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Portfolio Review of World Bank Lending for Communicable Disease Control

IEG Working Paper 2010/3

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ABBREVIATIONS AND ACRONYMS

AFR	Sub-Saharan Africa region
AIDS	Acquired immuno-deficiency syndrome
CBO	Community-based organization
DHS	Demographic and Health Survey
DOTS	Directly Observed Therapy-short course
EAP	East Asia and Pacific region
ECA	Europe and Central Asia region
FY	Fiscal year
GAVI	Global Alliance for Vaccines and Immunization
Global Fund	Global Fund to fight AIDS, malaria and tuberculosis
GPG	Global public good
HAMSeT	HIV/AIDS, malaria, STIs, and tuberculosis
HIV	Human immuno-deficiency virus
HNP	Health, Nutrition, and Population
IBRD	International Bank for Reconstruction and Development
ICR	Implementation completion report
IDA	International Development Association
IEG	Independent Evaluation Group
IMCI	Integrated management of childhood illnesses
ITN	Insecticide-treated bed-net
IRS	Indoor residual spraying
LCR	Latin American and Caribbean region
MAP	Multi-country AIDS Program
MDG	Millennium Development Goal
M&E	Monitoring and evaluation
MOH	Ministry of Health
MNA	Middle-east and North Africa region
MTEF	Medium-term expenditure framework
NGO	Non-governmental organization
OECD	Organization for Economic Co-operation and Development
OED	Operations Evaluation Department
ODA	Official development assistance
PAD	Project appraisal document
PEPFAR	United States President’s Emergency Plan for AIDS Relief
PPAR	Project Performance Assessment Report
PHC	Primary health care
PRSP	Poverty Reduction Strategy Paper
SAR	South Asia Region
STI	Sexually transmitted infection
TB	Tuberculosis
UNAIDS	Joint United Nations Program on HIV/AIDS
UNDP	United Nations Development Program
UNICEF	United Nations Children's Emergency Fund
USAID	United States Agency for International Development
WHO	World Health Organization

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EXECUTIVE SUMMARY

Communicable diseases are a major burden of disease among the poor, and communicable disease control is central to achieving the Millennium Development Goals (MDG) adopted at the Millennium Summit in 2000. Over the years communicable disease control has featured prominently in several strategic Bank documents. In the 1997 Health, Nutrition, and Population (HNP) Sector Strategy communicable disease control was one of the essential HNP priorities. The 2007 HNP Sector Strategy made extensive reference to the need for synergy between communicable disease control (especially disease-specific projects) and health system strengthening. Communicable diseases also feature as one of four priority areas in the global public good strategic theme in the Bank's six strategic themes identified in 2007.

Increased global interest in disease control has translated into increased development assistance for health, in particular AIDS. The increase in donor funding has been largely driven by global partnerships (such as the Global Fund to Fight HIV/AIDS, Tuberculosis, and Malaria (GFATM, the Global Fund), the Global Alliance for Vaccines and Immunization (GAVI)), private foundations (for example, the Bill and Melinda Gates Foundation) and bilateral commitments, notably the United States President's Emergency Plan for AIDS Relief (PEPFAR).

There are compelling arguments for public involvement in communicable disease control. The rationale for public involvement goes beyond the magnitude of the burden of disease and the availability of efficacious and cost-effective interventions. The most important considerations are: communicable disease control has large positive externalities; the morbidity and mortality from communicable diseases fall disproportionately on the poor and investment in these diseases can yield pro-poor benefits; and there are other sources of market failure that initiatives like advance market commitments aim to address.

It is against this background that this paper reviews the Bank's new commitments for communicable diseases between fiscal years (FY) 1997 and 2006 as an input into the larger IEG evaluation of the Bank's support for HNP over the same period. The paper systematically reviews the objectives, rationale, and design of communicable disease projects managed by the HNP sector, and the results for projects approved during that period that have closed. In this portfolio review communicable disease projects are defined as: (i) single-disease projects focusing on diseases such as AIDS, leprosy, malaria, polio, and tuberculosis; (ii) multiple-disease projects that focus on more than one communicable disease, for example, endemic disease projects, vector-borne disease projects, and HAMSeT (AIDS, Malaria, STIs, and tuberculosis) projects; and (iii) health projects with a communicable disease component.

How have communicable disease projects featured in the Bank's HNP portfolio? Communicable diseases accounted for a significant portion (42 percent, 93 projects) of the 220 HNP projects approved between FY97–06, representing US$3.7 billion in new commitments. Globally, other major sources of funding for communicable disease control were the Global Fund, and PEPFAR. Since its creation in 2002 through the end of 2008, the Global Fund

disbursed US$6.9 billion for AIDS, malaria, and tuberculosis, and PEPFAR committed US$3.6 billion for AIDS for the period FY04–06. Through its support to communicable disease projects the Bank has led the increase donor commitment to communicable diseases control that has occurred in the past decade.

The number of new communicable disease projects nearly doubled from 32 in FY97–01 to 61 projects in FY02–06, and commitments increased by a third from US$1.6 billion in FY97–01 to US$2.1 billion in FY02–06. Single-disease projects, particularly AIDS projects, were an important driver of the increase in communicable disease projects—accounting for 70 percent of new communicable disease projects in FY02–06, up from 38 percent in FY97–01. Cumulatively, over the period FY97–06, single-disease AIDS projects accounted for 59 percent of new communicable disease projects and for a quarter of new HNP projects.

What were the main arguments for Bank involvement in communicable disease control? The arguments for Bank involvement in communicable disease control were: the magnitude of the burden of the disease; communicable disease control has large positive externalities; the morbidity and mortality from communicable diseases fall disproportionately on the poor and investment in these diseases can yield pro-poor benefits. A pro-poor rationale was mentioned in 92 percent of communicable disease projects. It is therefore unfortunate that the socio-economic distribution of outcomes was rarely measured. This is particularly important shortcoming given the prominence of improving health outcomes among the poor in the 1997 and 2007 HNP strategies. Some of the other common justifications for Bank involvement were: (i) as a source of funding; (ii) the institution's convening power, policy influence, and leadership; and (iii) technical quality and the Bank's experience with project preparation, design, and monitoring and evaluation (M&E).

Did the implementation experience match these *ex ante* expectations of the Bank's value-added? In the first two categories—(i) as a source of funding; (ii) the institution's convening power, policy influence, and leadership—the experience has been positive. In the third category— technical quality— the record is mixed. A third of communicable disease projects had a quality-at-entry rating—reflective of quality of project preparation and design—in the unsatisfactory range. The three main shortcomings in project preparation and design were prominent: rushed project preparation; failure to plan in detail and agree with the government counterparts on the implementation arrangements; and superficial risk analysis and overly optimistic risk mitigation strategies. These weaknesses raise serious questions about the quality of project preparation, and the importance of balancing responsiveness and fast-track approaches to project preparation on the one hand, with quality control and development effectiveness on the other. These challenges were particularly prominent (but not exclusive to) the AIDS projects. Also falling in the third category was M&E. Overall M&E performance of the HNP portfolio has been modest. The quality of M&E in communicable disease projects was slightly worse than other HNP projects, despite the results framework for communicable diseases being generally easier to construct.

Has the Bank's role as a financier of communicable disease control changed over time? It is no surprise that the Bank's role as a financier was the most frequently cited rationale for Bank involvement. Over time, the Bank's role as a funder continued to be important, but the

Bank's role as a catalyst able to leverage funds from other sources was increasingly cited in recent years. Although resources for communicable disease control have increased, this increase has been uneven across countries. In some "donor-poor" countries the additional resources have been modest and the Bank's role as a donor of last resort remained critical.

What has been the impact of increased funding for communicable diseases on member countries' other HNP priorities? Many of the populous countries such as Brazil, India, and China have a tradition of implementing single-disease projects as a means to mobilize resources for priority diseases and often have other Bank-financed HNP operations being implemented simultaneously depending on the countries' priorities and funding needs. Smaller countries, on the other hand, are likely to have only one project in the health sector at any given time. There is some evidence in small- and medium-sized countries that the dominance of single-disease projects in new project approvals over the past decade has displaced some of the Bank's engagement in other health sector priorities.

Have communicable disease projects contributed to strengthening the systems that underpin communicable disease programs? Despite the dominance of approvals for single-disease projects over the past decade, the portfolio review showed that in recent years communicable disease control projects have incorporated broader health systems issues alongside the communicable disease in question (for example, in Eritrea and Angola). This may suggest an increasing appreciation of the role of investments in health systems in the results chain for communicable disease control. Many single-disease projects included objectives to strengthen national disease control programs. The absence of health systems considerations in the results framework for disease control efforts and no indicators to track performance makes it hard to objectively assess success in strengthening the systems that underpin national disease control programs.

The project outcomes for communicable disease projects were slightly worse than other HNP projects: half of the closed communicable disease projects were rated in the satisfactory range compared to 62 percent for other HNP projects (the share for all HNP projects is 58 percent). Two categories of communicable disease projects had below average performance: single-disease AIDS projects and projects with a communicable disease component. Less than a third (29 percent) of the 14 closed AIDS projects were rated moderately satisfactory or better. If the single-disease AIDS projects are excluded, the non-AIDS communicable disease projects perform slightly better than the other HNP projects—67 percent were rated in the satisfactory range.

Because of the dominance of AIDS projects in the communicable disease portfolio their poor performance appears very prominent in this portfolio review. Within the context of the larger HNP portfolio the impact is, however, more modest than expected. The share of projects rated satisfactory or better in the HNP portfolio rises from 58 to 62 percent when the AIDS projects are excluded. In the Africa region where some of the poorly performing AIDS projects are particularly prominent, the share of projects in the satisfactory range increases from 24 to 30 percent when the AIDS projects are excluded. Thus, while AIDS projects have performed poorly relative to the other communicable disease projects, it is does not explain all the weaknesses or even the most important weaknesses in the HNP portfolio. Even in the

hypothetical scenario where all the AIDS projects are discontinued, the weaker performance in the Africa HNP projects will remain a challenge.

Should the Bank continue to finance communicable disease control given increasing financing for communicable disease control from other sources and in the face of modest outcomes in the case of AIDS? Yes.

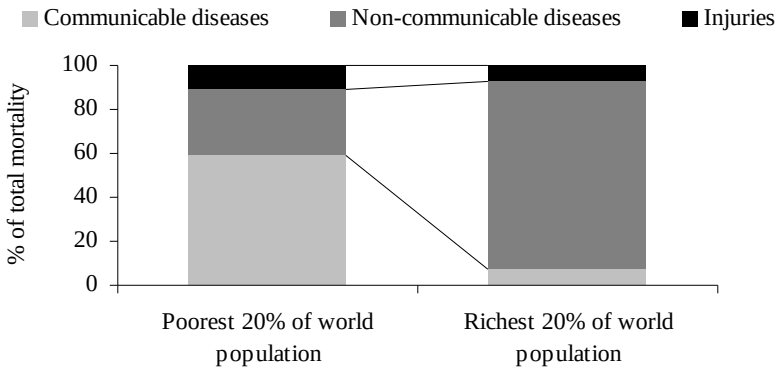
- Despite the global increase in funding for AIDS, the Bank's role as a financier—although not the largest—becomes of more strategic importance. The Bank's role as a catalyst able to leverage funds from other sources was increasingly cited in the last few years covered by this review.
- Although global resources for communicable disease control have increased, this increase has been uneven across countries and in some "donor-poor" countries the Bank's role as a donor of last resort remains critical.
- If moving away from financing AIDS projects is a way to address the poor portfolio performance, the preceding paragraph has clearly demonstrated that such a response would be missing other equally important factors contributing to weaknesses in the HNP portfolio performance. Finally, another important piece of information that needs to be taken into account when addressing the question is whether Bank-financed AIDS control efforts have performed worse than other non-Bank financed AIDS control efforts.
- Given the institution's mandate and the disproportionate burden of communicable diseases on the poor it is hard to conceive of a scenario where the Bank is not involved in communicable disease control.
- Whether the design of the project should be in the form of a single or multiple disease project, or as a component of a larger project depends on too many factors to credibly make a recommendation on the basis of a portfolio review. However, one can conclude that future operations should retain the positive aspects of disease control projects, namely their results-orientation and focus, while addressing the need for investment in the systems necessary for sustainability of disease control efforts and financial risk protection for the poor in accessing services.
- Where single-disease projects are financed, their potential for displacing other HNP priorities should be guarded against (especially in small to medium-sized countries). These projects also need to make explicit the incorporation of systems investments in the results chain for communicable disease control and give practical meaning to the notion of synergy between disease-specific investments and health systems strengthening mentioned in the 2007 HNP Strategy.

It is critical that investment in health systems strengthening—a major current strategic focus of the Bank's HNP operations—not be viewed as an *alternate* to investment in communicable disease control. Instead, investment in health systems is an essential *means* to controlling disease outcomes, especially for the poor. Failure to translate the complementarity between health systems strengthening and control of disease outcomes into operational terms poses a serious reputational risk to the institution's current commitment to strengthening health systems.

1. INTRODUCTION

1.1 Eighty percent of the world's 15 million communicable disease deaths annually occur in developing countries.[1] While communicable diseases account for only a third (36 percent) of the global disease burden,[2] the burden of communicable disease is considerably higher among the poor, as illustrated in Figure 1-1.

Figure 1-1: Sources of mortality among the poor, 2000



Source: Personal communication (Ergo and Gwatkin, March 2009).

1.2 There are compelling arguments for public involvement in communicable disease control. The rationale for public involvement goes beyond the magnitude of the burden of disease and the availability of efficacious and cost-effective interventions.[3] The most important considerations are: (i) communicable disease interventions are public goods, or have large positive externalities;[4] (ii) the morbidity and mortality from communicable diseases fall disproportionately on the poor and investment in these diseases can yield pro-poor benefits; and (iii) other sources of market failure such as incomplete markets for vaccines.[5] The past decade has also seen increased global commitments for global public goods (where the externalities cross national boundaries), based on the argument that only through global action can these externalities be internalized and sufficient levels of investments made.

[1] http://web.worldbank.org/WBSITE/EXTERNAL/NEWS/0,,contentMDK:20040888%257emenuPK:34480%257epagePK:34370%257etheSitePK4607,00.html.

[2] Disease Control Priorities Project 2006.

[3] See annex Table C-3 for proven communicable disease control interventions.

[4] The term *public goods* refers specifically to goods that are non-rival and non-excludable. The term *quasi-public goods* is sometimes used to refer to intermediate cases where the consumption of a good affects to some degree its availability to others, i.e. does not fully meet the non-rival criterion (Mas-Colell and others 1995). The health and development literature has loosely applied the term 'public goods' to interventions with large positive externalities. Increasingly, the concept of global (or international) public goods is used to motivate for global funding mechanisms for disease-specific interventions where the externalities have transnational reach (OED 2000). The term *regional public goods* have been applied to interventions where the benefits were thought to be regional (Smith and others 2004).

[5] The market failure arises from the fact that biopharmaceutical firms have been reluctant to invest in vaccine research and development for diseases affecting poor nations because of the low likelihood of covering their risk-adjusted costs. Pressure on firms from governments and bilateral and multilateral agencies to sell drugs and vaccines for diseases affecting the poor at close to marginal cost prices creates disincentives for firms to invest in research and development as these initial costs are the largest compared to the variable cost of production which is usually modest. Initiatives address this market failure by creating advance market commitments for vaccines that aim to commit in advance of product development to finance vaccines for developing countries at a pre-determined price (Berndt and others 2006).

1.3 Communicable diseases have featured prominently in the Bank's strategies and key sectoral documents. The 1993 *World Development Report* highlighted the burden from communicable disease, especially in low-income countries, and the importance of increased investment in cost-effective, basic public health measures and essential clinical care together with other health system reforms to improve sectoral efficiency (World Bank 1993). In the 1997 *Health, Nutrition, and Population (HNP) Sector Strategy Paper* communicable disease control was one of the essential HNP services prioritized (World Bank 1997).[6] There have been several important developments since the 1997 HNP Sector Strategy: (i) the prominence of communicable disease projects in the Bank's HNP portfolio, (ii) the Bank's leadership of and participation in global communicable disease initiatives (for example, AIDS,[7] malaria,[8] tuberculosis,[9] vaccine-preventable diseases,[10] and avian influenza),[11] and (iii) the commitment of the Bank and the international community to putting health at the center of the Millennium Development Goals (MDG) adopted at the Millennium Summit in 2000.

1.4 The 2007 HNP Sector Strategy made extensive reference to the need for synergy between communicable disease control (especially disease-specific projects) and health system strengthening (World Bank 2007). The motivation for improved synergy was made in terms of the inefficiency of single-disease approaches, and efficiency gains obtained from harmonization and coordination. The 2007 HNP Strategy suggests that synergy can be achieved by "(a) packaging the main priority diseases in one program/project; and (b) embedding in the project/program implementation design actions for health system strengthening."[12]

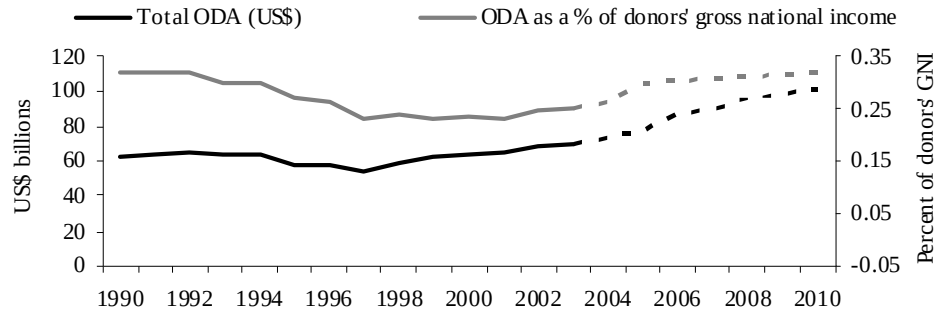
1.5 Furthermore, communicable diseases feature prominently in the Bank's six strategic themes identified in 2007 under President Zoellick. Under the global public good strategic theme, communicable disease control is one of four priority global public good areas, alongside environmental commons, international financial architecture and international trade.[13]

1.6 International interest in communicable disease control has increased substantially in recent years. In the 1990s official development assistance remained relatively constant—just over US$60 billion annually (Figure 1-2). Over the past decade development assistance for health increased to US$16.5 billion in 2006, up from US$2.6 billion in 1990, contributing to the upward trend in development assistance. The level as well as the functional composition of

[6] The other priority areas are: Enhancing Performance of HNP Services and Improving Health Care Financing.
[7] *Global Fund*: In 2001 the Bank became a trustee of the Global Fund and in 2005 the Bank became a member of the Global Task Team on improving coordination among donors and multilateral institutions working in AIDS in order to coordinate donor procedures and practices, to reduce the burden on countries, and improve the effectiveness of country-led responses. It also reached agreements on improved coordination between the Global Fund and the World Bank, and the division of labor among the UNAIDS co-sponsors. *AIDS Vaccine Task Force*: The Task Force was established to 1998 in order to support high-level dialogue with policymakers and industry and to promote more rapid development of an AIDS vaccine through "push" and "pull" mechanisms. Push mechanisms: to encourage private research and development by subsidizing vaccine trials or reducing the risks involved in vaccine development in the short run. Pull mechanisms: to facilitate greater R&D investment by demonstrating or assuring a future market for an AIDS vaccine in developing countries.
[8] *Multilateral Initiative on Malaria* was established in 1998 jointly with the World Bank, WHO, and UNICEF / UNDP, amongst others,. It aims to promote opportunities for collaboration and reinforces interaction among research scientists, institutions and control managers within the Ministries of Health in malaria endemic countries of Africa. *Booster Program for Malaria Control* is a 5 year initiative which aims to provide increased financing and technical support to accelerate program design and implementation, increase coverage, and improve outcomes more rapidly than in recent years.
[9] In 2001 the Bank and partners gathered in Washington, D.C., to further commit to operationalize the Amsterdam Declaration (2000) and the Global Plan to Stop TB, calling for the expansion of access to DOTS and increased financing for TB control.
[10] The Bank played a prominent role in the establishment in 2000 of the *Global Alliance for Vaccines and Immunization (GAVI)*, a public-private partnership, aimed at ensuring financing of vaccines.
[11] In 2006 a Task Force on Avian Flu for Africa was established to manage the information, communication, and coordination aspects of the response to avian influenza, helping to coordinate the region's response with the global and Bank-wide funding programs and with donors, and to mobilize additional funding as necessary.
[12] World Bank 2007, p. 77.
[13] President Zoellick's Presentation to the Board, February 2008. http://sig.worldbank.org/bob-zoellicks-presentation-board-feb-2008.

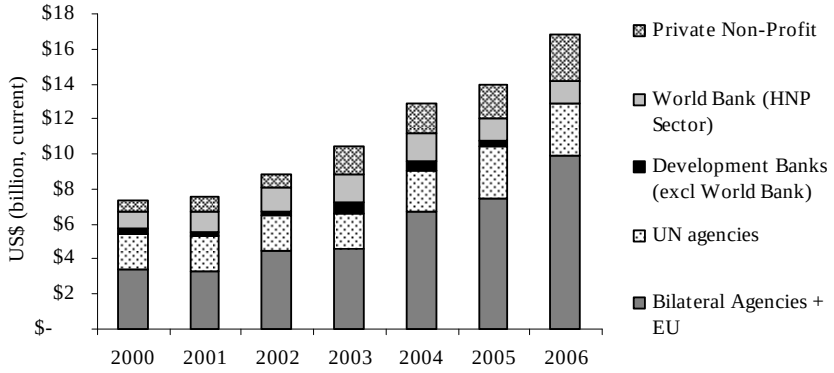
development assistance for health from bilateral, multilateral and private sources has changed substantially (Figure 1-3).

Figure 1-2: Actual and projected official development assistance, 1990–2010



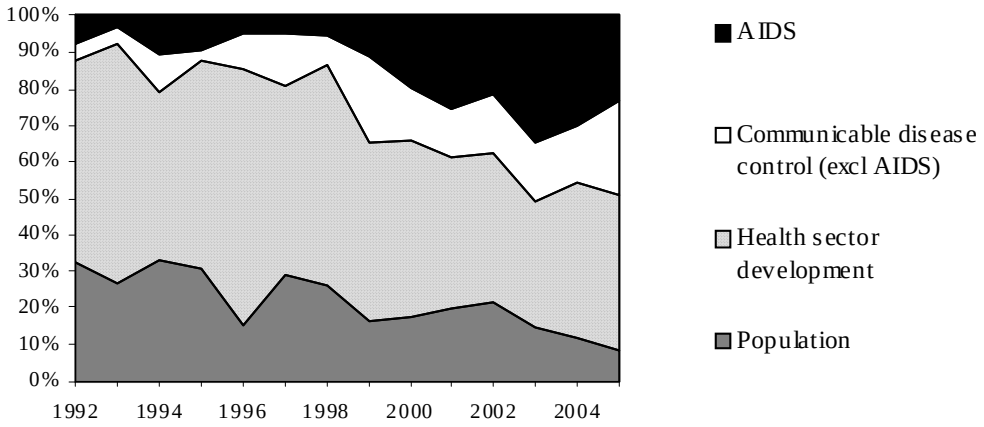
Source: World Bank 2005, in Gottret and Schneider 2007.
Note: Dashed lines indicate projection of official development assistance based on commitments made by members of the Organization for Economic Co-operation and Development's (OECD) Development Assistance Committee following the 2002 United Nations conference in Monterey, Mexico.

Figure 1-3: Breakdown of development assistance for health by source of funding, 2000–2006



Source: World Bank 2008a.
Note: Funding for the Global Fund is not presented as a separate category because the primary sources of Global Fund funding are these agencies listed here. UN agencies include: Pan-American Health Organization (PAHO), Joint United Nations Program on HIV/AIDS (UNAIDS), United Nations Population Fund (UNFPA), United Nations Children's Fund (UNICEF), and the World Health Organization (WHO).

Figure 1-4: Breakdown of development assistance for health by intervention, 1992–2005



Source: Shiffman 2008.

1.7 The increase in development assistance has largely been driven by global partnerships (such as the Global Fund, the Global Alliance for Vaccines and Immunization (GAVI)), private foundations (for example, the Bill and Melinda Gates Foundation), and bilateral commitments, notably the United States President's Emergency Plan for AIDS Relief (PEPFAR). Consequently the most notable proportionate increases were from bilateral agencies (from 45 to 56 percent) and from private non-profit agencies (from 9 to 17 percent, Figure 1-3).

1.8 Not only has funding for health increased, but so too has the share of funding for communicable diseases, in particular AIDS (Figure 1-4).[14] In 2004, 24 percent of all development assistance for health was allocated to AIDS—up from 8 percent in 1992 (Shiffman 2008). Between 1996 and 2006 resources available for AIDS (development assistance and national governments) increased 30-fold from US$300 million to US$8.9 billion (Oomman and others 2007; annex figure C–1).[15] These totals include the allocations by the Global Fund, an important source of funding for communicable diseases in recent years. Since its establishment in 2001 through the end of 2008, the Global Fund has disbursed US$6.9 billion in grants for communicable disease control (of which 61 percent was on AIDS, 25 percent on malaria, and 14 percent on tuberculosis).[16]

1.9 Many of the criticisms of official development assistance in general, and health aid in particular include: (i) the lack of integration of disease- and intervention-specific assistance into countries' own programs and health systems; (ii) the inflexibility of donor assistance for dealing with urgent needs and crises facing the health system; (iii) the weak accountability of donors for results and progress; and (iv) the increase in off-budget communicable disease donor funding.[17] The underpinnings of these challenges are discussed in detail in Gottret and Schneider (2007).

[14] Despite these increases, total official development assistance is only at about 0.25 percent of gross national income in Organization for Economic Co-operation and Development (OECD) countries—far short of the 0.7 percent that was set as a goal set in 2002 in Monterrey, Mexico.
[15] This is consistent with the 28-fold increase between 2001 and 2005 noted in UNAIDS 2006, p. 224.
[16] This is the disbursement estimate as of December 2008. http://www.theglobalfund.org/en/commitmentsdisbursements/?lang=en and http://www.theglobalfund.org/en/distributionfunding/?lang=en#disease .
[17] Foster and others (2005) found that for every US$1 of development assistance for health spent, US$0.30 is not recorded in balance of payments, US$0.20 is recorded in balance of payments but not in the government budget, US$0.30 is earmarked to specific projects recorded in the budget, and US$0.20 is as general budget support.

1.10 Despite the substantial increases in development assistance for health, the needs are substantial. Investment in health is central to the achievement of the MDGs and it is estimated that the achievement of the MDGs will require an additional US$25 to US$70 billion annually, much of which must come in the form of development assistance (World Bank 2004).

1.11 It is against this backdrop that this paper reviews the Bank's new commitments for communicable disease control between fiscal years 1997 and 2006 (FY97 and FY06), as an input into the larger IEG evaluation of the Bank's support for HNP over the same period (IEG 2009a). The questions pertaining to communicable diseases in the HNP evaluation are listed in Box 1-1. Collectively, this paper, the HNP evaluation case studies, as well as relevant Project Performance Assessment Reports (PPAR) aimed to answer these questions.

1.12 A limitation that needs to be stated upfront is that the paper narrowly focuses on lending for communicable disease control, and for that reason excludes assessment of formal and informal analytical work or technical assistance done in the area of communicable diseases.

Box 1-1: HNP evaluation questions for communicable diseases

Relevance:

- *Relevance of Objectives*: To what extent has the Bank supported communicable disease control in the period FY97–06? What has been the rationale for the emphasis on communicable diseases? Has there been any change in the rationale for Bank involvement in communicable disease projects over time?
- *Relevance of Design*: Under what circumstances has the Bank supported a freestanding disease project, as opposed to support as a component of a health project? Where alternate project designs considered and, if so, why were they rejected?

Efficacy

- Has the Bank's support for communicable disease control programs (whether through freestanding projects or components) been successful at reducing the incidence of disease? Have the communicable disease programs supported by the Bank improved health outcomes/disease incidence, specifically among the poor?

Efficiency

- Has the Bank's support for communicable diseases improved the efficiency of the disease programs? Has it supported links with the rest of the health system? What were the linkages? Have the free-standing communicable disease structures supported by the Bank set up parallel management structures to those already in the health system? If so, has this improved or detracted from efficacy and efficiency? Has the Bank's support for communicable disease control complemented support from other donors?

1.13 This paper is organized into five chapters. The following chapter describes the sample of projects covered in this review and the methodology. The results of the review of approved and closed projects follow in the third and forth chapters, respectively, and the last chapter summarizes the conclusions.

2. SAMPLE AND METHODOLOGY

2.1 This paper systematically reviews the objectives, rationale, and design of all communicable disease projects managed by the HNP sector and approved by the Board between FY97 and FY06, and the results for projects approved during that period that have closed. Communicable disease projects are defined as: (i) single-disease projects focusing on communicable diseases such as AIDS, avian influenza, leprosy, malaria, polio, and tuberculosis (TB); [18] (ii) multiple-disease projects that focus on more than one communicable disease, for example, endemic disease projects, vector-borne disease projects, and HAMSeT (AIDS, malaria, sexually-transmitted infections (STIs), and TB) projects; and (iii) health projects with a communicable disease component. [19] The complete list of the projects by fiscal year of approval is shown in Annex A. HNP projects with a sub-component devoted to a communicable disease were not included in this review—largely because the communicable disease inputs, outputs, and impacts are generally not separately reported, and are quite hard to separate from the rest of the project inputs, lending volume or project achievements.[20] It is likely that many other health projects support communicable disease control in some form, even when an explicit communicable disease component, subcomponent or objective is not stated.[21] Thus, the sample of projects selected for in-depth review may in fact understate the true level of World Bank support for communicable disease control.

2.2 The portfolio review draws on the following sources of information: project appraisal documents (PADs) and implementation completion reports (ICRs) prepared by Bank staff of the managing unit; and PPARs which are in-depth, independent field assessments conducted by IEG on roughly one in four completed projects.[22] The projects included by type, fiscal year of approval, and project status (as of June 30, 2008) are presented in Table 2-1 and Figure 2-1.

Table 2-1: Distribution of communicable disease projects by type, FY of approval, and status

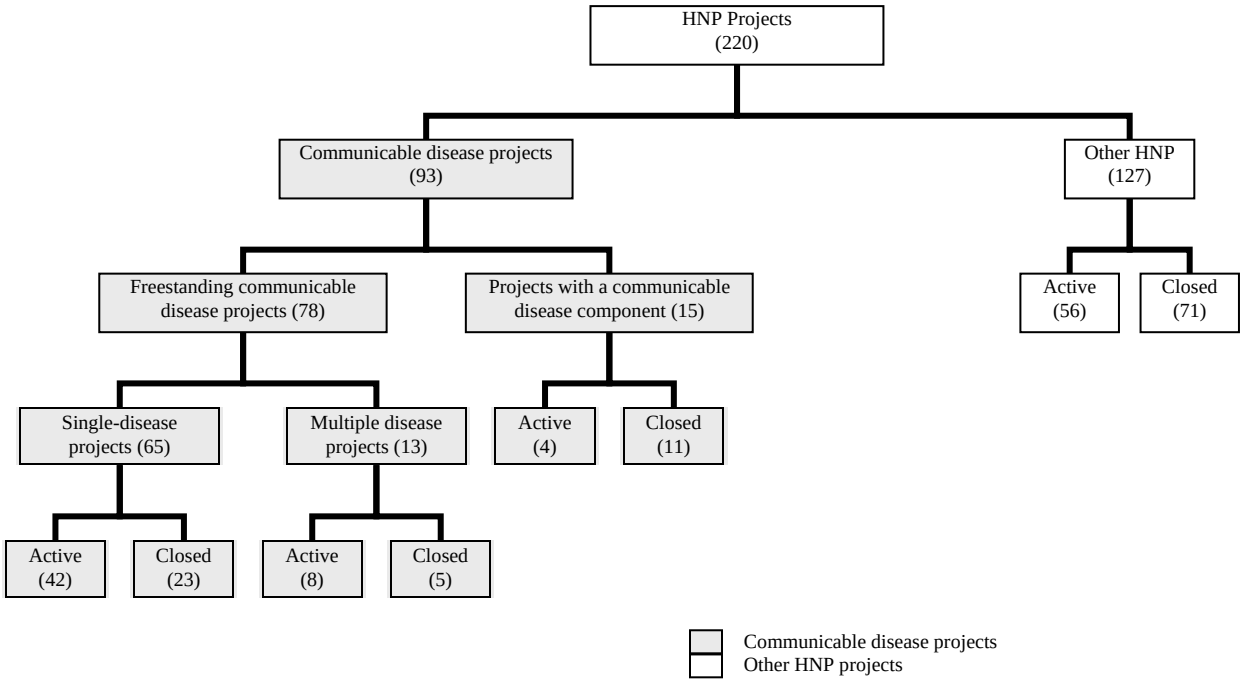
	FY97–01			FY02–06			FY97–06		
Project Type	Closed	Active	Total	Closed	Active	Total	Closed[a]	Active	Total
Freestanding communicable disease projects	20	0	20	8	50	58	28	50	78
Single-disease projects	15	0	15	8	42	50	23	42	65
Multiple disease projects	5	0	5	0	8	8	5	8	13
Projects with a communicable disease component	11	1	12	0	3	3	11	4	15
Total	31	1	32	8	53	61	39	54	93

Source: World Bank Business Warehouse.
a. The number of closed projects in this table differs from the number of closed and rated projects in Table 4-1 because not all closed projects have ICRs and have been reviewed by IEG.

[18] In this review no distinction is made between HIV/AIDS and sexually transmitted infection (STI) projects. HIV infection is an STI, and STI control is one of several strategies to prevent HIV transmission.
[19] This category includes projects focusing on immunization (for example, India Immunization Strengthening Project, FY00) or with immunization components focusing on Integrated Management of Childhood Illness (IMCI, for example, Tanzania Health Sector Development Program, FY00; Kenya Decentralization, Reproductive Health and HIV/AIDS Project, FY01; Congo Health Sector and Rehabilitation Support Project, FY06).
[20] There were 21 projects with communicable disease sub-components and two projects with a communicable disease objective but no explicit disease components that were not included in this review. The project details are available.
[21] Examples of these projects are those that have a communicable disease as a theme, but do not fall into the three categories that comprise the definition used in this analysis. This may also explain any variance between the numbers tracked by HNP and those presented in this report.
[22] Implementation Status and Results Reports (ISRs) were not used as a main source of information in this portfolio review. They are however considered when IEG reviews individual projects, for example in ICR Reviews and Project Performance Assessment Reports.

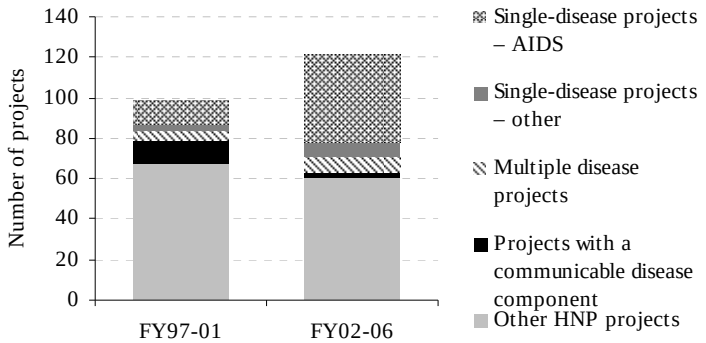
2.3 Overall, 93 communicable disease projects were approved in FY97–06, accounting for 42 percent of all HNP projects approved during FY97–06, and just under half (48 percent) of all HNP projects approved in FY02-06—up from 12 percent in FY97-01 (Figure 2-2). As of the end of FY08, 39 communicable disease projects (43 percent) had closed (Table 2-1).

Figure 2-1: Communicable disease projects in the HNP portfolio, approved FY97–06



Source: World Bank Business Warehouse.

Figure 2-2: Communicable disease projects in the HNP portfolio by 5-year interval



Source: World Bank Business Warehouse.

2.4 Ratings for various dimensions of project performance are assigned in ICRs by Bank staff of the managing unit and the ratings are thereafter reviewed by IEG. A few of these dimensions were used in this analysis: project outcome (a combination of relevance, efficacy, and efficiency), efficacy, quality-at-entry (as sub-component of the rating of Bank performance), and monitoring and evaluation (M&E, a combination of sub-ratings for M&E design, implementation, and use). Efficacy and M&E are rated using a four-point scale: high, substantial, modest or negligible.[23] The other ratings use a six-point rating scale: highly satisfactory, satisfactory, moderately satisfactory, moderately unsatisfactory, unsatisfactory, and highly unsatisfactory. A rating in the satisfactory range includes ratings that are moderately satisfactory or better and, similarly, a rating in the unsatisfactory range includes ratings that are moderately unsatisfactory or worse.

[23] The M&E rating was introduced by IEG on July 1, 2006 (FY07).

3. OVERVIEW OF THE COMMUNICABLE DISEASE PORTFOLIO

Project approvals, commitments, and disbursements

3.1 Table 3-1 and Table 3-2 summarize the number of communicable disease projects by type of disease and by region. Of the approved communicable disease projects, 65 projects (70 percent) were single-disease projects, 13 (14 percent) were multiple disease projects and 15 (16 percent) had a communicable disease component—altogether representing US$3.7 billion in new commitments.[24] The number of new communicable disease projects nearly doubled from 32 projects in FY97–01 to 61 projects in FY02–06. Commitments for communicable disease projects increased by a much smaller percentage from US$1.6 billion in FY97–01 to US$2.1 billion in FY02–06. Single-disease projects accounted for 47 percent of new communicable disease projects in FY97–01 and 82 percent in FY02–06 (although the share of commitments for single-disease projects increased from 60 percent to 75 percent).

Table 3-1: Communicable disease projects and commitments, approved FY97–06

	FY97–01 (n=32)				FY02–06 (n=61)				Total: FY97–06 (n=93)			
	Projects		Commitments[a]		Projects		Commitments		Projects		Commitments	
Project Type	Num-ber	%	US$m	%	Num-ber	%	US$m	%	Num-ber	%	US$m	%
Freestanding communicable disease projects	20	63	1,446	91	58	95	2,072	97	78	84	3,518	95
Single-disease projects	15	47	943	60	50	82	1,599	75	65	70	2,542	68
AIDS	12	38	697	44	43	70	1,243	58	55	59	1,940	52
Avian Influenza	0	0	0	0	1	2	4	0	1	1	4	0
Leprosy	1	3	32	2	0	0	0	0	1	1	32	1
Malaria	1	3	114	7	2	3	51	2	3	3	165	4
Polio	0	0	0	0	3	5	197	9	3	3	197	5
Tuberculosis	1	3	100	6	1	2	104	5	2	2	204	5
Multiple disease projects	5	16	503	32	8	13	473	22	13	14	976	26
Projects with a communicable disease component	12	38	138	9	3	5	58	3	15	16	196	5
Total	32	100	1,584	100	61	100	2,130	100	93	100	3,714	100

Source: World Bank Business Warehouse.

a. For freestanding communicable disease projects, the full project cost is included; for projects with components, only the cost for the communicable disease component is included. The credit or loan devoted to the communicable disease component is not readily available and was derived by weighting the credit by the share of the total project cost accounted for by the component.

[24] The commitments for supplemental financing to existing projects have been attributed to the parent project, provided the latter was approved in FY97–06. Many AIDS projects approved in FY03-FY05 were grant-financed. Depending on the country income level, the grants were combined with credit and/or loan financing. Some of the multiple disease projects were also financed with grants, for example, Djibouti HIV/AIDS, Malaria and Tuberculosis Control Project (FY03), Angola HIV/AIDS, Malaria, and TB Control Project (FY04), and Eritrea HIV/AIDS/STI, TB, Malaria, and Reproductive Health Project (FY05).

3.2 In FY97–06 nearly eighty percent of new communicable disease projects focused on AIDS and a quarter on malaria (annex Table C-1).[25] In the period FY02–06 AIDS dominated the communicable disease portfolio, driven mainly by the increase in single-disease AIDS projects—from 12 projects in FY97–01 to 43 projects in FY02–06. The Sub-Saharan Africa region (AFR) accounted for the largest share of communicable disease projects, in terms of projects (53 percent) and commitments (40 percent); followed by Latin-America and Caribbean Region (LCR) and South Asia Region (SAR, Table 3-2). The increase in AIDS projects has been largely driven by the Multi-country AIDS Program (MAP) for countries in the Africa and the Caribbean.[26] There were no communicable disease projects approved during these years in the Middle-east and North Africa (MNA) region.

Table 3-2: Communicable disease projects and commitments, by region, approved FY97–06

	FY97–01 (n=32)				FY02–06 (n=61)				Total FY97–06 (n=93)			
	Projects		Commitments		Projects		Commitments		Projects		Commitments	
Region	Num-ber	%	US$m	%	Num-ber	%	US$m	%	Num-ber	%	US$m	%
AFR	13	41	373	24	36	59	1,097	52	49	53	1,470	40
SAR	8	25	813	51	6	10	234	11	14	15	1,047	28
LCR	7	22	329	21	11	18	437	21	18	19	766	21
EAP	3	9	62	4	4	7	181	8	7	8	243	7
ECA	1	3	7	0	4	7	181	8	5	5	188	5
MNA	0	0	0	0	0	0	0	0	0	0	0	0
Total	32	100	1,584	100	61	100	2,130	100	93	100	3,714	100

Source: World Bank Business Warehouse.

3.3 Large countries appear to be more likely to have freestanding single-disease projects. Of the single-disease projects that were not part of the MAP and Booster Program for Malaria Control[27] projects 80 percent were in countries that had populations in excess of 50 million. Most of the remaining single-disease projects were AIDS projects that were not eligible as MAP projects—because they are outside the Africa and the Caribbean regions (for example, Bhutan and Moldova), or are in IBRD countries (for example, Argentina).

Rationale for investment in communicable disease control

3.4 The most common rationale for communicable disease projects was the high burden of morbidity and mortality from communicable diseases and the unequal burden of these diseases on the poor. Other motivations included: the cost-effectiveness of the interventions available for prevention and control; public good and externality arguments; disease burden affecting the most productive age groups. The consequences of not responding were also highlighted: for example,

[25] Note these are not mutually exclusive categories as some projects addressed more than one disease (see annex Table C-1).

[26] The eligibility criteria for the MAP projects are: (i) Evidence of a strategic approach to AIDS, developed in a participatory manner, or a participatory strategic planning process underway, with a clear roadmap and timetable; (ii) Existence of a high-level AIDS coordinating body, with broad representation of key stakeholders from all sectors, including people living with AIDS; (iii) Government commitment to quick implementation arrangements, including channeling grant funds directly to communities, civil society, and the private sector; (iv) Agreement by the government to use multiple implementation agencies, especially NGOs and CBOs.

[27] The Booster Program for Malaria Control is global in scope and consists initially of an intensive effort over a five-year period.

reduced life expectancy, reduced productivity, loss of employment, impact of increased health expenditure (on household welfare), and the inter-generational effects of increased orphanhood.

3.5 The project objectives were generally reflective of the rationale for investment in communicable disease control. The most common objectives identified were: to decrease disease prevalence or morbidity and mortality (86 percent of communicable disease projects), to strengthen disease control programs and systems (47 percent of projects), and to increase access to treatment of communicable diseases (40 percent of projects, Table 3-3). The importance of mitigating the impact of disease increased substantially in the latter half of the decade, particularly driven by the prominence of this justification in AIDS projects. Strengthening of disease control programs was cited in just under half of communicable disease projects.[28]

Table 3-3: Objectives of communicable disease control projects, approved FY97–06

	FY97–01 (n = 32)	FY02–06 (n = 61)	FY97–06 (n = 93)
Objective	Percent	Percent	Percent
Reduce prevalence or incidence; or Reduce mortality and morbidity	84	86	86
Strengthen disease control program	38	52	47
Increase access to treatment and care	28	47	40
Mitigate impact	13	38	29
Increase access to prevention	16	34	28
Improve health system performance	22	14	17
Expand diagnosis/detection	9	9	9
Improve surveillance	3	5	4
Increase knowledge, awareness	0	5	3

Source: Project Appraisal Documents.

Design of communicable disease projects

3.6 There were two main dimensions to the choice of project design: (i) a freestanding disease control project design or a communicable disease component as part of a larger HNP project; and (ii) the implementing agency located in the Ministry of Health (MOH) or located outside the MOH. Freestanding communicable disease projects accounted for an increasing share of communicable disease projects—from 63 percent of projects in FY97–01 to 95 percent in FY02–06, driven by the sharp increase in single-disease projects (Table 3-4). Interestingly, half of the single-disease projects were not implemented by a primary implementing agency located within the health sector. This was strongly influenced by what has emerged as the MAP project format—namely, a free-standing, multisectoral project with the primary implementing agency outside the health sector.

[28] The trend of increasing emphasis on health systems in communicable disease control projects has continued beyond FY06: between FY05 and FY08, 60 percent of projects with a communicable disease primary theme code have health system performance as a secondary theme.

Table 3-4: Project design of communicable disease projects, approved FY97–06

Project Type	FY97–01 (n=32)		FY02–06 (n=61)		Total: FY97–06 (n=93)	
	Projects	Percent	Projects	Percent	Projects	Percent
Freestanding communicable disease projects	20	63	58	95	78	84
Single-disease projects	15	47	51	84	66	71
Implementing agency outside the health sector	8	25	29	48	37	40
Implementing agency in the health sector	7	22	15	25	22	24
Regional projects	0	0	7	11	7	8
Multiple disease projects	5	16	7	11	12	13
Projects with a communicable disease component	12	38	3	5	15	16

Source: Project Appraisal Documents.

3.7 Arguments for a freestanding project design were: (i) to give focus, prioritization and strategic leadership to a disease that would not be possible if the interventions were within an existing health project; (ii) to ensure simplicity of design, as integration with an existing health operation may make the project design too complex; (iii) to allow for speedier implementation and the ability to respond urgently to a disease priority; and (iv) as a vehicle for countries to participate in global communicable disease control initiatives. For multiple disease projects, as with the single-disease projects, the choice of a freestanding project allowed for prioritization and expedited implementation of focus diseases (for example, endemic diseases such as onchocerciasis, schistosomiasis, and malaria in Senegal and Brazil; AIDS, malaria, and tuberculosis in Eritrea and Angola). In these projects a design with multiple, separate, single-disease projects was not chosen because it would impose undue burden on health sector capacity.

3.8 Arguments for a disease control project located outside the health sector were: (i) the disease determinants were health and non-health related, and a freestanding project outside the health sector would allow for the inclusion of non-health sector interventions; (ii) projects implemented by the health sector would place too much burden on the already strained health system capacity; (iii) line-ministries were not well suited to oversee and coordinate a multisectoral project; and (iv) a freestanding project outside the health sector allowed the flexibility to channel resources to community organizations and NGOs.

3.9 Many of the abovementioned arguments have been made in the case of AIDS projects. The same arguments apply to the three malaria projects approved in the period FY97–06, yet the preferred project design of these projects was a freestanding project within the health ministry. It can, however, be argued that the preference for an implementing agency outside the health sector was motivated by the finding that early in the HIV epidemic that the health sector tended to be very clinical in its response and was less skilled to address the behavioral determinants of the HIV epidemic.

4. PROJECT IMPACTS AND THE BANK'S VALUE ADDED

Outputs, outcomes, and impacts

4.1 The commonly used output and outcome indicators in communicable disease projects are shown in Annex B. Outcome indicators were often inconsistently defined and measured. For example, the reference period may vary (for example, bed-net use in the previous night or last week, or condom use in the last sex act or with the last non-regular sexual partner, or consistent condom use), or the age group of interest may vary (for example, bed-net use among children under 1 years or children under 5 years). The absolute number of people reached by programs was usually reported, and coverage data (that is, the share of the population at risk reached by the intervention) were rarely available, usually because no denominator was estimated for the target population. Behavioral change data were usually absent or, where available, of poor quality making trend comparisons unreliable. Furthermore, where risk behaviors among risk groups were assessed, the sampling frame and standard errors were rarely reported, rendering them of limited use when trying to assess valid trends over time.

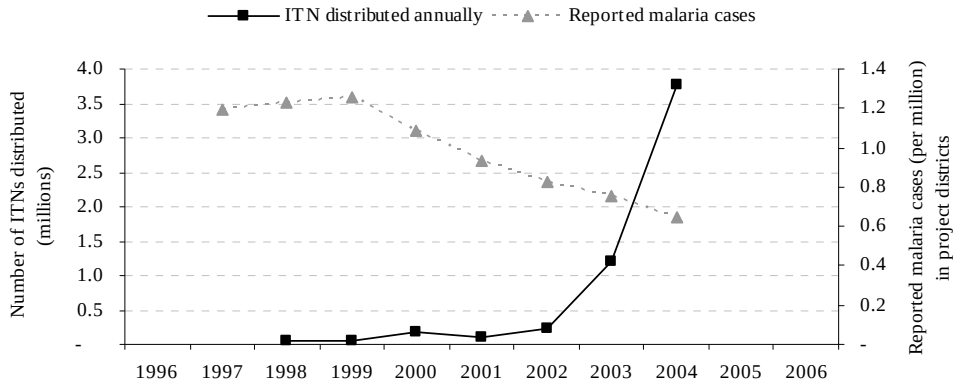
4.2 Impact indicators were generally clearly defined and largely consistent with the indicators identified by the relevant disease control specialists. Morbidity or mortality data were usually collected by health facilities or through routine reporting mechanisms. However, when trends were constructed, the comparability of data points and whether there had been any correction for the completeness of reporting or reporting error over time were rarely assessed. Impact indicators were rarely geographically disaggregated despite many projects having a geographic focus. Furthermore, M&E frameworks need to include indicators at matched non-implementation sites in order to assess the counterfactual—what would have happened in the absence of the project. Even where impacts had been modest, data from matched non-project areas could demonstrate that the effects were even smaller in non-project sites than in project sites. Hopefully the increased attention on impact evaluation will contribute to improvement in M&E frameworks of all projects.

4.3 Three areas of weakness were noted in reviewing the project outcomes for closed projects: (i) there was very little attempt to attribute disease control impacts to disease control efforts; and (ii) distributional data to assess the impact of disease control efforts on the health outcomes of the poor was generally lacking. Regarding attribution, it is not the intention to narrowly apportion impacts to Bank financing, but rather to assess the impact of the disease control efforts regardless of the source of financing. Communicable disease control interventions have been identified in epidemiological research, essentially providing the results chain that make up the results framework for disease control programs (annex Table C-3). While the results framework for communicable disease control is generally easier to construct, attribution to disease control programs or policies has been weak. Below are examples of projects where it has been possible—albeit imperfectly—to construct a results chain and to link impacts to disease control efforts.

(a) Figure 4.1 and Figure 4.2 show results from the India Malaria Control Project and the Eritrea HAMSeT Control Project (both approved in FY01). The trends in malaria control interventions (for example, insecticide treated bed-nets (ITNs) and reduction of mosquito breeding sites) and malaria incidence are highly suggestive of a programmatic success in

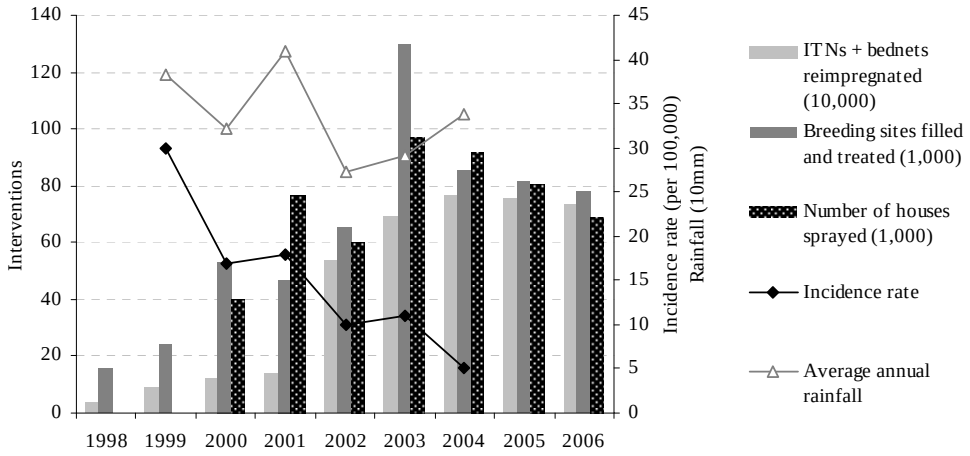
the countries' malaria control efforts. A key question to attribute the impacts to the outcomes was: How much of this success can be ascribed to the varying rainfall pattern? As illustrated in Figure 4.2 for Eritrea, the 2001 rainfall exceeded the level in 1998, yet incidence in 2001 was less than a third of the 1998 level. In 2004 there was a divergence in the malaria incidence and rainfall trends, suggesting that in the later years malaria control interventions (as opposed to declining rainfall) increasingly accounted for a larger share of the reduction in malaria morbidity and mortality.

Figure 4.1: Outcomes relative to malaria outputs: Example from India



Source. World Bank 2006a.

Figure 4.2: Outcomes relative to malaria outputs: Example from Eritrea

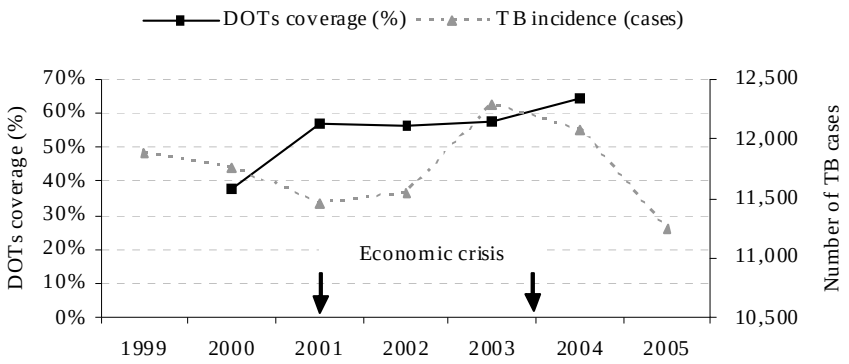


Source: IEG 2009b.

(b) The tuberculosis control efforts supported under the Argentina Public Health Surveillance and Disease Control Project (approved FY00)—notably the doubling of directly observed therapy, short-course (DOTS) coverage between 2000 and 2004—were associated with a

reduction in tuberculosis incidence by 14 percent, from 34 per 100,000 people in 1999 to 29 per 100,000 in 2005 (Figure 4.3). Between 2002 and 2003 incidence increased largely due to the economic crisis. Note that the downward trend resumed in 2004 and 2005, amplifying the project impact against the counterfactual of increasing tuberculosis trends associated with the economic crisis.

Figure 4.3: Outcomes relative to TB outputs: Example from Argentina



Source. World Bank 2006b.

4.4 A second weakness was the lack of distributional information on the project benefits (outputs, intermediate outcomes, or impacts). Consequently it is seldom possible to assess whether the program benefits were pro-poor. The justification for communicable disease control projects usually includes the argument that the burden of disease is skewed toward the poor. Where risk factors are skewed toward the poor, projects seldom evaluated whether the actual benefits (rather than the projected benefits) were pro-poor. While it is not implausible that the benefits may have been pro-poor, the literature has suggested that the non-poor have greater access to behavior change information or preventive services causing the non-poor to be more likely to benefit from communicable disease control. Without empirical data on the distribution of benefits (by socio-economic status or proxies thereof) it cannot be assumed that the benefits from disease control efforts are pro-poor. One of the reasons for the lack of outcome and impact data by wealth status is that it is thought to imply household data collection, but proxies for wealth (by geographic areas, for example, poorer provinces or districts, rural/urban areas, and so forth) seem to be under-utilized. Second, it is not always true that risk factors for communicable diseases are skewed toward the poor. For example, the Demographic and Health Survey (DHS) data shows large variation in the distribution of HIV risk factors across wealth quintiles (Mishra 2006). While prevention interventions need to target all groups (because of the communicable nature of the disease), when providing subsidized care and treatment projects presumably would want to ensure that the needs of the poor are met.

4.5 Outcome and output results obtained from implementation completion reports or project performance assessments are summarized in annex Table B-2 and the outcome or impact indicators in annex Table B-3. As these tables suggest, there have been many successes in policy and programmatic reforms affecting communicable disease control, strengthening of disease

control programs, as well as in the implementation of disease control programs (within health facilities as well as through community-based action).

Project outcome ratings

4.6 Half of the 34 closed and rated communicable disease projects[29] were rated in the satisfactory range, slightly worse than 62 percent for other HNP projects (Table 4-1). This was strongly influenced by the ratings of the single-disease AIDS projects—29 percent of the 18 closed AIDS projects approved since FY97 have been rated moderately satisfactory or better. If the single-disease AIDS projects are excluded, the non-AIDS communicable disease projects rate better than the other HNP projects—65 percent of the 20 non-AIDS communicable disease projects.

Table 4-1: Outcome ratings for closed communicable disease projects, approved FY97–06

Category of Projects	Number of projects closed and rated by IEG	Projects with IEG outcome rating of moderately satisfactory or higher[a]	
		Number	Percent
Freestanding communicable disease projects	23	12	52
Single-disease projects – all diseases	18	8	44
Single-disease projects – AIDS	14	4	29
Single-disease projects – malaria, TB, polio, leprosy	4	4	100
Multiple disease projects	5	4	80
Projects with a communicable disease component	11	5[b]	45
Communicable disease projects	34	17	50
Other HNP Projects	65	40	62
HNP Projects	99	57	58

Source: World Bank Business Warehouse.
a. Project outcome ratings included are: moderately satisfactory/satisfactory/highly satisfactory. These ratings are for the communicable disease components only, and have been derived specifically for the communicable disease component by the author.
b. In health projects with a communicable disease component, a separate efficacy rating was derived by the author for the communicable disease component based on the evidence presented in the ICR.

4.7 Another category with below average performance is projects with a communicable disease component. On average, 45 percent of the 11 health projects with a communicable disease component were rated in the satisfactory range. In some of these projects the communicable disease component was the one of the better performing components of the overall project,[30] while in other projects the communicable disease component was the worst performing component.[31] Freestanding communicable disease projects (including the AIDS projects) performed better than the health projects with a communicable disease component—52

[29] Thirty-nine communicable disease projects had closed as of June 30, 2008, and of these 34 had an ICR that had been rated by IEG. Because of the small sample sizes for the sub-categories of closed projects, the ratings were divided into two large categories (instead of the six categories that the rating scale allows). The satisfactory rating category includes all ratings in the satisfactory range (i.e., moderately satisfactory, satisfactory and highly satisfactory), and the unsatisfactory rating category includes all ratings in the unsatisfactory range (i.e., moderately unsatisfactory, unsatisfactory and highly unsatisfactory). In health projects with a communicable disease component, a separate efficacy rating was derived by the author for the communicable disease component based on the evidence presented in the ICR (because projects are rated by objective not component).
[30] For example, the Sri Lanka Health Services Project (FY97); the Comoros Health Project (FY98); and the Venezuela Caracas Metropolitan Health Project (FY01).
[31] Indonesia Provincial Health II Project (FY01).

percent of freestanding communicable disease projects were rated in the satisfactory range compared to 45 percent of projects with a communicable disease component.

4.8 The weaker performance of AIDS projects is in part explained by the modest efficacy rating—the efficacy of only three of the 14 single-disease AIDS projects has been rated substantial or better. The efficacy of 65 percent of non-AIDS communicable disease projects was rated substantial or better compared to 21 percent of AIDS projects (Table 4-2).[32] There are a variety of factors that have contributed to this outcome and reforms have been implemented in 2007, but a detailed exploration of these factors and the impact of the reforms are beyond the purview of this portfolio review.

Table 4-2: Efficacy ratings of closed communicable disease projects, approved FY97–06

Project design	Efficacy rating (n=34)			
	Negligible	Modest	Substantial	High
Single-disease projects (AIDS)	Cameroon/AIDS (FY01)[a]	India/AIDS (FY99) Bangladesh/AIDS (FY01) Kenya/AIDS (FY01) Ethiopia/AIDS (FY01) Ghana/AIDS (FY01) Gambia/AIDS (FY01) Uganda/AIDS (FY01) Burkina Faso/AIDS (FY02) Benin/AIDS (FY02) Madagascar (FY02)	Argentina/AIDS (FY97) Brazil/AIDS (FY99) Africa/AIDS (FY04)	
Single-disease projects (non-AIDS)			India/Malaria (FY97) India/Leprosy (FY01)	India/TB (FY97) Pakistan/Polio (FY03)
Multiple disease projects	Senegal (FY97)		Brazil (FY99) Argentina (FY00) India (FY00) Eritrea (FY01)[b]	
Projects with a communicable disease component		Comoros (FY98) Lesotho (FY00) Kenya (FY01) Solomon Islands (FY00) Tanzania (FY00) Indonesia (FY01)	Cambodia (FY97) Sri Lanka (FY97) Kazakhstan (FY99) Madagascar (FY00) Venezuela (FY01)	

Source: Author's analysis of ICRs.
a. Approval fiscal year.
b. This is a multiple disease project that is also a MAP project.

4.9 Because of the dominance of AIDS projects in the communicable disease portfolio the poor performance appears very prominent in this portfolio review. Within the context of the larger HNP portfolio, the impact is more modest than expected. The share of projects rated satisfactory or better in the HNP portfolio rises from 58 to 62 percent when AIDS projects are excluded. In the Africa region where some of the poorly performing AIDS projects are particularly prominent (Table 4-2), the share of projects in the satisfactory range increases from 24 to 30 percent when the AIDS projects are excluded (Table 4-3). Thus, while AIDS projects have performed poorly relative to the other communicable disease projects, it is does not explain all the weaknesses or even the most important weaknesses in the HNP portfolio.

[32] Note that the Eritrea HAMSeT Control Project is not included in the category of single-disease AIDS projects despite it being a MAP project.

Table 4-3: Outcome ratings with and without AIDS projects, approved FY97–06

Category of project	Share of projects with IEG outcome rating of moderately satisfactory or higher[a]		
	All	Without AIDS Projects	Without MAP Projects
Communicable disease projects	50	65	64
HNP Projects	58	62	62
Africa region HNP projects	24	30	27
HNP projects in other regions	74.2	74.2	73.9

Source: Business Warehouse.
a. Project outcome ratings included are: moderately satisfactory/satisfactory/highly satisfactory.

The Bank's value-added

4.10 There was general convergence in the justifications used for Bank involvement across the various types of communicable disease projects and across regions. The most common themes were: (i) the convening power, policy influence, and leadership of the Bank; (ii) the macroeconomic and development context of communicable disease control and the Bank's involvement in dialogue on the Poverty Reduction Strategy Paper (PRSP) and the Medium-term Expenditure Framework (MTEF); (iii) the Bank's presence in multiple sectors and experience with multisectoral projects; (iv) technical quality and the Bank's experience with project preparation, design, and M&E; (v) experience with specific types of projects/interventions (for example, social funds, channeling funds to community-based organizations (CBOs); and (vi) the Bank's role as a financier (Table 4-4).

4.11 To what extent was the anticipated value-added supported by implementation experience? Three key areas of the Bank's value added are discussed below: (i) quality of project preparation and design; (ii) quality of monitoring and evaluation; and (iii) the Bank's role as a financier of communicable disease control.

Quality of project preparation and design

4.12 Closed projects are rated for the quality-at-entry, formally defined as the extent to which the Bank identified, facilitated preparation of, and appraised the operation such that it was most likely to achieve planned development outcomes and was consistent with the Bank's fiduciary role.[33] Two-thirds (68 percent) of communicable disease projects had a quality-at-entry rating in the satisfactory range (

[33] Harmonized Evaluation Criteria for ICR and IEG evaluations.

Table 4-5) roughly the same as other HNP projects. AIDS projects performed slightly worse (57 percent). What is the impact of the AIDS projects on the quality-at-entry ratings of the overall portfolio? The impact is a two percentage-point difference for all HNP projects (67 percent versus 69 without AIDS projects) and for HNP projects in the Africa region (55 percent versus 57 percent, table 4-6).

Table 4-4: Rationale for Bank involvement in communicable disease projects, approved FY97–06

Justification	Examples of countries with communicable disease projects that cited the listed justification (FY of approval)
1. Convening power, policy influence, and leadership	India (FY97); India (FY99); India (FY01); Kenya (FY01); Ethiopia (FY01); China (FY02); St Nevis & St Kitts (FY03); Niger (FY03); Moldova (FY03); Grenada (FY03); Bhutan (FY04); Congo (FY04); Trinidad & Tobago (FY04); Zambia (FY06)
2. Macroeconomic and development context, PRSP and MTEF dialogue	India (FY99); Gambia (FY01); Benin (FY02); Niger (FY03); Guinea (FY03); Sri Lanka (FY03); Zambia (FY03); Rwanda (FY03); Mauritania (FY04); Tanzania (FY04); Guinea-Bissau (FY04); Vietnam (FY05); Ghana (FY06)
3. Financial resources:	
Financial resources to fill resource gap	Almost all projects
Funding of the necessary scale	India (FY97); India (FY99); Indonesia (FY01); Brazil (FY99); China (FY02), Nigeria (FY02)
Catalyst able to leverage funds from other sources in addition to bringing its own resources	Burkina Faso (FY02); Zambia (FY03); Niger (FY03), Nigeria (FY03); Congo (FY04); Madagascar (FY06); Pakistan (FY06)
Multi-year time period of Bank support	India (FY99); Madagascar (FY02; Gambia (FY01); Sierra Leone (FY02; Rwanda (FY03); Mauritania (FY04); Benin (FY06)
4. Presence in multiple sectors and experience with multisectoral projects	All MAP projects (AFR and LCR)
5. Experience, technical assistance, and expertise:	
Cross-country experience	Almost all projects
Project preparation, design, implementation, performance-based supervision, and M&E	Senegal (FY97); Brazil (FY99); India (FY99); Bangladesh (FY01); Senegal (FY02); Burkina Faso (FY02); Grenada (FY03); Brazil (FY03); Grenada (FY03); Niger (FY03), Mozambique (FY03); Brazil (FY04); Vietnam (FY05); Lesotho (FY05)
Analytical expertise	Brazil (FY99); Ghana (FY01); Uganda (FY01); Central African Republic (FY02); Brazil (FY04); Vietnam (FY05)
6. Experience with specific types of approaches:	
Funding NGOs and CBOs	Brazil (FY99); Pakistan (FY03); Guyana (FY04); Guinea-Bissau (FY04); Brazil (FY04); St Lucia (FY05)
Social funds	Cameroon (FY01); Uganda (FY01); Nigeria (FY02); Madagascar (FY06)
Targeted cash transfers	Nigeria (FY02)
Infrastructure; equipment	Jamaica (FY02); Tanzania (FY04); Guinea-Bissau (FY04)
Pharmaceuticals/drugs	St Nevis & St Kitts (FY03); Zambia (FY03)

Source: Project Appraisal Documents.

Table 4-5: Quality-at-entry ratings of closed communicable disease projects, approved FY97–06

Category of Projects	Number of projects closed and rated by IEG	Projects with IEG quality-at-entry rating of moderately satisfactory or higher[a]	
		Number	Percent
Freestanding communicable disease projects	23	15	65
Single-disease projects – all diseases	18	12	67
Single-disease projects – AIDS	14	8	57
Single-disease projects – other	4	4	100
Multiple disease projects	5	3	60
Projects with a communicable disease component	11	8[b]	73
Communicable disease projects	34	23	68

Source: IEG data.
a. Project outcome ratings included are: moderately satisfactory/satisfactory/highly satisfactory. This quality-at-entry rating is one component of the Bank performance rating in the Implementation Completion Report, and verified by IEG. Note, this is not the same as the rating awarded by the Quality Assurance Group.
b. For projects with a communicable disease component the quality-at-entry rating for the overall project was used and not derived specifically for the communicable disease component as was done in Table 4-1 and Table 4-2 for the outcome ratings. This was mainly because of insufficient information.

Table 4-6: Quality at entry ratings with and without AIDS projects, approved FY97–06

Category of Projects	Share of projects with IEG quality-at-entry rating of moderately satisfactory or higher[a]	
	All Projects	Without AIDS Projects
Communicable disease projects	68	75
HNP Projects	67	69
Africa region HNP projects	55	57
HNP projects in other regions	74	73

Source: Business Warehouse.
a. Project outcome ratings included are: moderately satisfactory/satisfactory/highly satisfactory.

4.13 While quality-at-entry ratings provide a partial insight into link with project outcomes some informative findings are gleaned from the third of projects with unsatisfactory quality-at-entry ratings.[34] Some of the most common reasons for unsatisfactory quality-at-entry ratings were (although these were not exclusive to the projects with unsatisfactory quality-at-entry ratings):

(a) In numerous instances the weaknesses in quality-at-entry resulted from a rushed project preparation and trade-offs being made in terms of depth of analysis and detail of project implementation arrangements. These weaknesses were found to contribute to delayed effectiveness or slow implementation upon effectiveness. The following quote from an ICR is particularly illustrative: "While there was definitely a need for a well designed national HIV/AIDS program to scale up effective interventions, putting in place instead a

[34] India Malaria Control Project (FY97); Senegal Endemic Disease Control Project (FY97); Sri Lanka Health Services Project (FY97); India Immunization Strengthening Project (FY00); Kenya Decentralization, Reproductive Health and HIV/AIDS (FY01); Bangladesh HIV/AIDS Prevention Project (FY01); and Kenya HIV/AIDS Disaster Response Project (FY01).

poorly prepared project due to an unnecessary sense of urgency actually was self defeating."[35]

(b) The failure to plan in detail and agree with the government counterparts on the implementation arrangements was another weakness. This was especially true for implementation arrangements for sub-national levels. Often agreements were struck with national actors with less involvement (and buy-in) from sub-national officials on whom implementation critically depends. A related issue is the failure *ex ante* to assess institutional capacity and take this assessment into account when deciding on the implementation arrangements.

(c) Another weakness was risk mitigation. Some important risks were not anticipated, and of those that were anticipated, risk mitigation mechanisms were insufficient or overly optimistic and unable to successfully reduce the risk, or no responsibility was assigned to the mitigation actions. As remarked in an ICR: "While the risks were acknowledged, the proposed mitigation measures were overly optimistic and unable to alleviate the risks."[36]

Quality of monitoring and evaluation

4.14 Ratings for the quality of M&E—specifically the design, implementation and use of M&E—are assigned by IEG for closed projects (Table 4-7). As discussed in a companion background paper on the quality of M&E in HNP projects just over a quarter of HNP projects had an M&E rating of substantial or better (Villar-Uribe forthcoming). Communicable disease projects rate slightly worse than other HNP projects. Eighty percent of communicable disease projects had a modest or worse M&E rating compared to 67 percent for other HNP projects. Some of the M&E weaknesses have been discussed earlier in the chapter; a more detailed analysis of M&E in the HNP sector can be found in Villar-Uribe (forthcoming).

4.15 However, a key question to raise is whether the comparison of M&E for communicable disease projects and other HNP projects is valid. On the one hand the results frameworks for communicable disease control projects are usually informed by substantial epidemiologic evidence and hence generally easier to construct or design. It can be argued that implementation of M&E for communicable diseases projects is more data intensive and methodologically challenging. On the other hand, in health reform projects, for example, there is often a stronger reliance on process indicators in the results framework, which are easier to measure.

[35] World Bank 2008c, p. 4.
[36] World Bank 2008b, p. 6.

Table 4-7: M&E ratings of closed communicable disease projects, approved FY97–06

M&E rating[a]	Communicable disease projects (n=15)		Other HNP projects (n=24)		All HNP projects (n=39)	
	Projects	Percent	Projects	Percent	Projects	Percent
Negligible	4	27	5	21	9	23
Modest	8	53	11	46	19	49
Substantial or High	3	20	8	33	2	28

Source: IEG data.
a. Not all closed projects have M&E ratings because the practice of rating M&E was only formalized in FY07.

Source of funding

4.16 The Bank was a major contributor to communicable disease control, committing US$3.7 billion in resources over the period FY97–06. There were several dimensions to the Bank's comparative advantage as a financier of communicable disease control: (i) as a source of financing able to fill a financial resource gap; (ii) as the only source of funding of the necessary scale for the most populous countries such as Brazil, India, and China; (iii) as a catalyst able to leverage funds from other sources;[37] and (iv) the multi-year nature of Bank assistance. While most of these justifications have remained constant over time, there has been some evolution in one area given the changes in the funding for communicable disease control—notably the Global Fund funding for malaria, tuberculosis, and AIDS, and PEPFAR funding for AIDS. Although the number of projects that cited the Bank as a source of financing to fill a resource gap for communicable disease projects has remained constant, the Bank's role as a catalyst able to leverage funds from other sources was increasingly cited in recent years. During FY02–06 more than a tenth of projects cited the importance of the Bank's catalytic role compared to none in the preceding period, FY97–01. Furthermore, the multi-year nature of Bank financing was an increasingly unique advantage mentioned compared to bilateral and private donors, and an important determinant of predictability which is strongly linked to aid effectiveness.[38]

4.17 The financial justification for a project depends critically on the country context. Table 4-8 presents examples of repeater Bank projects within the context of two other large sources of funding, the Global Fund and PEPFAR. Is there is any difference in the justification for a repeater communicable disease project in countries that have substantially benefitted from other sources of funding for communicable disease control?

4.18 In some instances Bank funding was sought to fill the resource gap because the country's application to the Global Fund had been rejected on technical grounds (for example, Ghana and Burkina Faso). There are countries where alternate sources of funding have been modest resources and the Bank's role as a financier has remained of critical importance (for example, Benin). In countries that were benefiting from other large sources of funding the prime justification for further Bank support has largely remained the same, namely to fill a resource

[37] In the polio projects the Bank was able to leverage other resources (through a buy-down program) to finance polio prevention and eradication projects (Nigeria Partnership for Polio Eradication Project (FY03); Pakistan Partnership for Polio Eradication Project I and II (FY03; FY06). In the Lesotho HIV and AIDS Capacity Building and Technical Assistance Project (FY05) the country relied on the Bank to finance technical assistance and support to the design, implementation, and management of the country's AIDS control program which was financed from other sources.
[38] See http://www.aideffectiveness.org.

gap.[39] This may point to the fact that not all of these resources are fully fungible, a distinction that is especially true for PEPFAR funding (which is usually off-budget), but less so for Global Fund funding. It may also point to differentiation in what countries get out of the engagement with the Bank compared to other funders even within the same disease control category. This issue could not be fully resolved on the basis of a portfolio review alone.

Table 4-8: World Bank repeater projects and other donor resources

Country	World Bank funding[a]		Global Fund funding		PEPFAR funding[b]	
	Approval FY	Approved US$ million	Approval date	Approved US$ million	Approval FY[c]	Approved US$ million
Benin	2002	21.6	Sep-03	17.3		0
	2006	31.0	Sep-03	24.2		
	Total	52.6	Total	41.5		
Burkina Faso	2006	21.0	Nov-06	16.4		0
	2002	27.0	Nov-03	16.4		
			Aug-07	31.9		
	Total	48.0	Total	64.7		
Eritrea	2001	40.0	Jul-04	17.4		0
	2005	24.0	Oct-06	13.1		
	Total	64.0	Total	30.5		
Ethiopia	2001	59.7	Feb-05	401.9	2004	48.0
	2007	30.0	Data n/a	65.0	2005	83.7
					2006	123.0
	Total	89.7	Total	466.9	Total	154.7
Ghana	2001	25.0	Dec-02	14.2		0
	2006	20.0	Mar-06	97.1		
	Total	45.0	Total	111.3		
Kenya	2001	50.0	Mar-03	0.2	2004	92.5
	2001	30.8	Mar-03	2.7	2005	142.9
			Aug-03	106.8	2006	208.3
			Date n/a	46.7		
	Total	80.8	Total	156.3	Total	443.7
Madagascar	2002	20.0	Apr-03	1.5		0
	2006	30.0	Apr-03	5.0		
			Oct-04	14.5		
	Total	50.0	Total	21.0		
Nigeria	2002	90.3	Jul-03	8.7	2004	70.9
	2007	50.0	Jul-03	1.7	2005	110.3
			Jul-03	17.8	2006	163.6
			Nov-06	46.2		
			Nov-06	46.2		
			Nov-06	46.2		
	Total	140.3	Total	166.9	Total	344.8
Rwanda	2003	30.5	Jun-04	56.6	2004	39.2
	2007	10.0	Apr-07	31.6	2005	56.9
				64.0	2006	72.1
	Total	40.50	Total	152.2	Total	168.2

Source. World Bank Business Warehouse; Global Fund (2008) http://www.theglobalfund.org/en/funds_raised/commitments/; PEPFAR 2005, 2006, 2007 http://www.pepfar.gov/progress/. Accessed on June 11, 2008.

a. Because PEPFAR funding and most of Global Fund funding are for AIDS, this table considers only countries with multiple AIDS projects or projects with AIDS components.

b. Non-PEPFAR USAID funding for AIDS is excluded.

c. US fiscal year: October 1 to September 30.

[39] It has to be pointed out that not all of these resources are fully fungible, a distinction that is especially true for PEPFAR funding (which is usually off-budget), but less so for Global Fund funding.

Links between communicable diseases control and health system priorities

4.19 What has been the impact of increased funding for communicable diseases on countries' other HNP priorities? In addressing this question it is helpful to distinguish between large and small countries. Many of the populous countries such as Brazil, India, and China have a tradition of implementing single-disease projects as a means to mobilize resources for priority diseases (for example, endemic disease projects; vaccine-preventable disease projects; leprosy, malaria, polio, tuberculosis, and AIDS projects). These countries often have other Bank-financed HNP operations being implemented simultaneously, depending on the countries' priorities and funding needs. Smaller countries, on the other hand, are likely to have only one project in the health sector at any given time. Communicable disease control efforts are usually a component of a larger HNP project addressing the country's communicable disease control needs as well as other HNP priorities. The dominance of single-disease projects in new project approvals over the past decade suggests that the increase in communicable disease projects may have displaced some of the Bank's engagement in other health sector priorities in smaller countries.

4.20 What has been the impact of communicable disease control efforts on health systems? This issue is the focus of many past and current debates, and no consistent trends emerged from this portfolio review to draw generalizeable conclusions. Two examples illustrate two different experiences. In Eritrea, the HAMSeT Control Project showed that disease control projects can be complementary to—and need not undermine—cross-cutting health functions. In the HAMSeT Control Project various cross-cutting functions and systems in the health sector were strengthened through project investments, for example, health promotion, disease surveillance, laboratory service, drug distribution. The MOH leadership sought to achieve programmatic efficiencies across several communicable disease control programs as opposed to building individual disease control programs. On the other hand, the Malawi experience showed less success with finding a balance between disease control and health system development. It was found that while the case for synergy was strong in theory, in practice there was competition for resources in money, personnel, and attention from policy makers. Disease control programs that continued to receive donor funding outside an overall national health framework (as under the health SWAp), found no incentive to cooperate within an overall program and sacrifice their independence (Elmendorf and Nankhuni forthcoming).

4.21 Some projects stressed the need for complementarity and integration with the health system. However, few of these projects had indicators that measure the achievements in these areas. The malaria projects included a substantial health system strengthening component deemed essential for the success of the malaria interventions. In the case of the one leprosy project, integration of the leprosy program into the general health system was a key performance indicator incorporating a lesson from the preceding project that a vertical campaign approach was insufficient and that stressed the need to integrate the leprosy program into the general health system.

Box 4-1: From "verticalists" and "horizontalists" to "integrationists" and "synergists"

The international health literature in the past few decades has been characterized by highly polarized debates between disease- or issue-specific approaches (also called vertical programs) and integrated or comprehensive approaches (also called horizontal programs) to health care delivery. The increase in disease-specific programs has again heightened a debate between "verticalists" and "horizontalists" that has raged for decades.[a]

Some disease control efforts lend themselves to a campaign approach where the intervention is once-off and/or they do not require on-going support and involvement of the health system (for example, smallpox immunization). On the other hand, others are more closely integrated into the health system, for example, Integrated Management of Childhood Illnesses (IMCI) programs. While the success of smallpox vaccination is often cited, there are few remaining diseases that only require a once-off intervention and that do not warrant on-going support of the health system. The various approaches to communicable disease control can be located somewhere on the continuum between these two extremes, as Figure 4-4 illustrates. The continuum can be disaggregated according to how integrated the management structures and the delivery systems of the disease control programs are.

Figure 4-4: Disaggregating the continuum between campaign approaches and integrated approaches to communicable disease control

	Standalone campaign (vertical) approaches								Integrated (health systems, horizontal) approaches	
	Smallpox		Polio Eradication Initiative		Expanded Program of Immunization		Integrated Management of Childhood Illnesses		Comprehensive Primary Health Care	
	Stand-alone	Inte-grated	Stand-alone	Inte-grated	Stand-alone	Inte-grated	Stand-alone	Inte-grated	Stand-alone	Inte-grated
Management structures (e.g., financial management, human resources, cost recovery)	X		X	X	X	X	X	X		X
Delivery system and implementation arrangements	X		X		X			X		X

Source. Adapted from Oliviera-Cruz and others 2003.

The call for moving beyond the vertical versus horizontal debate is not new. This challenge was identified more than 40 years ago by Gonzales (1965) whose insights pre-dated the landmark events that have marked the history of the vertical versus horizontal debates. There is emerging consensus on the need to move away from the polarizing debates of the 1970-1990s, and—as highlighted in the 2007 HNP sector strategy—the need for synergy between single-disease programs and health system strengthening. The conceptual framework in Figure 4-4 allows one to move beyond the vertical versus horizontal debate, there has been much talk about *integration* of and *synergy* between the two extremes.

Notes: Some important events in the 'vertical versus horizontal' debate are: (i) the Alma Ata Declaration (1978) calling for implementation of comprehensive primary health care; (ii) a paper by Walsh and Warren (1979) highlighting the merits of selective PHC of which examples are UNICEF's GOBI (Growth monitoring, oral rehydration, breast-feeding and immunization) Program, WHO's Expanded Immunization Program and Policy Eradication Initiative; (iii) the 1993 WDR highlighting the benefits of implementing a package of priority diseases, based on amongst other reasons, cost-effectiveness that may not necessarily be implemented in a vertical manner; (iv) WHO's Macroeconomic Commission on Health expanded the list of priority interventions and included explicitly infrastructure investments needed; (5) the emergence of Sector-wide Approaches (SWAps) to bring about the health systems strengthening, coordinated planning, and improved service delivery.

4.22 In recent years communicable disease control projects have incorporated broader health systems issues alongside the communicable disease in question. For example, in Eritrea the HAMSeT II Project (FY05) expanded its focus to human resource strengthening and reproductive health. In Burkina Faso the Health Sector Support and AIDS Project (FY06) financed: improvements in distribution of human resources; the implementation of the human resources plan; performance contracting; decentralization reforms; strengthening of budget systems; and the MTEF process. The Burkina Faso appraisal document resembles a health project with communicable disease components, even though it is a MAP project. This may suggest an increasing appreciation of the role of systems investments in the results chain for communicable disease control.

5. CONCLUSION

5.1 **The Bank has been effective in mobilizing resources for communicable disease control and has in many instances led the global response** that resulted in the unprecedented increases in development assistance for communicable disease control in the past decade.

5.2 **Did the implementation experience match these *ex ante* expectations of the Bank's value-added?** Some of the most common justifications for Bank involvement were: (i) as a source of financial resources; (ii) the institution's convening power, policy influence, and leadership; and (iii) technical quality and the Bank's experience with project preparation, design, and monitoring and evaluation. In the first two categories the experience has been positive. In the third category the record is mixed. A third of communicable disease projects had a quality-at-entry rating—reflective of quality of project preparation and design—in the unsatisfactory range. Three main shortcomings in project preparation and design were prominent: rushed project preparation; failure to plan in detail and agree with the government counterparts on the implementation arrangements; and superficial risk analysis and overly optimistic risk mitigation strategies. These weaknesses raise serious questions about the quality of project preparation, and the importance of balancing responsiveness and fast-track approaches to project preparation on the one hand, with quality control and development effectiveness on the other. These challenges were particularly prominent (but not exclusive to) the AIDS projects. Also falling in the third category was M&E. Overall M&E performance of the HNP portfolio has been modest, and the quality of M&E in communicable disease projects was slightly worse than other HNP projects.

5.3 **Did the Bank's support for communicable disease control yield pro-poor benefits?** We cannot tell from the available evidence. The disproportionate burden of communicable diseases on those who are least able to afford it and the potentially pro-poor benefits that investment in these diseases can yield are particularly compelling and frequently cited rationales for Bank involvement in communicable disease control. It is therefore unfortunate that the socio-economic distribution of outcomes was rarely measured and verified, instead of being implicitly assumed. This is a particularly important shortcoming given the prominence of health outcomes among the poor as an objective in the 1997 and 2007 HNP strategies.

5.4 **What has been the impact of the Bank's support for communicable disease control?** There have been many successes, but the project outcomes for communicable disease projects were slightly worse than other HNP projects: half of the closed communicable disease projects were rated in the satisfactory range compared to 62 percent for other HNP projects (the share for all HNP projects is 58 percent). Two categories of communicable disease projects had below average performance: single-disease AIDS projects and projects with a communicable disease component. Less than a third of AIDS projects were rated in the satisfactory range, compared to 67 percent for non-AIDS communicable disease projects. Because of the dominance of AIDS projects in the communicable disease portfolio, their poor performance appears very prominent in this portfolio review. Within the context of the larger HNP portfolio their impact is, however, more modest than expected—the share of projects rated satisfactory or better in the HNP portfolio rises only by four percentage points (from 58 to 62 percent) when the AIDS projects are excluded. In the Africa region where some of the poorly performing AIDS projects are particularly prominent, the share of projects in the satisfactory range increases from 24 to 30 percent when the AIDS projects are excluded. Thus, while AIDS projects have performed

poorly relative to the other communicable disease projects, they do not explain all the weaknesses or perhaps even the most important weaknesses in the HNP portfolio. Even in the hypothetical scenario where all the AIDS projects are discontinued, the weaker performance in the Africa HNP projects will remain a challenge.

5.5 **What has been the impact of increased funding for communicable disease control on countries' other HNP priorities?** In the more populous countries there are usually multiple Bank-financed operations at any given time. In medium-sized and smaller countries there is some evidence that the dominance of single-disease projects and fewer health projects with communicable disease components has displaced some of the Bank's engagement in other health sector priorities.

5.6 **Have communicable disease projects contributed to strengthening the systems that underpin communicable disease programs?** Despite the dominance of approvals for single-disease projects over the past decade, the portfolio review showed that in recent years communicable disease control projects have incorporated broader health systems issues alongside the communicable disease in question (for example, in Eritrea and Angola). This may suggest an increasing implicit appreciation of the role of investments in health systems in the results chain for communicable disease control. But there is still a general absence of explicit health systems considerations in the results framework for disease control efforts and no indicators to track performance and objectively assess success in strengthening the systems that underpin national disease control programs.

5.7 **Should the Bank continue to finance investments in AIDS control given the substantial global AIDS resources and in the face of the Bank's modest outcomes in AIDS control?** Despite the global increase in funding for AIDS, the Bank's role as a financier—although not the largest—becomes of strategic importance. The Bank's role as a catalyst able to leverage funds from other sources was increasingly cited in the last few years covered by this review. Although global resources for communicable disease control have increased, this increase has been uneven across countries and in some "donor-poor" countries the Bank's role as a donor of last resort remains critical. If moving away from financing AIDS projects is a way to address the shortcomings in HNP portfolio performance, the preceding paragraphs have clearly demonstrated that such a response would be missing other equally important factors contributing to weaknesses in the HNP portfolio performance. Finally, another important piece of information that needs to be taken into account when addressing the question is whether Bank-financed AIDS control efforts have performed worse than other AIDS control efforts.

5.8 **Should the Bank continue to invest in communicable disease control? Yes.** Given the disproportionate burden of communicable diseases on the poor it is hard to conceive of a scenario where the Bank is not involved in communicable disease control. Whether the design of the project should be in the form of a single or multiple disease project, or as a component of a larger project depends on too many factors to credibly make a recommendation on the basis of a portfolio review. However, one can conclude that:

- Future operations should retain the positive aspects of disease control projects, namely their results-orientation and focus, while addressing the need for investment in the systems necessary for sustainability of disease control efforts and financial risk protection for the poor in accessing these services.

- Where single-disease projects are financed, their potential for displacing other HNP priorities should be guarded against, especially in small to medium-sized countries. Single-disease projects also need to make explicit the incorporation of systems investments in the results chain for communicable disease control.

- It is critical that investment in health systems strengthening—a major current strategic focus of the Bank's HNP operations—not be viewed as an *alternate* to investment in communicable disease control. Instead, investment in health systems is an essential *means* to controlling disease outcomes, especially for the poor. Failure to translate the complementarity between health systems strengthening and control of disease outcomes into operational terms poses a serious reputational risk to the institution's current commitment to strengthening health systems.

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ANNEX A. LIST OF COMMUNICABLE DISEASE PROJECTS

Project ID	Project Name	Country	Project Design	Disease	Approval Fiscal Year	Project Status[a]
P043418	AIDS and Sexually Transmitted Diseases Control Project	Argentina	Single-disease	AIDS	FY97	Closed
P010473	Tuberculosis Control Project	India	Single-disease	Tuberculosis	FY 97	Closed
P010511	Malaria Control Project	India	Single-disease	Malaria	FY 97	Closed
P041567	Endemic Disease Control Project	Senegal	Multiple disease	Endemic diseases	FY 97	Closed
P004034	Disease Control and Health Development Project	Cambodia	Communicable Disease Component	AIDS, malaria, tuberculosis,	FY 97	Closed
P010526	Health Services Project	Sri Lanka	Communicable Disease Component	Malaria, AIDS	FY 97	Closed
P052887	Health Project	Comoros	Communicable Disease Component	Malaria	FY 98	Closed
P043874	Disease Surveillance and Control Project	Brazil	Multiple disease	Endemic diseases	FY 99	Closed
P054120	AIDS & STD Control Project II	Brazil	Single-disease	AIDS	FY 99	Closed
P036953	Health IX Project	China	Communicable Disease Component	AIDS, diphtheria, pertussis, polio, measles, STIs, tetanus	FY99	Active[b]
P046499	Health Restructuring Project	Kazakhstan	Communicable Disease Component	Tuberculosis	FY99	Closed
P045051	Second National HIV/AIDS Control Project	India	Single-disease	AIDS	2000	Closed
P055482	Public Health Surveillance and Disease Control Project	Argentina	Multiple disease	Endemic diseases	2000	Closed
P067330	Immunization Strengthening Project	India	Multiple disease	Diphtheria, pertussis, polio, measles, tetanus, tuberculosis	2000	Closed
P053200	Health Sector Reform Project	Lesotho	Communicable Disease Component	AIDS	2000	Closed
P051741	Health Sector Program	Madagascar	Communicable Disease Component	Diphtheria, tetanus, pertussis, polio, measles, AIDS, malaria, tuberculosis, plague, schistosomiasis	2000	Closed
P058358	Health Sector Development Project	Solomon Islands	Communicable Disease Component	Malaria	2000	Closed
P058627	Health Sector Development Program	Tanzania	Communicable Disease Component	Diphtheria, pertussis, tetanus, AIDS, malaria, measles	2000	Closed
P069933	HIV/AIDS Prevention Project	Bangladesh	Single-disease	AIDS	2001	Closed
P075220	HIV/AIDS Project	Barbados	Single-disease	AIDS	2001	Closed
P073065	Multisectoral HIV/AIDS Project	Cameroon	Single-disease	AIDS	2001	Closed
P071505	HIV/AIDS Prevention & Control Project	Dominican Republic	Single-disease	AIDS	2001	Closed

Project ID	Project Name	Country	Project Design	Disease	Approval Fiscal Year	Project Status[a]
P069886	Multisectoral HIV/AIDS Project	Ethiopia	Single-disease	AIDS	2001	Closed
P060329	HIV/AIDS Rapid Response Project	Gambia, The	Single-disease	AIDS	2001	Closed
P071617	AIDS Response Project	Ghana	Single-disease	AIDS	2001	Closed
P067543	National Leprosy Elimination Project II	India	Single-disease	Leprosy	2001	Closed
P070920	HIV/AIDS Disaster Response Project	Kenya	Single-disease	AIDS	2001	Closed
P072482	HIV/AIDS Control Project	Uganda	Single-disease	AIDS	2001	Closed
P065713	HIV/AIDS, Malaria, STD & TB Control Project	Eritrea	Multiple disease	AIDS, malaria, tuberculosis	2001	Closed
P049539	Provincial Health Project II	Indonesia	Communicable Disease Component	Dengue, diarrhea, diphtheria, pertussis, polio, malaria, measles, STIs, tetanus, tuberculosis	2001	Closed
P066486	Decentralization, Reproductive Health and HIV/AIDS Project	Kenya	Communicable Disease Component	AIDS, malaria, diphtheria, pertussis, polio, measles, tetanus	2001	Closed
P050495	Caracas Metropolitan Health Project	Venezuela	Communicable Disease Component	AIDS	2001	Closed
P073118	Multisectoral HIV/AIDS Project	Benin	Single-disease	AIDS	2002	Closed
P071433	HIV/AIDS Disaster Response	Burkina Faso	Single-disease	AIDS	2002	Closed
P071371	Multisectoral HIV/AIDS Control and Orphans Project	Burundi	Single-disease	AIDS	2002	Active[c]
P074249	HIV/AIDS Project	Cape Verde	Single-disease	AIDS	2002	Active
P073525	Multisectoral HIV/AIDS Project	Central African Republic	Single-disease	AIDS	2002	Active
P071147	Tuberculosis Control Project	China	Single-disease	Tuberculosis	2002	Active
P074641	HIV/AIDS Prevention and Control	Jamaica	Single-disease	AIDS	2002	Closed
P072987	Multisectoral STI/HIV/AIDS Prevention Project	Madagascar	Single-disease	AIDS	2002	Closed
P070291	HIV/AIDS Program Development Project	Nigeria	Single-disease	AIDS	2002	Active
P074059	HIV/AIDS Prevention & Control Project	Senegal	Single-disease	AIDS	2002	Active
P073883	HIV/AIDS Response Project	Sierra Leone	Single-disease	AIDS	2002	Closed
P073305	Regional Blood Transfusion Centers Project	Vietnam	Multiple disease	AIDS, hepatitis, blood-borne diseases	2002	Active
P072226	Population and AIDS II	Chad	Communicable Disease Component	AIDS	2002	Closed
P080400	AIDS and STD Control Project III	Brazil	Single-disease	AIDS	2003	Closed
P076715	HIV/AIDS Prevention and Control	Grenada	Single-disease	AIDS	2003	Active
P073378	Multi-Sectoral AIDS Project	Guinea	Single-disease	AIDS	2003	Active[e]
P074122	AIDS Control Project	Moldova	Single-disease	AIDS	2003	Active[f]
P078053	HIV/AIDS Response Project	Mozambique	Single-disease	AIDS	2003	Active
P071612	Multi-Sector STI/HIV/AIDS Support Project	Niger	Single-disease	AIDS	2003	Active

Project ID	Project Name	Country	Project Design	Disease	Approval Fiscal Year	Project Status[a]
P080295	Partnership for Polio Eradication Project	Nigeria	Single-disease	Polio	2003	Active
P074856	HIV/AIDS Prevention Project	Pakistan	Single-disease	AIDS	2003	Active
P081909	Partnership for Polio Eradication Project	Pakistan	Single-disease	Polio	FY03	Closed
P071374	Multisectoral HIV/AIDS Project	Rwanda	Single-disease	AIDS	FY03	Active[g]
P074730	National HIV/AIDS Prevention Project	Sri Lanka	Single-disease	AIDS	FY03	Active[h]
P076798	HIV/AIDS Prevention and Control Project	St. Kitts and Nevis	Single-disease	AIDS	FY03	Active
P075528	HIV/AIDS Prevention and Control Project	Trinidad and Tobago	Single-disease	AIDS	FY03	Active
P003248	Zambia National Response to HIV/AIDS	Zambia	Single-disease	AIDS	FY03	Active[i]
P073603	HIV/AIDS, Malaria, and Tuberculosis Control Project	Djibouti	Multiple disease	AIDS, malaria, tuberculosis	FY03	Active[d]
P064237	Tuberculosis & AIDS Control Project	Russian Federation	Multiple disease	AIDS, tuberculosis	FY03	Active
P069857	Tuberculosis and HIV/AIDS Control Project	Ukraine	Multiple disease	AIDS, tuberculosis	FY03	Active
P074850	HIV/AIDS PROJECT for Abidjan – Lagos Transport Corridor	Africa	Single-disease	AIDS	FY04	Closed
P082613	Regional HIV/AIDS Treatment Acceleration Project	Africa	Single-disease	AIDS	FY04	Active[j]
P083169	HIV/AIDS and STI Prevention and Control Project	Bhutan	Single-disease	AIDS	FY04	Active
P080721	Pan Caribbean Partnership Against HIV/AIDS	Caribbean	Single-disease	AIDS	FY04	Active
P077513	HIV/AIDS and Health Project	Congo, Democratic Republic of	Single-disease	AIDS	FY04	Active
P073442	HIV/AIDS Global Mitigation Support Project	Guinea-Bissau	Single-disease	AIDS	FY04	Active[k]
P076722	HIV/AIDS Prevention and Control Project	Guyana	Single-disease	AIDS	FY04	Active
P073821	Multisectoral AIDS Project	Malawi	Single-disease	AIDS	FY04	Active
P078368	Multisectoral HIV/AIDS Control Project	Mauritania	Single-disease	AIDS	FY04	Active
P071014	Multisectoral AIDS Project	Tanzania	Single-disease	AIDS	FY04	Active
P083013	VIGISUS 2 Disease Surveillance & Control Project	Brazil	Multiple disease	Endemic diseases	FY04	Active
P075979	Social Sector Support Project	Sao Tome and Principe	Communicable Disease Component	AIDS, malaria	FY04	Active
P080406	African Regional Capacity Building Network for HIV/AIDS Prevention, Treatment, and Care	Africa	Single-disease	AIDS	FY05	Active
P080413	Great Lakes Initiative on HIV/AIDS Support	Africa	Single-disease	AIDS	FY05	Active
P082243	Central America HIV/AIDS Project	Central America	Single-disease	AIDS	FY05	Active
P087003	Central Asia AIDS Control Project	Central Asia	Single-disease	AIDS	FY05	Active
P087843	HIV and AIDS Capacity Building and Technical Assistance Project	Lesotho	Single-disease	AIDS	FY05	Active
P076795	HIV/AIDS Prevention and Control Project	St. Lucia	Single-disease	AIDS	FY05	Active
P076799	HIV/AIDS Prevention and Control Project	St. Vincent and the Grenadines	Single-disease	AIDS	FY05	Active
P082604	HIV/AIDS Prevention Project	Vietnam	Single-disease	AIDS	FY05	Active

Project ID	Project Name	Country	Project Design	Disease	Approval Fiscal Year	Project Status[a]
P083180	HIV/AIDS, Malaria, and TB Control Project	Angola	Multiple disease	AIDS, malaria, tuberculosis	FY05	Active
P094694	HIV/AIDS/STI, TB, Malaria, and Reproductive Health Project II	Eritrea	Multiple disease	AIDS, malaria, tuberculosis	FY05	Active
P073651	Integrated Disease Surveillance Project	India	Multiple disease	AIDS, malaria, tuberculosis, polio etc.	FY05	Active
P096482	Malaria Control Booster Program	Benin	Single-disease	Malaria	FY06	Active
P088751	Health Sector Rehabilitation Support Project	Congo, Democratic Republic of	Communicable Disease Component	AIDS, diphtheria, pertussis, polio, malaria, measles, tetanus, tuberculosis	FY06	Active
P088797	Multi-Sectoral HIV/AIDS Program	Ghana	Single-disease	AIDS	FY06	Active
P100081	Avian and Human Influenza Control and Preparedness Project	Lao People's Democratic Republic	Single-disease	Endemic diseases	FY06	Active
P090615	Second Multisectoral STI/HIV/AIDS Prevention Project	Madagascar	Single-disease	AIDS	FY06	Active
P097402	Second Partnership for Polio Eradication Project	Pakistan	Single-disease	Polio	FY06	Closed
P096131	Malaria Booster Project	Zambia	Single-disease	Malaria	FY06	Active
P093987	Health Sector Support and AIDS Project	Burkina Faso	Communicable Disease Component	AIDS, diphtheria, pertussis, polio, measles, tetanus	FY06	Active

Source: World Bank Business Warehouse.

a .Project that closed on or before June 30, 2008, are classified as closed. Some projects have since closed, and where that is the case, the closing date has been stated in the footnote.
b. Project closed on June 30, 2008.
c. Project closed on November 30, 2008.
d. Project closed on September 30, 2008.
e. Project closed on December 31, 2008.
f. Project closed on July 30, 2008.
g. Project closed on October 30, 2008.
h. Project closed on June 30, 2008.
i. Project closed on August 31, 2008.
j. Project closed on September 30, 3008.
k. Project closed on December 31, 2008.

ANNEX B. COMMUNICABLE DISEASE OUTPUTS, OUTCOMES, AND IMPACT

Table B-1: Commonly used output and outcome indicators for communicable disease projects

Malaria	Tuberculosis
Output Indicators	*Output indicators*
Percent of budget spent on non-IRS activities	Number of smears per chest symptomatic examined
Number of insecticide-treated bednets (ITN) distributed	Number of smear positive cases diagnosed
Percent of target population reached with IEC messages	TB case detection rate (of new smear-positive cases)
Number of districts with completed action plans	Share of new extra-pulmonary cases out of total new TB cases
Percent of malaria prone districts with least 1 CBO/NGO receiving grant	Number of new extra-pulmonary cases started on treatment
Number of ACT treatments distributed to districts per 10,000 population.	Number of smear positive re-treatment cases initiated on treatment
Intermediate Outcome Indicators	Percent of re-treatment cases out of all smear positive cases
Number or proportion of households with 1 or more ITNs	Volunteer training in DOTS
Number or proportion of households with 3 or more ITNs	Health staff training in MDR TB
Proportion of children under 5 yrs sleeping under ITNs	Availability of drugs at clinic (for smear +ve & smear –ve patients)
Proportion of pregnant women sleeping under ITNs	Quality control network for microscopy services in place
Percent of pregnant women receiving complete course of IPT[40]	*Intermediate Outcome Indicators*
Percent of people in IRS-eligible districts who sleep in sprayed structures	Three months conversion rate[41]
Percent of < 5 year old malaria cases treated within 24hrs of onset of fever	Cure rate of smear-positive TB cases
Percent of health care providers correctly diagnosing and treating malaria	DOTS coverage (proportion of new smear positive cases put on DOTS)
Percent of health facilities with functioning malaria diagnostic system	Completion rate[42]
Percent of health facilities with no reported stock outs[43]	*Impact Indicators*
Percent of respondents surveyed with appropriate malaria knowledge	TB incidence (per 100,000 population)
Percent of people exposed to malaria education messages	TB prevalence (per 100,000 population)
Number of community volunteers trained in malaria control	TB mortality (per 100,000 population)
Percentage of health workers trained to use ACTs for children and adults	Avian Influenza
Percentage of health workers trained to in malaria clinical management	*Output indicators*
Hospital mortality due to malaria will be reduced by X percent	Percent of provinces that send weekly surveillance report
Impact Indicators	Percent of backyard poultry producers trained in bio-security
Malaria incidence	Percent of commercial poultry producers trained about bio-security

[40] Intermittent presumptive treatment.
[41] Share of all new smear positive cases begun on treatment who become smear negative after 3 months.
[42] share of cases successfully completing treatment without sputum examination at end of treatment
[43] Refers to stock-outs of the nationally recommended anti-malarial drugs continuously for one week during the last 3 months.

Malaria prevalence	Percent of slaughtering house employees trained in bio-security
Number of malaria cases	Percent of laboratory staff trained for HPAI diagnosis and H5 sub-typing
Stabilization of fatal malaria as percent of total malaria cases	Percent of provinces with an effective rapid response team
Reduction in Malaria death rate (in under five and pregnant women).	Percent of health staff trained (infection control; case management)
Leprosy	AI surveillance hospitals with 5 staff trained in specimen collection
Intermediate outcome indicators	AI communication strategy and action plan developed
Number of cases newly detected (never treated before)	Percent of provinces that have a multi-sectoral AI team
Specific detection rates (by gender, age-group etc.)	Percent of provinces with AI and pandemic preparedness plan
Cure Rate (proportion of registered cases cured)	*Intermediate outcome indicators*
Number of relapse cases	Percent of staff with infection control, case management knowledge
Impact Indicators	Percent of suspected patients treated according to the guidelines
Leprosy prevalence rate (per 10,000)	Percent of targeted influenza specimens tested
Percent with stage II deformity	Percent of suspected AI specimen tested within 24 hours
Polio	Percent of backyard poultry farmers who know about AI
Output indicators	Percent of backyard poultry farmers knowing 3 self-protection methods
Arrival of OPV at the EPI cold rooms well before each of the SIAs[44]	Percent of backyard poultry farmers knowing 3 protection methods poultry
Cold chain system established and operational	*Intermediate outcome indicators*
Social mobilization program implemented	Percent of backyard poultry farmers currently doing at least 3 correct things to protect themselves and poultry
Targeted capacity building program implemented	*Impact indicators*
Surveillance program implemented	Percent of districts free of confirmed HPAI infection in the poultry sectors
Intermediate Outcome Indicators	
Oral polio vaccine coverage (%)	
SIA coverage in the endemic provinces	
Impact Indicators	
Number of polio cases reported	

Source: Project Appraisal Documents.

[44] Supplemental immunization activities.

Table B-2: Achievement of communicable disease outcomes

Country, project, and FY active	Communicable disease objective/target	Baseline data collected	Disease control activities implemented	Communicable disease outcomes	Health outcomes among the poor	Strength of attribution
Malaria						
Cambodia Disease Control and Health Development Project 1997–2002 (P004034)	Reduce death and illness from preventable diseases, especially malaria, tuberculosis (TB), and HIV/AIDS. Rehabilitate the health system infrastructure so as to deliver basic health services and disease control programs more effectively down to the community level.	National baseline and end-point household health surveys were conducted. The baseline did not capture important indicators for tracking progress on HIV and malaria behaviors; the sampling frame of end-survey was biased toward communities with better access to health care; questionnaire, reference periods, reporting conventions for morbidity and health care utilization were not comparable with the baseline.	Training: Nearly 1,000 health staff and 250 military health personnel received clinical training in malaria; 475 technicians and 375 military technicians were trained in laboratory methods; 775 health center staff were trained in dipstick diagnosis and national treatment guidelines.	Bed-net ownership and use: There is no data on actual treated bed-net use. Malaria morbidity: Total cases declined by 35 percent between 1997-2001. Malaria incidence: declined from 15/1000 to 9.6/1000. Case fatality rate: was reduced by 51 percent.	The choice of communicable diseases (especially malaria) favored the poor, as did the construction and rehabilitation of rural health facilities.	
Comoros Health Project 1998–2004 (P052887)	Reduce mortality from common diseases, particularly malaria; to reduce the incidence of malaria.		Bed-nets and ITNs: Sales of bed-nets met the targets, with a delay: Rather than 50,000 in 1998 and 20,000 per year thereafter, 50,000 (un-impregnated) nets were sold in 2002 and 30,000 in 2003. In addition, 11,000 impregnated bed-nets were sold in 2004. The target for annual number of bed-nets impregnated was 140,000 by the end of the project. 78,000 impregnation kits were sold, but the number bed-nets impregnated is unknown. IRS: 11,780 households received spraying treatment, against an annual target of 13,000.	Bed-net ownership and use: There is no data on actual treated bed-net use. The national malaria control strategy changed from a reliance on spraying to a more technically feasible economically sound program focused on procurement of bed nets, and development of breeding basins for larva-eating fish.		
Eritrea HAMSeT Control Project 2001–2006 (P065713)	a) Increase knowledge and awareness (b) Increase access to prevention	No baseline on ITN coverage. No baseline on treatment rate.	Over 870,000 insecticide-treated nets (ITNs) were distributed, compared to fewer than 120,000 before the project. As of 2004, 73% of households had one or more ITNs. 107,000 mosquito-breeding sites were eliminated and	Malaria morbidity: Outpatient malaria cases declined 80 percent (125,746 to 24,192) from 2001-5. Inpatient cases in those over five dropped from 1,913 to 519. Malaria mortality: Reported malaria deaths	Not mentioned.	Confounded by steep decline in malaria before project started, major drought

Country, project, and FY active	Communicable disease objective/target	Baseline data collected	Disease control activities implemented	Communicable disease outcomes	Health outcomes among the poor	Strength of attribution
	(c) Increase access to early treatment (d) Reduce morbidity and mortality		150,000 sites treated. From 2001-2005, ITN re-impregnation rate increased from 53% to 93%. Only 20% of the community-managed projects (component D) were related to malaria; many community-level malaria activities were financed through other components.	declined from 105 to 16. Under-five malaria mortality rate dropped from 10.6/1000 to 0.84/1000. Case fatality rate: Under-5 case fatality declined from 5.97 percent to 0.21 percent; overall CFR declined from 3.63 percent to 0.56 percent (but this was up from 0.38 percent in 2004).		2001-4, many donors involved in malaria, weak project M&E. RTI research suggests that outputs like those supported by the project did have a significant impact when drought is controlled for.
India Malaria Control Project 1997–2005 (P010511)	Create an enhanced and more effective malaria control program that uses a better mix of effective malaria control interventions responsive to local needs; and strengthens the Directorate of the National Malaria Eradication Program (NMP).	Baseline data are not cited in the PAD or ICR.	Expenditure on non-IRS activities: project states have increased expenditures on non-IRS activities; these now comprise about 75 percent of total malaria budgets, exceeding the project target of 40 percent. IEC: Exposure to IEC is below 30 percent; lower than the project target of 50 percent. The recall of poster content, while improved, is still very low (below 10 percent) in certain states. Diagnosis and treatment: Access in public sector districts, the number of workers increased from 200,000 in 1997 to 500,000 in 2006 across the country including project districts. On average nearly 100 million blood slides are collected annually. Treatment quality and compliance and diagnostic access in remote and hard-to-reach areas have all improved. Bed-net and ITNs: Approximately 10 million insecticide treated bed nets (ITNs) have been procured (between 1998 and 2005), enough to cover approximately 17 percent of the high risk populations. IRS: The project has been successful in replacing widespread IRS with targeted spraying and increasing the use of non-insecticide vector control methods. Use of IRS continues to decline in project districts; less than 25 million people were covered in 2004, or 51 percent less than in 1997 (when 49 million people were covered), reflecting a much higher degree of targeting, as opposed to more widespread IRS, as had been common. Larvivorous fish: Use of non-insecticide vector control methods, such as larvivorous fish, has increased in the project, with 21,180 district-level fish hatcheries established.	Bed-net ownership and use: There is no data on actual treated bed-net use. Malaria morbidity: In 2004 approximately 650 malaria cases were reported in the 1,045 project primary health care centers, which represent a 45 percent decline since 1997. At an aggregated state level, by the project mid-term (2001), the average decline in case-load in project and non-project states was similar, ranging around 25 percent. From 2001-05, a much steeper decline was noted in project states (25 percent), compared to non-project states (1 percent). Stabilization of "fatal malaria" (P. Falciparum) has occurred with the number of reported cases dropping from 700,000 to 400,000. However, there has been a slight rise in P. Falciparum as a percentage of total cases over the project period (58 percent to 61.5 percent). (Project target was to stabilize P. Falciparum as a percentage of total malaria cases at less than 50 percent.). Environmentally friendly interventions: The program has been successful in shifting emphasis from indoor residual spraying (IRS) to a broader mix of effective and environmentally friendly interventions, notably the use of insecticide-treated bed-nets, and more targeted and strategic spraying.		Declines in case-loads and in the number of reported cases of "fatal malaria" in the project states can be attributed to substantial project investments aimed at achieving a better mix of effective anti-malarial interventions and at strengthening and reorienting the National Anti-Malaria Program (NAMP), culminating in the following outputs:

Country, project, and FY active	Communicable disease objective/target	Baseline data collected	Disease control activities implemented	Communicable disease outcomes	Health outcomes among the poor	Strength of attribution
Senegal Endemic Disease Control Project 1997–2004 (P041567)	Alleviate the burden of endemic and epidemic diseases, in particular to reduce the burden of three targeted diseases: malaria, schistosomiasis, and onchocerciasis.	The development of a sound information base and M&E system to guide malaria policy was not achieved. A study of the epidemiological profile of malaria was started only in 2003 and remained half completed at the project's end; all other studies planned under the IDA credit were cancelled. Notably, annual resistance studies were completed with USAID funding.	Analysis, Planning, and Policy: A situational analysis of malaria resulted in the design of a national strategic plan; treatment guidelines were revised following the results of resistance studies, resulting in the introduction of combination treatment and training of health care workers in its prescription; some social mobilization activities were undertaken; and regulatory reforms removed taxes on insecticide treated bed nets. Bed-nets and ITNs: A bed net market study was completed. Although 200,000 bed nets were acquired near the end of the project, the bed nets need to be distributed. A coherent national bed net pricing and distribution policy is yet to be finalized. Community participation in vector control: Project did not achieve a significant improvement in community participation in malaria control activities. Guidelines for such participation was lacking. Treatment: A large quantity of drugs (SP) were acquired near the end of the project. The intermittent treatment protocol of pregnant women with SP needs to be made operational.	Bed-net ownership and use: There is no data on actual treated bed-net use. Infant mortality attributable to malaria: Target of 25 percent reduction not achieved. While baseline and end-of-project data were not collected on this indicator, available data on malaria consultations and hospital deaths due to malaria suggest that malaria morbidity remained constant throughout the life of the project.		
Solomon Islands Health Sector Development Project 2000–2007	Improve health outcomes of rural communities through (a) strengthening existing reproductive health and malaria programs, testing new approaches to reducing these problems, and (b) improved planning, management, and monitoring of priority health programs.		Training: Community-based microscopists were trained in the two provinces to improve case detection; training reportedly increased data collection and more accurate analysis of data collected. IEC: Workshops for malaria staff and field workers and for community leaders were held in 2001-2004, to enhance community awareness and education of malaria prevention and control. Bed-nets and ITNs: Between 2004-2005, the number of bed-nets treated annually in GP (Guadalcanal Province) rose from 5, 467 to 14,000. The proportion of the population covered by treated bed-nets and/or house spraying reportedly rose from 30 percent to 60 percent. In MUP (Makira Ulawa Province) the number of bed-nets treated per year rose from 3, 685 to 8,978 IRS: The number of persons protected by house spraying rose from 9,404 to 19,380. In MUP the number of persons protected by house spraying increased from 3,423 to 10,295. The share of the population covered by either ITN or IRS, or both rose from 25 percent to 65 percent. National data were not provided. (The ICR reports that	Bed-net ownership: In 2006 share of households with a bed-net ranged 98 percent to 29 percent; baseline statistics from previous years are not available (Household Income and Expenditure Survey, 2006). Bed-net use: There is no data on actual treated bed-net use. Malaria morbidity (OPD): At national level the clinically defined cases per 1,000 remained roughly constant (1999: 288.6 and in 2006: 283.4). Cases decreased in GP (from 298.1 in 1999 to 251.6 per 1,000 in 2006) and increased in MUP (from 300.7 in 1999 to 443.2 per 1,000 in 2006). Similar trends were observed in slide diagnosed cases: At national level cases per 1,000 remained roughly constant (1999: 156.1 and in 2005: 162.1). Cases decreased in GP (from 224.6 in 1999 to 126.4 per 1,000 in 2006) and increased in MUP (from 68.4 in 1999 to 173.3 per 1,000 in 2005).		Prior to the project, malaria incidence declined by 67 percent between 1992 and 1999, the result of an effective combination of bednets and focal spraying, an approach that this project aimed to continue (Over and others 2003, "Impregnated Nets Cannot Fully Substitute for DDT: the Field Effectiveness of Alternative Methods of Malaria

Country, project, and FY active	Communicable disease objective/target	Baseline data collected	Disease control activities implemented	Communicable disease outcomes	Health outcomes among the poor	Strength of attribution
			"serious staff management issues" in MUP impeded progress in bed-net distribution and focal spraying and led to "flaws in reporting data."). Malaria Information System: Two computer sets and accessories were procured for the Malaria Information System, for GP and MUP. "Community mapping" was conducted in MUP and GP to improve community participation in the malaria prevention and control program, but no evidence is provided in the ICR that it contributed to improved malaria outcomes.			Prevention in the Solomon Islands, 1993-99"). There is no information in the ICR concerning other factors, such as rainfall, or the activities of other donors, that might have had an impact on trends.
Sri Lanka Health Services Project 1997–2002 (P010526)	Address the major public health problems of malaria, malnutrition, and HIV/AIDS.		Bed-nets and ITN: By the end of the project, about 150,000 bed-nets had been procured and distributed. Between 1997 and 2000, 9,010 bed-nets were re-impregnated, but was very slow in implementation. Treatment: The mobile malaria clinic strategy was found expensive (30 percent of the program cost) and not sustainable. Analysis, Planning and Policy: Regular district plans were prepared and implemented with implementation monitored through quarterly review meetings of the regional malaria officers and six-monthly meetings of all the malaria officers. Training: About 80 percent of the planned training was achieved. Additional outputs: Projects were completed in water management for vector control, and control of mosquito breeding in wells using the larvivorous fish. Upgrading seven entomological laboratories and doubling the number of field days of entomological investigations from 12 to 24 per month.	Malaria morbidity: Expansion into four additional high prevalence areas was not undertaken until after the MTR. Cases detected in the six project districts dropped from 70,503 in 1997 to 11,055 in 2001. Bed-net ownership and use: There is no data on actual treated bed-net use.		The target reduction in the number of malaria cases in six high prevalence districts was achieved, but this achievement cannot be solely attributed to the project as the reduction was facilitated by a drought in 2001.
Tuberculosis						
Argentina Public Health Surveillance and Disease Control Project 2000–2004 (P055482)	Reduce the disease burden, especially among the poor.		Training: Staff in more than 700 health centers were reached with TB training program (TB diagnosis; treatment including norms and standards for implementing DOTS. Equipment: Laboratory network was upgraded for improved diagnosis. Diagnosis: The percentage of bacteriologic confirmation of pulmonary TB cases increased but well under the target rate of 85 percent: 2000: 72.5 percent	TB morbidity: TB cases increased through 2003 and in by 2005 had declined to a level only slightly below when the project started 2000: 11,767 cases 2001: 11,464 2002: 11,545 2003: 12,278 2004: 12,079 2005: 11,242 TB incidence: Incidence per 100,000 was	An important caveat, however, is that the extent to which the poor benefited from TB interventions is not assessed and it is not	TB cases increased through 2003 and in by 2005 had declined to a level only slightly below when the project started. Given the adverse

Country, project, and FY active	Communicable disease objective/target	Baseline data collected	Disease control activities implemented	Communicable disease outcomes	Health outcomes among the poor	Strength of attribution
			2001: 72.9 percent 2002: 74.7 percent 2003: 74.4 percent 2004: 73.3 percent DOTS coverage: DOTS treatment improved, but it was below the 80 percent target rate: 2000: 37.4 percent 2001: 57.1 percent 2002: 56.7 percent 2003: 57.8 percent 2004: 64.1 percent	influenced by the economic crisis: 2002: 30.5 percent 2003: 32.0 percent 2004: 31.1 percent 2005: 29.1 percent Case detection rate: Not reported. Cure rate: Not reported.	clear whether outcomes cited are averages for the areas targeted by the project or national averages.	economic conditions, the increase could have been higher without the project interventions.
Eritrea HAMSeT II Project 2001–2006 (P094694)	a) Increase knowledge and awareness (b) Increase access to prevention (c) Increase access to early treatment (d) Reduce morbidity and mortality	No baseline for TB prevalence, cure rates, or mortality rates.	Tuberculosis: A National TB plan was finalized in 2004 and the first national TB Prevalence survey was conducted in 2005, demonstrating substantially lower prevalence than previously thought. HAMSET supported TB detection and management among conscripts and created a link with the HIV/AIDS program, so that all TB patients are referred for counseling and testing services and all HIV-positive conscripts receive TB prophylaxis. The project supported capacity-building for fluoromicroscopy in every region and the training of 500 TB promoters whose effectiveness is not seen to be high due to a lack of incentives and technical back-up. By 2005, DOTS was available in all hospitals and in many health centers; it is unclear to what degree the HAMSET project is responsible for this. From 2001-2004, DOTS coverage rose from 40% to 84%, about the same level as in 2000 (80%). However, the TB program suffered from staff shortages. The quality of smear microscopy at the local level remains a concern; many tests are not done due to a shortage of reagents.	Tuberculosis: From 2001-2003, the DOTS treatment success rate increased marginally, from 80% to 85%. Cure rates were reported at 82% in 2004 and 80% in 2005; no pre-project figures are given. Data on TB mortality were not provided.	Not reporrted	Insufficient data on outcomes; efficacy of HAMSET activities unknown; TB program suffered staff shortages, quality of smear microscopy at the local level a concern, many tests not done because of shortage of reagents.
India TB Control Project 1997–2006 (P010473)	Reduce mortality, morbidity and disability by curing TB cases, thereby reducing the incidence of infectious TB, the annual risk of infection and the development of drug resistance.		Training: More than 490,000 staff were trained or re-trained during the project period—more than five times the initial target of 88,256. Management capacity was built at all levels of the program and, after restructuring, States and Districts were given more support to full more clearly defined roles. IEC: Project's information, education, and communication (IEC) investments have helped to: (i) spread the message that TB is curable, with quality services readily available for patients with more than three weeks of coughing; and (ii) reduce stigma. However, strengthened interpersonal communication efforts are needed	TB morbidity: The program estimates that the present incidence of smear positive cases is about 0.8 million cases per year for the country as a whole. TB mortality: TB death rates have been reduced 7-fold in DOTS areas versus non-DOTS areas. It is estimated that over 865,000 additional lives have been saved by RNTCP so far. The latest WHO Global Report on TB estimates the annual number of deaths from TB in India to be less than 400,000, as compared with about 500,000 deaths per year before the project, with total population being considerably smaller at that time. TB incidence: TB incidence at 1.5 percent, as		The attribution of these outcomes to the project inputs is strong—for example: TB death rates have been reduced 7-fold in DOTS areas versus non-DOTS areas.

Country, project, and FY active	Communicable disease objective/target	Baseline data collected	Disease control activities implemented	Communicable disease outcomes	Health outcomes among the poor	Strength of attribution
			to further change beliefs and attitudes and to reinforce information about treatment. Community and private sector mobilization: The program has been effective in developing a wide network of community volunteers, which has been a great boon to TB control efforts, especially with regard to follow up of individual patients and direct observation to ensure successful completion of treatment. Involvement of private and NGO providers: 9,700 private practitioners (first point of contact for some 60 percent of TB patients) were officially providing RNTCP services. More than 1,600 NGOs were involved in the program, mainly providing assistance in tracking and treatment follow-up of smear positive patients. Over 100 private enterprises, associations, and companies are also joining RNTCP efforts to screen, treat or refer infected employees. MIS: The RNTCP has developed an effective management information system that is electronically connected to all districts/city units in the country and this data is supplemented by periodic evaluations (external and internal) and operational research. Diagnosis and treatment: Original target was to diagnose and treat 1.9 million cases where TB was suspected. Revised target was 2.4 million. Actual: slightly over four million. DOTS coverage: Envisaged target was 800,000 patients to be put on DOTS treatment in the project districts. Actual number was more than double this target, at almost 1.8 million patients. Coverage (percentage) estimates are not available.	measured in 2003, is lower than the previous estimate of 1.7 percent. A repeat survey at 3-5 year intervals is planned to document impact on incidence. The TB Research Center at Chennai estimated an annual rate of decline in the incidence of smear positive TB of about 9.4 percent in its study covering 1999-2001 and 2001-2003 at Thiruvallur district in Tamil Nadu. Case detection rate: In 2004 a sputum positive case detection rate of 72 percent was achieved in the project districts against a target of 50 percent in the SAR. The annualized case detection rate, which measures the degree of effectiveness of the program in finding cases of infectious TB among the general population, has been most recently estimated at 138/100,000 population, falling somewhat short of the project's target of 145/100,000. Cure rate: Public sector (national) cure rate before the start of the project was only about 35 percent. The cure rate for cases treated in project districts in 2004 reached 86 percent, slightly higher than the project's target of 85 percent (which is also the global target). , which shows how large a difference the introduction of DOTS has brought. MDR: Data from recent studies conducted by TRC, Chennai, and NTI, Bangalore, have found that multi-drug resistance levels in TB in India is between 0.5 percent and 3 percent in new cases and 12 percent in re-treatment cases.		
Kazakhstan Health Restructuring Project 1999–2002 (P046499)	Improve the quality and cost effectiveness of primary health care (PHC)		Training and Equipment: Two of the planned five Clinical Training Centers (CTCs) for GPs were completely renovated and all five CTCs were equipped. Training is proceeding in at least one CTC and 28 trainers were trained in family medicine. Furthermore, one hundred health facilities were upgraded and equipped. DOTS coverage: DOTS was introduced nationwide a year before the project started, but no information on coverage is available.	TB morbidity: Not reported. TB mortality: Kazakhstan has realized a 42 percent reduction in TB-related mortality. TB incidence: ICR reports a decrease in incidence but no statistics are quoted. Case detection rate: Not reported. Cure rate: A cure rate of 83 percent was achieved (subject to confirmation by laboratory assessment).		USAID and WHO also supported TB Control and not all achievements are attributable to the project.
Polio						
Pakistan Partnership for Polio Eradication Project	Eradicate polio from Pakistan by supporting the		Vaccine procurement: The project provided 54 percent of the OPV necessary to conduct SIAs, exceeding its objective of 50 percent. It	Polio immunization coverage: By the project closing date, coverage in each of the four endemic provinces was well above 80 percent (98	The project succeeded in maintaining	

Country, project, and FY active	Communicable disease objective/target	Baseline data collected	Disease control activities implemented	Communicable disease outcomes	Health outcomes among the poor	Strength of attribution
2003–2006 (P081909)	supply of additional oral polio vaccine (OPV) needed during 2003-2005 for Pakistan's supplementary immunization activities (SIAs).		consistently fell short on meeting the performance target of delivering OPV no less than 5 weeks before each SIA (none of the consignments arrived in this timeframe; 70 percent of the OPV consignments arrived 20-34 days prior to the SIAs), however this was not attributed to the project. Despite not meeting the performance target, the WHO audit report found that "all of the SIAs scheduled for 2003, 2004, and 2005 were held as planned and no shortage of vaccine was encountered in any of the SIAs anywhere in the country" (ICR, p. 36). Adequate OPV was supplied for 18 National Immunization Days/ Sub-National Immunization Days and mop-up operations.	percent in two of the provinces, 96 percent in the third, and 95 percent in the last). The baseline average for these provinces was 95 percent. Polio incidence and morbidity: Based on the results of surveillance systems, there was a decrease in polio cases in Pakistan over the project period, falling from 103 to 28 between 2003 and 2005 and the number of districts with reported polio cases decreased from 49 in 2003 to 18 in 2005.	OPV coverage at very high levels, substantially contributing to reduce transmission and to the objective of eradication.	
India Immunization Strengthening Project 2000–2006 (P067330)	Eradicate poliomyelitis. Reduce vaccine-preventable diseases by strengthening the routine immunization program.		Studies, analyses polices, and planning: India has evolved a Multi Year Strategic Plan (2005-2010) for addressing Vaccine Preventable Diseases, through an extensive consultative process involving the states and other stakeholders, including the development partners. The National Injection Safety Assessment documented the risk of unsafe injections and the practices underlying them, and has led to changes in policy and practice that should significantly improve injection safety in India. Training: The training inputs envisaged under the project were provided as planned. However, the program management improvement initiatives, such as institutionalizing computerized monitoring systems, strengthening management structures and updating of program management guidelines, faced delays. Diagnosis: The project indicator: "Stool collection from acute flaccid paralysis cases within 14 days" increased from 71 percent at baseline to 82 percent in 2005.	Polio immunization coverage: Nationally there was a 2.7 percent decrease in full immunization coverage of children age 12-23 months between 1998-99 and 2002-03. Although a large number of states sustained high immunization coverage, such coverage remained either stagnant or even declined in other states. Of the eight target states one had an increase in coverage, one had unchanged coverage, and coverage decreased in the remaining six states. The project indicator: "percent of districts with 80 percent coverage of fully immunized children under 1 year" increased from 20 percent in 2000 to 18 percent in 2003. Polio incidence: Major polio outbreak in 2002 with over 1,600 cases. The number of wild polio cases decreased in the next two years: 136 polio cases in 2004 and 59 cases in 2005 (out of which 27 were from Uttar Pradesh and 26 from Bihar). During the first quarter of 2006, 22 cases were already reported. India is unlikely to become polio-free, the target for 2006/7. While most of the states in India now polio-free, the persistent cases have been concentrated in the states of Uttar Pradesh and Bihar, which are often lagging in implementation of social programs.		
Leprosy						
India Second National Leprosy Elimination Project 2001–2004 (P067543)			Integrate leprosy control activities with general health services: Success varied by states. According to the Leprosy Elimination Monitoring Report (2004), the diagnosis and treatment of leprosy was being undertaken by GHS staff in about 80 percent of the facilities. Bihar, Jharkhand, Karnataka, Orissa, Uttar	"Actual" prevalence rate: not measured. "Recorded" Leprosy prevalence: Recorded prevalence declined from 5.28/10,000 in 2000 to 1.99/10,000 in December 2004 and further to 1.34/10,000 at the time of writing of the ICR (June 2005). Based on the additional information provided by the Region, the target of < 1/10,000		

Country, project, and FY active	Communicable disease objective/target	Baseline data collected	Disease control activities implemented	Communicable disease outcomes	Health outcomes among the poor	Strength of attribution
			Pradesh and West Bengal reported successful integration in more than 85 percent of the facilities. However, Andhra Pradesh and Chattisgarh reported successful integration in less than 60 percent of the facilities. Other inputs and outputs have not been identified in ICR. Community awareness: Community awareness of the curability of leprosy and the availability of free treatment estimated at 80 percent and 86 percent respectively. (It was not clear on what type of survey this was based.)	was fully achieved by September 2005. Percentage of Grade II Deformities: The proportion of grade II deformities was reduced from 2.31 in 2001 to 1.64 in 2004. Although the target was met, the ICR notes that very few reconstructive surgeries were conducted in Government hospitals because the Government doctors and staff are reluctant to treat people with visible disability.		
Schistosomiasis						
Senegal Endemic Disease Control Project 1997–2004 (P041567)	Alleviate the burden of endemic and epidemic diseases, in particular to reduce the burden of three targeted diseases: malaria, schistosomiasis, and onchocerciasis.	Baseline survey was conducted in 2003 among school children inmost affected areas. Note: 25 percent of children are not in school. Survey was not repeated after the mass treatment interventions. Planned morbidity studies were not completed.	Training: Training tools developed to train health personnel teachers and agriculture guides. Vector control (by niclosamide use in snail affected water): process has started. Mass treatment: In 2004 a round of mass treatment of school children was undertaken in high prevalence areas.	Morbidity among school-age children attributable to urinary schistosomiasis: Target of 90 percent reduction was not achieved. Baseline and end-of-project data were not collected on this indicator, available data show an increase in prevalence among school children from 19.5 percent to 22 percent over the life of the project.		
Onchocerciasis						
Senegal Endemic Disease Control Project 1997–2004 (P041567)	Alleviate the burden of endemic and epidemic diseases, in particular to reduce the burden of three targeted diseases: malaria, schistosomiasis and onchocerciasis.	Community prevalence surveys for monitoring program effectiveness were completed.	Mass treatment: Mass annual treatment of affected villages was expended; the number of treated villages increased from 471 in 1996 to 606 in 2003. Training: training health and community workers, and organizing a technical workshop to review progress and planning. In general, there was a relatively low completion rate of planned activities.	Cases of riverblindness: The elimination of new cases of riverblindness in the program area was mostly achieved. Onchocerciasis prevalence declined over the life of the project from 2.5 percent to 0.2 percent. However, the Onchocerciasis Control Program was already well established and receiving the support of other donors at the outset, so project attribution is probably modest. Onchocerchiasis prevalence fell from 9.5 percent to 0.2 percent over the time period: 1996-2003.	Since this success built upon the	While onchocerciasis prevalence declined, the Onchocerciasis Control Program was already well established and funded by other donors at the outset, so project attribution is probably modest. EDCP only contributed approximately US$55,000 to Onchocerciasis control.

Dengue						
Argentina Public Health Surveillance and Disease Control Project 2000–2004 (P055482)	Reduce the disease burden, especially among the poor.		Training: The training of 5,000 field workers and the support to dengue control in high-risk populations (surveillance sentinel sites, lab testing of suspected cases and vector monitoring in areas of high risk). The laboratory system was upgraded to support proper detection and the 39 sentinel surveillance system was put in place.	Dengue incidence: There were no dengue cases in the 52 sentinel sites and no major dengue outbreaks in Argentina, despite such outbreaks in neighboring countries. Dengue was classified as a notifiable disease.		

Table B-3: Summary of results from closed communicable disease projects

Indicator	Project (Country/FY)	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
AIDS												
HIV prevalence: Army conscripts	Brazil (FY99)	0.2%						0.09%				
HIV prevalence: Pregnant women	Brazil (FY99)		0.3%					0.6%				
HIV prevalence: Sex workers	Brazil (FY99)							6.50%				
HIV prevalence: Injecting drug users	Brazil (FY99)			52%		36%						
HIV prevalence: 15-49 years (women)	Brazil (FY99)					0.47%						
HIV prevalence: 15-49 years (men)	Brazil (FY99)					0.84%						
HIV prevalence: 15-49 years (total)	Brazil (FY99)					0.65%						
HIV prevalence: Pregnant women	India (FY99)								0.87%	0.89%	0.88%	
HIV prevalence: Sex workers	India (FY99)								10.3%	9.43%	8.44%	
HIV prevalence: Injecting drug users	India (FY99)								13.3%	11.20%	10.16%	
HIV prevalence: Men who have sex with men	India (FY99)								12.10%	7.50%	8.74%	
HIV prevalence: 15-49 years	India (FY99)										0.91%	
HIV prevalence: 15-49 years (high prevalence states)	India (FY99)										3.79%	
HIV prevalence: 15-49 years (low prevalence states-low)	India (FY99)										0.12%	
HIV prevalence: 15-49 years (low prevalence states-high)	India (FY99)										1.29%	
HIV prevalence: 15-24 years	Kenya (FY01)						14%		6.0%			
HIV prevalence: 15-49 years	Kenya (FY01)				10%		14%			6.4%	5%	
HIV prevalence: Pregnant women	Ghana (FY01)							3.9%			2.7%	
HIV prevalence: Direct sex workers (Kumasi)	Ghana (FY01)							45%			39%	
HIV prevalence: Indirect sex workers (Kumasi)	Ghana (FY01)							15%			24%	
HIV prevalence: 15-19 years	Ghana (FY01)							2.3%			0.8%	
HIV prevalence: 15-49 years	Gambia (FY01)						1.3%				1.1%	
HIV prevalence: Pregnant women	Uganda (FY01)						9%				7%	
HIV prevalence: Pregnant women	Eritrea (FY01)						3%		2%	2%		

Indicator	Project (Country/FY)	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
AIDS (continued)												
Syphilis prevalence : Army conscripts)	Brazil (FY99)	0.5%						1.8%				
Syphilis prevalence: pregnant women	Brazil (FY99)		2.8%			1.7%						
Syphilis prevalence: sex workers	Eritrea (FY01)						2%				0.7%	
STI prevalence	Gambia (FY01)							8.1%			3.7%	
Condom use: Injecting drug users	Brazil (FY99)				42.1%		62.9%					
Condom use: SW with clients	Brazil (FY99)				73.8%							
Condom use at last high risk sex (total)	Uganda (FY01)						30%					
Condom use at last high risk sex (women)	Uganda (FY01)						38%				47%	
Condom use at last high risk sex (men)	Uganda (FY01)						59%				53%	
Ever condom use among bar workers	Eritrea (FY01)						63%			84%		
Condom use at last high risk sex (women)	Kenya (FY01)			15.1%					23.9%			
Condom use at last high risk sex (men)	Kenya (FY01)			42.5%					46.5%			
Age at first sex	Kenya (FY01)			16.7					17.8			
Sexually active 15-19 yr olds (total)	Uganda (FY01)						49%					
Sexually active 15-19 yr olds (women)	Uganda (FY01)						52%				46%	
Sexually active 15-19 yr olds (men)	Uganda (FY01)						39%				42%	
Percent of unmarrieds with more than 1 partner (women)	Kenya (FY01)			5%					0.9%			
Percent of unmarrieds with more than 1 partner (men)	Kenya (FY01)			29.4%					10.3%			
Percent with non-regular partners (total)	Uganda (FY01)						14%					
Percent with non-regular partners (women)	Uganda (FY01)						11%				15%	
Percent with non-regular partners (men)	Uganda (FY01)						21%				37%	
Coverage: sex workers – low frequency)	India (FY99)										35%	
Coverage: sex workers - high frequency)	India (FY99)										45%	
Coverage: injecting drug users	India (FY99)										46%	
Coverage: men who have sex with men	India (FY99)										6%	

Indicator	Project (Country/FY)	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
MALARIA												
Reported malaria cases in project districts (per million)	India (FY97)		1.19	1.23	1.26	1.09	0.93	0.83	0.75	0.65		
Reported malaria cases (project states)	India (FY97)		1,172,872				907,527				667,529	
Reported malaria cases(non-project states)	India (FY97)		1,677,128				1,172,473				1,162,471	
Reported malaria cases (in facilities)	Eritrea (FY01)				179,501					16,749		
Reported malaria cases (out-patient)	Eritrea (FY01)						125,746				24,192	
Reported malaria cases	Eritrea (FY01)					613,241	388,303	348,259	403,856			
Malaria cases in >5 year olds (in-patient)	Eritrea (FY01)					1,913					519	
Malaria morbidity (per 1,000)	Eritrea (FY01)				55			10				
Consultations in health facilities diagnosed as malaria (%)	Senegal (FY97)		30%							32%		
Under 5 malaria mortality (per 1,000)	Eritrea (FY01)						10.6			0.84		
Malaria under 5 case fatality rate	Eritrea (FY01)				5.97%						0.21%	
Malaria total case fatality rate	Eritrea (FY01)				3.63%					0.38%	0.56%	
Deaths in hospitals due to malaria (%)	Senegal (FY97)		34%							30%		
Number of ITNs distributed (cumulatively)	Eritrea (FY01)			130,000						870,000		
Number of ITNs distributed (annually)	India (FY97)			40,000	60,000	175,000	90,000	230,000	1,200,000	3,775,000		
Children <5 years or pregnant women using ITN (%)	Eritrea (FY01)									59%		
TUBERCULOSIS												
TB incidence	India (FY97)										56%	
TB incidence (%)	India (FY97)		1.7%						1.5%			
TB incidence (cases)	Argentina (FY00)				11,871	11,767	11,464	11,545	12,278	12,079	11,242	
TB mortality	India (FY97)											
TB sputum positive case detection rate	India (FY97)		50%							72%		
TB annualized case detection rate (per 100,000)	India (FY97)									138		
DOTS coverage	Argentina (FY00)					37.4%	57.1%	56.7%	57.8%	64.1%		
TB cure rate	India (FY97)		35%								84%	

Indicator	Project (Country/FY)	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
LEPROSY												
Leprosy prevalence (per 10,000)	India (FY01)					5.28				1.99	1.34	
Prevalence of grade II leprosy deformities	India (FY01)						2.31%			1.6%		
POLIO												
Polio cases	Pakistan (FY03)							90	103	53	28	
Oral polio vaccine coverage (%)	Pakistan (FY03)								95%	96%	97%	97%

Source: Implementation Completion Reports, Project Performance Assessment Reports.

ANNEX C. DATA TABLES FROM PORTFOLIO REVIEW

Table C-1: Diseases addressed by communicable disease projects

Project Type	FY97–01 (n=32) Percent	FY02–06 (n=61) Percent	Total: FY97–06 (n=93) Percent
Single-disease Projects			
AIDS	38	72	60
Avian Influenza	0	2	1
Leprosy	3	0	1
Malaria	3	3	3
Polio	0	5	3
Tuberculosis	3	2	2
Multiple disease Projects			
AIDS	3	9	7
Avian Influenza	0	0	0
Leprosy	0	0	0
Malaria	9	7	8
Polio	0	0	0
Tuberculosis	3	9	7
Other: endemic diseases	6	2	3
Other: childhood illnesses	0	0	0
Other:	0	0	0
Communicable disease components in Health Projects			
AIDS	25	3	11
Avian Influenza	0	0	0
Leprosy	0	0	0
Malaria	22	3	10
Polio	3	0	1
Tuberculosis	9	0	3
Other: endemic diseases	3	0	1
Other: childhood illnesses	16	3	8
Other:	3	0	1
TOTAL			
AIDS	66	84	78
Avian Influenza	0	2	1
Leprosy	3	0	1
Malaria	34	14	21
Polio	3	5	4
Tuberculosis	16	10	12
Other: endemic diseases	9	2	4
Other: childhood illnesses	16	3	8
Other:	3	0	1

Source: Project Appraisal Documents, Implementation Completion Reports.
a. Note that some projects addressed more than one disease.

Table C-2: Type of communicable diseases addressed in projects, by region

FY97–06 (n=93)

Region	AIDS	Avian Influenza	Leprosy	Malaria	Polio	Tuber-culosis	Other: endemic diseases	Other: childhood illnesses
	Percent	Percent	Percent	Percent	Percent	Percent	Percent	Percent
AFR	47	0	0	13	1	6	2	6
SAR	7	0	1	2	3	1	0	1
LCR	17	0	0	3	0	0	2	0
EAP	3	1	0	2	0	2	0	1
ECA	4	0	0	0	0	3	0	0
MNA	0	0	0	0	0	0	0	0

Source: Project Appraisal Documents.

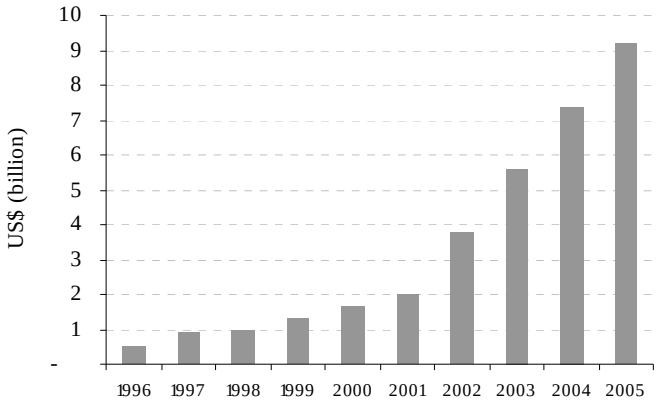
Table C-3: Interventions for reducing communicable disease morbidity and mortality[45]

Communicable disease	Disease Control Interventions
Tuberculosis	Directly observed treatment of infectious cases to prevent transmission and emergence of drug resistant strains and treatment of contacts, BCG immunization. Directly observed treatment to cure symptomatic cases, including early cases of tuberculosis.
Malaria	Use of insecticide-treated nets, indoor residual spraying (in epidemic-prone areas) intermittent presumptive treatment of pregnant women. Rapid detection and early treatment of, uncomplicated cases, treatment of complicated cases (such as cerebral malaria and severe anemia).
HIV/AIDS and other STIs	Safe sex, including condom use; use of unused needles by drug users; treatment of sexually transmitted infections; safe, screened blood supplies; use of antiretroviral prophylaxis in pregnancy to prevent mother-to-child HIV transmission and after occupational exposure. Treatment of opportunistic infections; cotrimoxazole prophylaxis; highly active antiretroviral therapy; palliative care.
Polio	Polio vaccine immunization, information, education, and communication to stimulate demand. Symptomatic management as no treatment is available to kill the poliovirus.
Leprosy	Vaccination; information, education, and communication to stimulate demand Case finding, treatment with multi-drug therapy (replacing mono-therapy with dapsone due to increasing drug resistance), surgery, and rehabilitation.
Avian influenza	Controlling and eradicating the spread of the disease in animals, and preventing and limiting the spread of the disease among humans. Treatment with antiviral drugs, notably oseltamivir (Tamiflu) can improve prospects of survival, provided administered within 48 hours following symptom onset.

Source: World Bank 2004; World Health Organization 2006a, 2006b, 2007a, 2007b.

[45] The actual cost effectiveness of an intervention in a particular country setting will vary depending, amongst others, on scale, local cost, program quality and efficacy, amongst others.

Figure C- 1: Estimated total annual resources for AIDS, 1996–2005



Source: Piot 2006.