since 2003

Research & Development: fixed dose combination

Latin America

Doctors often prescribe a combination of different ARVs to people living with HIV/AIDS to reduce the risk of them developing resistance. Fixed dose combinations make life easier for HIV/AIDS patients and increase compliance by reducing the number of pills to be taken each day. Atripla™ is a fixed dose ARV combination of the non-nucleoside reverse transcriptase inhibitor (NNRTI) efavirenz, and the nucleoside reverse transcriptase inhibitors (NRTIs) emtricitabine and tenofovir disoproxil fumarate. Efavirenz is marketed by Bristol-Myers Squibb as Sustiva® and by Merck & Co., Inc. as Stocrin®. Emtricitabine and tenofovir disoproxil fumarate are commercialized by Gilead Sciences under the tradenames Emtriva® and Viread®.

Atripla™ was developed by Bristol-Myers Squibb and Gilead and approved by the US FDA in July 2006, with different tablet colors for developed and developing countries. Atripla™ is marketed in the USA by a joint venture between Bristol-Myers Squibb and Gilead. It has been agreed that Gilead and Merck will work together to register Atripla™ with individual country health authorities in the developing world, and that Gilead will manufacture Atripla™ using efavirenz supplied by Merck, which will distribute the product in those countries already covered by the agreement. Distribution elsewhere is still under discussion.

Gilead Clinical Development Partnerships

HIV/AIDS – R&D

Gilead

Since ?

R&D: clinical trials

Developing Countries

www.gsk.com

Gilead partners with organizations such as the Gates Foundation, Family Health International, the UK's Medical Research Council, the Centers for Disease Control and Prevention (CDC) and France's *Agence Nationale de Recherches sur le SIDA* (ANRS), providing its products for approximately 20 clinical studies that will together enroll more than 10,000 patients in Africa, Asia and Latin America.

The largest of these studies is the "Development of Antiretroviral Therapy" (DART) study with two sites in Uganda and one site in Zimbabwe. To date, the company has committed more than 50,000 patient-years-worth of medicines for developing world research, worth more than \$250 million.

In addition, multiple pre-exposure prophylaxis studies with once-daily Viread® and Truvada® are ongoing, sponsored by the U.S. Centers for Disease Control, Family Health International, and the National Institute of Health. Gilead has other development programs in HIV, including an HIV integrase inhibitor currently in Phase II studies, as well as programs in hepatitis B and hepatitis C.



High throughput screening technology helps to accelerate the evaluation of compounds' potential as a medicine to address a particular disease target. (GlaxoSmithKline)

GSK's HIV-collaborative research program for resource-poor settings

HIV/AIDS – R&D
GlaxoSmithKline
Since 2000
R&D: donates study medicines for public health research
Mainly Africa
www.gsk.com

Through its HIV-collaborative research program for resource-poor settings, GlaxoSmithKline is supporting clinical trials that are sponsored by external organizations - such as the WHO, the UK's Medical Research Council and the US National Institutes of Health (NIH).

Twenty-one trials, including 16 in Africa, are currently underway, mainly focusing on public health-related issues and involving more than 19,500 patients in the developing world. GSK donates study antiretrovirals and/or financial support, and also provides scientific input.

International AIDS Vaccine Initiative (IAVI)

HIV/AIDS – R&D
GlaxoSmithKline, Merck & Co. Inc., Novartis & sanofi pasteur
Since 1996
R&D: medicine development, advocacy, education & policy
Global operations, country teams
www.iavi.org

The International AIDS Vaccine Initiative (IAVI) was created in 1996 out of the recognition that the best long-term solution to the growing AIDS epidemic is a vaccine. As a global organization operating across borders to meet the challenges posed by the epidemic, IAVI is working to ensure the development of safe, effective, accessible and preventive HIV vaccines for use throughout the world. IAVI's work focuses on four areas:

- mobilizing support through advocacy and education (by identifying and filling other scientific gaps);
- accelerating scientific progress (by supporting promising vaccine development partnerships);
- encouraging industrial participation in AIDS vaccine development (by expanding public-private collaboration and creating incentives for private sector investment and participation in HIV vaccine development); and;
- assuring global access (by creating the policies necessary for getting the vaccines to all those who need it).

IAVI collaborates with developing countries, governments and international agencies that are dedicated to accelerating the development of a vaccine to halt the AIDS epidemic. Partners in the private sector include pharmaceutical companies such as GlaxoSmithKline, Merck & Co., Inc., Novartis & sanofi pasteur. Funding is provided by the Rockefeller Foundation, World Bank, USAID, the Bill & Melinda Gates Foundation and other donors.

In 2005, GSK launched the first formal public-private partnership with IAVI to develop an AIDS vaccine using nonhuman primate adenovirus vector technology. The collaboration – the first-ever in AIDS vaccine research between IAVI and a major vaccine company – will facilitate research into vaccines against types of HIV that circulate predominantly in Africa. Under the agreement, IAVI will contribute technical expertise and funding, and GSK and IAVI researchers will form a joint research team.

International Partnership for Microbicides (IPM)

HIV/AIDS – R&D

Gilead, Johnson & Johnson & Merck & Co., Inc.

Since 2004

R&D: compounds for microbicide applications

Developing countries

www.ipm-microbicides.org

Johnson & Johnson's Tibotec affiliate established a first-of-its-kind public-private partnership with the non-profit International Partnership for Microbicides (IPM) in 2004, providing a royalty-free license and technology transfer to develop, manufacture and distribute TMC120 as a topical vaginal microbicide to reduce sexual transmission of HIV in developing countries. IPM is conducting safety trials of TMC120 as a vaginal gel in Belgium, South Africa, Rwanda and Tanzania.

In October 2005, Bristol-Myers Squibb and Merck & Co., Inc. jointly announced that each had granted separate royalty-free licenses to IPM to develop, manufacture and distribute their new antiretroviral compounds as microbicides to protect women from HIV in resource-poor countries. This is the first time anti-HIV compounds have been licensed for development as potential microbicides at such an early stage in their development. The compounds concerned are part of a new class of antiretrovirals known as "entry inhibitors", some of which bind directly to the HIV itself, others to the CCR5 receptor. They are designed to prevent HIV from entering host cells efficiently, thus preventing infection.

In December 2006, Gilead granted royalty-free rights to the IPM and Conrad to develop, manufacture, and distribute tenofovir gel as a microbicide.

Merck & Co., Inc. HIV Vaccine R&D

HIV/AIDS – R&D

Merck & Co., Inc.

Since 2003

Research & Development: vaccine

Caribbean, Latin America, South America

Merck & Co., Inc. has had an HIV vaccine clinical development program for several years. As a result of this work, a Phase IIb "test of concept" clinical trial of its lead HIV vaccine candidate, a trivalent replication defective adenovirus based vaccine, was initiated in partnership with the HIV Vaccine Trials Network (HVTN) in 2004 in Australia, the Caribbean, and North and South America. A new Phase IIb study of this vaccine was launched in 5 sites in South Africa in February 2007. The trials should show if the candidate vaccine prevents HIV infection, results in lower HIV levels in those who become infected after vaccination or both.

The HIV Vaccine Trials Network is an international collaboration of scientists and institutions whose goal is to accelerate the search for an HIV vaccine by sharing trial results and facilitating parallel, concurrent testing. The HVTN is funded and supported by the National Institute of Allergy and Infectious Disease (NIAID) at the National Institutes of Health (NIH), an agency of the US Department of Health and Human Services.



Merck & Co., Inc. has been researching an HIV vaccine for several years. (Merck & Co., Inc.)

Pediatric Formulations for ARVs

HIV/AIDS – R&D

Abbott, Bristol-Myers Squibb, Gilead, GlaxoSmithKline

Ongoing

R&D: pediatric ARVs

Focus on use by developing countries

www.abbott.com, www.bms.com, www.gilead.com, www.gsk.com

Of the 2.3 million HIV-positive children in the world in 2005 (UNAIDS/WHO), 2 million were in Sub-Saharan Africa. Antiretrovirals (ARVs) are developed for adults, so most clinical trials are in adults with doses and dosage forms designed for adults, but children cannot simply be dosed like small adults, as their metabolic capacity to absorb ARVs is not proportional. Safety, efficacy and dosage need to be determined via specific pediatric trials. Most ARVs were developed in tablet form, yet these are impractical for children under five, who require special liquid formulations. While older children can take tablets, those intended for adults often contain too large a dose.

The treatment of children has always been integral to Abbott's HIV research. Abbott conducted clinical studies of its protease inhibitor (PI) HIV medicines in children at the same time as it studied them for adult use, and both of Abbott's PIs are available around the world in liquid formulations. Abbott is also developing a lower-strength pediatric tablet formulation of its PI, lopinavir/ritonavir, with view to eliminating the need for refrigeration and providing dosing flexibility for treating children.

Bristol-Myers Squibb currently produces pediatric formulations of Videx® (didanosine), Zerit® (stavudine) and Sustiva® (efavirenz), and is working with the Pediatric Aids Clinical Trials Group to develop Reyataz® (atazanavir) for infants from 3 months old to 18 years. It is also developing Sustiva® oral solution for children from 3 months to 16 years. Sustiva capsules are currently approved for use in children 3 years and older.

Gilead is working to advance development of a pediatric formulation of tenofovir. To address issues with the initial formulation, Gilead has recently developed a new heat-stable encapsulated sprinkle formulation for future studies. Two Phase III studies in pediatrics are currently enrolling patients, one sponsored by the US Pediatric AIDS Clinical Trial Group (PACTG) and one by Gilead in Brazil.

GlaxoSmithKline has developed a number of ARV liquid formulations for children, all available at not-for-profit prices in the world's poorest countries. The development of oral solutions for its combination therapies, Combivir® and Trizivir®, is complicated because two key components (zidovudine and lamivudine) require different pH ranges to maintain stability, and daily dosing issues associated with abacavir have hampered a Kivexa® pediatric formulation. GSK supports four pediatric clinical studies which aim to enroll 2,400 children in 5 resource-poor countries, to improve ARV treatment of children and 7 more trials with 6,000 patients in 13 developing countries, looking at reducing Mother to Child Transmission of HIV/AIDS.

GSK is also developing scored tablets for its Epivir®, Ziagen®, and Combivir® ARVs. These can be broken to provide smaller doses, to increase treatment options for older children. In 2007, GSK will submit data to the EMEA to support dose administration of zidovudine (a key Copmbivir® component) based on body weight, as requested by WHO and UNICEF to reduce dosing complexity in resource-limited settings. It is currently dosed in children by mg per square meter of body surface, which is much more difficult to establish. If approved, GSK's intention is to register the scored tablets globally.

PEPFAR Partnership for Pediatric AIDS Treatment

HIV/AIDS – R&D
Abbott, Bristol-Myers Squibb, Gilead, GlaxoSmithKline, Merck & Co., Inc.
Since 2006
R&D, Access: pediatric R&D, no profit pricing
Developing Countries
www.pepfar.gov

The US President's Emergency Plan for AIDS Relief (PEPFAR) Partnership for Pediatric AIDS Treatment was launched in 2006. This public-private partnership includes innovator and generic pharmaceutical companies and multilateral organizations such as UNAIDS, WHO and UNICEF. The initiative will identify scientific obstacles to treatment for children, take practical steps to address key barriers, share best practices and develop systems for clinical and technical support.

In addition to making medicines available at preferential prices to PEPFAR, Abbott is also working with PEPFAR to advance treatment for children with HIV in developing countries.

Bristol-Myers Squibb is an active partner in the PEPFAR Partnership for Pediatric AIDS Treatment, working to find solutions to issues concerning pediatric HIV treatment, formulations and access. In 2004, Bristol-Myers Squibb agreed to allow the FDA to make right of reference to its confidential dossiers and product registration files to facilitate approval of generic combination products under the PEPFAR program.

Gilead is an active member of the Accelerated Access Initiative and several United Nations' agency working groups, as well as the PEPFAR Partnership for Pediatric AIDS Treatment.

GlaxoSmithKline is a major supplier of ARVs to PEPFAR at not-for-profit prices and has also participated in the State Department's program to expand the number of pediatric formulations for HIV medicines that are appropriate for PEPFAR and other child access programs in the developing world.

Merck & Co., Inc. is an active member of the PEPFAR Partnership for Pediatric AIDS Treatment, working to identify scientific and technical solutions to improving access to antiretroviral treatment for children living with HIV/AIDS in resource-limited settings.

Women's Global Health Imperative

HIV/AIDS – R&D
Johnson & Johnson
Since 2003
R&D: female-controlled prevention means.
South Africa & Zimbabwe
www.wghi.org

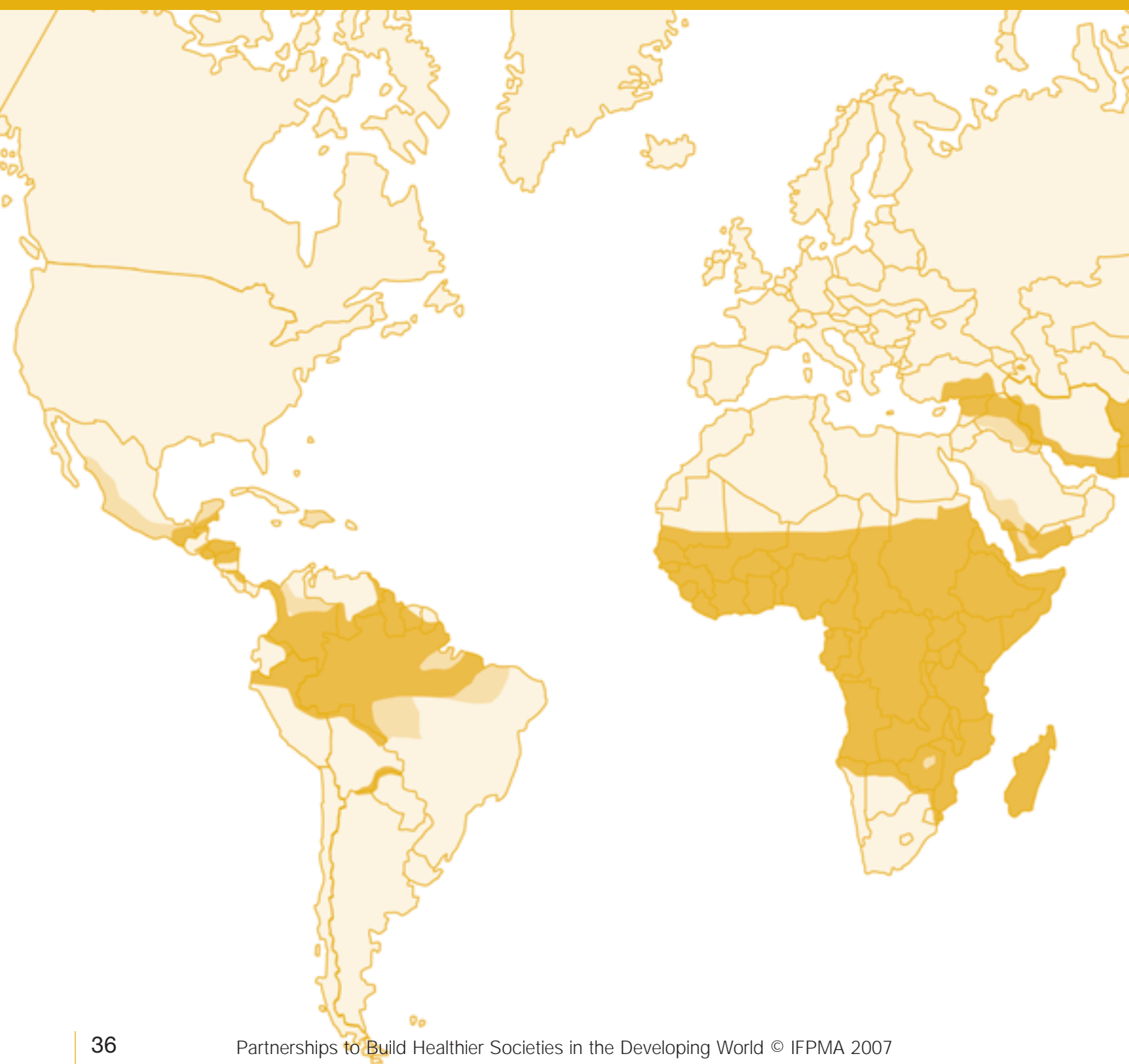
Established products are playing a role in HIV/AIDS prevention research headed by the Women's Global Health Imperative of the University of California, San Francisco. Johnson & Johnson's Ortho All-Flex® latex diaphragm is being used in a multi-site randomized controlled trial of 5,000 women in South Africa and Zimbabwe to measure the effectiveness of a diaphragm used with lubricant gel in preventing heterosexual acquisition of HIV infection among women.

Johnson & Johnson also donated 48 pelvic models to the trial for demonstrations of proper methods for inserting and removing a diaphragm. All women receive safer-sex counseling, free male condoms, as well as diagnosis and treatment of sexually transmitted infections. Half also will receive the diaphragm and gel so researchers can assess the HIV and STI infection rates of women who use them versus their counterparts. Study results are expected late 2007.



Children orphaned by HIV/AIDS throw an additional burden on developing countries (Abbott)

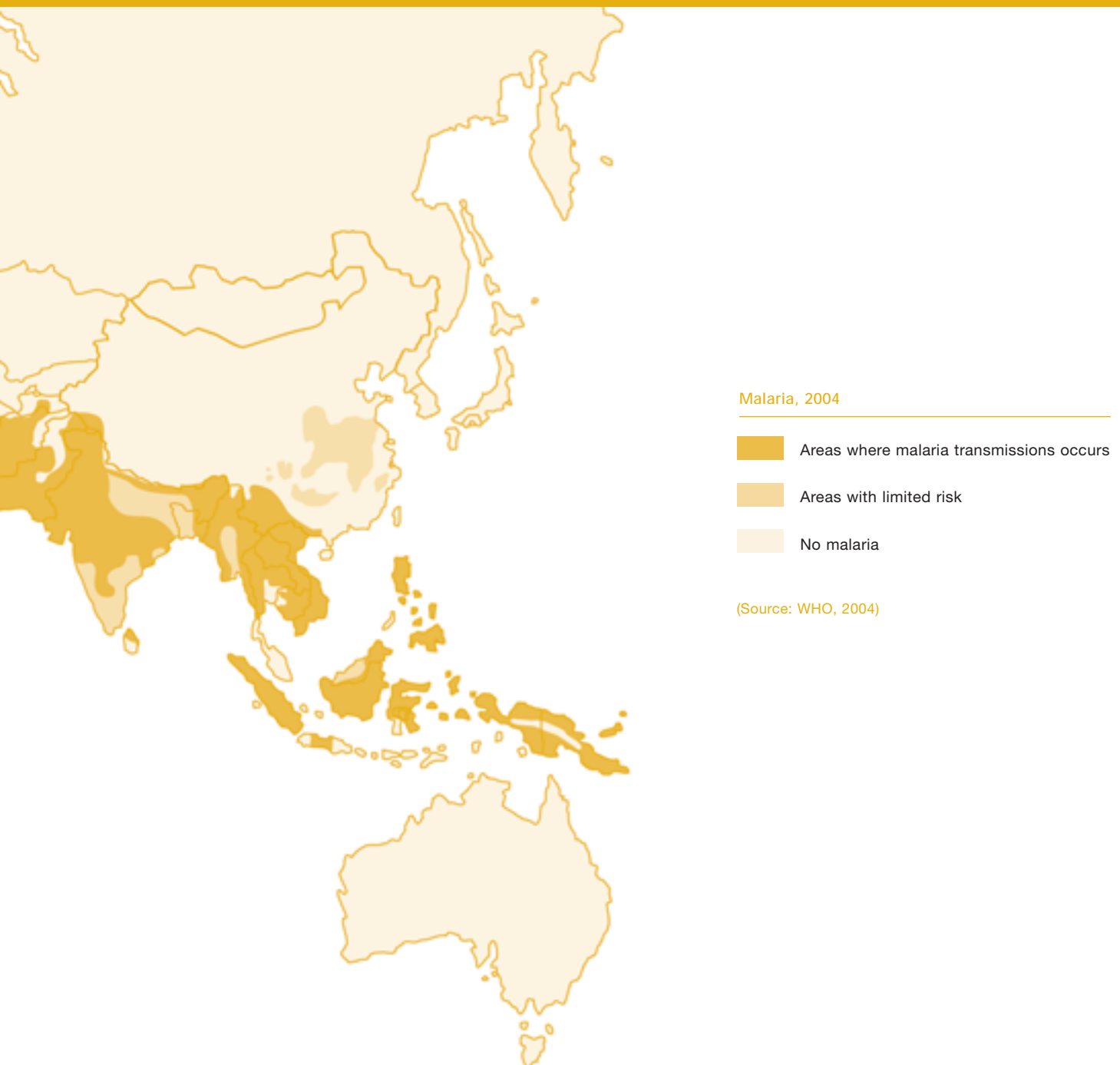
MALARIA



Malaria is now recognized as a major disease of poverty, alongside HIV/AIDS and tuberculosis, but it has become harder to combat, as drug-resistant forms have developed and health infrastructures in malaria-endemic areas have deteriorated. Malaria is caused by a unicellular parasite transmitted to humans through the bites of infected female anopheles mosquitoes. In the absence of immunity or medicines, the most virulent species of the parasite, *plasmodium falciparum*, can cause death within 24 hours of the appearance of noticeable symptoms. Malaria symptoms include anemia, chills, coma, exhaustion, fevers, partial paralysis, seizures and speech disorders. Up to 500 million cases occur annually worldwide, resulting in more than 1 million deaths each year, of which 90% occur in sub-Saharan Africa. Most of the victims are children under 5 years old; malaria kills an African child every 30 seconds. Pregnant women are also particularly vulnerable, being three times more likely to develop serious malaria than other adults during a malaria epidemic.

(Sources: Roll Back Malaria, What Exactly Is Malaria?; WHO, World Malaria Report 2005)

Because of resistance, WHO recommends a combination of effective, low-cost interventions for malaria control and prevention, but these remain very much underutilized, primarily due to inadequate funding and poor health infrastructure in endemic countries. The WHO recommends sleeping under insecticide-treated mosquito nets, spraying the interior of dwellings with approved insecticides, preventive antimalarial treatment for pregnant women, and rapid diagnosis and treatment with effective, appropriate antimalarials for anyone suspected of having malaria. The pharmaceutical industry is at the forefront of the growing number of R&D projects, looking for new medicines, vaccines, diagnostics and other health products to fight malaria. They are important actors in access programs to make current malaria treatments more widely available to those worst affected by the disease.



ACCESS - Understanding and Improving Access to Effective Malaria Treatment

Malaria – Access & Capacity Building
Novartis
Since 2003
Access: education, diagnosis, quality of care, treatment
Tanzania
www.novartisfoundation.org

Together with the Ifakara Health Research and Development Centre and the Swiss Tropical Institute, the Novartis Foundation for Sustainable Development aims to identify and analyze the main obstacles to effective malaria treatment and to address them by designing appropriate interventions in two rural districts in Tanzania.

Components of this project include social marketing campaigns to motivate people to seek timely and correct malaria treatment in the event of fever episodes, as well as improving advice, diagnosis, and treatment in private pharmacies and public health facilities. It also involves improving access for people in remote areas, through accredited drug dispensing outlets (ADDOS), in collaboration with the Tanzanian Food and Drug Authority and the Management Science for Health organization. ACCESS does not supply medicine, but can obtain Coartem® - the first line treatment in Tanzania – from Novartis at a preferential price for ADDOS in the two districts.

By end of 2007, all 150 villages with a population of 500,000 inhabitants will have been covered by the social marketing campaigns. Equally, all 50 health facilities will have been reached with quality assurance tools to improve quality of care. Data on numbers of people with a fever episode who have been treated and on malaria-related mortality will be available in early 2008.

GSK and Access to Malaria Care

Malaria – Access & Capacity Building
GlaxoSmithKline
Since 2003
Access: no-profit sales, education
Endemic countries
www.gsk.com/malaria

GlaxoSmithKline offers its anti-malarials at not-for-profit prices to public sector customers and not-for-profit organizations in 64 countries - all the Least Developed Countries and all of sub-Saharan Africa. All CCM projects fully funded by the Global Fund to Fight AIDS TB and Malaria are also eligible. GSK does not make a profit at these prices, but it does cover its costs, so it can sustain supply of these high-quality products for as long as they are needed. These prices apply to orders of any size and include insurance and freight costs.

GSK's African Malaria Partnership was set up in 2003 to support education programs in eight African countries, through partnerships with Freedom from Hunger, AMREF and Plan International. These focused on prevention and prompt treatment, particularly among children and pregnant women. GSK funding for these initiatives has now ended, but the investment will have a long-term positive impact.

The scale of the malaria problem requires a significantly bigger response, so in 2005, GSK gave a \$1.5 million three-year grant to a new partner, the Malaria Consortium, to launch the Mobilising for Malaria program. Through media coverage, it aims to generate political commitment and sustained funding to combat the disease. It will increase the number of NGOs engaged in tackling malaria, and give more African communities the knowledge and tools they need to prevent transmission of malaria. In 2006, national Coalitions Against Malaria were launched in Belgium, Cameroon, Ethiopia, France and the UK, bringing together advocates from the public sector, NGOs, the media, the private sector and the political, academic and scientific communities.



GlaxoSmithKline partners with NGOs to raise awareness, encourage prevention and improve treatment of malaria through the Mobilising for Malaria program. (GSK)

Impact Malaria

Malaria – Access & Capacity Building

sanofi-aventis

Since 2001

Access & R&D: new medicine development, no profit sales, training & education

Malaria endemic countries

www.impact-malaria.com

The Impact Malaria program confirms sanofi-aventis' longstanding commitment to help control this disease and combines four main activities.

- 1) R&D, especially to anticipate the emergence of resistance to existing antimalarial drugs. The most advanced project is ferroquine, a new 4-aminoquinoline derivative, developed with Lille University, which is in Phase II clinical trials. Upstream projects include development of "bicationic compounds" with Montpellier University and "trioxaquins" with Palumed in Toulouse. The Group is also working on malaria vaccines with the Institut Pasteur in Paris.
- 2) Improved access through preferential pricing for antimalarials, whereby the Group's branded products are made available at a "no profit, no loss" price to the poorest patients. In 2005-2006, sanofi-aventis distributed more than 10 million ACT treatments at preferential prices in 16 malaria-endemic countries.
- 3) sanofi-aventis is also improving existing therapies, to combat resistance and facilitate treatment. The Group and DNDi launched a new artemisinin-amodiaquine fixed-dose combination (FDC) in early 2007. sanofi-aventis has relinquished its patents for this product and is committed to supply it at prices scaled to income. In the poorest countries, this is less than \$1 for an adult treatment and a less than \$0.5 for a pediatric one.
- 4) Finally, sanofi-aventis is developing training and educational programs to inform health workers and the public in malaria-endemic areas. The www.impact-malaria.com website provides information about the disease, prevention and treatment, educational tools and an online library.

sanofi-aventis is working with the WHO, DNDi, *Médecins Sans Frontières* and Epicentre to prepare clinical trials to generate good efficacy and safety data on its new FDC in "real life" conditions. It is also working with CARE Cameroon to implement a malaria prevention and treatment program in the Lagdo region, based on local health structures; a similar project is being prepared with *Actions de Solidarité Internationales* and the *Agence pour la Médecine Préventive* in Makoua, Congo Brazzaville.

In Benin, sanofi-aventis is working with *PlanetFinance* to help local NGOs to train health workers to educate families and communities about malaria. The Group has also joined with Total and the CFAO to create a "Practical Guide for the Corporate Fight Against Malaria", to help companies to provide malaria care for employees, families and host communities.

Novartis Coartem®

Malaria – Access & Capacity Building

Novartis

Since 2001

Access: capacity building, education, medicines at no-profit, Malaria-endemic developing countries

www.novartis.com/

Coartem® is a fixed-dose, oral artemisinin-based combination therapy antimalarial, which is fast-acting and effective. It was developed by Novartis with the Institute for Microbiology and Epidemiology in Beijing and combines a traditional Chinese plant-based remedy, artemether, with a synthetic substance, lumefantrine.

Through grants provided by the Global Fund For AIDS, Malaria and Tuberculosis, Novartis agreed with the World Health Organization (WHO) in May 2001 to make Coartem® available on a "not-for-profit" basis to public sector agencies, to improve treatment in malaria-endemic countries. The Coartem® supply chain is unusually long and complex; Novartis has worked with Chinese and African partners to help expand production to meet rising demand. In 2006, Novartis shipped 62 million Coartem® treatments – up from 33 million treatments in 2005 – helping to save an estimated 200,000 patient lives.

In KwaZulu-Natal, South Africa, a pilot program combining case management with Coartem®, indoor house spraying and insecticide-treated bed nets resulted in a 95% decrease in malaria deaths and a similar drop in hospital admissions and outpatient visits. Zambia was the first country in sub-Saharan Africa to adopt Coartem® as first-line treatment and has delivered more than 5 million Coartem® treatments since late 2003. Malaria deaths dropped from 50,000 in 2003 to 33,000 in 2004.

A study in the February 2007 issue of *Malaria Journal* compared the overall cost-effectiveness of Coartem® and sulfadoxine pyrimethamine (SP) for treatment of uncomplicated malaria in 55,509 patients in Zambia in 2005. The study showed that Coartem® is more cost-effective, essentially because it eradicates malaria infection in most patients within a 28-day period. While it acknowledges that implementing a national ACT program will require considerable resources, the study suggests that the decision to adopt Coartem® is justifiable on both economic and public health grounds.

Novartis is working with the WHO to deliver a "Coartem® and Malaria" international education program, to help improve patient compliance and so increase response and cure rates in less developed countries. The company also helps to conduct operational research, increase community awareness and educate healthcare workers in these countries.

Pfizer Malaria Partnership

Malaria – Access & Capacity Building
Pfizer
Since 2006
Access: capacity building, education & training
Ghana, Kenya & Senegal
www.pfizer.com

Malaria is a preventable and treatable disease and yet, it is a leading cause of mortality in African children under the age of five. There are at least 300 million acute cases of malaria each year worldwide, resulting in more than one million unnecessary deaths; 80% of which occur in sub-Saharan Africa. Distribution of anti-malaria medicines is often hampered by fragile healthcare systems and under-supported patient education and care. Additionally, many patients and caregivers are unaware of newly available and effective treatment and prevention options.

Through the Pfizer Malaria Partnership, the company is collaborating with leading development organizations and local governments to help close critical gaps in malaria education and treatment. Its efforts span three countries, Ghana, Kenya and Senegal, and focus on early diagnosis and appropriate treatment.

Initiatives include developing caregiver and patient education materials to increase treatment seeking behavior and adherence. Pfizer also helps to train formal and informal health care providers, such as Licensed Chemical Sellers, antenatal clinic nurses and doctors, and community-based health workers, to provide early malaria diagnosis, appropriate treatment and referrals.

Roll Back Malaria Partnership

Malaria – Access & Capacity Building
GlaxoSmithKline, Novartis, sanofi-aventis
Since 1998
Access: global strategy, medicine distribution & advocacy
Endemic countries & vulnerable populations
www.rollbackmalaria.org

To provide a coordinated global approach to fighting malaria, the Roll Back Malaria (RBM) Partnership was launched in 1998 by the World Health Organization (WHO), the United Nations Children's Fund (UNICEF), the United Nations Development Program (UNDP) and the World Bank to provide a coordinated global approach to fighting malaria.

The RBM Partnership has expanded exponentially since its launch and is now made up of a wide range of partners, including malaria-endemic countries, their bilateral and multilateral development partners, the private sector, nongovernmental and community-based organizations, foundations, and research and academic institutions. These bring a formidable array of expertise, infrastructure and funds to the fight against the disease. The partners are working together to scale up malaria-control efforts at country level, coordinating their activities to avoid duplication and fragmentation and to ensure optimal use of resources.

A key role of the RBM Partnership is to lead continuing advocacy campaigns to raise awareness of malaria at the global, regional, national and community levels, thus keeping malaria high on the development agenda, mobilizing resources for malaria control and for research into new and more effective tools, including a vaccine, and ensuring that vulnerable individuals are key participants in rolling back malaria.

GlaxoSmithKline, Novartis and sanofi-aventis are part of the Private Sector delegation to the Partnership Board, and GSK sits on the Partnership Executive Committee. IFPMA member companies also take part in the various working groups.



Insecticide-treated bed nets have been shown to be a cost-effective means of preventing malaria infection, yet a \$4 price tag puts them out of reach for many African families. (GSK)

Artekin® International Development Program

Malaria – R&D
Sigma-Tau
Since 2004
R&D: medicine development, clinical trials, registration & technology transfer for manufacturing
Clinical trials in 8 malaria endemic countries
www.mmv.org

In March 2004, Chongqing Holley Holding (a Chinese pharmaceutical company), Sigma-Tau (an Italian pharmaceutical company), Medicines for Malaria Venture (MMV) and Oxford University signed an agreement for the international development of dihydroartemisinin-piperaquine (Artekin®), a fixed dose combination of dihydroartemisinin (a derivative of artemisinin) and piperaquine.

Artemisinin is extracted from Artemisia herb, a traditional medicine with a 2,000-year history, which acts very quickly without the side effects of many other antimalarials. A combination medicine further reduces the chances of resistance developing and improves its efficacy. The fixed-dose combination antimalarial medicine is already registered as Artekin® in China and has been used effectively there against drug-resistant malaria.

The primary goals of the partnership are to produce an effective medicine and to make it available at a cost that is affordable for people living on less than a dollar a day. Currently, two of the largest Phase III GCP clinical studies ever performed for medicine treatments in malaria are ongoing with Eurartekin® in Far East Asia and Africa, with more than 300 patients already enrolled. The plan is to enroll 2,550 patients in some 8 malaria endemic countries by mid-2006.

Because it offers a lower cost of treatment with fewer pills, Chongqing Holley and Sigma-Tau are working together to develop the medicine to European regulatory standards under the new name of Eurartekin®. Sigma-Tau made initial batches of two types of tablets, one for children and one for adults, for supply the clinical trials, but the long-term goal is to transfer responsibility for the manufacture of the active ingredients and the tablets to Holley.

Dacart™ (chlorproguanil/dapsone/artesunate - CDA)

Malaria – R&D
GlaxoSmithKline
Since 2001
R&D: medicine development & clinical trials
For malaria in Africa
www.gsk.com/malaria

GlaxoSmithKline is working with the Medicines for Malaria Venture (MMV), the World Health Organization (WHO) and academic partners to develop Dacart™ (chlorproguanil/dapsone/artesunate - CDA), an affordable fixed-dose artemisinin combination treatment for malaria in Africa, based on GSK's Lapdap™. In November 2005, GSK announced clinical results indicating that Dacart™ is likely to be effective against drug-resistant *P. falciparum* malaria as found in Africa. In 2006, Phase III clinical trials were initiated at several sites across Africa. An additional Phase III study is planned for 2007, involving infants between the ages of three months and one year. GSK aims to submit Dacart™ for regulatory approval in early 2008 and will be made available to public sector customers in disease endemic countries at a not-for-profit price.

Lapdap™, which was launched in 2003, was developed in a public-private partnership involving GSK and the World Bank, UNDP, UNICEF, the WHO's Special Program for Research and Training in Tropical Diseases (WHO/TDR), the UK Government's Department for International Development (DFID) and the Liverpool School of Tropical Medicine and the London School of Hygiene & Tropical Medicine.



GlaxoSmithKline's Malaria R&D efforts are complemented by investment in capacity building programs, including education in endemic countries, including French-speaking West Africa. (GSK)

GSK and Malaria R&D

Malaria – R&D
GlaxoSmithKline
Since 2001
R&D: antimalarial development
Spain, UK, US
www.gsk.com/malaria

GlaxoSmithKline has created a dedicated R&D group to focus on diseases of the developing world (DDW), specifically malaria and TB, with a DDW drug discovery centre at its Tres Cantos R&D site in Spain and clinical development experts in the UK and US. DDW projects are prioritized by their social and public health benefits rather than commercial return. GSK works closely with the Medicines for Malaria Venture (MMV), which subsidizes 30 scientists at Tres Cantos. GSK provides the clinical, regulatory and manufacturing expertise to advance compounds in clinical development.

GSK is also developing a new antimalarial, tafenoquine, in partnership with the US Government. Clinical data have shown that a combination regimen containing tafenoquine may work faster than existing therapies against *P. vivax* malaria and may also help to address emerging resistance to existing treatments.

Malaria Vaccine Initiative (MVI)

Malaria – R&D
GlaxoSmithKline
Since 1999
R&D: vaccine development & delivery
Endemic countries worldwide
www.malariavaccine.org

The Malaria Vaccine Initiative was created in 1999 to ensure that a malaria vaccine is developed. MVI was funded by a \$50 million grant from the Bill & Melinda Gates Foundation and the Initiative is administered by the Program for Appropriate Technology in Health (PATH), a US not-for-profit organization. MVI's mission is to accelerate the development of malaria vaccines and ensure their availability and accessibility to the developing world.

To accomplish the first part of its mission, MVI is identifying the most promising vaccines and technologies, and implementing targeted partnerships with scientists, vaccinologists, and development projects. MVI works to link government, industry, and academia partners with field trial sites in malaria endemic countries as early as feasible in the development process.

To help ensure access to the eventual vaccine(s), MVI works with other vaccine programs, such as the GAVI Alliance, academia, biotechnology firms and vaccine development partners, including GSK Biologicals, who have been working on a malaria vaccine for over 20 years, to explore commercialization, procurement and delivery strategies that will maximize public health sector availability in the countries most affected by malaria.

Each project may support process development, production, and/or clinical trials in malaria-endemic regions. MVI is guided by Technical Advisory Groups, a Strategic Advisory Council and PATH's board. Partners include malaria experts around the world, government agencies, academia, public and private research institutions, and vaccine producers.

In 2004, Phase IIb clinical trials of GSK's malaria vaccine for children, which has been in development for 15 years, showed unprecedented results. In 2005, new data published in the leading medical journal, *The Lancet*, showed that the vaccine remained efficacious over 18 months. Several more years of clinical investigation will be needed before this vaccine is ready for use, but these results indicate it has the potential to help save millions of children's lives.

To support this activity, the Bill & Melinda Gates Foundation announced a grant to the PATH Malaria Vaccine Initiative (MVI) to extend the public-private partnership between MVI and GSK Biologicals. Most of the new grant will directly support clinical trials in Africa. From its own funds, GSK will at least match the \$21.4 million it receives from MVI, to help defray some of the clinical development costs.



Testing for malaria. (GlaxoSmithKline)

Medicines for Malaria Venture (MMV)

Malaria – R&D

GlaxoSmithKline, Novartis & Sigma-Tau.

Since 1999

R&D: medicine development & delivery

For use in developing countries

www.mmv.org

The Medicines for Malaria Venture (MMV), founded in 1999 as a public-private partnership, seeks to discover, develop and deliver new antimalarial medicines suitable for use in developing countries. MMV now manages the largest portfolio of malaria medicine research in history, with 19 projects in different developmental stages entering into 2006.

Its objective is to develop one new antimalarial every 5 years with the first one registered before 2010. With a number of medicines in Phase II and III clinical trials, it is likely that its goal will be reached well before the end of the decade. Its 39 R&D partners include academic research institutes, biotech firms and pharmaceutical companies.

Major pharmaceutical partners include GlaxoSmithKline, Novartis, Roche, Sigma-Tau, and Ranbaxy. For example, under its mini-portfolio agreement with GSK, MMV subsidizes 30 scientists at GSK's Tres Cantos facility drug discovery facility. As compounds move into clinical development, GSK provides the clinical, regulatory and manufacturing expertise and resources through its global R&D and supply network.

MMV's funding comes from various foundations, donor governments and corporations with the largest contribution from the Bill & Melinda Gates Foundation. The World Health Organization and the Roll Back Malaria Partnership also consider MMV an important partner in its fight to control and defeat malaria. The projects that are in clinical trials include Dacart™ (chlorproguanil-dapsone-artesunate - CDA) with GSK, Artek® with Sigma-Tau, and Pediatric Coartem® with Novartis. Roche developed Synthetic Peroxide (OS277) and then handed it on to Ranbaxy to take through clinical trials.

Novartis R&D for Malaria

Malaria – R&D

Novartis

Since 2006

R&D: clinical trials, pediatric formulations, new treatments

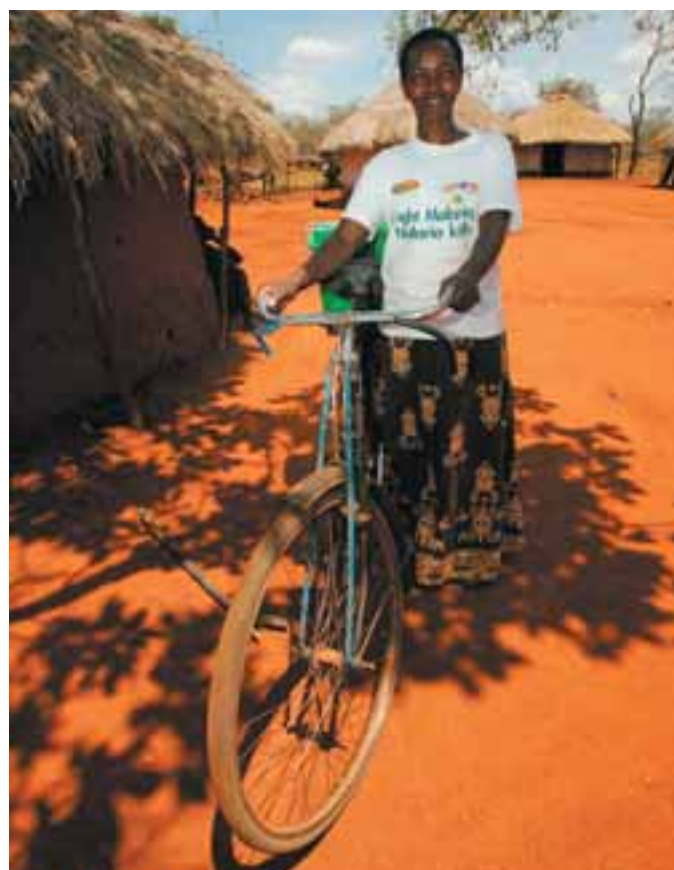
Malaria-affected countries

www.sanofi-aventis.com

Novartis is working with the WHO's Tropical Disease Research (WHO/TDR) and the Government of Zambia to study the use of Artemisinin Combination Therapy to treat uncomplicated *P. falciparum* malaria in pregnant women, for which there is currently little reliable data available. The tolerability and efficacy of Coartem® will also be studied in the Shoklo Malaria Research Unit in Thailand.

Novartis is also working with the Medicines for Malaria Venture (MMV) to develop a pediatric formulation for Coartem®; an important need, given the disproportionate vulnerability of children under 5 year to malaria.

The Novartis Institute for Tropical Diseases (NITD) in Singapore is working with MMV, the Singapore Economic Development Board and the Wellcome Trust to discover next-generation of malaria medicines. The partnership is focusing on the development of a one-dose cure for *P. falciparum*, the most dangerous form of malaria, and a curative modality for *P. vivax*, the most frequent-occurring and widely distributed type of malaria. NITD will manage the program and conduct research jointly with several institutes including the Genomics Institute of the Novartis Research Foundation, the Swiss Tropical Institute and the Biomedical Primate Research Center.



Spreading the word about combating malaria, African-style. (GlaxoSmithKline)

sanofi-aventis - DNDi Malaria Drug Development

Malaria – R&D
sanofi-aventis
Since 2005
R&D and Access: medicine development, regulatory assistance, no profit sales
Malaria-affected countries
www.sanofi-aventis.com

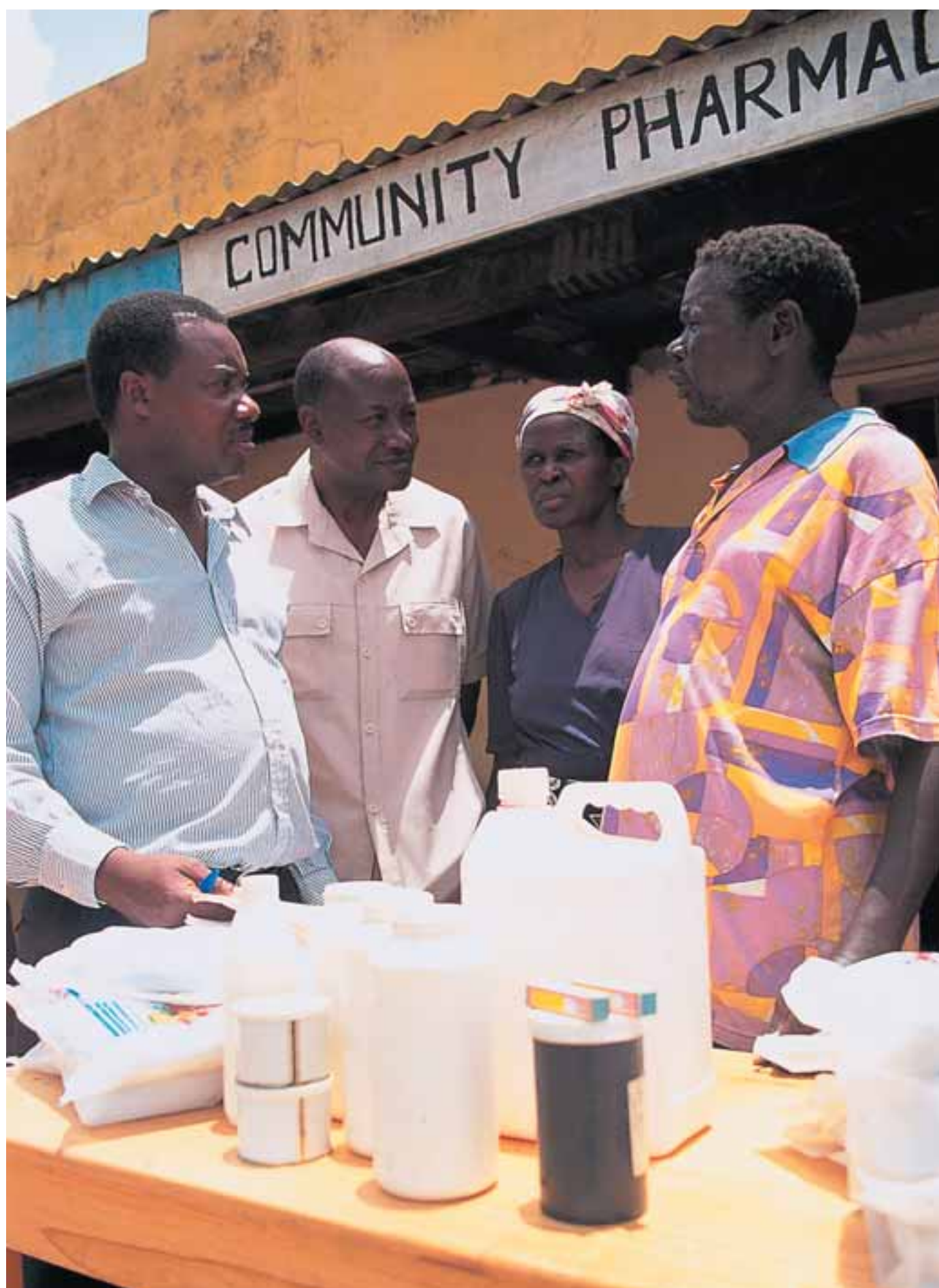
In April 2005, sanofi-aventis signed an agreement with the Drugs for Neglected Diseases initiative (DNDi) foundation to develop a new medicine against malaria, in response to a call from the World Health Organization (WHO) for malaria be treated by drug combinations to combat resistance.

DNDi and sanofi-aventis have developed a fixed-dose combination of two antimalarial compounds, artesunate and amodiaquine (AS/AQ) that is easier to use and more affordable than any other combination currently available. DNDi developed the formulation combining the two active ingredients in a single tablet and carried out the initial pharmaceutical and clinical development, before choosing sanofi-aventis as their industrial partner for further development.

Building on DNDi's studies, sanofi-aventis helped develop the product at industrial level, submitted the dossier with regulatory authorities and applied for WHO prequalification. sanofi-aventis is now launching this new FDC in malaria endemic countries and embarking on a large follow-up clinical trial program with DNDi and *Médecins Sans Frontières* and Epicentre, to collect good efficacy and safety data on this new medicine in "real life" conditions.

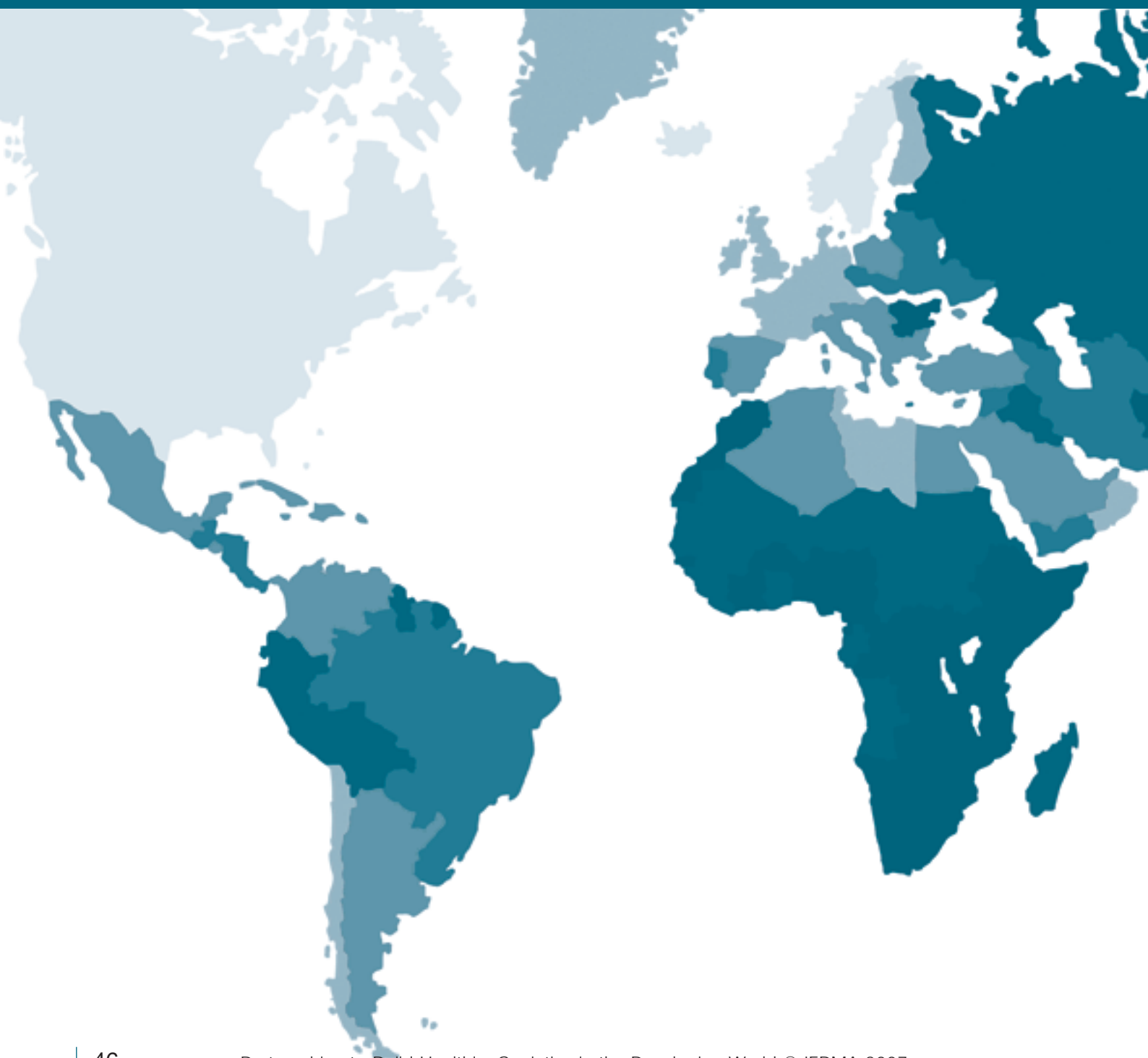
The medicine, which is manufactured in Morocco, received its first market approval in February, 2007 and is to be registered in most sub-Saharan African countries in 2007-2008. The new formulation simplifies adult treatment to 2 tablets per day for three days, instead of 8 tablets per day. The pediatric dose is also simplified: one tablet a day for three days.

sanofi-aventis committed to sell the product "at cost" to health ministries in affected countries, intergovernmental institutions, NGOs and programs promoting access to drugs in pharmacies, to facilitate access to the new. A full treatment costs less than US \$ 0.50 for children less than 5 years old, and less than US \$ 1 for older children and adults. sanofi-aventis has elected to waive all patents on this new FDC, which represents a real step forward on current co-blister packs or loose combinations.



It is not only doctors and nurses that are in short supply in Africa; qualified pharmacists are also rare. (GlaxoSmithKline)

TUBERCULOSIS



Approximately one third of the world's population is infected with *Mycobacterium tuberculosis*. While only 1 in 10 infected people with healthy immune systems will develop tuberculosis (TB) symptoms, those with weakened immune systems, such as those with HIV, are much more likely to contract TB. More than 90% of TB cases and deaths occur in the developing world, primarily among young adults. TB is a major cause of death among people living with HIV/AIDS.

There were an estimated 8.8 million new TB cases in 2005, of which 7.4 million were in Asia and subSaharan Africa. A total of 1.6 million people died of TB, including 200,000 patients infected with HIV. TB prevalence and death rates have probably been falling globally for several years. In 2005, the total number of new TB cases was still rising slowly, because the case-load continued to grow in African, the eastern Mediterranean and SouthEast Asia.

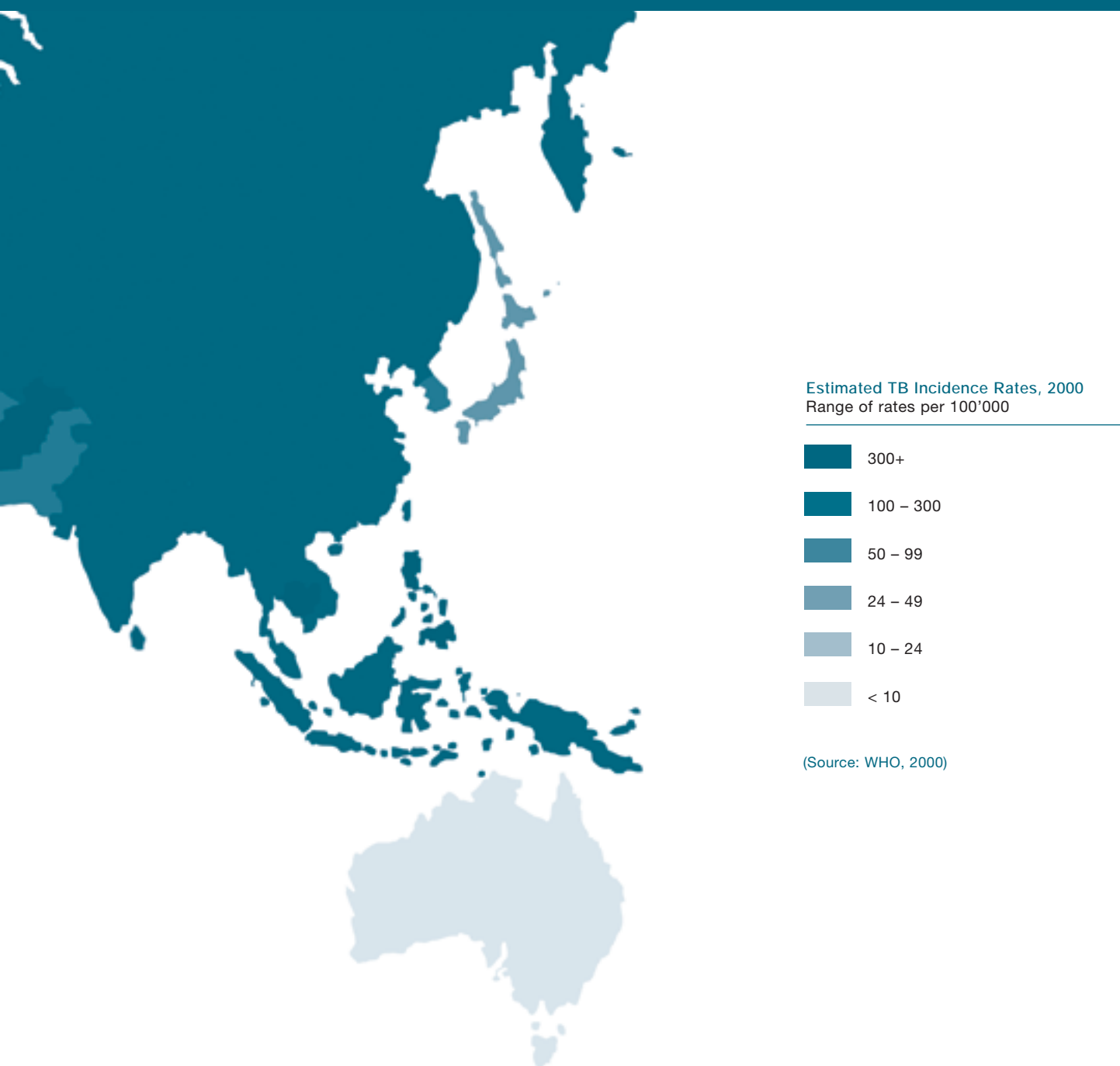
Directly Observed Treatment Short-Course (DOTS) is the WHO-recommended therapy for TB control, and uses a combination of different antibiotics over a 6-8 month period. Patients are

(Sources: WHO/HTM/TB/2006.367, Strengthening the teaching of tuberculosis control in basic training programmes; WHO Report 2007 Global Tuberculosis Control – Surveillance, Planning, Financing; WHO press release – 22 March 2007: Global tuberculosis epidemic levelling off: New report))

observed taking their medication, to ensure the continued compliance needed for complete eradication of the bacteria. More than 21 million TB patients have been treated under DOTS since 1995. Although a vaccine exists to prevent childhood tuberculous meningitis, a 100% effective, affordable and practical vaccine has yet to be developed against adult pulmonary TB.

Multidrug-resistant TB (MDRTB) is linked to poor compliance and does not respond to standard first line treatments. It is a widespread and growing problem, especially in the former Soviet Union and China. An estimated 450,000 new MDR-TB cases occur every year. Extensively drug-resistant TB (XDRTB) occurs when resistance to second-line drugs develops and is extremely difficult to treat.

The pharmaceutical industry has been active in the bringing new TB drugs and vaccine candidates into the development pipeline and in programs to increase access to TB medicines and care.



AstraZeneca - AMREF: Strengthening TB Control

Tuberculosis – Access & Capacity Building
AstraZeneca
Since 2002
Access: testing & treatment
South Africa & Uganda
www.astrazeneca.com/communityproject/160.aspx

South Africa has seen an increase in the number of TB cases due, among other factors, to the ever-increasing number of HIV and AIDS infections. Poor communities, particularly in the poorest provinces, have been hard hit by TB/HIV co-infection. To curb the burden of TB in such communities, it is necessary to explore other interventions that will complement the government's efforts. Such interventions are implemented mainly by not-for-profit organizations, with strong support from government, particularly the Health Department.

The Eastern Cape is one of the poorest provinces in South Africa, with a majority of its population living in rural communities. The province is heavily affected by TB, HIV and malnutrition. Sakhisizwe Local Service Area (LSA) is part of the Chris Hani district municipality in the Eastern Cape. The LSA has a population of approximately 57,000 people, who access health services via two hospitals and nine clinics spread throughout Cala and Elliot townships and neighbouring villages.

AstraZeneca and the African Medical Research Foundation (AMREF) work with community structures, helping them to take action that will ensure inhabitants' good health and safeguard their wellbeing. The program has seen good knowledge on TB increase from 23% to 100%, average quarterly case detection has increased to an 81% smear positivity rate, reflecting quality case detection, and has seen a significant increase in defaulter tracing.

AstraZeneca has also established a partnership with AMREF to strengthen healthcare systems and integrate delivery of TB, HIV/AIDS and malaria programs in Uganda, a country where there is a high burden of all three diseases. This innovative program leverages the skills and expertise of both AstraZeneca and AMREF, and should help to strengthen overall health care in Africa, by encouraging local communities to work more closely with formal health systems.

AstraZeneca - Red Cross: Fight against TB in Central Asia

Tuberculosis – Access & Capacity Building
AstraZeneca
Since 2002
Access: awareness, education, care & nutritional support
Kazakhstan, Kyrgyzstan and Turkmenistan
www.astrazeneca.com

Over the past four and a half years, AstraZeneca and the British Red Cross have joined forces to tackle TB in Central Asia, where high levels of poverty exist and the disease poses a serious problem and threat to thousands of people. The partnership aims to prevent and control the spread of TB, through effective community based programs in Kyrgyzstan, Turkmenistan and Kazakhstan. The work focuses on raising awareness of TB, fighting the stigma associated with the disease, encouraging early diagnosis, improving patient compliance and building local capabilities in prevention and control. Particular attention is given to supporting the most vulnerable and at-risk groups including former prisoners, the elderly, homeless, those living with disability and the young.

Locally-trained Red Crescent nurses play a key role in providing vital care and psychological support to help thousands of people affected by TB. Through their support, an increase in treatment success rates has been achieved – rising to 85%. This is a significant achievement, considering that patients under Red Crescent supervision are often from the most vulnerable groups and consequently more likely to interrupt their treatment. The Red Crescent has also implemented a successful health education and public awareness campaign that has now reached over 300,000 children and adults.

AstraZeneca is also supporting the charity's efforts to reduce the incidence of TB/HIV co-infection, which has emerged as a significant threat to public health in the region. In Kazakhstan, the local Red Crescent is working to establish effective and sustainable models of treatment and social support for patients with TB and HIV, and their families.

Over the next three years, AstraZeneca will be expanding its partnership with the Red Cross, to help them strengthen their work in combating TB and the major threat of TB/HIV co-infection in sub-Saharan Africa and Asia.



"Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime." This Chinese proverb is the call to action for the Lilly MDR-TB Partnership. (Eli Lilly)

Lilly MDR-TB Partnership

Tuberculosis – Access & Capacity Building

Eli Lilly

Since 2003

Access: technology transfer, medicines at concessionary prices, training, treatment & surveillance, community support and patient advocacy.

China, India, South Africa, Russia & other MDR-high burden countries

www.lillymdr-tb.com/

In 2003, Eli Lilly launched a \$70 million initiative to fight the growing threat of multidrug-resistant tuberculosis. Because of the complexity of MDR-TB prevention and control, Lilly and its partners developed a comprehensive, multi-pronged strategy to strengthen health care systems at country level. Today, Lilly works with 14 leading health care organizations and other TB stakeholders to transfer Lilly manufacturing know-how to pharmaceutical companies in affected countries, to supply medicines at preferential prices; implement MDR-TB health care training programs, to involve communities and business in MDR-TB prevention and treatment, and to strengthen surveillance of drug resistance.

Lilly and Purdue University assisted four countries hardest hit by MDR-TB (China, India, Russia and South Africa) to produce two much-needed second-line medicines, capreomycin and cycloserine. WHO provides technical assistance to MDR-TB countries and the WHO Green Light Committee enrolled over 25,000 patients by 2006, in 40 countries. Several thousand health care professionals and community health workers have been trained in MDR-TB diagnosis, treatment and prevention.

Harvard Medical School and Partners in Health have created an MDR-TB training Center of Excellence and are working with five Russian TB Research Institutes to provide standardized MDR-TB treatment training nationwide. Also in Russia, the US Centers for Disease Control and Prevention are launching a cutting edge electronic surveillance system for monitoring of MDR-TB.

The International Council of Nurses has developed TB and MDR-TB guidelines for nurses and carries out training in high MDR-TB burden countries. The World Medical Association's physician training tools provides access to the latest international standards of care. The International Hospital Federation conducted a TB and MDR-TB training course in South Africa to pilot a training manual to help managers worldwide to implement better infection control and treatment. The International Federation of the Red Cross & Red Crescent Societies is working to improve community support, home care and compliance via educational programs.

The World Economic Forum's Business Alliance to Stop TB increases workplace awareness of the disease. TB Alert and Paul Thorn, author of The TB Survival Handbook, launched an advocacy website to engage and help MDR-TB patients and their families.

In 2007, Lilly renewed its support to the MDR-TB Partnership with an additional \$50 million commitment over a four year period.

Novartis TB DOTS Donation

Tuberculosis – Access & Capacity Building

Novartis

Since 2003

Access: medicine donations, funds for logistics & quality control

Sri Lanka, Tanzania

www.novartis.org

In December 2003, the Novartis Foundation for Sustainable Development signed a Memorandum of Understanding with the World Health Organization committing itself to donate the WHO-recommended tuberculosis treatment for 500,000 patients over five years. The WHO's DOTS (Directly Observed Therapy Short-Course) TB control strategy combines five elements: political commitment to sustained TB control activities, case detection by sputum smear microscopy, a standard treatment regimen lasting six to eight months, standardized recording and reporting system, and regular, uninterrupted supply of all essential anti-TB drugs.

The Novartis donation comprises the rifampicin-based fixed-dose combination tablets (FDCs) for the intensive and continuation phases of treatment. The medicines are given to the Global Drug Facility of the Stop TB Partnership for use in programs supported by the Global Fund against AIDS, Tuberculosis and Malaria. Currently, Tanzania and Sri Lanka are recipients of Novartis' TB DOTS Donation.

Novartis also provides the necessary funds for logistics and independent quality control, to be carried out in addition to the quality control of the Novartis group. The FDC medicines are provided in blister packs and offer significant advantages over loose medicines. They permit the simultaneous intake of several different TB medicines, thereby reducing the risk of resistance. They also reduce the number of tablets patients need to take, eliminate problems related to stock outs of any individual medicine, simplify logistics and minimize prescription errors. The use of rifampicin throughout the treatment regimen reduces the duration of treatment from eight to six months.

The Novartis Foundation is working closely with health ministries to help develop innovative solutions to improve patient compliance and de-stigmatize the disease – both major challenges in TB. Often patients cannot comply with treatment, due to the cost of going to a health facility every day to take their treatment and the related loss of wages. A patient-centered approach that gives them a choice of where their treatment is supervised and by whom is currently being piloted in three districts in Tanzania. A tuberculosis social marketing campaign is being carried out in the same districts, to raise awareness about the disease, reduce stigma and to increase demand for TB services.



The DOTS (Directly Observed Therapy Short-Course) approach to TB treatment has been developed to address compliance issues. Poor compliance can lead to the emergence of resistance. (Stop TB, Ger Steenberg)

Stop TB Partnership

Tuberculosis – Access & Capacity Building
AstraZeneca, Eli Lilly, GlaxoSmithKline & Novartis,
Since 1998
Access: global strategy, medicine distribution & advocacy
Endemic countries & vulnerable populations
www.stoptb.org

Established in 1998 and hosted by the World Health Organization (WHO), the Stop TB Partnership aims to provide global leadership, strategy, and coordinating mechanisms. The Stop TB priorities are to expand, adapt, and improve strategies to control and eliminate TB in support of the World Health Assembly Targets set by 2005 (70% case-detection and 85% cure-rates) and the Millennium Development Goals. The mission is to ensure that every TB patient has access to TB treatment and cure, to protect vulnerable populations from TB and to reduce the social and economic toll that TB exerts on families, communities and nations.

The partnership develops advocacy and resource mobilization strategies in support of these priorities, and coordinates and 'brokers' resource flows. Other partners in this program include Eli Lilly, the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA), *Médecins sans Frontières* and Novartis.

The Global Drug Facility, run by the Stop TB Partnership, is expanding access to medicines for DOTS scale up; in just 5 years it has committed over 7 million TB treatments. Projects managing MDR-TB can apply through the Green Light Committee for access to quality MDR-TB medicines at reduced price – in some cases by as much as 99%. The Committee is operated by WHO and the Stop TB Partnership.

In 2005, 46 African Health Ministers declared TB an emergency in Africa; the Regional Director for WHO's European region also warned of a TB emergency in Europe. From 1995 to March 2006, more than 21 million TB patients have been treated under DOTS since. 183 countries have adopted DOTS (although a quarter of the world's population still has no access to DOTS services). Through its partners, Eli Lilly distributes two critical anti-TB medicines for treatment of MDR-TB to countries including Peru, Russia and the Philippines.

GlaxoSmithKline participates in the Stop TB working group looking at new medicines for tuberculosis.

TB Free & other initiatives

Tuberculosis – Access & Capacity Building
sanofi-aventis
Since 2002
Access: testing, treatment, compliance, infrastructure & training
India, South Africa
www.sanofi-aventis.com

In March 2002, sanofi-aventis and the Nelson Mandela Foundation established the TB Free program, a five-year, €15 million effort to increase detection and treatment rates for tuberculosis in South Africa. The partnership aims to train volunteers to support patient compliance during the 6-month treatment. For this purpose, the DOTS (Directly Observed Therapy Short-Course) strategy is being used, as it has been recommended by the World Health Organization for TB control, specifically to help ensure effective patient compliance.

This action should help to increase the TB cure rate by as much as 80 percent in South Africa. In each of the country's nine provinces, a TB Excellence Center is being built. The goal of TB Free is to have 1 million "DOTS supporters" trained at the end of the five-year period.

During 2004-2006, eight training centers were opened, in which 10,000 "DOTS supporters" were trained, generating a capacity to support over 250,000 patients.

In India, sanofi-aventis has formed a partnership with the *Association Père Ceyrac* to fight against tuberculosis and to provide support to TB-affected families living in shantytowns of Mumbai, Navi-Mumbai and Pune.



Neliswa Tshungu works at Siyahlangula school, in South Africa and is part of the AstraZeneca-AMREF TB program there. (AstraZeneca)

Aeras Global TB Vaccine Foundation

Tuberculosis – R&D
GlaxoSmithKline
Since 2005
R&D: vaccine development
Developing countries
www.gsk.com

In 2005, GSK Biologicals and the Aeras Global TB Vaccine Foundation entered in a partnership, collaborating in preclinical and clinical work to establish proof-of-concept, in infants in developing countries, of a potential tuberculosis vaccine candidate originating from GSK Biologicals (formerly Corixa).

The Aeras Global TB Vaccine Foundation was founded in 1997 to develop new concepts and tools to control the global TB epidemic. It is the goal of Aeras to develop, test, characterize, license, manufacture and distribute at least one new TB vaccine within 10 years.



The Kyrgyz Red Crescent helped pensioner Semen Nikolaevich complete his TB treatment. (AstraZeneca)

AstraZeneca Bangalore Research Institute

Tuberculosis – R&D
AstraZeneca
Since 2003
R&D: new medicine development
India & rest of developing world
www.astrazeneca.com

The AstraZeneca Bangalore Research Institute in India combines TB research and manufacturing capabilities. The Bangalore facility, opened in June 2003, is dedicated to finding a new therapy for TB that will act in drug-resistant disease and reduce the complexity and/or the duration of treatment. Today, AstraZeneca is the only pharmaceutical company with a research program in India totally dedicated to TB.

In addition to the \$20 million initial investment in buildings and state-of-the-art equipment, AstraZeneca has committed a minimum of \$5 million a year to supporting the research program. More than 80 scientists recruited from leading research institutions and universities now work at the facility and there are plans to recruit more international experts over the coming years. The Bangalore-based scientists work closely with AstraZeneca's infection research center in Boston, USA and with external academic leaders in the field.

The research team at Bangalore has focused its efforts on four specific goals:

- 1) Shortening the duration of therapy to improve patient compliance;
- 2) Eradicating disease, even latent disease, to reduce the chances of relapse;
- 3) Developing new agents that will act on drug-resistant strains; and
- 4) Developing agents that are compatible with HIV therapies.

AstraZeneca is also part of a new, European Union Framework Program VI collaboration (NM4TB - New Medicines for Tuberculosis) that will enable them to work with academic opinion leaders involved in TB research. AstraZeneca is the only major pharmaceutical company involved in this project, which began in 2006. Funded by a grant from the EU Framework VI program and consisting of around fifteen groups of Europe's most prominent scientists and researchers in the field, this consortium seeks to combine academic and pharmaceutical skills to further the discovery of new therapies for TB.

Global Alliance for TB Drug Development (TB Alliance)

Tuberculosis – R&D
ABPI, Bayer HealthCare, GlaxoSmithKline, Novartis & sanofi-aventis
Since 2000
R&D: new medicine development & clinical trials
Developing world
www.tballiance.org

The Global Alliance for TB Drug Development (TB Alliance), established in 2000, brings together industry, NGOs, governments and foundations to work together with more than 30 partners around the world to accelerate the discovery and development of cost-effective new medicines. The TB Alliance draws on the best practices and resources of the public and private sectors. Its mission is to accelerate the discovery and development of cost-effective new anti-TB medicines, which should shorten or simplify treatment, provide a more effective treatment of multidrug-resistant TB and improve treatment of latent TB infection.

Major TB Alliance partners include: Bayer HealthCare, GlaxoSmithKline, Novartis, the Bristol-Myers Squibb Foundation, the Association of British Pharmaceutical Industry and other pharmaceutical organizations, the Global Forum for Health Research and the Bill & Melinda Gates Foundation.

The partnership functions as a virtual R&D organization. By outsourcing medicine research and development projects, medicine compounds are moved along the development line to achieve regulatory approval and bring them to market at affordable prices for those countries experiencing the highest burden from TB.



The standard tuberculosis treatment takes six months; the TB Alliance is working to develop shorter TB treatments. (Stop TB, Hampton)

GSK - TB Alliance Drug Discovery Program

Tuberculosis – R&D
GlaxoSmithKline
Since 2005
R&D: drug discovery
Medicines for the developing world
www.gsk.com

In March 2005, GlaxoSmithKline and the Global Alliance for TB Drug Development (TB Alliance) announced a joint discovery partnership to improve the treatment of tuberculosis (TB). All compounds will be screened to ensure they can be taken with HIV treatments, since people living with AIDS are often susceptible to TB infection.

The TB Alliance supports 25 full-time scientists working exclusively on the TB drug program at the GSK R&D facility in Tres Cantos, Spain. GSK will contribute a matching number of staff and all remaining overhead costs. Around 1.5 million compounds have been tested for anti-TB activity and any medicines discovered will be made as affordable and accessible as possible to those most in need.

The program broadens the worldwide TB medicine pipeline by adding several novel classes of compounds that use new mechanisms of action. The joint research program consists of four projects intended to yield new compounds that attack *Mycobacterium tuberculosis* (*M.tb*) on multiple levels. Drug candidates arising from these projects could shorten the standard duration of treatment and treat patients who are resistant to conventional therapies.

The program includes the pleuromutins, a novel class of antibiotics, and two target-based projects, isocitrate lyase (Icl) and InhA. The fourth project will screen GSK's antimicrobial libraries for novel compounds that can kill *M.tb*. Compounds will also be screened for ability to be used with antiretroviral HIV/AIDS treatments. A shorter TB regimen is expected to improve patient compliance, increase cure rates and lower toxic side effects, thereby limiting the rise of new resistant strains. A novel TB regimen that is compatible with HIV treatments would improve TB control and help in the fight against AIDS.

In partnership with Stellenbosch University in South Africa, GSK is supporting a program to identify "biomarkers" in people who may respond to specific treatments. Such biomarkers can be used to predict whether or not individuals will respond quickly to treatment or if TB is likely to recur.

Moxifloxacin TB Clinical Trials (Bayer HealthCare)

Tuberculosis – R&D
Bayer HealthCare
Since 2005
R&D: clinical trials & donation of medicine for trials
Developing countries
www.bayerhealthcare.com

In October 2005, Bayer HealthCare announced a partnership with the TB Alliance to coordinate a global clinical trial program to study the potential of an existing antibiotic, moxifloxacin, to shorten the standard 6-month treatment of pulmonary tuberculosis. If the trials are successful, the partnership aims to register moxifloxacin for a pulmonary tuberculosis indication and is committed to making it affordable and accessible in developing countries where patients need it most.

Moxifloxacin is currently in different clinical trials for the of pulmonary tuberculosis treatment. The clinical development program includes four Phase II and III trials that together will enroll more than 2,000 TB patients. Sites are in Africa, Europe, and the Americas, including 10 US States. Two drug regimens are being evaluated, each substituting moxifloxacin for one of the drugs in the standard four drug treatment. The first substitutes moxifloxacin for ethambutol, and the second substitutes moxifloxacin for isoniazid. Bayer donates moxifloxacin for each trial site and will cover the costs of regulatory filings.

Current TB therapy is based on four medicines discovered forty or more years ago that must be administered for six to eight months, often under the direct observation of a healthcare provider. Preclinical studies *in vivo* showed moxifloxacin reduced treatment time by two months when substituted for isoniazid, a cornerstone medicine of TB treatment. Moxifloxacin is approved in 104 countries to treat certain bacterial respiratory and skin infections.

Novartis Institute for Tropical Diseases (NITD)

Tuberculosis – R&D
Novartis
Since 2003
R&D: drug discovery & future medicines offered at no profits
Developing countries where focus diseases are endemic
www.nitd.novartis.com

The \$122 million Novartis Institute for Tropical Diseases (NITD) research center focuses exclusively on the discovery of innovative medicines for the treatment of diseases that are endemic to developing countries. With nearly 100 scientists employed, NITD also offers teaching and training opportunities in the field of tropical diseases.

The goal of NITD's Tuberculosis Unit is to apply new genomic and bioinformatic technologies to develop novel treatments for multi-drug-resistant TB. Any resulting medicines will be made available at no profit in developing countries where the disease is endemic. Novartis and the Global Alliance for TB Drug Development (TB Alliance) are currently coordinating TB R&D at the NITD.

Both parties are also working together in the area of TB drug-discovery. The NITD is designing, synthesizing and optimizing a series of nitroimidazopyran analogs for TB, tapping its broad medicinal chemistry expertise, know-how and biological evaluation capacity. The TB Alliance contributes chemical intermediates, scientific expertise including structure design and support for pharmacological studies. NITD researchers plan to use the tuberculosis mycobacterium genome sequence to identify vulnerable parts that could be targeted by small molecules. Those molecules can then be further refined to produce candidate medicines.

Together with Imperial College, NITD and 10 other collaborators also received a grant from the Grand Challenges for Global Health Initiative to discover new targets for latent and persistent TB infection. To secure direct access to hospitals and patients in a real-life context, NITD recently teamed up with the Hasanuddin University and Eijkman Institute in Indonesia to form NEHCRI – a clinical research initiative that aims to strengthen translational research in tuberculosis, and also malaria and dengue fever, all of which NITD is working on.

sanofi-aventis R&D for TB

Tuberculosis – R&D
Sanofi-aventis
Since ?
R&D
High TB burden countries
www.sanofi-aventis.com

In partnership with various international organizations such as the United States Centers for Disease Control and Prevention (CDC), the TB Alliance, the Consortium to Respond Effectively to the TB/AIDS epidemic (CREATE) and St. George's Medical School, sanofi-aventis is establishing a strategy to develop and improve the treatment of tuberculosis, based on:

- Ongoing development of an existing drug, rifapentin, for the treatment of both latent and active tuberculosis, both on its own and as a combination therapy together with other compounds. The aim is to cut down the length of the course of treatment and the number of tablets to be taken, without compromising efficacy.
- Systematic screening of sanofi-aventis' product portfolio to identify new drugs which are active against *M. tuberculosis*, especially drug-resistant strains.
- Research to identify new compounds, possibly in collaboration with external partners.

The objectives of this new sanofi-aventis research and development program coincide with those of the global Stop TB program backed by the WHO and the United Nations "Millennium Summit", namely to arrest the spread of tuberculosis and begin reducing its incidence by 2015.



People whose immune systems have been weakened by HIV/AIDS are at increased risk of developing tuberculosis.
(Stop TB, Davenport)

TROPICAL DISEASES

Weight of Specific Tropical Diseases by Death and by Annual DALY¹ Losses, 2001

	Death (1,000's)	%	DALYs (millions)	%
Leishmaniasis	59	43.5	2.4	18.1
Trypanosomiasis	50	36.2	1.6	12.3
Schistosomiasis	15	10.9	1.8	13.5
Chagas disease	13	9.4	0.6	5.0
Lymphatic filariasis	0	0	5.6	43.4
Onchocerciasis	0	0	1.0	7.7
TOTAL	138	100.0	13.0	100.0

(0.2% of deaths
from all causes)

(0.9% of DALYs
from all diseases)

¹Disability Adjusted Life Years (DALY) combines in one measure the time lived with disability and the time lost due to premature mortality. One DALY can be thought of as one lost year of 'healthy' life and the burden of disease as a measurement of the gap between current health status and an ideal situation where everyone lives into old age free of disease and disability. (<http://www.who.int/healthinfo/boddaly/en/>)

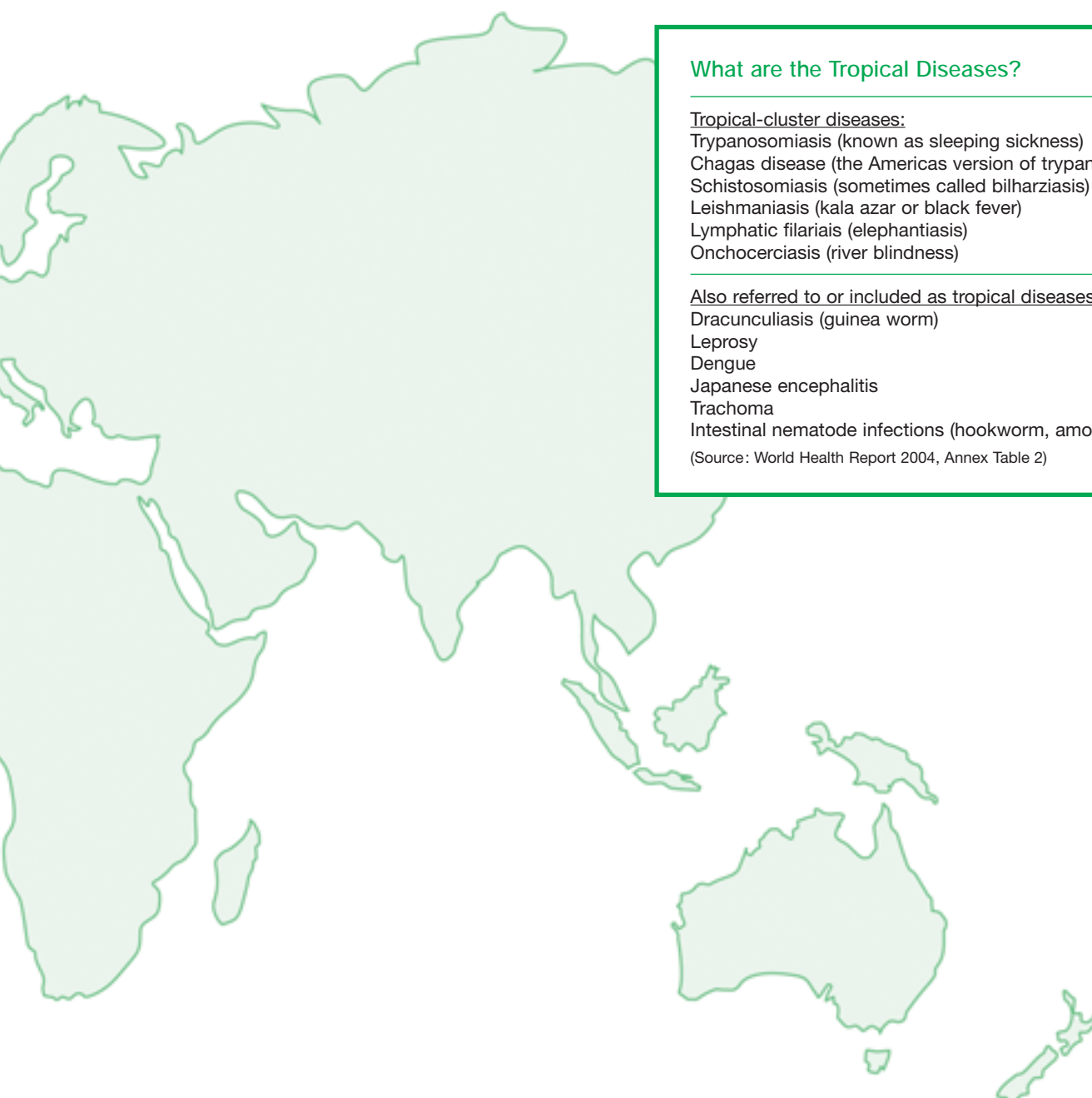
(Source: WHO, World Health Report, 2002)

At least 1 billion people - 1 person in 6 - suffer from tropical diseases such as Buruli ulcer, cholera, dengue, dracunculiasis (guinea-worm disease), leishmaniasis, lymphatic filariasis, onchocerciasis, schistosomiasis, soil-transmitted helminthiasis, trachoma and trypanosomiasis. These diseases, many of which are vector-borne, primarily affect poor people in tropical and subtropical areas. Some affect individuals for life, causing disability and disfigurement, often lead to stigmatization. Others are acute infections, with transient, severe and sometimes fatal outcomes.

With the end of the colonial era, developed countries lost interest in these diseases and research waned and they came to be known as “neglected diseases”. Thanks in part at least to committed public-private partnerships, these diseases are now receiving greater attention, both with regard to improved access to treatment and increased R&D activity.

(Sources: WHO/ Control of Neglected Tropical Diseases (NTD); WHO/CDS/NTD/2006.2, Neglected Tropical Diseases: Hidden Successes, Emerging Opportunities)

More than 14 million people have been cured of leprosy; the number of people infected with guinea-worm has dropped from 3 million to just 25,000 cases; blinding diseases such as onchocerciasis and trachoma are being brought under control; millions of people are now protected from disfiguring lymphatic filariasis. Schistosomiasis has been effectively controlled in Brazil, China and Egypt, and eliminated from Iran, Mauritius and Morocco. Intestinal helminths have been eliminated in South Korea and are under control in many endemic countries. These successes demonstrate that interventions against neglected tropical diseases are technically feasible, immediate, visibly powerful and highly cost effective.



What are the Tropical Diseases?

Tropical-cluster diseases:

Trypanosomiasis (known as sleeping sickness)
Chagas disease (the Americas version of trypanosomiasis)
Schistosomiasis (sometimes called bilharziasis)
Leishmaniasis (kala azar or black fever)
Lymphatic filariasis (elephantiasis)
Onchocerciasis (river blindness)

Also referred to or included as tropical diseases:

Dracunculiasis (guinea worm)
Leprosy
Dengue
Japanese encephalitis
Trachoma
Intestinal nematode infections (hookworm, among others)

(Source: World Health Report 2004, Annex Table 2)

Bayer HealthCare Dengue Fever Health Campaign

Dengue fever
Bayer HealthCare
Since 2000
Access: education & insecticide spraying.
Brazil, Ecuador, Paraguay & Thailand
www.bayerhealthcare.com

Global health programs sponsored by Bayer HealthCare are combating diseases and relieving suffering throughout the developing world. With the increase of reports on new dengue infections in various parts of the world, combating dengue fever has been one of many focuses of Bayer's humanitarian efforts. In Brazil, Ecuador, Paraguay and Thailand, Bayer has participated in school educational campaigns.

The preventive campaign in Porto Feliz, Brazil - where Bayer is cooperating with health authorities to educate the population about the problem - involved nearly 6,000 schoolchildren in this city of 40,000 people. In Central America Bayer volunteers have sprayed insecticides, donated by the company, in urban areas where the risk of transmission is high.

Bayer HealthCare: Fight Against Chagas

Chagas Disease
Bayer HealthCare
Since 2004
Access: medicine donation
Endemic countries
www.bayerhealthcare.com

To widen access of patients to affordable medicines, in 2004 Bayer Healthcare signed an agreement with the World Health Organization (WHO) for a donation of its medicine Lampit® (nifurtimox) to combat Chagas disease (the form of sleeping sickness found in Latin America). A donation of 250,000 tablets was given to the WHO, which informs the governments of disease endemic countries of the availability of the free supplies, including the procedure to be followed for obtaining such supplies, and decides about its distribution.

In 2005, Bayer donated a further 250,000 tablets to support the WHO in the fight against Chagas disease. In April 2007, Bayer signed a new agreement to provide the WHO with 2.5 million Lampit® tablets and additional funding. The latest agreement assures the supply of Lampit® for the next five years.

Bayer HealthCare and Sleeping Sickness

Sleeping Sickness, Chagas
Bayer HealthCare
Since 2002
Access: medicine donation
www.bayerhealthcare.com

Gilead-WHO MoU for Leishmaniasis

Leishmaniasis
Gilead
Since ?
Access: no profit pricing
www.gilead.org

In 2002, Bayer HealthCare agreed to supply - at no cost and for an initial five-year period - as much of the sleeping sickness medicine Germanin® (suramin) as the WHO determines is needed to eliminate the disease. The initial donation contained 50,000 ampoules. Furthermore, Bayer is supporting studies of the use of Lampit® (nifurtimox), a medicine originally used against Chagas' disease, to treat sleeping sickness by providing 200,000 tablets of this drug. Bayer also is in favor of supporting an "Integrated Sleeping Sickness Initiative" supported by a broad base of institutions and covering all aspects of the disease from infection, diagnosis and therapy to prevention.

Gilead has a Memorandum of Understanding (MoU) with the World Health Organization (WHO) to provide AmBisome® (liposomal amphotericin B) at no profit to developing world countries for the treatment of mucosal and visceral leishmaniasis. It is estimated that visceral leishmaniasis affects 500,000 people annually, with the number of deaths ranging from 60,000 to 200,000. The majority of cases occur in Bangladesh, Nepal, India, Brazil, and Sudan.



Testing children for sleeping sickness in Chad. (WHO, Dr. J. Jannin)

Global Alliance to Eliminate Lymphatic Filariasis (GAELF)

Lymphatic filariasis
GlaxoSmithKline & Merck & Co., Inc.
Since 1998
Access: medicine donations, research, training & advocacy
Endemic Countries
www.filariasis.org

The Global Alliance to Eliminate Lymphatic Filariasis (GAELF) was created to eliminate one of the world's leading causes of disability and disfigurement as a public health problem by the year 2020. An estimated 120 million people in at least 80 countries of the world are infected with lymphatic filarial parasites and one billion (20% of the world's population) are at risk of infection.

Initiated by the World Health Organization and GlaxoSmithKline in 1998, the Global Alliance has evolved into a global partnership between international organizations in the public and private sectors, academia and non-governmental organizations working in partnership with ministries of health in tropical countries where lymphatic filariasis (LF) is endemic. Merck & Co., Inc. joined the Alliance in 1998, when it widened the scope of its Mectizan® Donation Program to include LF in African countries where river blindness and LF co-exist.

The WHO currently recommends that lymphatic filariasis be prevented with a combination of albendazole (donated by GSK) with either DEC, or Mectizan® (donated by Merck). Drug administration for people living in endemic areas is recommended once a year for at least five years to break the cycle of transmission. In 2006, GSK donated 155 million treatments of albendazole to prevent transmission in at least 34 countries in Africa, America, the eastern Mediterranean, Mekong basin, the Indian Sub-continent and the Pacific region. To date, GSK has donated 600 million treatments.

Over the 20 year life of the program, GSK expects to donate up to 6 billion preventative albendazole treatments across the 80 endemic countries that are accepted into the program by the WHO. Merck donated 48 million treatments of Mectizan® to LF elimination programs in 11 African countries and Yemen in 2006. Merck and GSK have also provided financial grants to support partners in research programs, coalition building, workshops and communications. WHO estimates that over 100 million people - 30 million of whom are children - have begun to be protected from LF.

Guinea Worm Eradication Program (GWEP)

Dracunculiasis (Guinea worm)
Johnson & Johnson
Since 1986
Access: advocacy, education, medical supplies donation, surveillance
Burkina Faso, Côte d'Ivoire, Ethiopia, Ghana, Mali, Niger, Nigeria, Sudan & Togo
www.cartercenter.org/healthprograms/program1.htm

Established in 1986 and operating under the auspices of the Carter Center's Global 2000 Program, the Guinea Worm Eradication Program aimed to rid future generations of guinea worm by the year 2005. This multilateral partnership brings together organizations like the WHO, UNICEF, the CDC and the World Bank, as well as national governments and the pharmaceutical industry in a program combining eradication efforts, training and research. To accelerate the eradication of Guinea worm disease, the partners:

- maintain a community-based surveillance system with monthly reporting of cases, supervision, and integration of surveillance for other major preventable diseases (where appropriate and feasible);
- target specific interventions (provision of safe water, health education, community mobilization, filter distribution, and treatment of selected water sources);
- maintain global and national dracunculiasis databases;
- monitoring of the epidemiological situation and map all endemic villages;
- sustain advocacy for eradication of the disease;
- certify dracunculiasis eradication country by country worldwide.

Johnson & Johnson has donated enough medical supplies, such as Tylenol®, forceps and gauze, to treat more than 3,000 villages in the endemic countries.

Today, through the joint efforts of this initiative's many partners, the numbers of this disease have been reduced worldwide by 99 percent: from an estimated 3.5 million cases in 1986 to less than 35,000 reported cases in 2003. Today, it is the last 1 percent of the disease that is being fought.



Lymphatic Filariasis is also present in Arabic-speaking countries. (GSK)

International Trachoma Initiative (ITI)

Trachoma
Pfizer
Since 1998
Access: medicine donations, surgeries, education, advocacy, training & infrastructure
Ethiopia, Gambia, Ghana, Mali, Mauritania, Morocco, Nepal, Niger, Senegal, Sudan, Tanzania, Vietnam, Kenya
www.trachoma.org

The International Trachoma Initiative (ITI) was established in 1998 to support the World Health Organization's goal of eliminating blinding trachoma, the world's leading cause of preventable blindness, by 2020. Co-founded by Pfizer with the Edna McConnell Clark Foundation, the ITI works to further expand the use of the SAFE strategy, a community-based plan of action that emphasizes the medical, behavioral, and environmental changes essential to the control of trachoma. The four action steps comprising SAFE are: Surgery, Antibiotic treatment (using the single dose preparation Zithromax®), Face washing, and Environmental changes, including access to clean water.

Zithromax® has played a key role in the success of trachoma control efforts. As an oral medication, it is easier to administer than tetracycline eye ointment, which was previously the standard treatment for trachoma. Clinical tests confirmed by the ITI's experience in the field show that a single oral dose of Zithromax® is as effective as tetracycline ointment applied continuously twice daily for 6-10 weeks – a difficult course of treatment to maintain in areas where the disease is most often found.

The ITI is the only organization dedicated solely to the elimination of blinding trachoma in the world. In seeking to eliminate blinding trachoma, the ITI is carrying out a mandate established in 1997 by the WHO's Alliance for the global elimination of Trachoma by 2020.

In 2006, after six years' work, Morocco became the first country to complete the campaign for trachoma control and is working toward WHO certification that blinding Trachoma has been eliminated as a public health problem. The success of the Moroccan trachoma control campaign offers promise that the global elimination of blinding trachoma is indeed within sight. Morocco had a long history of widespread trachoma with prevalence in the southeast reaching as high as 46 percent just 15 years ago. An aggressive trachoma control campaign in recent years has lowered the national prevalence by more than 90 percent.

By the end of 2006, the Initiative had achieved:

- More than 252,000 surgeries performed.
- Over 44 million antibiotic treatments distributed.
- Millions reached with Face washing and Environment messages.
- Morocco has met elimination criteria, now entering WHO certification process.
- 75% reduction in active infection in Vietnam and Tanzania.

Leprosy Elimination

Leprosy
Novartis
Since 2000
Access: medicine donations, management, freight, insurance and quality control
All countries, all patients in the world
www.novartisfoundation.org

The advent of multidrug therapy (MDT) in the early eighties changed the face of leprosy dramatically. Recommended by the World-Health Organization, MDT cures patients, interrupts the transmission of leprosy and prevents disabilities. Novartis developed two of the three medicines in MDT and has provided MDT, free of charge, for all patients in the world through the WHO since 2000. This is a core element in the WHO Final Push Strategy of creating awareness of the early signs of leprosy, improving patients' access to free diagnosis and treatment, and close monitoring.

Strong support from countries, the WHO and partners has led to the cure of over 14 million people, more than 4 million through the Novartis-WHO collaboration. The prevalence rate has dropped by over 90% since 1985, from 21 per 10,000 inhabitants to less than 1 per 10,000 inhabitants worldwide. All but 5 countries in the world have successfully eliminated leprosy at a national level. Detection of new leprosy cases has decreased by 20% per year over the past three years.

Novartis and the Novartis Foundation for Sustainable Development also provide funds to cover the costs of freight and insurance, as well as independent quality control in addition to that carried out by the Novartis group. The value of the first phase of the donation, 2000-2005, was \$40 million. In 2005, Novartis and WHO signed a new Memorandum of Understanding to ensure the continued uninterrupted supply of high quality MDT, free of charge for all patients in the world, until the end of 2010.

The Novartis Foundation has also been active in supporting national health ministries, the WHO and NGOs in field programs since the mid 1980s. It pioneered the use of social marketing in combating this disease. The underlying concepts of generating and meeting demand for leprosy treatment are now an integral part of the WHO leprosy elimination strategy.

The Foundation has also made a significant contribution to simplifying the provision of disability prevention services in communities. Many of the approaches devised in the Foundation's Comprehensive Leprosy Care Project in India have now been incorporated in the disability care package of the government and of NGOs.



Antibiotics for Trachoma. (Pfizer, ITI, Harvey Wang)

Merck Mectizan® Donation Program

Onchocerciasis (river blindness) & lymphatic filariasis
Merck & Co., Inc.
Since 1987
Access: medicine donations & community-directed treatment
33 endemic countries in Africa, Latin America & the Middle East
www.mectizan.com

Onchocerciasis, or river blindness, is a leading cause of infectious blindness in the developing world. The Merck Mectizan® Donation Program (MDP) was launched in 1987, when Merck & Co. announced that it would donate Mectizan® (ivermectin), its breakthrough medicine for the treatment of onchocerciasis to all who needed it for as long as necessary.

A unique, multi-sectoral partnership was established with the agreement and cooperation of governments in countries where onchocerciasis is endemic, their ministries of health and other national and international stakeholders, including the World Health Organization, to ensure appropriate infrastructure, distribution and support.

2006 marked the 19th anniversary of the MDP. By the end of 2006, Merck had donated over 1.8 billion Mectizan® tablets worldwide (with an estimated value of \$2.7 billion) and more than 530 million cumulative treatments approved since 1987. The program now reaches more than 60 million people a year in 33 countries in Africa, Latin America and Yemen. In addition, more than 117,000 affected communities in these countries manage the planning and distribution of Mectizan® through Community-Directed Treatment programs.

The MDP has made a substantial impact in the fight against onchocerciasis:

- The program prevents 40,000 cases of blindness annually in Africa.
- A number of countries in Latin America are close to halting the transmission of onchocerciasis due to the program's effectiveness. Of the 13 original endemic onchocerciasis foci in Latin America, the Santa Rosa focus in Guatemala will be the first to be able to stop treatment in 2007. Seven other foci have eliminated new eye disease attributable to onchocerciasis.
- In Africa, onchocerciasis control programs using Mectizan® are reported to have an economic rate of return of 17%.

This approach also is leading to the integration of other healthcare interventions. Community distributors, specifically trained to distribute Mectizan®, are playing a unique role in the treatment of other maladies, such as lymphatic filariasis and Vitamin A deficiency. Polio immunization, Guinea worm disease eradication, and the diagnosis of cataract and trachoma are also being linked to Community-Directed Treatment, a mechanism pioneered through Mectizan® distribution. In 1998, the Mectizan Donation Program was expanded to include the elimination of lymphatic filariasis (LF) in African countries and Yemen, where onchocerciasis and LF co-exist.

Merck KGaA - WHO Partnership to fight Schistosomiasis

Schistosomiasis
Merck KGaA
Since 2007
Access: medicine donation
Endemic countries
www.merck.de

On 19 April 2007, Merck KGaA signed a partnership agreement with the World Health Organization, to supply 200 million tablets of Cesol® 600 (praziquantel) for the treatment of schistosomiasis over a 10 year period. The Merck donation, with an estimated value of approximately US\$ 80 million, should allow the treatment of some 80 million schistosomiasis cases over the lifetime of the program.

The donation will address the issue of the affordability of praziquantel, which has been a barrier to access in poor communities and the main obstacle to implementing preventive anthelmintic chemotherapy in many African countries. Anthelmintic chemotherapy refers to drug treatment for worm infections, such as schistosomiasis, that disrupt the metabolism of the worms responsible, also known as helminths.



Each year, the Mectizan® Donation Program treats more than 60 million people in Africa, Latin America and the Middle East for river blindness.
(Merck & Co., Inc., Bill VanderDecker)

sanofi-aventis “Most Neglected Disease” Program

Buruli ulcer, Chagas disease and leishmaniasis
sanofi-aventis
Since 2006
Access: medicine cost reduction, disease surveillance & management programs
Endemic countries
www.sanofi-aventis.com

As part of its agreement with the World Health Organization (WHO) in October 2006 to extend its partnership in sleeping sickness (see separate entry below), sanofi-aventis also undertook to provide support for a collaborative program with WHO to improve treatment for some “most neglected diseases”, namely Buruli ulcer, Chagas disease and leishmaniasis. sanofi-aventis will provide financial support to WHO for development of training, diagnostics and optimization of treatment, including:

- \$6.4 million for leishmaniasis and will transfer the worldwide production of its leishmaniasis medicine Glucantime to its Brazilian subsidiary, to optimize product price.
- sanofi-aventis’ Brazilian subsidiary is also developing a joint leishmaniasis control program with the Aggeu Magalhaes Research Center and the Oswaldo Cruz Foundation to set up a screening, care and follow-up program for 4,000 poor families in Pernambuco, to fight leishmaniasis and other endemic diseases in the region, such as tuberculosis or dengue.
- Similar programs are also being developed with the governments of Panama and Peru and Panama.
- \$2 million for new WHO programs to intensify disease management of Buruli ulcer and Chagas disease.

Last but not least, \$4 million is being provided to WHO to support field activities of its Innovative and Intensified Disease Management program.



sanofi-aventis and the Oswaldo Cruz Foundation work together to fight leishmaniasis in Brazil. (sanofi-aventis)

sanofi-aventis Sleeping Sickness Program

African trypanosomiasis
sanofi-aventis
Since 2001
Access & R&D: medicine donation, disease management, development
Endemic countries
www.sanofi-aventis.com

Considered all but conquered in the 1960s, sleeping sickness has reemerged in Africa with a vengeance as hunger, war, absence of surveillance and ignorance have contributed to the spread of the disease. In May 2001, sanofi-aventis committed \$25 million over five years (2001-2006) to work in close collaboration with the World Health Organization (WHO) on a three-point strategy of adequate medicine supplies, disease surveillance and management, plus R&D for new treatments.

From July 2001 to March 2006, sanofi-aventis donated more than 1.6 million vials of eflornithine, pentamidine and melarsoprol to the WHO and delivered them to Médecins sans Frontières, which is providing storage, distribution, and administration of the medicines on behalf of the WHO, for national control programs and NGOs. In agreement with sanofi-aventis, Bristol-Myers Squibb funded the cost of the first year’s supply of the active ingredient for the eflornithine.

sanofi-aventis funds disease management and control programs, including screening of populations in endemic areas, medical staff training, surveillance of resistance to treatments. Thanks to this program, screening and treatment teams were back in the field in more than 25 sub-Saharan countries, mainly Angola, Cameroon, Chad, Central African Republic, Congo-Brazzaville and the Democratic Republic of Congo. In 2002, Bristol-Myers Squibb provided a complementary \$400,000 cash donation to the WHO.

Sanofi-aventis also provides financial support for development of new therapies through the UNDP-World Bank-WHO Special Program for Research and Training in Tropical Diseases. R&D projects supported include an oral form of eflornithine and a combination of eflornithine and nifurtimox. Bayer HealthCare provides the latter for free in the quantities required for the clinical trials.

After five years, sanofi-aventis’ efforts are estimated to have saved 110,000 lives. In October 2006, the group renewed its contract with the WHO, with expanded program also covering the “most neglected diseases” (see separate entry above). It has committed to provide a further \$25 million over 5 years, with continued medicine donation for Sleeping Sickness, and a budget for training, control & diagnostic programs. In addition, a joint effort will be made to develop a kit to facilitate the use of eflornithine.

Schering-Plough - Infectious Diseases Fellows Program

Infectious Diseases
Schering-Plough
Since 2006
Capacity Building: training
India
www.schering-plough.com

Beginning in late 2006, Schering-Plough contributed financial support toward an initiative establishing Infectious Diseases (ID) as a recognized medical specialty in India. Working with the Medical Council of India, this initiative will help to define a training program for ID fellows. Fellows will include Medical Doctors in India who are progressing to specialty training. The program will also facilitate interactions between ID programs in India and the United States. The program will monitor for increased attention to the diagnosis and treatment of infections within India, as well as for improved patient outcomes.

Soil-Transmitted Helminthiasis

Soil-Transmitted Helminthiasis
Johnson & Johnson
Since 2007
Access: medicine donation
Endemic countries
www.jnj.com

Globally, up to 400 million children suffer from Soil-Transmitted Helminthiasis (STH), an infection of intestinal worms, but fewer than 20 percent of at-risk children were reached with de-worming treatment in 2005, falling far short of the World Health Assembly's (WHA) target to treat 75 percent of at-risk children by 2010. STH is especially dire for children because it causes malnutrition, increases susceptibility to other serious infections, and stunts growth during a critical development period.

STH has been identified by the WHO and the US Centers for Disease Control and Prevention as a "target of opportunity," meaning that with existing diagnostic tools and treatments and greater support, it can be prevented, treated and controlled.

In 2007, Johnson & Johnson partnered with the Task Force for Child Survival and Development to develop and launch a program to donate 50 million doses of mebendazole in 2007 to treat children with or at high risk for STH. Mebendazole is one of a class of medicines known as anthelmintics that are used to treat numerous kinds of worm infections. This is the largest pharmaceutical donation, to date, to treat intestinal worms.



Dr. Julio Paz examines a young patient at a free medical clinic in Lima, Peru. The clinic was stocked with MAP medicine packs, funded by Schering-Plough. (Schering-Plough)

GSK's Sitamaquine for Leishmaniasis

Leishmaniasis R&D
GlaxoSmithKline
Since 1995
R&D
www.gsk.com

Sitamaquine is GlaxoSmithKline's potential new once-a-day oral treatment for visceral leishmaniasis. This disease affects half a million people a year in the developing world and is usually fatal if untreated. GSK is currently providing all the funding for this project. A new treatment for visceral leishmaniasis is urgently needed, since current medicines are either impractical or becoming ineffective due to drug resistance or are simply unaffordable.

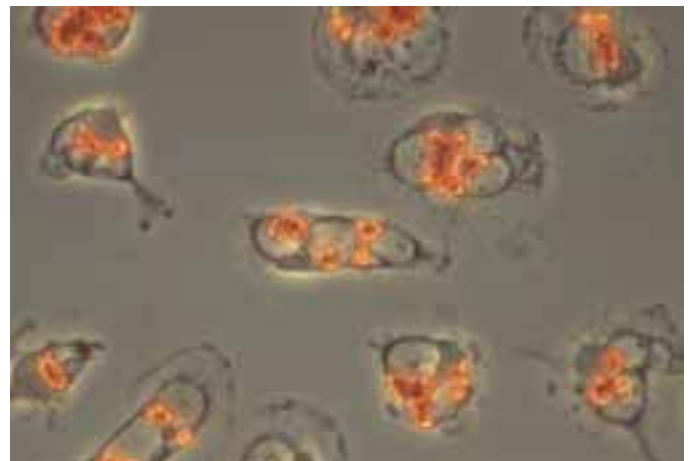
Sitamaquine has shown good efficacy in Phase II trials. The trials also suggest that a shorter treatment period can be achieved - perhaps up to half of the four weeks needed for current treatments. The low cost suggests that sitamaquine could be the first truly accessible treatment for visceral leishmaniasis which affects the poorest of the poor.

Next-Generation Onchocerciasis Treatment R&D

Onchocerciasis R&D
Wyeth
Since ?
R&D: clinical trials
Ghana
www.wyeth.com

Wyeth is helping the UNICEF / UNDP / World Bank / WHO Special Program for Research and Training in Tropical Diseases (TDR) to evaluate moxidectin as a potential next-generation treatment for Onchocerciasis (river blindness).

Phase II proof-of-concept clinical trials with moxidectin were initiated in Ghana in September 2006. Pending positive outcomes from Phase II, Wyeth is collaborating with WHO/TDR on plans to initiate Phase III studies with moxidectin in 2008. A "go / no go" decision on the Phase III trials will be made jointly by Wyeth and WHO, possibly in the fourth quarter of 2007.



Leishmaniasis is caused by protozoan parasites which are transmitted by the bite of certain species of sand fly. (Infectious Disease Research Institute)

Pfizer WHO/TDR Collaboration

Neglected Tropical Disease R&D
Pfizer
Since 2006
R&D: compound screening, R&D training
NTD prevalent countries, UK
www.pfizer.com

In October 2006, Pfizer announced a program with The Special Program for Research and Training in Tropical Diseases of the WHO (WHO/TDR) to speed the search for new drugs to combat some of the world's most deadly parasitic diseases, including malaria, leishmaniasis, African trypanosomiasis, onchocerciasis, schistosomiasis and Chagas' disease.

Under the arrangement, scientists in institutes affiliated with the WHO/TDR-sponsored Compound Evaluation Network are screening thousands of compounds from the Pfizer library for "hits": signs of activity against a range of tropical parasites. Developing country researchers, supported by another WHO/TDR-sponsored group, the Medicinal Chemistry Network, are working with scientists at Pfizer's laboratories in Sandwich, UK, to evaluate the "hits" and from those select "lead" compounds with the greatest potential to be developed into new medicines for parasitic disease treatment and prevention. They are also being trained by Pfizer in the latest drug discovery research methods, before returning home to use their new knowledge and skills.

"This agreement with Pfizer is a step forward in expanding worldwide capacity in tropical disease research, because it enhances access to research tools for developing country researchers and expands access to large numbers of compounds for screening to identify new leads," said Dr Robert Ridley, director of WHO/TDR. "This collaboration also supports the sharing of knowledge between developed and developing country scientists, necessary to build research capacity in developing countries,"

Pfizer has initially provided 12,000 compounds, many of which are known to have activity against protozoan or helminth parasites. As WHO/TDR increases screening capacity across its network, Pfizer will provide more compounds. The company's scientists will identify the compounds most likely to address biochemical targets associated with anti-parasitic activity.

Dr. Ridley hopes the new Pfizer collaboration will encourage other companies to join and expand the WHO/TDR Networks, and to explore further collaborations with developing country researchers in discovery research. "This can be a model for other industry collaboration. It can help attract more companies to invest in tropical disease drug discovery," he said.

Schering-Plough & Chagas R&D

Chagas Disease R&D
Schering-Plough
Since 2006
R&D: clinical development collaboration
South America
www.schering-plough.com

Schering-Plough has held preliminary discussions with key stakeholders to explore the medical needs for new therapies for Chagas Disease. The World Health Organization (WHO) Special Programme for Tropical Disease Research and Training (TDR) has invited research experts from Schering-Plough to attend a meeting with subject matter experts and Key Opinion Leaders (KOLs) to hear up-to date information on the current status of the Chagas disease problem in endemic regions.

TDR is an independent global program of scientific collaboration which aims to help coordinate, support and influence global efforts to combat a portfolio of major diseases of the poor and disadvantaged. The WHO-TDR Scientific Working group meeting agenda includes a strategic plan to help development of new treatments and diagnostic tools for Chagas Disease, as well as to build research capacity. It is also hoped that this meeting will continue to increase awareness of the scope of the disease to support eventual registration of treatments and access to those treatments within the endemic regions.

Additionally, Schering-Plough will sponsor a meeting with KOLs in Buenos Aires to explore potential opportunities for clinical development of posaconazole (marketed in many countries as Noxafil®) in this disease, to develop consensus on potential study designs, endpoints, and additional activities necessary to support the conduct of a trial.

Singapore Dengue Consortium



Tropical diseases go hand-in-hand with poverty, as can be seen throughout sub-Saharan Africa. (GlaxoSmithKline)



Schering-Plough provides medications for teams of US doctors which conduct medical clinics in remote villages in the Andes mountains in South America. (Schering-Plough)

Dengue R&D
Novartis
Since 2003
R&D: drug discovery & sequencing the genome
Endemic countries
www.nitd.novartis.com

The Singapore Dengue Consortium was founded in 2003. It consists of 6 organizations, including the Novartis Institute for Tropical Diseases (NITD). The aim of the consortium is to explore ways to understand and better manage dengue infection, and ultimately minimize the incidence of dengue. In recent years, there has been an increased reporting of dengue incidence from various parts of the world; 50-100 million people get infected per year, of which 250-500,000 with the potentially fatal hemorrhagic form of the disease. At present, there is no cure or vaccine for this disease.

The Dengue Consortium will provide a platform for different parties to participate and share current work on dengue. The other consortium members include the Environmental Health Institute, Genome Institute of Singapore, SingHealth Group, National Healthcare Group and Temasek Life Science Laboratory.

The NITD is contributing its state-of-the-art in drug discovery know-how to find new therapies for dengue, while being fully complementary to the other members of the consortium. The first project on the drawing board is the dengue virus-sequencing project, which will provide information on the entire virus genome together with annotation of clinical data and patient history. This information will be valuable for surveillance as well as understanding the genetic variations of different serotypes.

Long-term goals of those studies are to characterize viral- and host-specific factors responsible for the onset of the disease, as well as to correlate viral genetic markers with the clinical severity of the disease.

VACCINE-PREVENTABLE DISEASES

Worldwide annual deaths from vaccine-preventable diseases:
Most recent WHO Estimates 2002-4

Disease	Deaths
Diphtheria	5,000
Hepatitis B	600,000
Hib	386,000
Measles	530,000
Pertussis	294,000
Polio	<1,000
Tetanus	213,000
Yellow Fever	30,000
TOTAL	2,059,000

Worldwide annual deaths in 2002 from diseases for which vaccines will soon be available: WHO Estimates

Disease	Deaths
Meningitis AC	26,000
Rotavirus	449,000
Pneumococcus	1,612,000
TOTAL	2,087,000

(Source: WHO 2004 Global Immunization Data, IVB, September 2005)

Milestones in saving and improving lives through immunization

Smallpox

Smallpox was eradicated in 1977 after a 10-year WHO campaign. When the program began, smallpox threatened 60% of the world's population and killed every fourth person infected.

Polio

Launched in 1988 by the WHO and partners, the Global Polio Eradication Initiative has reduced infections by more than 99% and some 5 million people have escaped paralysis.

Measles

Measles is virtually eliminated in the Americas. Measles deaths worldwide dropped by more than almost 40% 1999-2003, thanks to the WHO and partner organizations.

Neonatal tetanus

Neonatal tetanus mortality has been reduced by about three quarters. The estimated number of deaths has decreased from 800,000 in the 1980s to under 200,000 in recent years.

Hepatitis B

An estimated future 600,000 hepatitis B-related deaths (from liver cirrhosis and cancer) are now being prevented on an annual basis through infant vaccination.

(Source: WHO immunization work: 2005 highlights, WHO/IVB/06.02)

National immunization programs cover more than 70% of the world's targeted population. It is estimated that the vaccinations done in 2003 alone will prevent more than 2 million deaths from vaccine-preventable diseases and an additional 600,000 deaths related to hepatitis B that would otherwise have occurred in adulthood among the children immunized in that year. However, an estimated 27 million infants and 40 million pregnant women worldwide remained in need of immunization in 2003. The cost of not immunizing is higher because people who are not vaccinated as infants remain vulnerable for the rest of their lives.

New vaccines are being developed against major infectious diseases and several have just been licensed recently. Among the illnesses targeted are rotavirus diarrhoea, pneumococcal disease, and cervical cancer (caused by human papillomavirus), which together kill more than a million people each year, most of them in developing countries.

Moreover, continuing efforts are under way to develop vaccines for AIDS, malaria, tuberculosis, dengue, leishmaniasis, and intestinal diseases, among others and to adapt new technologies to improve formulation and delivery.

In September 2005, the United Kingdom, France, Italy, Spain, and Sweden committed nearly \$4 billion to immunization in developing countries over the next decade, using an innovative new mechanism called the International Finance Facility for Immunization (IFFIm). IFFIm and innovative finance mechanisms such as Advance Market Commitments (AMCs) reflect a growing willingness on the part of developed countries to make significant financial resources available to meet important health needs in resource-poor countries.

(Sources: WHO/UNICEF GIVS Global Immunization Vision and Strategy, 2006-2015; Development of new vaccines (WHO fact sheet N°289)

Current and future vaccines

Disease	Current vaccines	New or improved vaccines anticipated by 2015
Bacille Calmette–Guérin (BCG)	x	
Cholera	x	
Dengue Fever		x
Diphtheria, Tetanus & Pertussis	x	improved
Enterotoxigenic e-coli (ETEC)		x
Group A streptococcus		x
Haemophilus Influenzae Type B (Hib)	x	
Hepatitis A	x	
Hepatitis B	x	
Human Papilloma Virus	x	
Influenza, Pandemic	x	improved
Influenza, Seasonal	x	
Japanese Encephalitis	x	improved
Malaria		x
Measles	x	improved
Meningococcus	x	improved
Mumps	x	improved
Pneumococcus	x	improved
Polio	x	improved
Pseudomonas	x	
Rabies	x	
Respiratory Syncytial Virus		x
Rift Valley Fever	x	
Rotavirus	x	
Rubella	x	
Severe Acute Respiratory Syndrome (SARS)		x
Shigella		x
Tetanus	x	
Tick-borne Encephalitis	x	
Typhoid	x	improved
Varicella	x	
West Nile Fever		x
Yellow fever	x	

(Source: WHO/UNICEF GIVS, Global Immunization Vision and Strategy 2006-2015)

EPIVAC

Vaccine-preventable diseases
sanofi aventis
Since 2002
Access: health professionals training
West Africa
www.epivac.org

EPIVAC (from EPIdemiology & VACCinology) is a comprehensive, one-year, on-the-job professional training program in epidemiology, applied computing, vaccinology and management of health programs for doctors in West Africa, culminating in an inter-university diploma in 'Organization and Management of Public Immunization Programs in Developing Countries' awarded by the universities of Cocody-Abidjan (Ivory Coast) and Paris-Dauphine (France).

The program is a sanofi pasteur (the vaccine branch of sanofi-aventis) contribution to the Global Alliance for Vaccines and Immunization (GAVI). Implemented by the Agence de Médecine Préventive (AMP), the program was developed in partnership with national governments of eligible countries and the participating universities, in collaboration with the WHO, UNICEF, the Vaccine Fund and other partners working in Africa. EPIVAC is coordinated with the GAVI sub-regional working group and complements other GAVI support to African countries.

EPIVAC seeks to strengthen the GAVI process within each country in coordination with the Interagency Coordinating Committee (ICC). The ICC assists in the selection of EPIVAC enrollees. EPIVAC not only utilizes classroom, on-the-job training, and distance learning, but also combines two subject matters that are usually taught separately: applied vaccinology and management sciences. Participants are trained while continuing to provide vital public health services to their communities. Studying on-the-job also enables learning to be put into practice immediately.

The EPIVAC program monitors and evaluates the impact of training on immunization delivery and management in the district. By April 2007, approximately 250 doctors have been enrolled, and 200 had completed EPIVAC training. Another 50 will be enrolled in EPIVAC's 6th consecutive year of operation in November 2007.



sanofi pasteur has donated 120 million doses of Oral Polio Vaccine since 1997. (sanofi pasteur)

HPV Vaccine & Cervical Cancer

Cervical cancer
GlaxoSmithKline, Merck & Co., Inc.
Since 2005
Access: access partnerships, preferential pricing
Developing world
www.gsk.com , www.merck.com

Cervical cancer is the second most common cancer in women worldwide, with about 500,000 new cases and 250,000 deaths occurring each year. Almost 80% of cases occur in low-income countries, where cervical cancer is the number one cause of cancer in women. Virtually all cervical cancer cases (99%) are linked to genital infection with human papillomavirus (HPV), a family of virus types which also causes genital warts and other forms of cancer.

PATH, the Program for Appropriate Technology in Health, is an international, nonprofit organization that creates sustainable, culturally relevant health solutions, and works to advance acceptable and affordable new technologies for low-resource settings. PATH is partnering with GlaxoSmithKline and Merck & Co., Inc., both of which have developed HPV vaccines, to conduct pilot HPV vaccination programs in adolescent females, looking at acceptance and accessibility. The countries selected are India, Peru, Uganda and Vietnam and the project starts in 2007. The PATH project will also look at issues such as adapting vaccination schedules to fit with the school year, to maximize potential uptake. PATH has received a grant for this project from the Bill & Melinda Gates Foundation.

GAVI Alliance

Vaccine-preventable childhood diseases
Berna Biotech, GlaxoSmithKline, Merck & Co., Inc., Novartis, sanofi-aventis, Wyeth
Since 2000
Access: global strategy, distribution of new & under-used vaccines, vaccine donations & training
Low-income countries
www.gavialliance.org

The GAVI Alliance was created to reduce childhood morbidity and mortality from vaccine preventable diseases by increasing immunization rates and improving vaccine access for children in developing countries, in response to stagnating global immunization rates and a widening gap in vaccine access among children in developing countries. A major outcome of this collaboration is the GAVI Fund, which provides financial support directly to low-income countries, based upon applications to and recommendations by the GAVI Alliance Board.

The Alliance's partners include Berna Biotech, GlaxoSmithKline, Merck & Co., Inc., Novartis, sanofi pasteur, Wyeth and the IFPMA, plus industrialized and developing country governments, UNICEF, the WHO, the World Bank, charitable foundations and NGOs. Industry partners invest in the development of new vaccines and in enhanced global vaccine manufacturing capacity, including facilities in developing countries. They also contribute to the education of healthcare providers and help develop technologies to facilitate vaccine distribution.

As part of their support for GAVI, the Merck Company Foundation funds the Merck Vaccine Network – Africa (MVN-A) program (see separate entry), while sanofi pasteur sponsors the EPIVAC training program (see separate entry). Merck & Co. Inc. also provided 1 million doses of MMR II vaccine for mumps, measles and rubella to Honduras (a GAVI recipient country) over a three-year period and also committed to donate 5 million doses of hepatitis B vaccine in support of GAVI. Merck is also providing rotavirus vaccination for infants in Nicaragua, a GAVI-eligible country. (see Rotavirus Vaccine Program)

Novartis has contributed \$90,000 for disease burden study and surveillance. Wyeth has donated 10 million doses of the Haemophilus influenzae type b (Hib) conjugate vaccine to immunize 3.3 million children against one of the leading causes of infant mortality. According to the Children's Vaccine Program, 34 countries now provide protection against Hib, of which 15 are developing countries.

Wyeth is collaborating with GAVI PneumoADIP to bring its current and future pneumococcal vaccines to developing countries. In November 2006, the GAVI Board approved an investment case for pneumococcal and rotavirus vaccines, which includes uptake of Wyeth's Prevnar® vaccine from 2008-2010 in the targeted GAVI countries. In February 2007, donor countries approved an Advance Market Commitment (AMC) pilot program to encourage development of next-generation pneumococcal vaccines.

Global Polio Eradication Initiative

Polio
Bayer HealthCare, sanofi-aventis, Novartis & Wyeth
Since 1988
Access: global strategy, vaccine donations, analysis & surveillance
Polio-endemic countries
www.polioeradication.org

In January 2004, a new plan was unveiled to immunize 250 million children in the remaining polio-endemic countries to eradicate finally a disease that once paralyzed hundreds of thousands of children each year. Working in cooperation, the World Health Organization (WHO), Rotary International, the Centers for Disease Control and Prevention (CDC) and United Nations Children's Fund (UNICEF) agreed to accelerate efforts targeted at eradicating polio.

In 2002, sanofi pasteur, sanofi-aventis' human vaccine branch, announced that it would donate 30 million doses of the Oral Polio Vaccine (OPV) to the Global Polio Eradication Initiative through 2005. sanofi pasteur, the longest-standing corporate partner in the Initiative, has donated 120 million OPV doses since 1997. At the WHO's request, sanofi pasteur developed and licensed a new vaccine in record time in 2005 - Monovalent Oral Polio Vaccine 1 or mOPV1 – for use first in Egypt as a critical part of a new WHO strategy to end polio transmission. sanofi pasteur also provides bulk mOPV1 to a manufacturer in India, to fill and package for local use.

In 2002, Wyeth contributed \$1 million to the Global Polio Laboratory Network, a key component of the Global Polio Eradication Initiative. The laboratory network, which Wyeth helped establish several years ago, is made up of three regional and 13 national laboratories that analyze polio cases and provide surveillance information for 44 African and three Eastern Mediterranean countries.

In Thane, India, Bayer HealthCare donated enough polio vaccines to immunize 170,000 children, an initiative that helped the WHO program defeat polio in the region.

In 1996, Chiron Vaccines, now Novartis Vaccines, and two other OPV manufacturers pledged to donate a total of 100 million doses of polio vaccine for international vaccination campaigns to support the Global Polio Eradication Initiative. Through 2006, Novartis has donated 33.3 million doses, one-third of the industry pledge. Novartis has also invested in the specific development of monovalent polio vaccine (mOPV) instead of classical trivalent (tOPV) to eradicate the disease.

Merck Vaccine Network - Africa (MVN-A)

Vaccine-preventable diseases
Merck & Co., Inc.
Since 2003
Access: training of health professionals
Kenya and Mali
www.merck.com/cr/enabling_access/developing_world/vaccines

One of the major reasons for low vaccination rates in developing countries, according to the World Health Organization (WHO), is the lack of adequate numbers of skilled health care professionals. As part of Merck & Co., Inc.'s commitment to the GAVI Alliance (GAVI), the Merck Vaccine Network – Africa (MVN-A) was developed to help increase the capacity of immunization programs in Africa to effectively deliver vaccines. MVN-A is one of Merck's major programs in Africa and reflects the Company's commitment to improving access to medicines in the developing world through disease education, training, and services initiatives.

Since the MVN-A was launched in 2003 with Merck Company Foundation funding, it has established training centers in Kenya and Mali to provide health professionals with hands-on training in vaccine management and immunization services. Training materials are based on curricula and educational training source materials developed by WHO and other GAVI partners.

The MVN-A training center in Kenya is a collaboration between Indiana University School of Medicine, USA and Moi University Faculty of Health Sciences, Kenya. The Center in Mali is a collaboration between the Center for Vaccine Development at the University of Maryland School of Medicine, USA and the Center for Vaccine Development, Mali, in the *Centre national d'appui à la lutte contre la maladie* in Bamako. Both Centers are fully operational, and have developed their training programs based on comprehensive in-country assessments of local immunization needs.

Upon successful completion of their training, MVN-A course participants, mid- to high-level immunization program managers, return to their home medical facilities and share their expertise and knowledge with front-line colleagues. More than 270 health professionals have completed MVN-A training to date. The Merck Company Foundation is working to expand MVN-A and create additional sustainable training Centers.

Rotavirus Vaccine Program

Rotavirus-induced gastroenteritis
GlaxoSmithKline & Merck & Co., Inc.
Since 2003
Access: clinical trials, production strategy, regulatory approvals & vaccine development
Developing countries
www.rotavirusvaccine.org

Rotavirus infection is the leading cause of severe diarrhea and vomiting (gastroenteritis) in children under two and kills around 600,000 children each year, mostly in developing countries. With funding from the GAVI Alliance and the Vaccine Fund, the Program for Appropriate Technology in Health (PATH) established the Rotavirus Vaccine Program (RVP) in 2003. With its strategic partners, the World Health Organization (WHO) and the U.S. Centers for Disease Control and Prevention, RVP is working to accelerate introduction of the two available vaccines.

GlaxoSmithKline's vaccine, Rotarix™, is a two-dose oral vaccine targeting one rotavirus strain. GSK has completed trials in a number of developing countries, with more underway in conjunction with PATH in the course of 2006. GSK received approval from the Mexican regulatory authorities in July 2004 and launched the vaccine officially in Mexico in January 2005. Rotarix™ has now been approved in various countries in Europe, Latin America and Asia. By early 2006, four countries – Brazil, Panama, Venezuela and El Salvador – had decided to vaccinate all newborn babies. To date, GSK has distributed 1.4 million doses in Latin America, enough for 700,000 babies.

Merck & Co., Inc.'s vaccine, RotaTaq®, is a three-dose oral vaccine that protects against five common rotavirus strains. It has been tested in clinical trials in over 70,000 infants in 11 countries and Merck is working with RVP/PATH to conduct further trials in Africa and Asia. To date, Merck has filed for marketing authorization of RotaTaq® in more than 100 countries, and it is approved in over 40, including the USA, most European countries, Australia, Canada, Mexico and others.

In September 2006, Merck and the Nicaraguan Ministry of Health announced a joint project aimed to implement a full rotavirus vaccination program, whereby all infants born in Nicaragua in a three-year period will receive free RotaTaq®. This means that Nicaraguan children will start receiving RotaTaq® the same year that US children first receive it. Merck will provide technical support and training to improve administration, disease surveillance, health care infrastructure and vaccine distribution. At the end of the project, Merck will sell RotaTaq® to the Nicaraguan government at prices significantly lower than those for the developed world. Merck is committed to working with its partners to make RotaTaq® available to infants and children worldwide as quickly as possible and at no-profit prices for the developing countries.

IFPMA Influenza Vaccine Supply International Task Force

Influenza R&D
IFPMA IVS ITF
Since 2002
R&D: development, registration, capacity & technical issues
Worldwide
www.ifpma.org/influenza

The IFPMA Influenza Vaccine Supply Interventional Task Force (IVS ITF), established in February 2002, brings together research-based influenza vaccine manufacturers from around the world, representing more than 95% of the world seasonal influenza vaccine production. IVS ITF members* are conducting the R&D necessary to develop safe, effective, high-quality vaccines against avian and pandemic influenza threats.

The IVS ITF works within the constraints of anti-trust law to address the advocacy, communication, policymaking, regulatory, scientific and technical issues related to interpandemic and pandemic influenza vaccines. IVS ITF members are committed to make their unique expertise in R&D, logistics, manufacturing, safety and regulatory issues available to help governmental and intergovernmental bodies in pandemic planning and decision-making.

The IVS ITF's Scientific, Production and Regulatory (SPR) working group looks at the technical issues related to developing, licensing and producing seasonal as well as pandemic vaccines. It works in close collaboration with national and international agencies, including the World Health Organization (WHO), the WHO Collaborating Centers and Laboratories in Australia, Japan, UK and USA, and the Regulatory Agencies of Australia, Canada, Europe, Japan, the UK and the USA.

The IVS ITF's Policy, Practices and Communication (PPC) working group develops Industry position statements, to advocate and communicate key Industry messages and to promote the societal value of influenza vaccination. It also organizes technical briefings on avian/pandemic influenza issues. The PPC working group has also published a series of articles analyzing influenza vaccine distribution throughout the world, as well as the results of a large health economic study on influenza vaccination in healthy adults 50-65 years old, which supports the value of influenza vaccination to public health and society. The IVS ITF also develops position papers providing the Industry perspective on pandemic preparedness.

* IFPMA IVS ITF members are: Baxter, Berna Biotech, Biken, CSL, Crucell, Denka Seiken, GlaxoSmithKline, Kaketsuken, Kitasato Institute, MedImmune, Nobilon International, Novartis, sanofi pasteur, Sanofi Pasteur MSD and Solvay Pharmaceuticals.

Infectious Disease Research Institute (IDRI)

Infectious disease R&D
GlaxoSmithKline
Since 1994
R&D: medicine, vaccine & diagnostic development
Developing countries
www.gsk.com

In 1994, the Infectious Disease Research Institute (IDRI), a US, tax-exempt not-for-profit scientific organization supported by public funds and the former Corixa Corporation, a research and development-based biotechnology and vaccine company which was merged with GlaxoSmithKline in mid-2005, established a collaborative partnership to optimize the development of vaccines, therapeutics and diagnostics against leishmaniasis and other diseases of the poor.

In March 2000, it received a \$15 million grant from the Bill & Melinda Gates Foundation to fund IDRI's ongoing effort with Corixa to develop a vaccine to prevent leishmaniasis. In 2005, IDRI collaborated with GSK and the Aeras TB Vaccine Foundation for preclinical work on potential candidate vaccines against tuberculosis.



Vaccination is a cost-effective health measure. (WHO, PAHO)

Pediatric Dengue Vaccine Initiative (PDVI)

Dengue R&D
GlaxoSmithKline, sanofi-aventis, Novartis.
R&D: capacity building, research, surveys, strategy & vaccine development
Endemic countries
http://www.pdvi.org/

Dengue fever is the second most widespread tropical disease after malaria. The Pediatric Dengue Vaccine Initiative (PDVI) was established in 2001 to accelerate the development of a dengue vaccine that is appropriate, safe and accessible to poor children in endemic countries. The PDVI headquarters are at the International Vaccine Institute, in Seoul, Korea. Some of the Initiative's goals include: Country surveys to define better the burden of dengue illness; Support R&D and enhance developing country science capacity; A scientific blueprint for a safe, effective and affordable pediatric dengue vaccine.

No specific treatment is currently available and vector-control strategies have been insufficient. Dengue vaccines offer an impending solution to control this major global health problem and there are several robust dengue vaccine candidates, but many challenges remain. A focused effort should achieve a safe, broadly protective dengue vaccine for children in a matter of years.

The Initiative is supported by governments of endemic countries, academic research centers in the USA and South-East Asia and the pharmaceutical industry, including sanofi pasteur and GlaxoSmithKline. Due to their research on profiling the dengue virus NS3 proteases, the Novartis Institute for Tropical Diseases has also developed a collaborative relationship with PDVI.

In September 2006, sanofi pasteur and the PDVI announced a partnership to develop a Dengue vaccine and make it widely available for global prevention. At the forefront of dengue vaccine development with an active research and development program which started in the 1990s, sanofi pasteur is currently evaluating its lead vaccine candidate in expanded Phase II clinical trials in Latin America and Asia.

Wyeth Pneumococcal Vaccine Studies in Africa

Pneumococcal Disease R&D
Wyeth
Since 2002
R&D: developing country clinical trials
Gambia, South Africa
www.wyeth.com

In 2002 a WHO study involving 40,000 South African children showed that a new pneumococcal vaccine developed by Wyeth could save the lives of 500,000 children a year in poor countries. Until then, no vaccine was available to protect against pneumonia, the leading cause of death of children worldwide, killing about 4 million per year. The vaccine reduced the incidence of pneumonia by more than 20 percent overall. It also reduced the incidence of invasive pneumococcal disease by more than 80 percent in children not infected with HIV and more than 50 percent in those with HIV. Also participating in the study was the South African Medical Research Council.

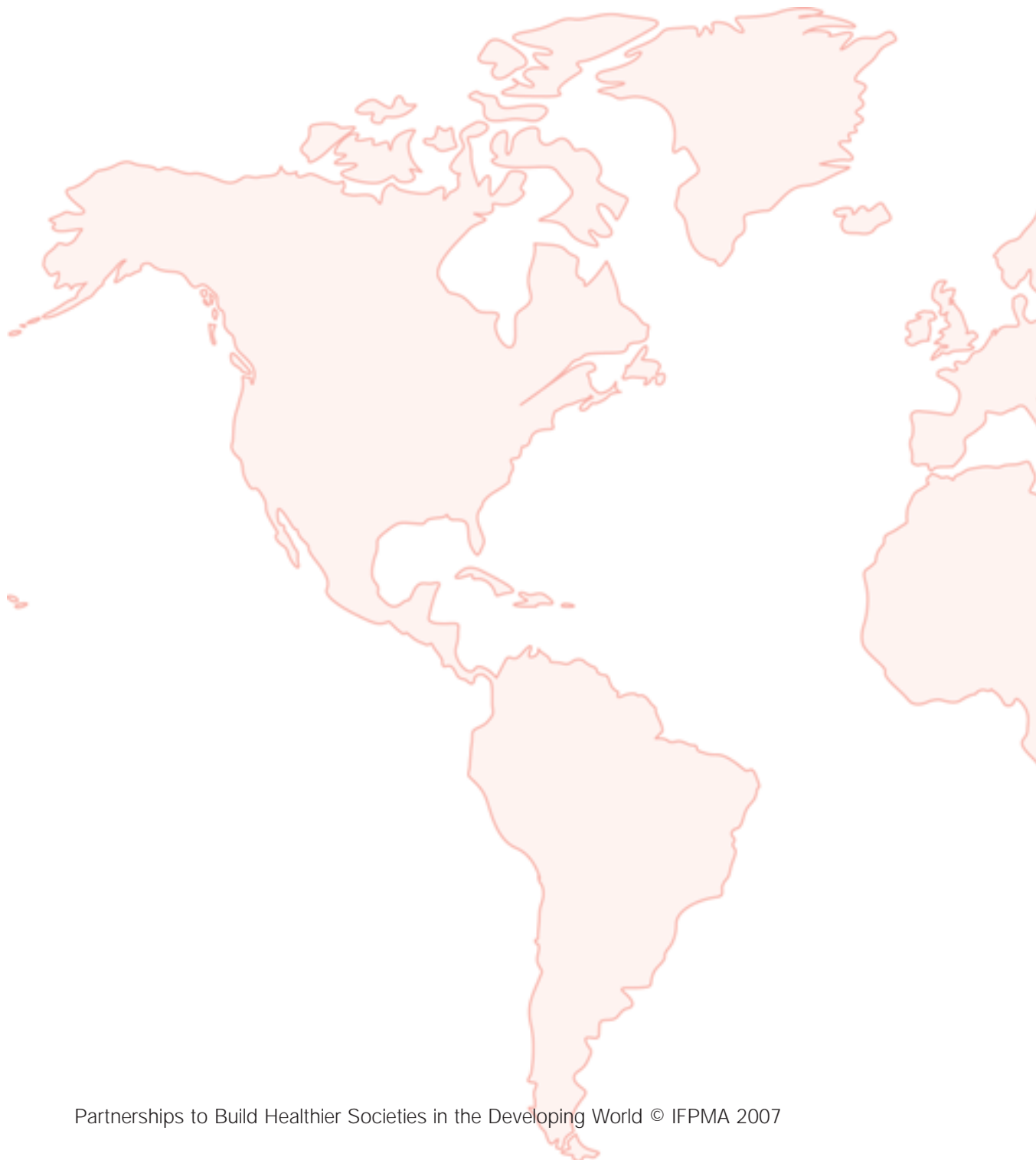
Wyeth also helped fund the provision of the newly developed pneumococcal conjugate vaccine for a five-year clinical trial in the Gambia. The UK Medical Research Council conducted this study in cooperation with the Gates Foundation, the National Institutes of Health (US), the US Agency for International Development (USAID), the WHO and others. Results published in *The Lancet* in March 2005 showed that: 1) children receiving the pneumococcal vaccine had 15 percent fewer hospital admissions than those who did not; 2) the vaccine was 77 percent effective in preventing pneumococcal infections caused by the vaccine serotypes; 3) there were 37 fewer cases of pneumonia in the children who received the vaccine compared with children who received a controlled vaccine.

Wyeth's pneumococcal vaccine program for the developing countries continues to evolve in collaboration with GAVI PneumoADIP. The GAVI board approved an investment case for pneumococcal and rotavirus vaccines in November 2006, and Wyeth is working with GAVI to finalize plans for uptake of its Prevnar® vaccine from 2008-2010 in targeted GAVI countries.



Rotavirus causes diarrhea and gastroenteritis, from which some 600,000 children die each year. (GlaxoSmithKline)

CHILD & MATERNAL HEALTH



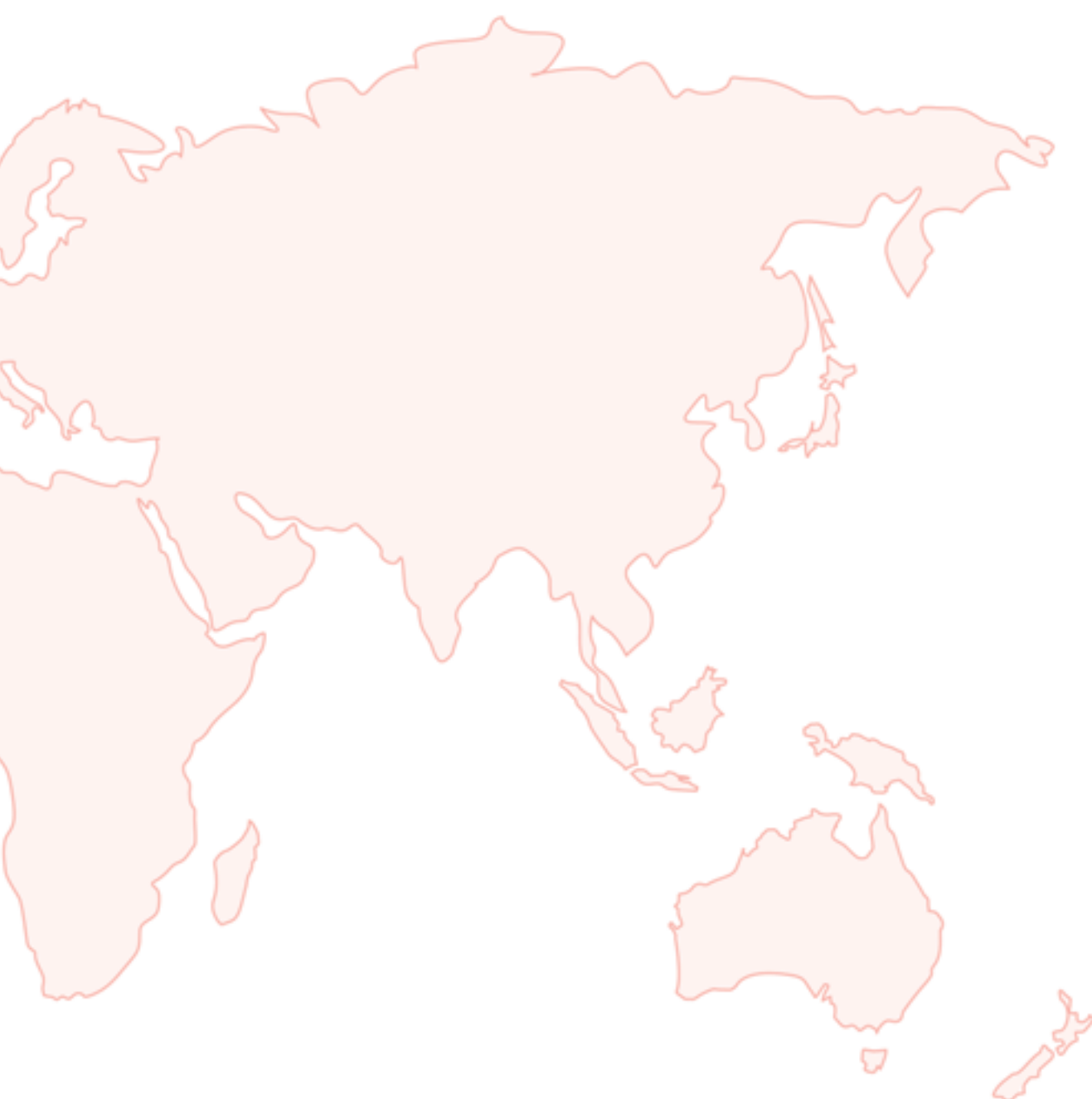
Each year 3.3 million babies – or maybe even more – are still-born, more than 4 million die within 28 days of coming into the world, and a further 6.6 million young children die before their fifth birthday. Moreover, children suffer from the same illnesses as adults but they are more seriously affected by certain conditions such as respiratory tract infections, malaria and diarrheal diseases. Financial resources are needed to increase priority interventions for these preventable, manageable and treatable conditions.

Maternal deaths also continue unabated – the annual total now stands at 529,000 often sudden, unpredicted deaths which occur during pregnancy itself, during childbirth, or after the baby has been born – leaving behind devastated families, often pushed into poverty because of the cost of health care that came too late or was ineffective.

In developing countries, interventions that are known to be effective in lowering maternal and perinatal mortality and morbidity are not universally provided. Scaling-up the coverage of maternal and newborn health care provided by skilled personnel is expected to have a considerable impact in helping to achieve Millennium Development Goal 5, which aims to improve the health of mothers, and also 4, which focuses on reducing child mortality.

The main constraint is the shortage of skilled professionals: it is necessary to train nurses, midwives and health educators to provide skilled assistance during labor and delivery, as well as care for infants and children. Moreover, countries, donors and multilateral agencies must mobilize resources to strengthen health infrastructure: to create new hospitals, to upgrade equipment and facilities, and provide them with essential medicines.

(Sources: WHO Bulletin of the World Health Organization, April 2007, 85, Estimated global resources needed to attain universal coverage of maternal and newborn health services; WHO The World Health Report 2005, Make every mother and child count)



Abbott Program to Improve Maternal and Child Health in Afghanistan

Child & Maternal Health
 Abbott
 Since 2005
 Access: training, product donation
 Afghanistan
www.abbott.com

According to the World Health Organization, Afghanistan has the second highest maternal mortality rate in the world, with 1,900 deaths per 100,000 live births. In addition, one in four Afghan children will not live to see their fifth birthday. To improve the lives of women and children in Afghanistan, Abbott and Abbott Fund are partnering with the Afghan Institute for Learning (AIL) and Direct Relief International (DRI) to help reverse the country's high maternal mortality rate, and increase the survival and overall health of infants and children.

Abbott and Abbott Fund have provided \$3 million in grant funding and product donations to support the work of AIL, founded by Nobel Prize nominee Sakena Yacoobi, a long-time advocate for women's rights in Afghanistan. DRI, a global humanitarian assistance organization, manages the distribution of Abbott's grants and product donations to AIL.

With three clinics serving mostly rural areas in Afghanistan (two in Herat province, one in Kabul province), AIL is staffed and operated by Afghan women. Abbott Fund support is focused on empowering Afghan women through the training of female nurses, midwives and health educators to provide skilled assistance during labor and delivery, as well as care for infants and children. Abbott Fund also is supporting AIL women's health workshops that provide health education directly to Afghan women.

Abbott has donated products to improve maternal and child health, including Pedialyte® rehydration solution, the antibiotic Biaxin®, multivitamins and the nutritional supplements Ensure® and Ensure Healthy Mom®.

Since the partnership began in November 2005, more than 100,000 women and children have received its services. Nineteen nurses/midwives have been trained, with most now employed in clinics and hospitals. Abbott Fund is supporting the training of 25 additional women in 2007.

AfriKids

Child & Maternal Health
 GlaxoSmithKline
 Since 2004
 Access: basic amenities, education & primary health care
 Ghana
www.gsk.com

Since 2004, GlaxoSmithKline has helped support AfriKids, a Child Rights Organization which works with indigenous communities in the Upper Eastern Region of Ghana to improve the quality of life for rejected and vulnerable children.

The charity specifically targets the root causes of the children's problems, by improving community support services and by providing access to basic education and primary health care. In addition, AfriKids' work addresses the immediate problems which include poor infrastructure, lack of funds and restricted access to essential amenities (such as water and electricity) within local children's homes and street centers.



A family planning consultation in Lusaka, Zambia
 (Bayer Schering Pharma)

AstraZeneca - Promoting Safe Motherhood in India

Maternal Health
AstraZeneca
Since 2005
Access: education
India
www.astrazeneca.com

Each year, more than 500,000 women die of pregnancy-related causes in the developing world. During 2005, AstraZeneca India initiated a 'Safe Motherhood' program, in partnership with the Federation of Obstetric and Gynaecological Societies of India (FOGSI). Focused on making labor and delivery safer for mothers, the program included over 60 conferences for healthcare professionals in 2005, as well as media campaigns to build public awareness.

To support its commitment to the cause of Safe Motherhood in India, AstraZeneca has joined forces with FOGSI in creating awareness of the 'Optimising Labour and Delivery for Safe Motherhood' initiative, which aims to make labor and delivery of babies safer for the mothers. While the company successfully organized 60 childbirth workshops and symposia for doctors in 2005, there is a need for public awareness on this vital subject. The campaign *Anmol Anchal* aims to focus attention on the mother (who does not receive the attention she deserves) and underlines her importance as the cornerstone of a healthy family. A healthy family is the constituent of a healthy society and a vibrant nation and AstraZeneca India has robust plans in place to spread awareness in this regard throughout 2006.

Bayer Schering Pharma & Family Planning

Family Planning
Bayer HealthCare
Since 1961
Access: no profit sales, education
Worldwide
www.bayerscheringpharma.de

For more than 46 years, Bayer Schering Pharma AG (part of Bayer HealthCare) has supported family planning programs in over 125 countries with its high quality products in close co-operation with government organizations (BMZ - Federal Ministry for Economic Cooperation and Development, KFW - German Development Bank, GTZ - German Association for Technical Co-operation, the UK's DFID and DANIDA), multilateral organizations (UNFPA, the World Bank, the WHO, and USAID), and private organizations (International Planned Parenthood Federation, Population Services International, Marie Stopes, IMRES and Missionpharma).

In that time, more than 2 billion cycle packs of oral contraceptives have been provided to family planning organizations and users in the Developing World. The product range include a wide choice of contraceptive methods, (mono-, triphasic combined oral contraceptives and progestogen-only products), injectables (one and three monthly), implants and intrauterine devices/systems. These products are of the same quality as those available on the private market but they are sold at no profit to organizations running family planning projects in developing countries. In 2006, Bayer contributed about 60 million cycles of oral contraceptives and 10 million injectables worldwide.

With its family planning programs, Bayer wants to help people to make informed and independent decisions concerning their family size, taking into account the best possible conditions for the future of their children. Family Planning reduces women's exposure to health risks of unwanted childbirth and unsafe abortions.

Bayer is committed to making universal access to fertility control means a reality by 2015, as recommended by the International Conference on Population and Development. Through its long-term commitment to family planning, Bayer is making a substantial contribution to the UN Millennium Development Goals, including empowering women, reducing child mortality and improving maternal health by 2015.

Training programs for family planning providers are also part of Bayer's commitment. Since sexual education is vital to contraception, Bayer supports programs like the CELSAM project (*Centro Latinoamericano Salud y Mujer*), providing detailed information on sexual education in all Latin American countries by radio, educational programs for schools and universities, telephone hotlines and information booths on the streets.

Bidan Delima Midwife Training Program

Child & Maternal Health
Johnson & Johnson
Since 2003
Access: education, training
Indonesia
www.jnj.com

Each year in Indonesia 20,000 women die as a result of pregnancy or delivery, and 165,000 infants die before, during or directly after birth. Midwives are crucial to improving reproductive health services. Working with the Johns Hopkins University's JHPIEGO unit, the Indonesian Midwives Association (IMA) is trying to increase the standard of care among private practice midwives in the country. The *Bidan Delima* Program, a component of the Sustaining Technical Achievements in Reproductive Health/Family Planning project operated by IMA, was implemented in 2003.

Johnson & Johnson has supported this midwife training program since its inception in 2003. This past year, the Company provided funds to train 600 midwives in the national clinical standards of midwifery. These standards cover family planning services, infection prevention, contraceptive technology and safe delivery care. The Association also was able to produce an updated version of its national safe delivery training video, which is used to train 76,000 practicing midwives in Indonesia.

Freedom of Breath, Fountain of Life

Child & Maternal Health
Johnson & Johnson
Since 2004
Access: education, training
Ethiopia, Ghana, Namibia, Nigeria and South Africa
www.jnj.com

Each year in China, as many as 125,000 babies may succumb to neonatal asphyxia, the inability to breathe at or immediately after birth. Johnson & Johnson Pediatric Institute, L.L.C., has joined with the Chinese Ministry of Health, the American Academy of Pediatrics, the Chinese Society of Perinatal Medicine and the Chinese Nursing Society to form the "Freedom of Breath, Fountain of Life" national neonatal resuscitation program.

The program aims to reduce infant mortality through education, with a goal of ensuring that there is at least one trained person is present at every hospital birth by 2010. The program has trained more than 18,000 medical professionals across China since 2004 in the techniques of neonatal resuscitation.



Johnson & Johnson supports the Indonesian Midwives Association, which provides training for midwives throughout Indonesia. (Johnson & Johnson, Janea Wiedmann)

Fuyang AIDS Orphan Salvation

Child Health
Johnson & Johnson
Since 2006
Access: education, support
China
www.jnj.com

Founded in December 2003, the Fuyang AIDS Orphan Salvation Association (AOS) addresses the social stigma and discrimination associated with HIV/AIDS. With support from Johnson & Johnson, this NGO serves the needs of more than 400 children affected by HIV/AIDS in An Hui Province in eastern China. AOS assists more than 200 families in 20 different villages, providing stipends for basic health and education needs, clothing, food, vocational education and emotional support. AOS strives to reduce social stigma by encouraging meaningful dialogue within Chinese communities to raise public awareness about HIV/AIDS.

Global Campaign to End Fistula

Maternal Health
Johnson & Johnson
Since 2004
Access: education, training
Ethiopia
www.fistulafoundation.org/hospital

Fistula is a serious and painful disorder that develops when blood supply between organs or vessels is cut off during prolonged obstructed labor. Johnson & Johnson works with organizations in Africa to prevent and treat fistula. In Eritrea, it helps the Global Campaign to End Fistula, led by UNFPA (United Nations Population Fund), which seeks to make this problem as rare in the developing world as it is in industrialized countries today. This project focuses on addressing obstetric fistula by increasing the caesarean section rate and the number of fistula repairs, thereby contributing to the ultimate goal of reducing maternal mortality and morbidity.

Addis Ababa Fistula Hospital is a key partner in the Global Campaign to End Fistula. Serving as the only health facility in Ethiopia dedicated exclusively to victims of obstetric fistula, the hospital has been treating fistula patients for more than three decades.

Johnson & Johnson provides support to the hospital for education outreach programs throughout the region, including training for traditional birth attendants. Furthermore, health care professionals also are educating communities on the risks of unattended childbirth. Through the hospital's efforts, over a thousand women each year are treated.



Johnson & Johnson supports the Addis Ababa Fistula Hospital in Ethiopia. (Johnson & Johnson, Willie Davis)

Global Fund for Women

Maternal & Women's Health
Johnson & Johnson
Since 2005
Access: education
Developing countries
www.globalfundforwomen.org

The Global Fund for Women (GFW) advocates for and defends women's human rights by making grants to support women's grass-roots organizations around the world. The GFW works to promote economic security, awareness of the endemic problems of violence against women, education, health, and leadership.

Maternal prenatal care and reproductive health are of especially great concern. Estimates are that 500,000 women worldwide die each year in childbirth and another 18 million are left disabled or chronically ill. Johnson & Johnson provides support, through the GFW, to 17 community-based groups in several countries that address maternal health issues.

GSK and Integrated Management of Childhood Illness

Child Health
GlaxoSmithKline
Since 1996
Access: compliance, education, infrastructure, testing, training, treatment
Ethiopia, Ghana, Namibia, Nigeria and South Africa
www.gsk.com

In response to the challenge of reducing child morbidity and mortality, the World Health Organization (WHO) and UNICEF developed Integrated Management of Childhood Illness (IMCI) – a delivery strategy for improving the coverage of child survival interventions. Recognizing IMCI as an excellent strategy to improve child survival, GlaxoSmithKline has been integrally involved with the implementation since 1996, when it initiated a unique partnership with the South African MOH. Since then GSK has entered into public-private partnership agreements with WHO, UNICEF and Ministries of Health (MOH) for the implementation or expansion of IMCI in Ethiopia, Namibia, Nigeria and Ghana.

IMCI aims to reduce morbidity and mortality due to the major killer diseases for children under five: malaria, diarrhea, malnutrition, measles, acute respiratory infection and HIV/AIDS, which was added a few years ago. The IMCI strategy is an integrated approach that looks at the child holistically, as children often have more than one condition. It promotes the accurate identification of childhood illnesses, ensures the appropriate combined treatment of the major diseases, and speeds up the referral of severely ill children. The first component of IMCI focuses on improving the case management skills of health workers. To support IMCI implementation, the second component focuses on strengthening the health system through improved essential drug supply and management, through support supervision and by facilitating appropriate and timely referral of severe cases. The objective of the Community (third) Component of IMCI (c-IMCI) is to improve family and community practices through improved care-seeking behavior, appropriate feeding practices and home case management and adherence to recommended treatment prescriptions.



GlaxoSmithKline helps train Vietnamese nurses in midwifery, maternal and child health care. (GlaxoSmithKline)

GSK's Midwife Training in Vietnam

Child & Maternal Health
GlaxoSmithKline
Since 2004
Access: compliance, education, infrastructure, testing, training, treatment
Eight countries, including Bolivia, Indonesia, Kenya, Mexico, Tajikistan
www.gsk.com

Since 2004, GlaxoSmithKline has been supporting a unique training program based in Tu Du Hospital, Ho Chi Minh City, Vietnam. The project is training 500 birth attendants to provide maternal healthcare services in rural villages and aims to reduce childbirth complications and decrease newborn fatalities from the current unacceptably high level of 6%.

Supported by Tu Du medical and nursing staff, and housed within a residential training centre built by GSK, the trainees spend four months gaining practical knowledge of maternal and child health-care. Over 350 midwives have now graduated with a government-recognized qualification. Each midwife has been equipped with a medical pack and some are provided with a motor scooter to facilitate access to remote areas.

GSK's Personal Hygiene & Sanitation Education (PHASE) program

Child Health
GlaxoSmithKline
Since 1998
Access: compliance, education, infrastructure, testing, training, treatment
Eight countries, including Bolivia, Indonesia, Kenya, Mexico, Tajikistan
www.gsk.com

GlaxoSmithKline's Personal Hygiene & Sanitation Education (PHASE) project is helping to reduce diarrhea-related disease by encouraging school children to wash their hands. GSK established PHASE in 1998 and has so far invested over \$3.1 million in the program. PHASE is run in partnership with AMREF, Save the Children and Plan International - as well as national Ministries of Health and Education in countries where the program is active.

The program has had impressive results so far. For example, a study by AMREF in Kenya showed that after four years, 88% of children from participating schools washed their hands after using the toilet, compared with 46% from non-participating schools. PHASE was extended to Mexico and Tajikistan during 2006 and now operates in a total of eight countries. The total number of children reached by PHASE is now estimated to be 375,000.

GSK has a PHASE steering committee with representatives from its partner organizations to help expand the program into more countries. Bolivia and Indonesia are planned for 2006, along with its launch into Kibera, Kenya: Africa's largest slum. This will be the first time PHASE has operated in an informal settlement, creating a model for improving children's health in one of the world's harshest urban environments.



GlaxoSmithKline's PHASE project is designed to reduce diarrhea by teaching children to wash their hands and other sanitation measures. (GlaxoSmithKline)

International Rescue Committee

Child Health
Johnson & Johnson
Since 2004
Access: education & psychological care
Uganda
www.theirc.org

During the two-decade conflict between the Ugandan army and the Lord's Resistance Army (LRA), more than 30,000 children were abducted by the LRA. Pressed into service as frontline LRA soldiers, the children experienced, and were forced to commit, unthinkable abuses. Of the children who have been released or managed to escape, many are now without family and must enter camps for Internally Displaced Persons (IDP).

The International Rescue Committee (IRC) has taken on the challenge of reintegrating these children into everyday life. Girls are at a particular disadvantage. Not only have they missed years of education, but many also return pregnant with the children of their captors. Without family and with a child to support, their future is bleak. The IRC, with funding from Johnson & Johnson, has created a network of educational and psychosocial resources to help them within the IDP camps.

"Girls' Clubs" have been formed for various age groups as a safe place for girls and young women to share their experiences and provide support to each other. Through these clubs, the girls get guidance on child development, health and HIV/AIDS. To address academic needs, the girls attend literacy classes, available at three levels of study. While the girls are in class, "Nursery Corners" provide care for their children. To complement their studies, libraries were created, with partial sponsorship from Johnson & Johnson, and stocked with practical information about health and other life issues.

Project Pampalusog Bata

Child Health
Johnson & Johnson
Since 2004
Access: education
Philippines
www.savethechildren.org

The Save the Children Federation and Johnson & Johnson are committed to improving the health and nutrition of school-aged children in communities surrounding Paranaque City, Philippines. Project *Pampalusog Bata*, part of the School Health and Nutrition program, focuses on mobilizing children, their families and the community to address the problem of soil-transmitted intestinal worm infections, and seeks to promote and sustain key positive behaviors leading to the control of the infection and prevention of other health problems.

Working in two schools, with 5,300 students, 600 parents/care givers and 70 community volunteers, Project *Pampalusog Bata* works to sustain community health activities, in partnership with local government.

Renascer: Helping Poor Mothers in Brazil

Maternal Health
Johnson & Johnson
Since 2005
Access: education
Brazil
www.criancarenascer.org.br

Renascer is a Brazilian NGO which provides medical and educational aid to mothers with chronically ill children living below the poverty line. The program addresses the specific needs of health, education, income, housing and citizenship. During 15 years of operation, *Renascer* has helped 2,000 families with more than 7,000 children break the cycle of poverty and illness. The *Renascer* model has been so successful that it has inspired the development of 17 similar independent programs throughout Brazil.

Johnson & Johnson funds a key component of the *Renascer* model – education. Mothers are taught how to create healthy environments and given the skills to do so. Monthly sessions address issues of health education, disease prevention, child development, and domestic abuse. When family goals are met, the women graduate from the program prepared to provide for their families on their own.

Safe Motherhood Initiative

Maternal Health
Johnson & Johnson
Since 2004
Access: training, medical supplies
India, Philippines, Tibet
www.unicef.org

Maternal mortality is a significant issue throughout Asia. Johnson & Johnson helps to address this through its partnership with UNICEF's Safe Motherhood Initiative in India, the Philippines and Tibet.

In the Philippines, more than 170 of every 100,000 live births result in the death of the mother, and this figure is significantly higher in regions with the least access to Basic Emergency Obstetric Care. Most maternal deaths occur during labor or in the first 24 hours after delivery and only rarely will the child survive. Four of the worst affected provinces, Masbate, Aurora, Isabela and Camarines Norte, were identified for capacity building efforts, with doctors, nurses and midwives from each receiving training via the Basic Emergency Obstetric Care program at Fabella Memorial Hospital in Manila. Improved knowledge allows earlier detection and better management of pregnancy complications, while medical supply kits facilitate emergency obstetric interventions.

Support in Tibet, where the maternal mortality rate (MMR) is nearly 10 times China's national average, addresses issues of transportation, lack of capacity, and cultural taboos that prevent women from seeking obstetric treatment. In India, efforts are focused on several of the least-developed states. Madhya Pradesh, a rural state with impassable terrain, has an MMR of nearly 498 deaths out of every 100,000 live births and has the second highest infant mortality rate in the country.

Despite the success of the Safe Motherhood Initiative, high rates of maternal mortality remain an international concern.



Johnson & Johnson supports the UNICEF Safe Motherhood Initiative program at the Fabella Memorial Hospital in the Philippines. (Johnson & Johnson, Janea Wiedmann)

Unamos al Mundo por la Vida

Child Health

Johnson & Johnson

Since 2005

Access: basic health care, education, shelter

Venezuela

www.unamosalmundo.org

Johnson & Johnson partners with *Unamos al Mundo por la Vida*, an organization dedicated to recruiting and educating children who beg in the streets of Caracas, Venezuela. Many of these children are homeless or live in extreme poverty, lacking opportunities to fulfill their basic needs. Program funding goes to a health clinic and shelter where these children receive basic medical, dental and psychosocial care, as well as meals, education and entertainment. *Unamos al Mundo por la Vida* estimates that approximately 3,500 children benefit from this program every year.



Johnson & Johnson supports Unamos al Mundo por la Vida, which provides safe shelter, health care, education and food for poor children. (Johnson & Johnson, Kelly Shimoda)



Mothers and children wait outside a free medical clinic in Lima, Peru. Hundreds of people visit this clinic where Schering-Plough provides free medication. (Schering-Plough)

CHRONIC DISEASES



Some 35 million deaths are attributable to chronic diseases each year; this is 60% of all deaths worldwide. Principal chronic diseases include cardiovascular disease (17 million deaths), cancer (7 million deaths), chronic respiratory disease (4 million deaths) and diabetes (1 million deaths). About 80% of chronic disease deaths occur in low and middle income countries and the number of people, families and communities affected is increasing. The impact of chronic diseases in these countries will increase as they progressively control infectious diseases.

A significant proportion of chronic disease morbidity and mortality can be prevented if medications are made accessible and affordable, which is a challenge in countries with large populations of very poor people.

The chronic disease threat can be largely managed using existing knowledge and medicines. Many solutions are effective – and highly cost-effective. Public-private partnerships have a crucial role to play in accelerating progress with regard to specific diseases.

Nevertheless, access to medicines is not the only key to achieving success: inadequate access to good-quality health services, including diagnostic and clinical prevention services, is a significant cause of the social and economic inequalities in the burden of chronic diseases. Investment in chronic disease prevention programs and the development of services and infrastructure are essential for many low and middle income countries.

(Sources: WHO Bulletin of the World Health Organization, April 2007, 85, The availability and affordability of selected essential medicines for chronic diseases in six low- and middle-income countries; WHO Preventing Chronic Diseases: A Vital Investment, 2005)



Abbott Program to Advance Diabetes Care in Bolivia

Chronic Disease - Diabetes
Abbott
Since 2006
Access: product donation, testing, training, treatment
Bolivia
www.abbott.com

In Bolivia, more than 7 percent of the population has diabetes, while in Cochabamba, the country's third-largest city, the prevalence is 10 percent. In response to this rapidly growing health problem, Abbott Fund and Direct Relief International (DRI) have teamed up to support the education and outreach activities of *El Centro Vivir Con Diabetes* (CVCD), a non-governmental organization dedicated to low-income adults and children living with both type I and type II diabetes.

Abbott and Abbott Fund provided a grant and a donation of glucose screening and monitoring equipment to support and expand the reach of El Centro's programs. The grant will help support diabetes education, expand public outreach campaigns, train health care personnel in diabetes management and create a core group of diabetes educators. In the last three months of the 2006, product contributions were used to screen over 5,000 patients; an increase of 32% over the previous three months. Overall, Abbott's product contribution will be used to screen a total of approximately 8,000 people for the disease and monitor the condition of thousands more.

AstraZeneca Breast Cancer Program in Ethiopia

Chronic Disease - Breast Cancer
AstraZeneca
Since 2005
Access: equipment, testing, training, treatment
Ethiopia
www.astrazeneca.com

AstraZeneca has begun a pilot project to build institutional capacity for breast cancer diagnosis, treatment and care in Tikur Anbessa University Hospital, Addis Ababa, Ethiopia. Breast cancer is the second most common cancer among young women in that country.

In its first year, the program focused on strengthening Tikur Anbessa's infrastructure and human resources for the diagnosis and treatment of breast cancer. This included the provision of a mammography machine, ultrasound, the introduction of receptor tests and the development of guidelines for diagnosis, treatment and palliative care, as well as pathology reporting. AstraZeneca's breast cancer medicine, Nolvadex® was also made available.

In Year 2, the focus was on strengthening the referral system and raise awareness among health professionals and public by strengthening the Ethiopian Cancer Association. In Year 3, the emphasis is now on consolidating Tikur Anbessa Hospital as a center of excellence in the diagnosis and treatment of breast cancer and on strengthening patient follow-up in the country's university hospitals.

To date, there are 179 breast cancer patients on Nolvadex® and 37 patients have had mammography screening. Quality of care is improving, as patient turn-around time is decreasing.

In 2007, more cancer medicines will be made available at TA hospital with the introduction of Arimidex® for post menopausal women followed by Zoladex®. Lessons learned from the pilot project are being shared with international stakeholders such as World Health Organization and ESMO, so that other developing countries can benefit from them.

AstraZeneca South Africa Asthma Project

Chronic Disease - Asthma
AstraZeneca
Since 2006
Access: education
South Africa
www.astrazeneca.com

In South Africa, teachers' perceptions of asthma are changing rapidly due to the National Schools Program, sponsored by AstraZeneca. The program runs with the sponsorship of AstraZeneca under the auspices of the National Asthma Education Program (NAEP), a non-profit organization dedicated to educating the general public about asthma. In less than a year, the Schools Program has covered 20 schools in Durban, 20 in Cape Town and 9 in Johannesburg.

Diabetes Prevention

Chronic Disease - Diabetes
sanofi-aventis
Since ?
Access: disease management
Africa, Americas and Asia
www.sanofi-aventis.com

sanofi-aventis has launched a pilot program in association with Handicap International and local NGOs to help improve diabetes disease management in Africa, Asia and Latin America. The program aims to help local health care systems to manage the disease better, prevent the onset of complications and so avoid the subsequent need for surgical interventions such as amputation.



A blood test in Lusaka, Zambia (Bayer Schering Pharma)

Glivec International Patient Assistance Program (GIPAP™)

Chronic Disease - Leukemia
Novartis
Since 2002
Access: medicine at no cost
Developing Countries
www.novartis.com , www.gipap.org

Novartis is partnering with NGOs, physicians, and local and global health organizations to facilitate access to its breakthrough cancer therapy Glivec®, via the Glivec® International Patient Assistance Program (GIPAP™). This is a sustainable corporate citizenship commitment for patients with certain forms of chronic myeloid leukemia (CML) and gastrointestinal stromal tumors (GIST) who otherwise would not have access to treatment.

GIPAP™ was initiated in 2002, and provides Glivec® at no cost to eligible patients with certain forms of CML and GIST in countries with no comprehensive reimbursement system or available generics. Patients must be properly diagnosed, not covered by local reimbursement or insurance, and have no other financial resources. By the end of 2006, Novartis provided US \$362 million worth of Glivec® to patients who otherwise would not have been able to afford treatment. GIPAP™ is now available in 80 countries and has helped more than 21,000 patients.

Unlike traditional donation programs, GIPAP™ is based on a "patient-direct" model - providing delivery of Glivec® to patients by their treating physician. GIPAP™ also provides patients with access to support groups, treatment/disease information, education and emotional support. The program helps patients return to leading normal, healthy lives.

Novartis' main partners in GIPAP™ are The Max Foundation and Axios International. Novartis, as the donor company, is responsible for program development, drug donation and distribution. The Max Foundation (TMF) is a US-based non-profit (501c-3) leukemia advocacy and patient support group, whose mission is to improve the lives and survival of patients with blood-related cancers worldwide. TMF is responsible for verifying and screening patients for qualifications; case management; providing emotional support and education. Axios specializes in global healthcare programs in developing countries, with a focus on chronic disease management and drug delivery. Axios centralizes & supervises the GIPAP™ process, notably identification of institutions and logistics in countries where Novartis has no local Oncology representation.

My Child Matters

Chronic Disease - Childhood Cancers
sanofi-aventis
Since 2004
Access: advocacy, diagnosis, care, treatment
16 countries in Africa, Americas and Asia
www.sanofi-aventis.com

In 2004, sanofi-aventis and the International Union Against Cancer (UICC) launched a mobilization and awareness program called "My Child Matters", to fight against childhood cancers in emerging countries. The objective is to encourage institutions (hospitals, NGOs, etc.) to develop pragmatic approaches to improve awareness, early diagnosis, access to care and treatment, pain control and better management of the social and cultural aspects of the disease for both children and families.

This program has already been launched in 16 developing countries - Bangladesh, Bolivia, Egypt, Honduras, Indonesia, Kenya, Mali, Morocco, Peru, Philippines, Rumania, Senegal, Tanzania, Ukraine, Venezuela and Vietnam - via 26 pediatric oncology project.



sanofi-aventis helps the International Union Against Cancer (UICC) in its My Child Matters program to address childhood cancer in poor countries, such as Burkitt's lymphoma in Tanzania. (sanofi-aventis)

Novo Nordisk: Best Possible Pricing on Insulin

Chronic Disease - Diabetes

Novo Nordisk

Since 2001

Access: preferential pricing

www.novonordisk.com

Novo Nordisk offers human insulin to the public health systems in the Least Developed Countries (LDCs), as defined by the United Nations, at prices which do not to exceed 20% of the average price in Europe, Japan and North America.

In 2006, Novo Nordisk offered this pricing scheme to all 50 LDCs and sold insulin to a total of 34 LDCs at or below this price, compared to 32 in 2005. The amount of insulin supplied was enough to treat between 110,000 and 290,000 patients, depending on the daily dose. For various reasons, there are 15 countries in which Novo Nordisk is not selling insulin at all. In several cases, the government has not responded to the offer, either because there are no private wholesalers or other partners with which to work, or because wars or political unrest have made it impossible to do business.

While Novo Nordisk prefers to sell insulin at the preferential price through government tenders, it is willing to sell to private distributors and agents. The target is to offer the best possible pricing scheme to the governments of all LDCs. Unfortunately, there is no way to guarantee that the price at which Novo Nordisk sells the insulin will be reflected in the final price on the pharmacist's shelf. Novo Nordisk works with governments to encourage tenders so that there is a greater chance that the preferential price will benefit the people for whom it is intended.

Novo Nordisk: World Partner Project

Chronic Disease - Diabetes

Novo Nordisk

Since 2001

Access: patient education, health infrastructure building, care and advocacy
Bangladesh, China, El Salvador, India, Indonesia, Malaysia, Mexico, Nigeria, Tanzania & Zambia
www.novonordisk.com

The diabetes pandemic will undoubtedly affect developing countries' ability to grow and develop. The World Partner Project (WPP) was launched in 2001 to establish a foundation on which developing countries can build their own diabetes healthcare strategies and ultimately improve access to proper care. The WPP always works with local partners, usually health ministries and/or patient organizations, and is funded by a grant from Novo Nordisk.

WPP and its partners have driven projects in eight focus countries (Bangladesh, Malaysia, Tanzania, Zambia, El Salvador, Costa Rica, China and India), organizing clinics, providing distance learning for healthcare professionals, educating people with diabetes and raising diabetes awareness. The countries were selected by WPP after analysis of the diabetes care situation in each country, diabetes awareness and knowledge, and diabetes care infrastructure. The focus for all projects is sustainability: they must be affordable and practical enough for long-term operation.

As of 2006, the WPP estimates that it has trained a total 50,000 healthcare professionals, while 103,000 people with diabetes have been directly trained or treated. Activities in 2006 included three workshops in Sub-Saharan Africa to train health officials in how to develop national strategies for diabetes. The workshops helped prepare for the launch in December 2006 of the African Declaration on Diabetes at the International Diabetes Federation's (IDF) congress in Cape Town, South Africa. A counterpart to the proposed UN resolution on diabetes, the African Declaration was developed jointly by IDF, WPP and WHO AFRO, to get the governments of Sub-Saharan Africa to commit to fighting diabetes on a national scale.

WPP will continue to facilitate established projects in the eight focus countries until it is satisfied that these projects can be self-sustaining. Funding has been reserved for projects in three new focus areas: Nigeria, Mexico and an as yet unnamed Asian nation.

Novo Nordisk Haemophilia Foundation

Chronic Disease - Haemophilia
Novo Nordisk
Since 2005
Access: Education, Screening, Registration, Awareness, Advocacy
Developing World
www.nnhf.org

The Novo Nordisk Haemophilia Foundation (NNHF) was created in 2005 as an independent, non-commercial organization in Zurich, Switzerland, to address the significant need to improve haemophilia care and treatment in the developing world.

NNHF's focus is on increasing awareness and diagnosis of haemophilia patients, improving haemophilia therapy knowledge and treatment delivery, and improving prevention of haemophilia complications. NNHF works with governments, NGOs, patient organizations and healthcare professionals, as well as other foundations and trusts. Support is typically given to development programs, such as the education and training of patients, doctors, nurses and laboratory technicians, the improvement of disease diagnosis, surgical techniques and the establishment of patient registries.

Projects are approved for Algeria, Brazil, Bulgaria, Chile, China, Middle America, Cuba, Iraq, Jordan, Lebanon, Macedonia, Pakistan, Palestine, Poland, Romania, Uzbekistan and Venezuela, and more are in the pipeline.

sanofi-aventis against Epilepsy

Chronic Disease - Epilepsy
sanofi-aventis
Since ?
Access: no profit sales, testing, training, treatment, support
Cambodia, Kenya, Mali
www.sanofi-aventis.com

sanofi-aventis, one of the major actors in the fight against epilepsy in the developed world, is also committed to the treatment of epilepsy worldwide using its two major treatments, Gardenal® and, more importantly, Depakine®.

In Mali, sanofi-aventis is working with *Santé Sud* and *Association des Médecins de Campagne*, which have created RARE (Réseau Action Recherche contre l'Epilepsie). More than 1,000 patients have been diagnosed and treated, thanks to these NGO's highly motivated doctors whose close relation directly with patients in his field is a key success factor, helping to destigmatise this disease. This program should be reproduced in 2007 in other very poor countries such as Madagascar.

Two further programs are underway in Kenya, with KAWE and in Cambodia, where help is being provided to create the country's first association for fighting against epilepsy. In all these programs, medicines such as Depakine® / VPA are provided on a "no-profit, no-loss" basis.

The World Diabetes Foundation

Chronic Disease - Diabetes

Novo Nordisk

Since 2002

Equal access to diabetes care: awareness, education and capacity-building

WHO, IDF, National Governments and associations

www.worlddiabetesfoundation.org

The World Diabetes Foundation (WDF), established by Novo Nordisk in 2002 through a 10-year grant of \$85 million, is dedicated to supporting the prevention and treatment of diabetes in the developing world through the funding of sustainable projects. Its goal is equal access to diabetes care.

To date, WDF has funded 110 projects focusing on diabetes awareness, education and capacity-building at local, regional and global levels. A projection of the impact of the WDF's work shows that the projects funded will positively impact 55.1 million people in the developing countries.

In 2006, WDF organized its third 'Global Diabetes Walk' on World Diabetes Day (14 November), bringing together 160,000 participants in 480 walks, in 55 different countries. Novo Nordisk and its employees together raised 900,000 Danish kroner for WDF in 2006.



US doctors treating children in Peru's Amazon Jungle. Many of their diseases are easily treated with the proper medication. Schering-Plough works with the NGO Medical Assistance Programs (MAP) International to provide "travel packs" of medicines for such clinics. (Schering-Plough)

ADDITIONAL HEALTH INITIATIVES

1 Haiti

sanofi-aventis has helped set up of a medical and psychosocial program for street children in Port au Prince in partnership with *Aide Médicale Internationale*.

2 Venezuela

Schering-Plough and NGOs *Luz y Vida* and *Fe y Alegria* run a community education and welfare project.

3 Brasil

Eli Lilly's "Lilly in Action" initiative has some 150 volunteers working on projects, such as the Socio-Cultural Inclusion Program, which helps people learn to read and write.

4 Ethiopia

AstraZeneca began a pilot project in Ethiopia in 2005 to build local capability in managing breast cancer, including provision of a mammography machine, diagnostics and medicines.

5 Africa

AstraZeneca helps non-profit organization BookPower to make up-to-date medical and nursing textbooks available at subsidized prices throughout English-speaking Africa, the Indian sub-continent and the Caribbean.

6 South Africa

For 10 years, Roche has been supporting the Phelophepa Health Care Train, which provides rural areas in South Africa with primary care services, including cancer screening and diabetes prevention.

7 Tanzania & Zambia

The Nursing Libraries for Refugee Health partnership is a collaboration of ICN, UNHCR and Merck & Co., Inc., which has established 62 health care libraries in Tanzania and Zambia.

8 Somalia

Johnson & Johnson helps SOS Children's Villages to train 20 student nurses in Mogadishu, Somalia, where the health care system has deteriorated due to the country's civil war.

9 Sri Lanka

The Novartis Foundation helps *Sarvodaya Shramadana* apply a holistic and integrated approach to health development, based on Buddhist principles, in over 12,000 villages in Sri Lanka.

10 Mozambique

Since 2003, Johnson & Johnson has supported innovative World Wildlife Fund eco-health projects. In Mozambique, WWF created marine sanctuaries and clinics for local people.

11 Papua New Guinea

Boehringer Ingelheim helps the "Collaboration for Health" initiative in Papua New Guinea in various activities, including its "Strengthening Capacity of Healthcare Teams" program.

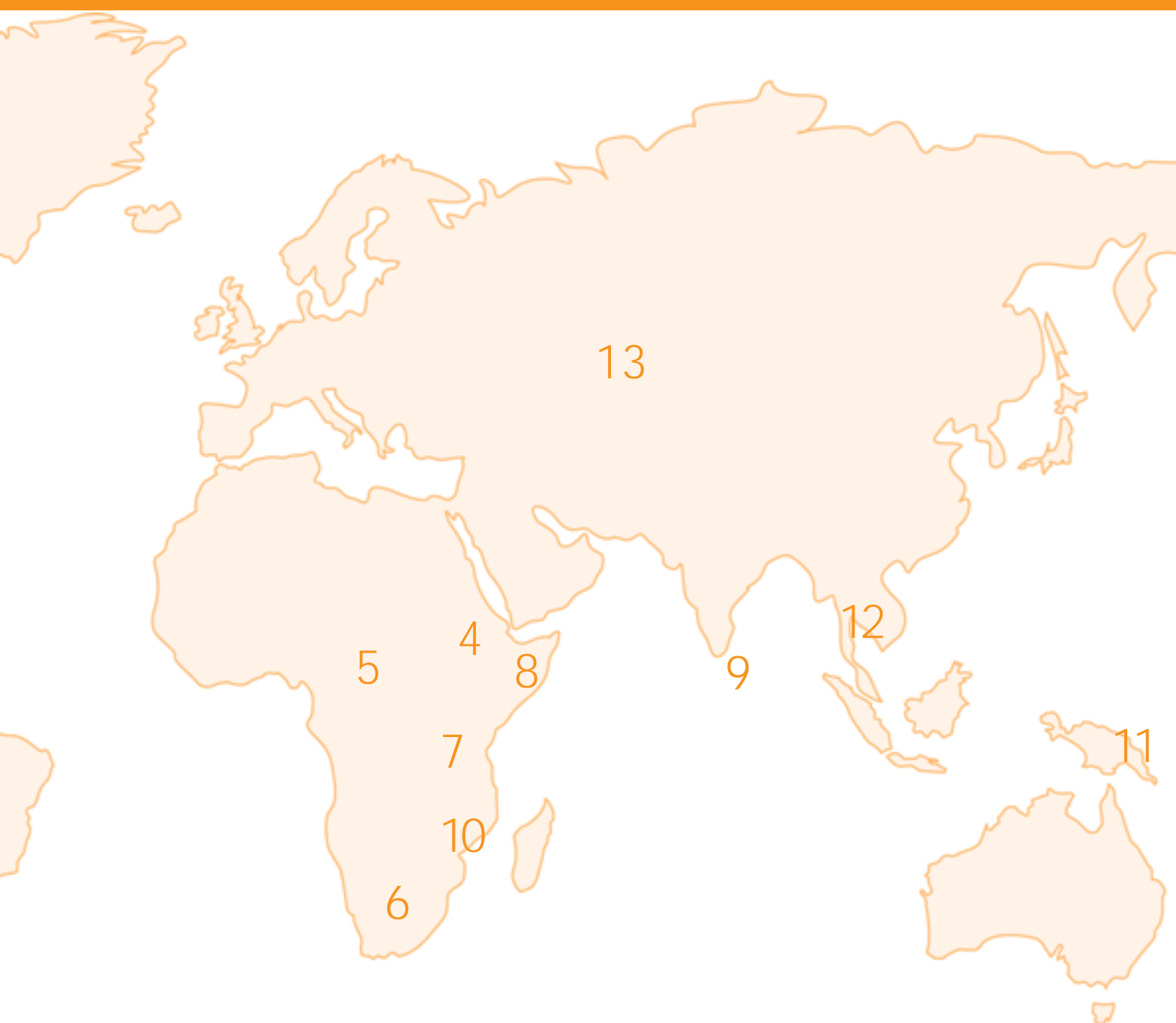
12 Cambodia

The Japan Pharmaceutical Manufacturers Association and Kanazawa University are helping the Cambodian Government's Department of Drugs and Food, to test medicine quality and measure counterfeiting in Cambodia.

13 Commonwealth of Independent States

Bristol-Myers Squibb BMS helps Heart to Heart International, the American Academy of Family Physicians (AAFP) and the AAFP Foundation in their "Physicians With Heart" program to improve health in areas of the former Soviet Union.





Additional Health Initiatives

(This section offers a selection of individual company programs around the world, dedicated to improving health in developing countries, outside the therapeutic areas listed above. It is not intended to constitute a definitive list of all such programs.)

Abbott

www.abbott.com

- Honduras has the highest documented HIV infection rate amongst the Spanish-speaking countries in Central America. In 2006, Abbott Fund contributed a cash grant for \$44,350 to *Siempre Unidos* ("Always United"), a faith-based organization committed to providing treatment, social and economic support, nutrition, education, and care to people living with HIV/AIDS in Honduras. The grant will support the salaries for doctors and nurses at their 3 clinics to ensure continuous, quality care for their patients.
- The 2005 earthquake in Pakistan had a devastating impact on the region's health infrastructure. Rural health centers (RHC), which play a critical role in providing preventive and basic health care services, were almost all destroyed. In partnership with AmeriCares, Abbott Fund has awarded a grant of \$170,000 to support the complete rehabilitation of one RHC in Garhi Dupatta. The grant will provide the infrastructure, equipment and furnishings, and a 2-month stock of medicines and consumables. Responsibility and staffing of the RHC will be assumed by the Pakistan Ministry of Health and overall supervision and monitoring will be supported by the WHO.

AstraZeneca

www.astrazeneca.com

- AstraZeneca's product donation and patient assistance programs make its medicines available free-of-charge or at reduced prices to those who cannot afford them. In 2006, it spent a total of \$499 million on community sponsorships and charitable donations worldwide, including \$443 million on product donations, valued at average wholesale prices.
- In July 2003, AstraZeneca announced a £60,000, four-year grant to BookPower, a non-profit organization which provides medical and nursing text books at a subsidized price to students in Africa. The AstraZeneca grant will fund medical texts on Cardiology, Endocrinology, Gastroenterology, Immunology and Infection. BookPower works closely with publishers in the UK to provide run-ons of up-to-date textbooks. These are then sold to students through booksellers in low-income countries. BookPower operates in 37 countries in English-speaking Africa, the Indian sub-continent and the Caribbean.

Bayer HealthCare

www.bayer.com

- Bayer HealthCare has given a donation of Cipro® with a wholesale value of more than US\$ 25 million to MAP (Medical Assistance Programs) International. The aid organization will distribute the critically needed antibiotic to clinics and hospitals in Africa and Latin America that are fighting on the front lines in the battle against diseases of poverty where there is little or no access to essential medicines.

Boehringer Ingelheim

www.boehringer-ingelheim.com

- For years, Boehringer Ingelheim has been involved in health educational activities and training of health personnel in the field of HIV/AIDS and other diseases in various parts of the world. For example, in Southern Africa, continued medical education has been offered to health professionals in the Boehringer Ingelheim Training and Facilitation Centre in Gaborone, Botswana, since June 2005. The training includes improvement of logistics management for medical stores. BI also supports treatment roll-out and health education programs executed by different national and international NGOs in Eastern Africa and in Papua New Guinea. Here, BI helps the "Collaboration for Health" in various activities, including its Strengthening Capacity of Healthcare Teams program. In Venezuela, BI supports a training program to help physicians to treat respiratory diseases.

- In 2006, Bristol-Myers Squibb donations worth approximately \$27 million at wholesale prices were given to programs throughout the world, including Africa, Asia, Caribbean, Latin America, Mexico and the Middle East through designated non-governmental organizations (NGOs). NGO partners include Americares, Direct Relief International, Catholic Medical Mission Board, Heart to Heart International, Interchurch Medical Assistance, MAP International, Medical Teams International and Project HOPE. Specific donation examples include:
- BMS provided Americares with medicines valued at over \$2 million including antibiotics, topical corticosteroids and vitamins to support health care programs throughout the world in 2006. BMS products were also used to support Americares' Medical Outreach Program for short term medical mission trips.
- In 2006, BMS donated products valued at over \$1 million to Interchurch Medical Assistance (IMA), which specializes in providing responsible medical donations to developing countries and areas devastated by natural disasters. Through its Medicine Box® program, which includes BMS antibiotics, IMA supplies overseas hospitals and community health centers with essential medicines that treat and protect children and adults from potentially life-threatening diseases.
- Donations to Catholic Medical Mission Board in 2006 were approximately \$18.2 million, covering 37 countries.
- In 2006, BMS donated over \$10 million-worth of medicines to Direct Relief International to support long-term health care programs, medical mission trips and disaster relief efforts throughout the world. In 2006, 81 medical mission boxes worth approximately \$1.5 million at wholesale prices were used by U.S. physicians.
- BMS continues to partner with Project HOPE to provide products for use in health care programs such as those focused on maternal and child health in Latin America and humanitarian assistance in Central Asia.
- BMS continues to support "Physicians With Heart" - a partnership between Heart to Heart International, the American Academy of Family Physicians (AAFP) and the AAFP Foundation, to improve health in areas of the former Soviet Union. The program is designed to bring medicines and other supplies donated by U.S. companies to the former Soviet Republic, mobilize those resources to improve health, provide medical education for local physicians through a train-the-trainer model and foster the development of family practice worldwide. For example, in 2006, one area of focus was improving maternal health through obstetrical training. Within the Republic of Moldova, more than 300 physicians attended educational seminars on primary care and 62 obstetricians participated in medical training programs to handle obstetric emergencies.
- BMS also provided funding for the Pharmaceutical Reference Manuals, a valuable resource of translated medical information.

Bristol-Myers Squibb
www.bms.com

- Eli Lilly and Company donates medicines and cash to help people around the world. Over the past several years, Lilly and the Lilly Foundation have provided over \$100 million in product donations and cash grants to numerous causes in developing nations.
- In China, Lilly contributed \$800,000 to fund a partnership with Project HOPE (in the China Diabetes Project) that creates sustainable diabetes prevention and control programs throughout the country.
- In South Africa, Lilly funded the Center for Diabetes and Endocrinology to increase diabetes public education programs and to build a primary care clinic in 2002.
- In Brazil, Lilly founded the "Lilly in Action" program that encouraged Lilly employees and partners to volunteer their time for important community activities. Today, there are more than 150 active volunteers working on important programs, such as the Socio-Cultural Inclusion Program, which helps people learn to read and write.

Eli Lilly & Co
www.lilly.com

German Pharma Health Fund

www.gpfh.org

- The German Pharma Health Fund (GPHF) is a non-profit initiative of the association of research-based pharmaceutical companies in Germany, the *Verband Forschender Arzneimittelhersteller* (VFA). Since 1985, the GPHF has been committed to promoting pilot projects for the improvement of health service in developing countries. The GPHF projects focus on quality control and quality-management activities in the area of medicine supply and on the improvement of basic health care. The GPHF has developed its Minilab, a simple, tropicalized test facility designed to detect counterfeit and substandard medicines.

GlaxoSmithKline

www.gsk.com

- GlaxoSmithKline is committed to playing a full part in addressing the healthcare challenges of the developing world by taking an innovative, responsible and - above all - sustainable approach. GSK contributes in four areas: preferential pricing of its antiretrovirals (ARVs), anti-malarials and vaccines; investing in research and development that targets diseases particularly affecting the developing world; community investment activities and partnerships that foster effective healthcare; as well as innovative partnerships and solutions. GSK has offered sustainable preferential pricing for ARVs since 1997 and for vaccines for over 20 years.
- GSK has created a dedicated group in its pharmaceutical R&D organization, to focus on diseases of the developing world (DDW). This includes a dedicated drug discovery centre at its Tres Cantos R&D site in Spain and clinical development experts in the UK and US. DDW projects are prioritized according to their social and public health benefits, rather than their commercial returns. A similar group exists in GSK Biological's vaccines organization in Belgium. In total, GSK has 14 clinical programs for medicines and vaccines against 9 diseases particularly relevant to the developing world. Seven of these projects are for diseases that disproportionately affect developing countries.
- Through its Global Community Partnerships program, GSK funds community-led initiatives in over 100 countries around the world. GSK has a wide range of partnerships, with a focus on health and education programs for under-served communities. During 2006, GSK donated life-saving medicines valued at £22 million to support relief efforts and community health care in over 100 countries. In the developing world, GSK's activities span four major developing world diseases (lymphatic filariasis, HIV/AIDS, malaria and diarrhoeal disease), a number of regional health initiatives, health education, product donations and employee involvement.
- http://www.gsk.com/responsibility/cr_report_2005/access-to-medicines/developing-countries.htm

Japan Pharmaceutical Manufacturers Association

www.jpma.or.jp

The Japan Pharmaceutical Manufacturers Association (JPMA) helps developing countries in Asia to establish efficient pharmaceutical distribution and quality control systems, via the following activities:

- Since 1989, the JPMA has worked with the World Health Organization to provide annual Quality Control training courses in Japan for Asian government quality control personnel. The courses, which focus on the practical aspects of medicines quality control, support the development of Asian regulatory personnel and help improve the quality of medicines in Asian developing countries. To date, JPMA has provided training for 68 regulators.
- JPMA also works with the governments of Asian countries such as Bhutan, Cambodia and Laos, to provide training for their personnel in a third country, such as Thailand. This approach is used when there may be big differences between the standard of technical equipment in Japan and in the countries concerned. JPMA started in-country training in 2001 and has trained 19 regulators so far via this type of course.
- JPMA also assists with technology transfer projects sponsored by the WHO and/or national governments. For example, in 2006, in response to a request from the Cambodian Ministry of Health's National Laboratory for Drug Quality Control, JPMA provided free technical assistance for the installation of High-Performance Liquid Chromatographs (HPLCs) and other instruments.
- Reference standards are active pharmaceutical ingredients of high purity and are indispensable for the quality assurance of medicinal products. From 1987, ASEAN countries received these standards as part of a United Nations UNIDO assistance package, but UNIDO withdrew its support in 1991. JPMA took on this responsibility from 1992 onwards, in response to a request from the WHO's Western Pacific Regional Organization.
- In June 2006, the JPMA and Kanazawa University started a joint program with the Cambodian Government's Department of Drugs and Food, to advance the technology for quality investigation of medicines and help to combat counterfeit medicines in Cambodia. Sample medicines are purchased from Cambodian markets, inspected and tested. In this way, the penetration of counterfeit medicines in Cambodia can be more accurately determined.

Johnson & Johnson supports the Advanced Nursing Studies (ANS) and the Enrolled Nurses to Registered Nurses (ER-RN) programs at the Aga Khan University of East Africa. The program provides quality education and greater standards of evidence-based care to nurses and midwives from Kenya, Tanzania, and Uganda, to further develop their professional skills. The training, which includes some distance-learning approaches, prepares nurses to become registered nurses.

- In 1992, the company built the Johnson & Johnson Burn Treatment Centre at the Chris Hani Baragwanath Hospital in Soweto, South Africa. This state-of-the-art unit treats more than 1,500 patients annually for serious and complicated burns, and has succeeded in reducing the mortality rate among critically ill patients. Johnson & Johnson continues to support the facility with management support, essential equipment, quality products, and education for nursing and medical personnel. Less visible, but of equal importance, are the investments and expertise provided at the community level with the establishment of clinics and training of caregivers. For more information, see www.jnjsouthafrica.co.za/co_social.asp.
- Since its inception three years ago, Circle of Care has helped more than 1,000 families in Malaysia cope with mental illness. Individuals released from mental health institutions are often unable to reintegrate into society because of stigma. Circle of Care provides job placement support programs in nine cities, while families educated about mental illness and are connected to local support groups through the Family Link program. Johnson & Johnson supports Circle of Care's efforts to educate and support families through Family Link, assist patients in finding jobs and re-entering their communities.
- Trauma is a major health care problem and one of the leading causes of death in West Africa. In 2005, International Aid, Johnson & Johnson and the West African College of Surgeons opened the Ghana Surgical Skills Training Center at Korle bu Hospital in Accra, and conducted the first Advanced Trauma Operative Management (ATOM) course in West Africa. Since then, the center has trained nearly two dozen top trauma surgeons in the region.
- The Johnson & Johnson Regional Hospital Management Program helps hospitals in the Asia-Pacific region to improve their management and operations so they can deliver better health care services. Based in Singapore and now in its ninth year, the Regional Hospital Management Program is run jointly with Singapore Management University. Each year, professors from leading Singaporean and US institutions review modern hospital management principles and techniques with 50 senior hospital administrators from different Asian countries during a five-day seminar. Since its inception in 1997, 368 hospital administrators from 305 different health care institutions have participated in the program.
- SOS Children's Villages runs 450 villages in some 130 countries, each of which provides a home, education and health care for approximately 120 neglected, abandoned and orphaned children. The organization provides vocational and professional education to prepare children for adult life. Johnson & Johnson is funding one such program for 20 student nurses in Mogadishu, Somalia, where the health care system has deteriorated due to the displacement and emigration of doctors and nurses during the country's civil war. For more details, visit: www.sos-childrensvillages.org.
- Since 2003, J&J has supported the innovative "Healthy Communities, Healthy Ecosystems" projects run by the World Wildlife Fund (WWF) in East Africa, the Congo Basin and the Eastern Himalayas. Over the past year in the Congo, the WWF has conducted sex education and HIV/AIDS training in eight villages, established five wildlife management committees as well as two primary schools reaching 400 students. A Congo community health center also was renovated and restocked. In Nepal, improved cooking stoves have been installed to reduce pressure on forests and improve community health. J&J funding also has assisted in protecting freshwater streams from degradation in Khata, Nepal.
- Since 1998 J&J has partnered with Save the Children in efforts to educate children and their families in the Philippines, Vietnam and Thailand about child development, health and nutrition. The partnership's first project involved integrating personal, community and environmental hygiene instruction into school curricula in Thailand.

Merck & Co., Inc.
www.merck.com

- Since 1958, Merck & Co., Inc. has donated its pharmaceuticals and vaccines through the Merck Medical Outreach Program (MMOP) to a selected group of qualified, US-based, private voluntary organizations for use in the developing world and in support of disaster relief and emergency situations worldwide. Primary recipients include AmeriCares, Catholic Medical Mission Board, Direct Relief International, Interchurch Medical Assistance, MAP International and Project HOPE. In 2006, Merck's MMOP donated \$46 million worth of medicines and vaccines to help patients throughout the developing world. These donations supported immunization campaigns in the Dominican Republic, Ecuador, Honduras, and Uzbekistan; sustained chronic-care health programs in Central Asia; provided disaster assistance in South Asia and the Middle East; and reached many thousands more worldwide through MMOP partners' ongoing medical programs.
- In 2002, the International Council of Nurses (ICN), Merck & Co. and Elsevier Science, the world's largest publisher of nursing books, initiated the ICN/MSD Mobile Library program for nurses in African and Indian Ocean countries. Each mobile library contains some 90 selected publications, designed to provide up-to-date information for nurses who have limited access to reference books or expert advice. The libraries are packed in specially-designed transportable trunks, resistant to moisture, insects and damage. More than 125 libraries have been provided so far, to 17 countries, including Botswana, Ethiopia, Ghana, Kenya, Lesotho, Malawi, Mauritius, Seychelles, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. Additionally, Merck has donated more than 100,000 copies of The Merck Manual Home Edition to nurses throughout Africa. A Portuguese version of the ICN/MSD Mobile Library has been developed in partnership with the Ordem dos Enfermeiros, the ICN member in Portugal, and will be launched in the spring of 2007 in Angola, Mozambique and Sao Tome and Principe
- In February 2006, the Nursing Libraries for Refugee Health partnership was launched, a collaboration of ICN, the United Nations High Commissioner for Refugees (UNHCR) and Merck, to provide current health care information and training to nurses and health workers serving refugee populations in Africa. This program builds upon the work of the ICN-Merck Mobile Library project. To date, 62 libraries have been established in Tanzania and Zambia. Approximately 1,600 nurses and health workers have participated in related training activities.

Novartis
www.novartis.com

- In Mali, the Novartis Foundation, together with the Ministries of Health and Social Development, has started a new initiative aiming at improving access to primary health care services in rural areas. This five-year program (2007-2011), called *Initiative Accès*, includes measures to improve availability and quality of health services, including infrastructure and personnel, their geographical accessibility as well as cultural acceptability and organization of the services. The affordability of services is being tackled through the creation and strengthening of new and existing community-based health insurance schemes. This initiative builds on the five-year pilot experience of the PISAM project (2001-2006) in the Municipality of Cinzana and will be extended to approximately 15 community health centers in four districts of the Region of Ségou. For more details, see: www.novartisfoundation.org
- To strengthen human resource development in the health sector in Tanzania and beyond, the Novartis Foundation for Sustainable Development and its partners have upgraded the existing health training center in Ifakara, Tanzania. The Tanzanian Training Center for International Health underwent substantial renovation and received new infrastructure, new management and is now steered by a board. The Centre trains assistant medical officers, a priority cadre for the Ministry of Health, as they enhance the quality of essential primary health care services, especially at district level. It also offers course facilitation services to external course providers in international health. This allows the center to increase its financial self-reliance. The improved teaching and learning environment will contribute to better medical and public health expertise, which is needed to improve the overall health situation of the population, especially in rural areas. For more details, see: www.healthtrainingifakara.org
- In Sri Lanka, the Novartis Foundation supports the efforts of the *Sarvodaya Shramadana Movement* that is active in over 12,000 villages, applying a holistic and integrated approach to health development in villages. In order to empower these communities on the basis of Buddhist principles, *Sarvodaya* has identified ten basic needs, including a clean environment (e.g. sewage and drainage system), adequate provision of clean drinking water, balanced nutrition and simple housing. Means to fulfill these basic needs are community activities to build the necessary infrastructure as well as training and education in nutrition and reproductive health for the younger generations. For more details see: www.novartisfoundation.org
- Novartis donates intraocular lenses to NGOs for cataract surgery for patients with inadequate means in developing countries.

- Through its Global Health Fellows program, Pfizer makes its employees available for assignments of up to six months with nongovernmental organizations (NGOs) and multilateral organizations (MLOs) dedicated to addressing the health needs of people around the world. During their assignments, colleagues train and support their local counterparts, transferring skills so that the impact of their assignment is sustainable.
- Some 126 Fellows have been deployed since 2003 and include Pfizer physicians, nurses, epidemiologists, laboratory technicians, marketing managers, financial administrators and health educators from Africa, Asia, Australia, Europe, Latin America and the United States. Pfizer's partners in the program include USAID, FHI, Project Hope, WaterAid, AMREF and Population Services International. Fellowship assignments are designed and implemented by Pfizer's partners according to their needs, and Pfizer has committed to fund transportation, lodging and other expenses for the Fellows while maintaining their positions within the company.

Pfizer
www.pfizer.com

- South Africa's mobile health clinic on rail, the Phelophepa Health Care Train, provides rural areas with primary care services. Roche has been supporting the train, which is operated by the state rail corporation, Transnet, for the last 10 years, and is a leading external sponsor. The train is fully equipped to provide general medical services and dental, eye and psychiatric care. The train has 16 coaches and 14 staff plus 40 student interns. The Health Care Train has now launched two new services - cancer screening and diabetes prevention - as a result of funding from Roche. To date, the train has reached 7 million people and provided free health, dental, eye and mental care, training and education since 1994.
- Roche has undertaken actions to meet the pandemic preparedness of WHO and various national governments. In order to increase the availability of Tamiflu® (oseltamivir), an antiviral medicine likely to play a key role in the management of any pandemic influenza, Roche has increased its Tamiflu® manufacturing capacity 15-fold since 2004 and is now in a position produce 400 million courses of therapy per year if required - well in excess of current government orders. Roche and Gilead (which developed the medicine) hold no patents on Tamiflu® in the UN-defined list of Least Developed Countries, allowing the governments of these countries to produce their own generic versions of the medicine, if they wish. Roche has granted sublicenses to manufacture oseltamivir to two Chinese and one Indian pharmaceutical manufacturer, and has signed an agreement with Aspen Pharmaceuticals in South Africa, allowing it to supply generic oseltamivir for pandemic stockpiling by governments in Africa. To further support governments in their pandemic preparedness efforts, Roche is providing Tamiflu® to governments at a reduced price for pandemic stockpiling. Roche has also pledged to donate over 5 million treatment courses of Tamiflu® to the WHO to help people affected by a potential pandemic. Three million treatment courses will be used as a rapid response stockpile and be shipped to the site of outbreak to try to contain the pandemic, while a further 2 million treatment courses will be kept as regional stockpiles. The overall pandemic strategy includes using antivirals to contain a potential pandemic outbreak, to minimize the impact on society and save lives.

Roche
www.roche.com

sanofi-aventis

www.sanofiaventis.com

sanofi-aventis supports a number of other projects in developing countries such as:

- Setting up a pilot program with The Chain of Hope to improve prevention of childhood rheumatic fever in Cambodia's rural Pursat province.
- In Vietnam, sanofi-aventis is helping the Sister Elisabeth Association to build a dispensary in an orphanage for sight-impaired children, to build a school for street children (to help fight against prostitution) and to create sculpture and sewing workshops to provide sources of income for the very poor.
- sanofi-aventis is helping to provide social and medical support to the homeless, in particular children in Ho-Chi-Min City, Vietnam and in Moscow, Russia, in partnership with Samusocial International.
- In Haiti, sanofi-aventis has helped set up of a medical and psychosocial program for street children in Port au Prince in partnership with *Aide Médicale Internationale*.

Schering-Plough

www.schering-plough.com

- Schering-Plough supports physicians and healthcare professionals on charitable, short-term medical missions around the world through its partnership with the NGO Medical Assistance Programs (MAP) International. In 2006, Schering-Plough provided \$215,000 in financial support and nearly \$10 million worth of antifungal creams, topical creams, allergy medicines, vitamin-enriched ointments and other medicines for use in MAP's Travel Packs. The MAP Travel Pack Program enables healthcare practitioners to provide much-needed medicines in areas of the world where even basic health care is lacking. Each Travel Pack contains commonly needed medicines and supplies for short-term medical missions in the developing world. In 2006, MAP shipped 2,180 Travel Packs, each containing enough Schering-Plough medicines and supplies to treat approximately 700 patients. The Travel Packs were delivered by physician missions in 235 villages in 90 countries around the world, including Peru, where medicines were provided to patients in Lima, the Andes mountains and Peru's Amazon region.
- Since 2005, Schering-Plough's business in Venezuela has been involved in several programs to improve the quality of life in underprivileged and indigent communities within the country. One example is the community education and welfare project, which provides training and awareness to children and adults on topics such as controlling the spread of hepatitis-B and the prevention of drug use. With the support of partner NGOs *Luz y Vida* and *Fe y Alegría*, the Schering-Plough program has conducted almost 200 workshops – reaching almost 12,000 individuals – since inception. The Venezuela team also partnered with various institutions to establish a PegIntron® donation program for hepatitis-B. In 2006, Schering-Plough joined with the Indigenous Control Coordination Program to provide patients from the Yucpa tribe with free treatment.
- Schering-Plough Brazil began the *Instituto Criança é Vida* (Child is Life Institute) in the 1980s. Today, it is an independent institute, in part supported by Schering-Plough, whose objective is to provide health education to families in disadvantaged communities. The program now uses more than 600 volunteer "health agents" to reach more than 100 institutions and 14,000 families. Education modules include prevention of domestic accidents, nutrition basics, and personal/ household hygiene. The program has been recognized for its work by many organizations, including by the American Chamber of Commerce ECO Prize, *Instituto Ethos*, and the *Istituto Scudo di San Martino*, Italy.

EMERGENCY RELIEF EFFORTS

1. Lebanon

Victims of the conflict in Lebanon received some of the £22 million worth of humanitarian product donations GlaxoSmithKline supplied for international relief efforts in 2006.

2. Ivory Coast

TULIPE, which coordinates donations for the French pharmaceutical industry association LEEM, provided emergency medical kits for a severe case pollution in Ivory Coast.

3. Sudan

Pfizer's emergency aid contribution in 2006 included provision of humanitarian assistance in Sudan.

4. Indonesia

In early 2006, AstraZeneca helped the Red Cross set up a Disaster Response Center in Malaysia, which supported the Red Cross response to the Indonesian earthquake in May 2006.

5. Philippines

In 2006, Merck & Co., Inc. donated more than \$2.7 million in medicines, vaccines and direct financial contributions in support of relief activities, including assistance after a typhoon hit the Philippines.

6. Vietnam

In 2006, the Abbott Fund contributed \$20,000 to the Vietnam Red Cross to assist 98,000 beneficiaries for a period of 12 months.





Emergency Relief Efforts

(This list illustrates a selected range of individual company programs around the world. It is not intended to include all such programs.)

Abbott

www.abbott.com

- In response to disasters in 2006, Abbott worked closely with its relief partners to provide a total of \$3 million worth of products to those affected by the Middle East conflict, the earthquakes in Indonesia and Pakistan, and the mudslide in the Philippines. Abbott Fund also contributed \$15,000 to the Philippine National Red Cross Society to assist 200,000 beneficiaries for a period of nine months, and \$20,000 to the Vietnam Red Cross to assist 98,000 beneficiaries for a period of 12 months.

AstraZeneca

www.astrazeneca.com

- Following the Asian tsunami, AstraZeneca worked with the Red Cross to set up a new Disaster Response Center in Kuala Lumpur, Malaysia, in 2006. Designed to provide a rapid response to sudden large scale disasters, the center is stocked with emergency aid items such as blankets, tents, medical supplies and water containers for up to 12,000 people and can support a further 100,000 people by providing specialized items, such as warehouse tents and vehicles, to support the wider emergency relief efforts. The center played an important role in supporting the Red Cross response to the Indonesian earthquake in May 2006 that killed over 5,700 people and left more than 38,000 injured. The Kuala Lumpur center provided shelter for over 3,000 families left homeless by the earthquake and a further 1,000 families received emergency hygiene kits to prevent the outbreak of water-borne disease.

Bristol-Myers Squibb

www.bms.com

- In 2006, Bristol-Myers Squibb responded to global disaster relief needs through its designated non-governmental organization partners, notably to respond to the Indonesian and Pakistan earthquakes.

GlaxoSmithKline

www.gsk.com

- GlaxoSmithKline supplied £22 million worth of humanitarian product donations for international relief efforts in 2006, including the Indonesian earthquake and the conflict in the Middle East. In each case GSK provided large quantities of essential medicines through a proven crisis response process that was activated immediately to support the relief efforts.

Johnson & Johnson

www.jnj.com

- Johnson & Johnson responded with products and money following several major disasters in 2006, including mudslides in the Philippines, an earthquake in Indonesia and civil unrest in Lebanon. Several Johnson & Johnson affiliates provided local assistance in the aftermath of these disasters.

LEEM - TULIPE

www.tulipe.org

- TULIPE, a non-profit organization created in 1982 by the French pharmaceutical association, *Les Entreprises du Médicament* (LEEM), brings together NGOs, government and industry to provide appropriate medicine donations in emergency situations. It has developed special medical kits for NGOs and the French Ministry of Foreign Affairs, adapted to their first-aid teams' needs. In 2006, TULIPE provided medicines worth €2.6 million at wholesale prices, 40% of which were for emergency medical kits to meet a variety of needs, including an earthquake in Indonesia, pollution in Ivory Coast, a fire in Benin and conflicts in the Democratic Republic of Congo, Lebanon, Liberia and Togo. In July 2006, the organization mobilized pharmaceutical companies to make a second donation for Lebanon, in response to a specific request from the Lebanese Ministry of Health. With the help of in-country partner organizations, ten tons of medicines were collected, transported and safely distributed to displaced people. The European network of industry associations, which TULIPE helped create in 2005 to coordinate donation activities in emergency situations, was activated for all these emergencies, to avoid excessive and/or inappropriate donations

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- In 2006, Merck & Co., Inc. donated more than \$2.7 million in medicines, vaccines and direct financial contributions in support of relief activities following the Indonesian earthquake, to aid recovery efforts after the Lebanon-Israel conflict and for typhoon relief in the Philippines.

Merck & Co., Inc.
www.merck.com

- In 2006, Novartis donated \$4 million in emergency relief to major humanitarian organizations.

Novartis
www.novartis.com

- Pfizer's emergency aid contribution in 2006 focused on helping essential follow-up work in Indonesia, plus providing humanitarian assistance in Lebanon, Niger and Sudan.

Pfizer
www.pfizer.com

- Following the earthquake in Java, Indonesia, in May 2006, sanofi-aventis donated 2 tonnes of medicines through TULIPE and supported post-emergency follow-up by Handicap International, to increase the chances of recovery and minimize the risk of permanent disablement in Yogyakarta and Solo. It also helped *Solidarités* to improve sanitation in the Pundong region.
- Medicines donations to humanitarian programs all over the world: more than 125 NGO partners in 2006.

sanofi-aventis
www.sanofi-aventis.com

- Schering-Plough and its employees in Indonesia responded with products, financial assistance and volunteer labor to assist people affected by the earthquake which struck central Java on 26 May 2006. This quake killed nearly 6,000, injured tens of thousands more and left an estimated 1.5 million people homeless, according to the Indonesian government. Schering-Plough staff volunteered to work with medical personnel at hospitals within their districts and assisted in other relief capacities. Approximately \$50,000 in products, including anti-fungals, anti-infectives and antihistamines, were donated to both local and U.S.-based humanitarian aid organizations working in the disaster area. The company also donated funds to the Indonesian Red Cross.

Schering-Plough
www.schering-plough.com

Bayer HealthCare
www.bayer.com

- Between 1999 and 2001, Bayer HealthCare donated 600,000 insecticide treatments for mosquito nets in Malawi. These donations were supplemented by comprehensive information and education. In addition, Bayer CropScience helped to develop a process that allows the nets to be directly impregnated during their manufacture. This procedure can easily be adopted by other production companies and thus help to save millions of lives in Africa.

**Japan
Pharmaceutical
Manufacturers
Association**
www.jpma.or.jp

- JPMA member companies (Astellas, Chugai, Daiichi, Daiichi-Asubio, Dainippon Sumitomo, Eisai, Meiji Seika, Mitsubishi Pharma, Otsuka, Sankyo, Shionogi and Takeda), worked with the Japanese Ministry of Health, Labor and Welfare (MHLW), and the Special Program for Research and Training in Tropical Diseases (TDR) of the WHO in the JPMW Alliance, formed in October 1999, to help malaria R&D. Nearly 30,000 compounds, mostly from the companies' libraries, were screened, of which 372 showed activity against malaria. Of these, 14 showed enough promise to merit further research.

Merck & Co., Inc.
www.merck.com

- Enhancing Care Initiative (ECI): Launched in 1998 with a five-year, \$5 million grant from the Merck Company Foundation, ECI was a multidisciplinary, multinational collaboration to improve the care of people living with HIV/AIDS in resource-limited settings, run by the Harvard AIDS Institute and the Francois-Xavier Bagnoud Center at the Harvard School of Public Health. It worked in Brazil, Puerto Rico, Senegal, South Africa and Thailand to identify practical, approaches to providing effective HIV/AIDS care, tailored to the local needs and resources. See www.eci.harvard.edu.
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The International Federation of Pharmaceutical Manufacturers & Associations is the global non-profit NGO representing the research-based pharmaceutical, biotech and vaccine sectors. Its members comprise 25 leading international companies and 46 national and regional industry associations covering developed and developing countries. The industry's R&D pipeline contains hundreds of new medicines and vaccines being developed to address global disease threats, including cancer, heart disease, HIV/AIDS and malaria. The IFPMA Clinical Trials Portal (www.ifpma.org/clinicaltrials) and IFPMA activities in Health Partnerships (www.ifpma.org) help make the industry's activities more transparent. The IFPMA strengthens patient safety by improving risk assessment of medicines and combating their counterfeiting. It also provides the secretariat for the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH).



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