

INDEPTH NETWORK

ANNUAL REPORT 2004

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Executive Summary

This report provides details of key Scientific and Capacity-Building activities undertaken by the INDEPTH Network in 2004. The Scientific Activities start with INDEPTH publications, highlighting the *INDEPTH Model Life Tables for Sub-Saharan Africa* (Ashgate, 2004), *Measuring Health Equity in Small Areas – Findings from Demographic Surveillance Sites* (Ashgate, in press), and the *INDEPTH Starter Kit for new Demographic Surveillance Sites*.

Other scientific activities included the following: INDEPTH's work on determining and analysing causes of death at its member sites; health equity studies; establishing an INDEPTH health intervention trials platform; INDEPTH Asia/Oceania group agreeing on region-specific research in non-communicable diseases; workshops by the INDEPTH Adult Health, Environment and Health, and Migration and Urbanisation platforms.

A key scientific activity of the Network is its Annual General and Scientific Meeting (AGM). In 2004 the Network's 4th AGM was held in Hanoi, Vietnam from 3-7 May 2004 with the theme - *Using demographic surveillance systems to better understanding population dynamics and their health in developing countries*. A total of 118 participants attended this meeting. INDEPTH provided 15 scholarships to young scientists from INDEPTH sites to present posters at the AGM.

The INDEPTH Network builds capacity and standardises research methods across the Network. The Network's key capacity building activities in 2004 included the following: the INDEPTH scientific development and leadership programme; workshops for data managers, finance managers and site leaders to share their experiences and strengthen capacities; a workshop on scientific writing for young scientists from INDEPTH sites; improving site visibility; and providing technical support to its member sites.

INDEPTH was able to forge collaborations with the London School of Hygiene and Tropical Medicine and the University of Sussex. Grant proposals submitted in partnership with these institutions have been successful. Other successful collaborations concern INDEPTH's partnership with the University of Ghana to establish a Masters programme in Health Informatics, and another with the University of the Witwatersrand in South Africa to establish a Masters programme in population-based field epidemiology.

As we report on the various activities that the INDEPTH Network was able to undertake in 2004, we would like to acknowledge with gratitude the contributions our investment partners – the World Bank, the Rockefeller Foundation, Sida/SAREC, the Wellcome Trust and the Gates Foundation – continue to make to support our activities. For their part, our member sites – currently 33 of them operating demographic surveillance systems (DSS) in 19 countries in Africa, Asia, Latin America and Oceania – have stood firmly together, have contributed empirical data and expertise, and are even more resolved to ensure a better understanding of the dynamics of the world's population living in resource-constrained countries.

The Network also wishes to acknowledge the oversight and accountability provided by its Board of Trustees, the scientific guidance provided by its Scientific Advisory Committee and the effective and efficient co-ordination by its team at the INDEPTH Secretariat. We have no doubt that with this support from all angles, positive assessments of INDEPTH by others such as the one by WHO in its *2004 World Report on Knowledge for Better Health*: "Successful models like INDEPTH need to be supported and promoted," will become more common in the near future.

A. Introduction

INDEPTH's Vision

INDEPTH will be an international platform of sentinel demographic sites that provides health and demographic data and research to enable developing countries to set health priorities and policies based on longitudinal evidence. INDEPTH's data and research will guide the cost effective use of tools, interventions and systems to ensure and monitor progress towards national goals.

INDEPTH's Mission

To harness the collective potential of the world's community-based longitudinal demographic surveillance initiatives in resource constrained countries to provide a better, empirical understanding of health and social issues, and to apply this understanding to alleviate the most severe health and social challenges.

INDEPTH's Objectives

- To initiate and facilitate cross-site, longitudinal health and social studies and impact assessments in severely resource constrained populations.
- To disseminate study findings with all external stakeholders to maximize impact on policy and practice.
- To foster and support capacity building and cross-site collaborations among INDEPTH member sites.
- To facilitate the process for donors to fund multi-site health and social research projects in the developing world and especially Africa and Asia.

INDEPTH's Broad Activities

1. Cultivate cross-site activity through the:

- Execution of comparative studies and exchange of experiences on critical common problems.
- Creation and sharing of regional health status assessments relevant to global priority setting.
- Coordinated multi-site research collaborations that evaluate interventions in diverse socio-culture and geographic environments.
- Recruitment and/or creation of additional sites; particularly sites that provide INDEPTH with presence in current geographic gaps.

2. Generate longitudinal data and analysis that can impact on ongoing health and social reforms, inform health and social policy and practice and contribute to governmental, NGO, private and community health efforts.

3. Broaden the scope of health research by confronting the emerging agenda of non-communicable disease and aging, violence and injury, migration and urbanization and the problems associated with vulnerable population segments.

4. Continually improve the methods and technologies used by member sites to ensure all participating groups have access to the most valid and appropriate methodologies available.
5. Generate visibility and recognition for INDEPTH and member sites among critical constituencies including academic, government and international agencies and donors.

INDEPTH's Key Strategies

The INDEPTH Secretariat supports its member sites in a number of ways. First, it facilitates knowledge sharing among sites. By disseminating data, convening analysis workshops, coordinating multi-site research collaborations, funding cross-site scientific visits, and promoting on-site training courses and internships, INDEPTH builds capacity and standardises research methods across the network. Second, it provides practical tools for sites. These include assistance with website development and dissemination of models for survey design, data processing and analysis, and quality control. Third, it raises the profile of DSS sites among the international policy community by synthesising and presenting results to governments, international agencies, donors and academics.

B. INDEPTH Scientific Activities in 2004

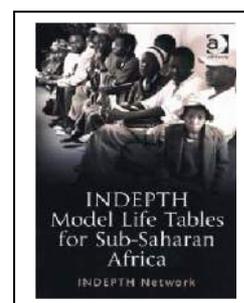
1. INDEPTH Publications in 2004

INDEPTH publications are a compilation of comparative data provided by member sites. They are focused on specific topics. The publications are intended to provide an empirical understanding of health and social issues that will help maximise the impact of research on policies and programmes in developing countries.

INDEPTH Model Life Tables for Sub-Saharan Africa

2004; Ashgate Publishing UK, 160pp; ISBN: 0-7546-4003-5.

www.ashgate.com



Model life tables provide ways of deriving accurate mortality schedules or predicting future trends from scanty data. In settings where accurate data are unavailable, these are invaluable methods for assessing mortality rates. This book presents model life tables for Africa using accurate empirical data from 19 demographic surveillance system sites throughout sub-Saharan Africa. A Brass logic system is used to produce mortality models that are unique in that they incorporate for the first time empirical and accurate data representing prevailing mortality patterns in developing countries, which take into account the effect of the HIV/AIDS epidemic.

In his foreword to this INDEPTH book, Douglas Ewbank, Researcher Professor at the Populations Studies Center, University of Pennsylvania, USA writes:

“The production of model life tables based on the INDEPTH data demonstrates the tremendous importance of these data for the future of African demography. All previous attempts to develop model life tables were hampered by the shortage of reliable data from Africa. ... It is almost certain that other researchers will use the INDEPTH collection of life tables to find model life table systems designed for different applications.”

Professor Tukufu Zuberi, Director of the African Census Analysis Project, University of Pennsylvania, USA writes:

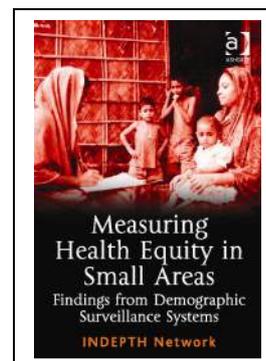
“The INDEPTH Model Life Tables for sub-Saharan Africa is a welcome contribution to the study of African demography and health. The authors have performed a useful task by gathering together and analyzing by a consistent method the data related to mortality structure in Africa. This historic volume makes available extended tabulations that will expedite a wide range of population health statistics.”

Dr. James F. Phillips, Senior Associate at the Population Council, New York writes:

“...This latest INDEPTH volume will be an essential tool for health planners and demographers in the region – providing parameters and tables that will have a wide variety of practical uses for social and health policy applications.”

Measuring Health Equity in Small Areas – Findings from Demographic Surveillance Sites

2005; Ashgate Publishing UK, 160pp; ISBN: 07546 4496 0.
www.ashgate.com



Over the past decade, several initiatives have been launched to address the major health problems affecting the world's poorest countries, including global efforts to combat HIV/AIDS, TB and malaria. More recently, a millennial challenge has been laid down to root out and confront the links between poverty and health. While there has been a spate of studies and reports devoted to this subject, it has been noted that policies meant to address the needs of the global poor are based on indirect estimates and data from urban centres and health facilities that do not accurately reflect their experience. Using demographic surveillance systems, the INDEPTH researchers aim to contribute both to the empirical knowledge about health equity in developing countries and to report on the application of and innovation in tools and methods. Illustrated with case studies from sub-Saharan Africa and Asia, this book puts forward a comprehensive view of the INDEPTH methodologies and findings. It develops and measures concepts and constructs of 'poverty' and 'equity' and relates these to each health status. While tools and concepts for measuring health status are more developed, this volume contributes by grappling with new concepts and tools to measure changes in deprivation and disadvantage, adding to this intense theoretical and methodological debate.

The contributions of the INDEPTH project are unique in the following ways:

- They have measured health inequities in small geographic areas, which has not been previously done, and;
- They have demonstrated the feasibility of undertaking health equity assessments in typical, multi-purpose demographic and epidemiological field surveys (as distinct from field studies designed specifically for health equity measurement from the outset).

In his foreword to this book, Dr. Timothy Evans, Assistant Director-General, Evidence and Information for Policy at the World Health Organization writes:

“The selection of INDEPTH sites as the common denominator for the various analyses is in itself an important statement related to equity. In the early years of the 21st Millennium, it is indeed worrisome that in many parts of the world we remain “in the dark” about life's vital events --- namely birth and death.... Although significant as single sites, together the INDEPTH sites can pool their vital data to provide critical insights in the patterns of health in some of the world's poorest areas where health problems are the greatest and unfortunately the least understood or appreciated.... The INDEPTH network in making the values of fair distribution more explicit, and in measuring and analysing inequalities is taking critical steps to insuring that health progress is evidence-based and sensitive to the needs of those with the greatest needs.”

Sir Prof. Andy Haines, Dean of the London School of Hygiene and Public Health writes:

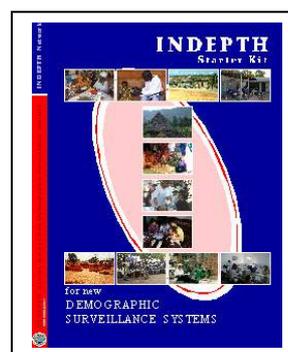
“The INDEPTH network of demographic surveillance sites has done an outstanding job in demonstrating, not only the feasibility of sustained monitoring of health indicators in resource poor settings, but also how such data can be used to underpin research and policymaking. ... This publication is required reading for all those who wish to improve their understanding of the pervasive and unacceptable inequalities in health internationally and to develop effective responses.”

Dr. Abbas Bhuiya, Senior Social Scientist, ICDDR,B: Centre for Health and Population Research, Dhaka, Bangladesh at ICDDR,B Bangladesh writes:

“Anyone who is concerned about the existence of inequities in any society and would like to further the mission of a just world will certainly benefit from reading this volume. It is a valuable addition to our world-knowledge-armoury to confront inequities.”

INDEPTH Starter Kit for New Demographic Surveillance Systems

2004; INDEPTH Network, Accra; ISBN: 988-0-2398-7



In response to the increasing recognition of the value of DSS in contributing to population and health research in developing countries, the INDEPTH Secretariat with financial support from the Rockefeller Foundation developed in February 2004 an *INDEPTH Starter Kit for New Demographic Surveillance Sites*. This is the first single manual on how to conduct demographic surveillance. It is based on experience in running long-term longitudinal DSS sites. The kit covers the following five main sections: Standard Operating Procedures; Site Design Decisions; Recruitment & Training; Baseline Census Round; and Useful Resources. The Kit is intended for use by all those settings that have decided to implement DSS from scratch, and have already secured their start-up funding, but still need practical guidance in getting started. It is published in three versions: a web-enabled resource (www.indepth-network.net/starterkit/index.html), a CDROM, and a book.

The Starter Kit was highly received at the INDEPTH Annual General and Scientific Meeting (AGM) in Hanoi in May 2004 where a prototype was presented. Since its launch, several institutions/groups have been making use of the Kit to establish new DSS sites in Uganda, Tanzania and Papua New Guinea.

Participants at the workshop in Accra in February 2004 in which the Kit was developed were: Jongjit Rittirong and Sureeporn Punpuing (Kanchanaburi DSS, Thailand); Anastasia Wahome (Nairobi DSS, Kenya); Adjima Gbangou (Nouna DSS, Burkina Faso); Edward Galiwango (Inganga/Mayuge DSS, Uganda); Honarati Masanja (Rufiji/Ifakara DSS, Tanzania); Everest Dery

and Ayaga Bawah (Navrongo DSS, Ghana); and Kwabena Owusu-Boateng, Osman Sankoh, and Don de Savigny (INDEPTH Network).

In his foreword to the book version of the INDEPTH Starter Kit, Dr. Cheikh Mbacke of the Rockefeller Foundation writes:

“ This INDEPTH DSS Starter Kit is a wonderful gift to all those teams that have decided to develop a DSS from scratch and need practical guidance and a set of technical resources to get going. As this note is being written, a new DSS site is being born in Uganda, the newest member in the growing INDEPTH family. That baby, who is already toying with the Starter Kit, will definitely tell us how useful it is and we shall learn from her experience, just as it did from that of her older sisters.”

INDEPTH Online Publications

INDEPTH Technical Notes Series

The INDEPTH Technical Notes Series is a series of guidelines on various practical methods and techniques of possible use or interest to demographic surveillance site operations. They are published by INDEPTH online as a service to INDEPTH Network site members. They are neither peer-reviewed nor represent recommended methods of INDEPTH, but rather provided as is. Member sites are encouraged to share practical methodological guidelines with each other through the series, and to improve upon such methods in subsequent numbers of the series. The first note published is:

INDEPTH Working Paper Series

This online series of working papers is to disseminate the research findings from demographic surveillance system (DSS) sites and related work to a wider audience of demography, epidemiology, biostatistics and social science researchers, both inside and outside academics, and to those interested in policy research.

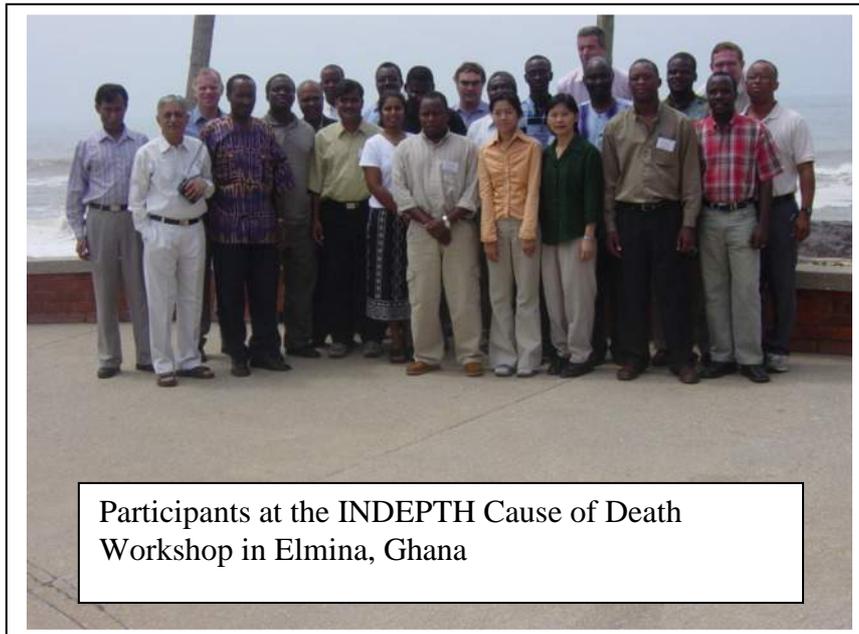
The INDEPTH Working papers represent an opportunity for DSS site members and their collaborators to publish results of research projects in process. By circulating the full text to colleagues and practitioners, valuable feedback and suggestions for improvements and directions can be made. Some papers go on to be published in leading academic journals and the results are more widely disseminated. Upon acceptance for publication in an international journal, the working paper will be tagged “accepted for publication or published”.

2. Determining Causes of Death at INDEPTH Sites

The INDEPTH Cause of Death working group presented preliminary results of cross-site cause of death analysis at the Hanoi AGM in May 2004. In a working group session, the group further discussed the need to review their analysis plan and develop a new template requiring sites to contribute disaggregated data for the analysis of the causes of death.

Data Analysis Workshop

The working group held a data analysis workshop in Elmina, Ghana from 9-13 August 2004. This was attended by participants from the following sites: Africa Centre, Agincourt, (South Africa), Ballabgarh (India), Butajira (Ethiopia), Ifakara (Tanzania), Kisumu (Kenya), Manhica (Mozambique), Matlab (Bangladesh, Navrongo (Ghana), Nouna (Burkina Faso), Rakai (Uganda), Rufiji (Tanzania), Vadu (India) and HSID (Bangladesh). The main objective of the workshop was to get sites to review their cause of death data and contribute to the cross-site analysis. Participants discussed the revised analysis plan and made presentations of their data.



Martin Adjuik (Navrongo DSS, Ghana) has been working with Tom Smith (Swiss Tropical Institute, Basel, Switzerland), Sam Clark (Agincourt DSS, South Africa), and Jim Todd, (LSHTM, London, UK). Causes of deaths reported by member sites have now been standardized in the ICD10 format.

Verbal Autopsy Workshop

The INDEPTH Secretariat brought to Accra from 8-10 December 2004 a team of verbal autopsy coders at DSS sites to complete the process of harmonising data collection, coding and analysis of death data from INDEPTH Network sites. The Elmina workshop held in August identified further work that needed to be done regarding harmonisation of codes for causes of death. Sites currently deploying the INDEPTH verbal autopsy (VA) tool in the collection of cause of death data were also invited. One of the objectives of the meeting was to enable the sites to share experience in the use of the standardised INDEPTH VA questionnaire. At the end of the workshop, participants agreed on minimum core categories of death for coders within INDEPTH sites using WHO ICD10.

The lead facilitator was Dr. Anupam Garrib from the Africa Centre DIS in South Africa. Participants came from the following sites: Matlab (Bangladesh), Filabavi (Vietnam), Navrongo and Kintampo (Ghana), Karonga (Malawi), Rufiji and Ifakara (Tanzania), Bandim (Guinea-Bissau), Manhica (Mozambique) and Africa Centre (South Africa).



Participants at the VA coders workshop in Accra, Ghana

Developing a Monograph

The above efforts to collate and analyse cause of death data generated by verbal post-mortem as well as hospital recording from INDEPTH sites are geared towards an INDEPTH publication. The chapters from the respective sites are being used for comparative analysis. The monograph will provide the first cause-specific mortality in many DSS sites. It is expected to be published in 2005.

3. INDEPTH Health Equity Platform

Efforts to improve health in developing countries are often limited by the inequity in access to health and related services among various population groups. Equal access depends upon the availability of services and the presence of organizations with the financial and resource capacity to help those in need. Unfortunately, these resources are often not available to those in most need. There is currently a need for better analysis of the distribution of health conditions and health service utilization among different population sub-groups. In addition, there is a need for studies to address the question of how inequalities are initially created and what factors cause these inequalities to persist and even expand over time.

INDEPTH successfully completed its **Health Equity Study Phase I**. This has led to the publication mentioned above. The objective of Phase I was to explore, adapt and apply appropriate DSS survey methods to determine the relationship between specific, individual-level and household-level socio-economic factors and inequities of both access to health services, and health outcomes, in order to assist program and policy makers to overcome health status disparities and improve overall health status of the poor. The goal of the ongoing **Phase II** is to develop intervention studies or manipulate existing interventions to have a pro-poor focus in order to inform policy. As part of this study, INDEPTH developed a socio-economic status tool. Several sites have been deploying.

Funded Projects in 2004

Ifakara DSS, Tanzania: *Reaching the poor with VCT and TOIs: An incidence research*

The project's overall objective is to contribute to the improvement of equity in access to VCT services and TOIs in the Kilombero district. The idea is to build capacity at the dispensary level to deliver VCT and TOIs. Initial analysis shows that awareness of VCT is quite high and there

was willingness to go for VCT services. About 93 percent of the 462 respondents indicated their willingness to go for the services. As of December 2004, six months into the study, a total of 416 individuals had availed themselves to the services. Cumulative analysis of the results shows that uptake has increased over the period.

Navrongo DSS, Ghana: *Will lay counsellors improve access to VCT services for the poor in Ghana? A quasi-experimental studying the Kasena-Nankana District (KND).*

The project seeks to assess the effectiveness of using community-based lay counsellors in promoting access to VCT services for the poor in the KND of northern Ghana. It is a quasi-experimental design aimed to compare service uptake among different service providers including the introduction of lay counsellors along side mainstream Ministry of Health service providers. Specifically, its object to find out about the preferences of clients regarding facility-based staff as against the lay counsellors and whether or not lay counsellors will be accepted to provide VCT services and the additional benefit in terms of improving access to such services. VCT services have been introduced in the district as part of the study. As of the end of December 2004, data had been collected from over 1600 clients of the services. About 72 percent of the clients are from the lay counselors. 4.6 percent of those who accessed the services were HIV positive.

Navrongo DSS, Ghana: *Deploying the INDEPTH Tool in the KND of northern Ghana.*

The objective of this project is to use the INDEPTH equity tool as a basis for monitoring health interventions that might have a pro-poor focus. The tool seeks to collect data on human resources, dwelling characteristics, food security, asset ownership as well as other indicators that may help assess poverty. Data collection started in October 2004.

Purworejo DSS, Indonesia: *Measuring socioeconomic status using INDEPTH Health Equity Tool in Purworejo DSS.*

The main objective of this project is to create and validate the standardised INDEPTH equity tool in the Purworejo DSA as a basis for measuring equity in health. Data collection started on December 1, 2004. Preliminary results show that about 1290 households were covered at the end of December 2004.

Vadu DSS, India: *Socio-economic status assessment of population for understanding Health Equity in HDSS Vadu.*

The aim of this project is to study the impact of socio-economic status on overall health of the household. Specifically, the object is to identify the relationship between SES and immunisation and child and adult health in the Vadu DSS area. Data collection started on August 4, 2004 and covered a total of about 13,500 households by the end of December 2004. 12,000 of these households are in the intervention area and 1,300 are in the comparison area.

Rufiji DSS, Tanzania: *Malaria and Poverty: The equity effectiveness of the Tanzania National Voucher Scheme for Promoting ITN coverage in South-East Tanzania: How much do the poor benefit?*

The objective of this project is to determine the equity impact of the new Tanzania National Voucher Scheme for subsidising cost of ITNs and the provision of free insecticide re-treatment kit (IRKs) to pregnant women on the health status of the households of different socio-economic status in a large population of coastal Tanzania. Specifically, it aims to compare the equity effectiveness of national ITN scheme of distribution of ITNS as well as IRKs and how they relate to socio-economically disaggregated communities in terms of access, compliance,

adherence, coverage and re-treatment time for risks groups such as infants, under fives and pregnant women. Data collection started in October 2004.

Dikgale DSS, South Africa: *Evaluation of an outreach program to increase participation of poor women in a VCT program in the Dikgale DSS, Limpopo Province of South Africa*

This study is in two phases: a retrospective phase and a prospective phase. The objectives of the retrospective phase are to determine dropout rate among women who seek antenatal services and whether or not they had HIV test, and to follow up women who did not have a HIV test or did not go for their results. In all, 329 women were interviewed, of which 6 did not attend antenatal clinic. Of the 313 women who had a HIV test, 259 of them agreed to receive the outcome of the test. As part of the study, the team was interested in knowing whether there were any differences between women attending ANC and those who don't. Results of this did not reveal any differences. Focus group discussions to ascertain why women would not go for HIV test show that they were worried about things such as fear of being positive and imminent death, not trusting themselves, lack of coping skills, fear of breach of confidentiality, stigmatisation and fear of being divorce. On the prospective aspect of the project, the aim is to encourage pregnant women to go for VCT services. A two-prong approach is proposed: a) breaking the fear through a series of outreach programs and b) undertake social marketing.

Kanchanaburi DSS, Thailand: *Health Equity of the Elderly: Deploying the INDEPTH Tool*

The objective of this study is to monitor equity aspects of the National Universal Coverage (UC) policy implemented in the Kanchanaburi DSS site. The design is to use two panel datasets, one before and the other after the introduction of the scheme, in order to evaluate its impact on the extent of disparities in health utilisation of the elderly across socio-economic groups.

Agincourt DSS, South Africa: *Using the Agincourt Demographic Surveillance System to measure and influence equity of access to child care grants, a pro-poor government intervention.*

The project's overall objective is to contribute to the improvement of equity in access to child support grants in the Agincourt sub-district, and ultimately, in the whole country. A child support grant module and the household asset module were analysed to ascertain which household level factors affected the probability of a household applying for a grant. Study results show that the main factors affecting low application rates are lack of vital documentation and distance from social security application sites. In addition, houses in lower socio-economic sectors are less likely to apply than those in higher socio-economic bands. These results have influenced the Departments of Social Security and Home Affairs to bring their services into the community in a pilot study. Primarily, the Department of Home Affairs ran mobile clinics into the community, and 10% of the total population applied for vital documentation. The Department of Social Security deployed social security extension officers into the area, and their impact still needs to be assessed. Once the impact of all of the interventions has been fully assessed, policy recommendations will be made to various government departments and non-governmental organisations involved in the distribution and uptake of the child support grant.

4. INDEPTH-ACAP Research Collaboration

The main objective of the collaboration between the INDEPTH Network and the African Census Analysis Project (ACAP) which is based at the University of Pennsylvania, is to pool the resources and expertise of the two institutions to undertake high-quality joint research projects to inform demographic and health policy in Africa.

Since the beginning of the collaboration, a large amount of data has been acquired from both ACAP country-collaborators and the INDEPTH sites identified for the initial phase. Datasets have been created for use in the programme and some preliminary analyses have been conducted using these data. Initial interest focused on comparable data analysis of geographic or administrative regions by locating the exact census area covered by each DSS. For most of the sites a lower administrative district that houses the DSA was located and mortality indicators both from the DSS data and the census data compared.

Another area of interest has been the relationship between poverty and health in Africa. Poverty, as we know, exacerbates ill health and often tends to negatively affect the health status of individuals. In the absence of reliable income data in Africa, one of the markers of poverty or socio-economic status is ownership of household durable assets or housing/household conditions. Data on these variables have been used to generate an index of poverty or socio-economic status and used to examine the relationship between poverty and other health outcomes. Results of the ongoing collaborative research have been presented and discussed at various scientific meetings. Some of these initial analyses have also contributed to a proposal prepared and submitted to the National Institutes of Health (NIH) for further funding.

A number of data managers and researchers from Burkina Faso, Ghana, Mozambique, South Africa and Tanzania were provided with the opportunity to spend some time at the University of Pennsylvania to work with researchers of the project on various aspects of the programme and to acquaint themselves with some of the data analytical techniques. As part of the efforts to strengthen the technical expertise and analytical capacity of researchers in the collaborating countries, a researcher from one of the INDEPTH Network sites in Tanzania was accepted for the PhD training in Demography at the University of Pennsylvania. Also, during the grant period, Ayaga Bawah (Navrongo DSS, Ghana) received his PhD in Demography at the University of Pennsylvania. He is the current co-ordinator of the INDEPTH-ACAP collaborative programme.

5. INDEPTH Health Intervention Trials Platform

INDEPTH has launched an effort to further develop infrastructure and human resource capacities at member sites to enable the sites conduct health intervention trials. Current focus is on malaria, HIV/AIDS, TB and rotavirus. INDEPTH sites have been working in particular to:

- Collect epidemiological data and other information for current and other diseases researched at the sites;
- Identify suitable cohorts for the conduct of clinical trials;
- Strengthen infrastructure and human capacity at sites with the basic infrastructure for intervention trials, and build it at interested member sites without the basic capacity
- Train site leaders to negotiate with various international sponsors of intervention trials in developing countries
- Establish quality-control, regulatory and ethical procedures, including helping participating sites get GCP and GLP accreditation
- Create a monitoring unit including a site assessment manual; and
- Establish INDEPTH data management, biostatistical and epidemiological procedures for trials.

1st Workshop of INDEPTH Principal Investigators – Establishing the Platform

This 1st Meeting of Site Principal Investigators was held on 15-19 March 2004 in Accra, Ghana. The main objectives of the meeting were to:

- Discuss the value of setting up an INDEPTH Health Intervention Trials Platform in which INDEPTH member sites that are ready to conduct clinical trials agree to do these trials under the banner of INDEPTH;
- Get an idea where each site was with respect to their ability to conduct clinical trials and to determine the immediate next steps to take with respect to preparations for the trials – e.g. baseline studies to establish disease incidence and infrastructure development;
- Consider general potential funding opportunities for the platform, including the Gates Foundation and the European and Developing Countries Clinical Trials Partnership (EDCTP);
- Identify the key research questions and how these could be jointly pursued; and
- Chart a way forward.

Facilitators were Prof. Peter Smith (London School of Hygiene and Tropical Medicine), Dr. Howard Engers (WHO/AHRI Addis Ababa, Ethiopia), Dr Ebi Kimanani (of blessed memory), and Dr. George Armah (Noguchi Memorial Institute, Accra, Ghana). Background information on the conduct of clinical trials was provided in presentations by the facilitators.

Site PIs made presentations on the clinical facilities (human and institutional) available at their sites, provided details of studies conducted, and made an honest assessment of level of readiness to conduct trials. The outcomes of the meeting were:

- An agreement to conduct health intervention trials under the INDEPTH banner;
- A classification and assessment of participating sites with respect to ability to conduct clinical trials in the various disease areas;
- Complete first drafts of pre-proposals in Malaria and HIV/AIDS in response to the EDCTP call for proposals;
- A description of the structures, resources and funding needed to take this forward; and
- A timetable for future activities and an activity plan.

The following sites were represented: Ifakara DSS, Tanzania; Magu DSS, Tanzania; Agincourt DSS, South Africa; Africa Centre DSS, South Africa; Bandim DSS, Guinea-Bissau; Butajira DSS, Ethiopia; Nouna DSS, Burkina Faso; Navrongo DSS, Ghana; Manhica DSS, Mozambique; and Rakai DSS, Uganda.



Participants at the workshop in Accra, Ghana

2nd Workshop of INDEPTH Principal Investigators – Proposal Development

The INDEPTH Secretariat organised a second meeting of site PIs in Accra on 15-19 November to: develop a network-wide generic grant proposal for site capacity building and site preparation for the conduct of clinical trials in Malaria, HIV/AIDS, TB and Rotavirus; and develop/finalise grant proposals in health equity and reproductive health.

Participants came from the following sites: Bandim (Guinea-Bissau), Africa Centre (South Africa), Agincourt (South Africa), Navrongo (Ghana), Nouna (Burkina Faso), Kintampo (Ghana), Magu (Tanzania), Rakai (Uganda), HSID (Bangladesh), Butajira (Ethiopia), and Filabavi (Vietnam). Lead facilitator was Dr. Wendy Ewart, Imperial College London. Other facilitators were Prof. Fred Binka (INDEPTH Network) and Dr. Omar Ahmad (University of Ghana)

The following are titles of draft proposals developed.

1	“VCT- Plus” a Novel Intervention to Decrease HIV Incidence in Resource Constrained Countries
2	Testing the efficacy, effectiveness and cost-effectiveness of new generation antimalarials in preparation for malaria vaccine trials in sites with varying transmission level (INDEPTH sites)
3	Interventions to redress inequities in utilization of TB services
4	Is there a socio-economic gradient in mortality in developing countries?
5	Determining the efficacy of Rotavirus vaccination in Africa



Participants at the INDEPTH Proposal Development Workshop in Accra

6. INDEPTH Asia/Oceania Group

At the Hanoi AGM, the INDEPTH Asia/Oceania group held its first working group session, convened by Nguyen Tran Hien (Filabavi DSS, Vietnam). Present were participants from Kanchanaburi DSS (Thailand), Matlab DSS and HSID DSS (Bangladesh), Vadu DSS and Ballabgarh DSS (India); Filabavi DSS (Vietnam); Purwojero DSS (Indonesia), and Wosera DSS (Papua New Guinea). The group discussed regional issues including mortality differentials, prevalence of HIV/AIDS, increasing NCD prevalence, and health systems.

Strategic Planning Workshop

A workshop for Asia/Oceania was held in late August 2004 in Jogjakarta, Indonesia. The workshop was hosted by Purworejo DSS in Indonesia. The purpose was to chart a common research agenda for INDEPTH sites in the region, undertake strategic planning for training activities, and identify regional and south-south training opportunities. Site leaders and site representatives attended from all INDEPTH sites in Asia/Oceania. Two research areas -- Reproductive Health and Adult Health -- were identified.

NCD Risk Factor Surveillance

The Asia/Oceania-specific Adult Health group submitted to the INDEPTH Network a grant proposal entitled “Non Communicable Disease (NCD) Risk Factor Surveillance in INDEPTH-Network Asia/Oceania Sites”. This proposal received positive peer-reviews and was subsequently funded. The overall aim of this study is to strengthen the capacity of their sites for NCD risk factor surveillance. Specific objectives are:

- To collect information on NCD risk factors using STEP 1 and STEP 2 approaches of WHO standardized methods
- To compare NCD risk factors data across sites
- To incorporate appropriate elements of NCD risk factor module into regular surveillance of the DSS sites

Participating sites are Ballabgarh (India), Chililab (Vietnam), Filabavi (Vietnam), HSID (Bangladesh), Kanchanaburi (Thailand), Matlab (Bangladesh), Purworejo (Indonesia), Vadu (India), and Watch (Bangladesh).

Reproductive Health – Fertility issues

The Fertility Group held a meeting in Bangkok, Thailand from 22-24 November 2004. The workshop was hosted by Kanchanaburi DSS (Thailand). Participants came from Filabavi (Vietnam), Matlab (Bangladesh), HSID (Bangladesh), Vadu (India), Purworejo (Indonesia), Kanchanaburi Thailand), and Watch (Bangladesh). The group agreed to produce a monograph on fertility issues and proposed the following title: ‘Linkages Between Poverty and Reproductive Health in Asian Countries: Evidence from Longitudinal Data’. The fertility group discussed data issues and agreed on a template for the publication.



Participants at the INDEPTH Asia-Specific Reproductive Health Group Meeting in Bangkok, Thailand

7. INDEPTH Migration and Urbanisation Platform

The INDEPTH Migration & Urbanisation group is conducting a study of population migration streams and trends across multiple countries and continents, with special emphasis on internal migration and local mobility, and look at mortality outcomes. It aims at producing a monograph on “Migration, Mobility and Mortality”. Including mortality will offer a unique insight into health conditions and the impacts of movement, urbanisation and change. The INDEPTH initiative will set out to co-ordinate and standardise existing site-level data to enable the comparison of data and findings across multiple sites and countries.

Scientific meetings at Providence, USA and Hanoi, Vietnam

The first face-to-face meeting of the group’s scientists in 2004 took place at the Population Studies and Training Centre (PSTC), Brown University, Providence. The objective of the meeting was to further develop and refine the scientific agenda and improve the strategic approach to the monograph.

Two meetings were held at the Hanoi AGM in May to share and develop the vision and process of the monograph. The group developed the site chapter outline. Discussions were held on the requirements of sites and the sites updated on their progress. Six sites contributed datasets, thereby guaranteeing cross-site analysis. Also, two plenary presentations were made on migration, urbanisation and health to raise awareness and interest.

Technical workshop in Kisumu, Kenya

The working group met in Kisumu in November to continue work on technical aspects of the monograph on migration and health in INDEPTH sites. The project was driven by scientists in twelve INDEPTH sites who were supported by scholars in the international scientific community. The monograph will have site-specific chapters. Chapters on cross-site analysis will be grouped thematically as follows: Theme 1: Migration and community dynamics; Theme 2: Migration and household dynamics; and Theme 3: Migration and health dynamics. The group agreed on the title of the monograph: “Migration, mobility and health, from the ground up”.

Acknowledgements

The INDEPTH Migration and Urbanisation group would like to acknowledge the support from the Wits Mellon Migration Node, based at the University of the Witwatersrand in Johannesburg, South Africa, for funding the participation of two participants at the technical workshop in November.



Participants at the INDEPTH Migration and Urbanization Workshop

8. INDEPTH Adult Health and Aging Platform

Statistics on adult morbidity or mortality are practically unavailable in most settings. Even in areas where such data are available, they are either of limited value or the quality is seriously suspect. Demographers have tried to provide some insights on levels of adult mortality through the use of indirect techniques. However, the extent to which these estimates reflect reality has often been questioned. This situation has been complicated further with the advent of the HIV/AIDS epidemic because the indirect methods for estimating adult mortality are even more

seriously questioned because of opportunistic infections that result from HIV/AIDS infections. There is therefore the need for population and health scientists in Africa and Asia to provide alternate avenues to monitor changes in morbidity and mortality in these regions. The INDEPTH Adult Health and Aging Platform is striving to provide these alternative avenues.

In May 2004 the group held a one-day workshop just before the INDEPTH AGM in Hanoi, Vietnam. This workshop reviewed proposals to pilot a physical and cognitive function module in a subset of sites, as part of a collaboration with WHO that would be funded by the National Institute on Aging (NIA).

The key achievement of the group in 2004 was a funded proposal entitled *World Health Survey Study on Global Aging – INDEPTH Supplement*. This proposal supplements the NIA Interagency Agreement with the World Health Organization for the World Health Survey Study on Global Aging (SGA).

9. INDEPTH Environment and Health Platform

Several INDEPTH member sites are taking advantage of their capabilities to monitor the health consequences of environmental change, to link their DSS data to geographic and meteorological data using remote sensing (RS) and geographical information system (GIS). This will enable much deeper and/or novel insights into parameters that influence the spread of diseases. The meteorological data complement the DSS data with the introduction of the spatiotemporal fluctuations of temperature, humidity, precipitation, evapotranspiration and wind. The sites intend to use the data for geostatistical modelling, mapping, geographical and epidemiological analyses.

Hosted by Nouna DSS, Burkina Faso, the INDEPTH Environment and Health group met in October 2004 in Moundasso, Burkina Faso to develop a research grant proposal on Climate Variability and Malaria in Africa and Asia.

Over a five-year period, the proposed project will combine new population-based malaria transmission data (parasitological and entomological) with climate variability data to develop an early warning system that will be used to predict changes in malaria transmission in Africa and Asia. Ultimately, the group hopes to develop a tool that will inform public health programmes with well-targeted and cost-effective preventive response measures, so as to reduce transmission of malaria and malaria-related deaths particularly in children under five in Africa and Asia.

The following INDEPTH sites in Africa and Asia will be part of the study: Nouna DSS (Burkina Faso), Navrongo DSS (Ghana), Rufiji DSS (Tanzania), Manhica DSS (Mozambique), Kanchanaburi DSS (Thailand), Purworejo DSS (Indonesia), Watch DSS (Bangladesh) and Vadu DSS (India).



INDEPTH E&H Group at the Weather Station in Moundasso

10. The 4th Annual General and Scientific Meeting – Hanoi, Vietnam

The 4th INDEPTH Annual General and Scientific Meeting (AGM) was held from 3-7 May 2004 at the Melia Hotel in Hanoi, Vietnam. The theme was *Using demographic surveillance systems to better understanding population dynamics and their health in developing countries*. A total of 118 participants attended this meeting. Among them were: funded representatives from 33 INDEPTH member sites in 17 countries in Africa, Asia and Oceania; members on the INDEPTH Board of Trustees and the INDEPTH Scientific Advisory Committee; and donor partners from Sida/SAREC, Rockefeller Foundation and Wellcome Trust. 15 young scientists were funded by INDEPTH to attend the meeting and present posters on their current work. 33 self-funded participants also attended, demonstrating a growing interest in the INDEPTH AGM. Guest speakers were Dr. Simon Szreter from Manchester University, Dr. Mary Ann Lansang from INCLEN and Prof. Jessor from University of Colorado at Boulder.

The AGM was officially opened by Prof. Le Ngoc Trong, Vice Minister for Health, Ministry of Health, Vietnam. The keynote address was delivered by Prof. Pham Huy Dung, Vice Director of the Institute of Health Strategy and Policy, Hanoi. Prof. Steve Tollman, Chair of the INDEPTH Board of Trustees introduced the INDEPTH network. Prof. Nguyen Thi Kim Chuc and Dr Tran Huu Bich made brief introductions to the INDEPTH member sites in Vietnam – Filabavi DSS and Chililab DSS sites respectively. Prof. Nguyen Lan Viet, Dean of the Hanoi Medical University chaired the opening ceremony and delivered the welcome address.

The rich scientific programme was structured into a series of plenary and breakout sessions. The plenary sessions focused on an ASIA-specific theme, INDEPTH products, Health Equity, Adult Health, the INDEPTH bid for Grand Challenge 13, Clinical Trials, Environment and Health, Technical DSS Innovations, Migration and Urbanisation, and New Challenges. A total of 42 papers were delivered in the plenary sessions, and 11 working group sessions were held. The INDEPTH Adult Health and Aging group held a one-day workshop on 2 May before the start of the AGM.

Prof. Steve Tollman (Agincourt DSS, South Africa), Dr. Alex Ezeh (Nairobi DSS, Kenya) and Dr. Kim Streatfield (Matlab DSS, Bangladesh) were re-elected to the INDEPTH Board of Trustees.

The Executive Director, Prof. Fred Binka delivered his Annual Report 2003 to the General Assembly. He started with the milestones in the previous year – the launch of the INDEPTH Strategic Plan and the first INDEPTH monograph, and securing funding from several funders. He said that 2003 was viewed as the year to deliver the products. He then reported on the scientific and capacity-building activities of the Network in 2003. The thrust of the Network's scientific work in 2003 concerned efforts to produce new volumes in the INDEPTH monograph series, strides to collate and analyse cause of death data from member sites, moving from the significant findings by the INDEPTH Health Equity Study regarding the existence of inequalities and inequity in health in smaller areas, to designing pro-poor interventions, and developing a basis for integrating DSS data with census data.

The Executive Director said that pivotal among the Network's capacity strengthening initiatives was the establishment of the *INDEPTH Scientific Development and Leadership Programme*, which should culminate in the establishment of an INDEPTH-tailored M.Sc. course in Field Epidemiology at the University of the Witwatersrand in Johannesburg, South Africa. The course will commence in February 2005. INDEPTH aims to use this programme to train a genre of developing-country scientists from member sites and elsewhere through practical on-the-job training so that the scientists would have the requisite capacity to engage external collaborators, compete effectively for international resources, and take leadership roles at their workplaces.

Prof. Binka also reported on the financial status of the Network, referring to audited accounts by KPMG in Ghana. Total receipts in 2003 were \$1,558,522.00 and total payments were \$1,312,618.00. Among the receipts was an amount of \$10,000 donated to the Network for the establishment of the INDEPTH Prize for Extraordinary Research in Demographic Surveillance. The Executive Director expressed gratitude on behalf of the Network to INDEPTH's investment partners in 2003: the Rockefeller Foundation, Sida/SAREC, the World Bank and the Wellcome Trust.

Field visits were made to Filabavi DSS and Chililab DSS.



Some INDEPTH visitors in Filabavi



Some INDEPTH visitors in Chililab

11. Volkswagen Foundation Workshop

The INDEPTH Network hosted in Accra, Ghana from 18-22 April 2004 a VW Foundation workshop on "Communicable disease research in Sub-Sahara Africa - from the African bench to patients and populations." Co-ordinators were Dr. Thomas Junghanss from the Section Clinical Tropical Medicine, Department of Tropical Hygiene and Public Health, University Hospital, Heidelberg, Germany and Prof. Fred Binka, Executive Director of the INDEPTH Network. Nouna DSS (Burkina Faso), Navrongo DSS (Ghana) and Ifakara DSS (Tanzania) gave presentations at the workshop. Several officials from the VW Foundation attended.

The goals of the workshop were to: 1) To bring together scientists in the field of communicable disease research from Sub-Sahara Africa and Germany to explore funding strategies for scientists from Sub-Sahara Africa co-operating with German research institutions and, where necessary, associated partners from other countries; and 2) To set the framework of the "call for proposals."

The specific aim of the VW Foundation in respect to its funding initiative and the planned call for proposals in communicable disease research are:

- improve on "true partnership" in research and technology between North and South;
- strengthen South-South cooperation;
- develop the "African bench" to improve responsiveness to African demands;
- strengthen integrated research between bench, patients and populations; and
- foster the interaction between African and German research centres and universities

12. INDEPTH at the Global Forum for Health Research Conference

The INDEPTH Network participated at the Forum 8 Conference of the Global Forum for Health Research in Mexico City, Mexico from 16-20 November 2004. Dr. Osman Sankoh, the Communications and External Relations Manager presented a poster: *INDEPTH Network: Generating Empirical Population-Based Data for Assessing the Millennium Development Goals in Resource-Constrained Countries in the Developing World.*



Osman Sankoh presenting the INDEPTH poster at Forum 8 in Mexico City

C. INDEPTH Capacity Building Initiatives in 2004

1. INDEPTH Scientific Development and Leadership Programme

One of INDEPTH's key missions is to strengthen the capacity of developing-country scientific research. In February 2005, it launched a Masters Programme in Population-based Field Epidemiology in partnership with the University of Witwatersrand in Johannesburg, South Africa. Commendable work was done by authorities at WITS University to develop the curriculum and get it approved by the University. INDEPTH and WITS were able to agree on a contractual agreement. A full-time course co-ordinator was recruited.

The eighteen-month course combines face-to-face teaching with at least six months of fieldwork at INDEPTH sites in Navrongo (Ghana), Africa Centre (South Africa) and Ifakara (Tanzania). A memorandum of understanding was signed between INDEPTH and each of the sites, with INDEPTH providing some core support to the sites. The fieldwork will enable students to benefit from the wealth of data available at DSS sites, as well as drawing on the experience of multidisciplinary teams of epidemiologists, biostatisticians, demographers and social scientists. During the fieldwork period, teaching will be conducted through a distance-learning module. Initial discussions have taken place between INDEPTH/WITS/LSHTM to explore the possibility of working together to develop the DBL component of the INDEPTH/WITS MSc.

The course will focus on five areas: Epidemiology; Biostatistics and data management; Demography and other social sciences; Information technologies for demographic and health surveillance; and Leadership.

The course aims to develop scientists who can identify and find solutions to key biomedical and public health problems that may be addressed by epidemiological or demographic studies. It will teach students how to plan, execute and analyse field-based scientific research, and give them the communication and leadership skills to explain and promote the research with different audiences, including policy-makers, donors and academics.

In its first year, the Masters programme is training six students, with four of them from INDEPTH sites. The funded students were selected by an independent and credible scholarship panel appointed by the INDEPTH Board.

INDEPTH funds WITS with a seed amount for three years for the development of the programme. It is hoped that after three years, the University of Witwatersrand will continue to develop the programme.

2. INDEPTH Capacity Building Workshops

2.1 INDEPTH Data Managers Workshop

DSS sites require much work to share their data effectively, efficiently and accurately. The INDEPTH Secretariat organised a workshop for site data managers in Ho, Ghana from 8-11 June 2004 with the following objectives:

- Capacity building for Data Managers at INDEPTH sites;
- Strengthen and share good practices within the Network;

- Improve communication between and among Data Managers;
- Improve communication between the Secretariat and Data Managers in order to enhance Network activities; and
- Promotion of site visibility and information dissemination through websites.

The meeting commenced with site presentations from Navrongo DSS, Ghana and HSID DSS, Bangladesh highlighting issues that should to be addressed in order to improve data management in the DSS. Thereafter a presentation on the INDEPTH Cause of Death (COD) working group was made. This detailed the challenges the group has faced in pulling COD data together from INDEPTH sites for the COD monograph.

Many other relevant issues were discussed and a set of recommendations about the way forward were made.

Facilitators were Sam Clark, Bruce Macleod, and Kwabena Owusu-Boateng. Participants came from the following sites: Navrongo (Ghana), Nouna (Burkina Faso), Africa Centre (South Africa), Dikgale (South Africa), Kisumu (Kenya), Nairobi (Kenya), HSID (Bangladesh), Agincourt (South Africa).



Some highlights at the data managers workshop in Ho, Ghana

2.2 INDEPTH site leadership and management workshop

The INDEPTH Network organised a workshop from 16-20 October in Ho, Ghana on DSS site leadership and management. In his opening remarks, Prof. Fred Binka, Executive Director of the INDEPTH Network emphasised the workshop objectives: to strengthen the capacity of current and future leaders of DSS sites in leadership and management skills; to give these leaders the opportunity to interact professionally with themselves; and to share their experiences in leading high-quality and complex research institutions.

The following sites were represented: Nairobi (Kenya), Oubritenga (Burkina Faso), Matlab (Bangladesh), Navrongo (Ghana), Kintampo (Ghana), HSID (Bangladesh), Wosera (Papua New Guinea), Agincourt (South Africa), Rufiji (Tanzania) and Rakai (Uganda). Site representatives gave presentations covering the following points: management strategies / processes; achievements; challenges; problem-solving processes; and communication systems. Lead facilitator was Prof. Wen L. Kilama, AMANET Managing Trustee in Dar es Salaam, Tanzania. Dr. Don de Savigny (Swiss Tropical Institute) also facilitated at the workshop.

Topics covered at this interactive workshop included Effective Leadership, Motivating Staff, Setting Research Agenda and Priorities, Institutional Research Capacity Strengthening, Research Dissemination and Advocacy to Policy, and Team Spirit.

At the end of the workshop, a list of core values for a DSS site leader was recommended by the participants. These cover the following broad areas: 1. Command of Basic Facts; 2. Alert and sensitive to events; 3. Have goals to achieve; 4. Analytical and decisive; 5. Social skills and abilities; 6. Emotional Resilience; 7. Mental agility and creativity; 8. Lead by example; 9. Be ethical (integrity); and 10. Identify with INDEPTH.

2.3 INDEPTH Finance Managers Workshop

The INDEPTH Network organised a workshop from 16-20 October in Ho, Ghana for site finance managers. At the opening, the Executive Director informed that the objective of this workshop was to give the opportunity to Finance Managers / Accountants *either at the sites or working from a distance* and responsible for DSS financial activities, to share practical experiences among themselves and with the INDEPTH Secretariat so that a framework for financial management at DSS sites could be developed.

The following sites were represented: Nairobi (Kenya), Oubritenga (Burkina Faso), Matlab (Bangladesh), Navrongo (Ghana), Kintampo (Ghana), HSID (Bangladesh), Wosera (Papua New Guinea), Agincourt (South Africa), and Rakai (Uganda). Site representatives gave presentations on financial management issues at their sites.

Facilitators at this workshop were Anthony Sarpong (KPMG, Accra, Ghana) and Joseph Gichuru (Nairobi DSS, Kenya). Topics covered included the following broad areas: The role of the Finance manager; Budgeting; Internal controls; Treasury & cash management; Personnel & Payroll cost; Procurement; Accounting system; and Corporate governance.

From the presentations and discussions the following issues were identified as areas to be shared with site leaders and this was addressed as “letter to site leaders”. This covered the following areas: 1.Sustainability of funding; 2.Personnel cost; 3.Time management; 4.Investment in working tools and systems; 5.Involvement of Finance managers in strategic decisions; 6.Appropriate delegation; 7.Budgeting; 8.Overheads; and 9. Key programmes that have to run for continued success of organisation

This was presented as a “letter to site leaders” and discussed in the combined session with site leaders.

2.4 INDEPTH Scientific Writing Workshop

INDEPTH organised a Scientific Writing Workshop from 6-10 December 2004 in Accra, Ghana, to support capabilities of developing-country scientists working in its member sites, for effective dissemination of the significant body of research results coming from DSS activities through scientific journals and publications. The workshop was held as a response to specific demand from DSS researchers for these areas of skills building.

Starting with a selection pre-selection process in which INDEPTH young scientists submitted abstracts and later drafts of full papers intended for publication in international journals, the

INDEPTH Secretariat arranged for reviews of the 12 selected papers and authors were brought to Accra to address the reviewers' comments under the guidance of experienced facilitators. By the end of the workshop, all our authors almost completed their papers.

The following authors/papers took part in the review process:

	Site	Author	Title of Abstract
1	Africa Centre, South Africa	Caterina Hill	Male and Female migration and mobility in the rural Umkanyakude district of KwaZulu-Natal, South Africa
2	Africa Centre, South Africa	Dumile Mkhwanazi	An examination of reasons and patterns for homestead refusals in a demographic surveillance system
3	Navrongo, Ghana	Paulina Tindana	The Informed Consent Process in a Rural African Setting - a case study of the Kassena-Nankana District of Northern Ghana
4	Navrongo, Ghana	Frank Baiden	Neonatal Mortality in the Kassena-Nankana District of the Northern Region
5	Matlab, Bangladesh	Ms. Shamoli Shill	Examining Asset Based Indicators as Proxies for Household Income and Expenditure in Determining Household Socioeconomic Status and in Measuring Inequalities in Health and Social Outcomes
6	Filabavi, Vietnam	Hoang Minh Hang	Difficulties of getting treatment for injuries in rural Vietnam
7	Filabavi, Vietnam	Hoang Thi Phuong	Child injury in a rural area of Vietnam – Identifying basic risk factors leading to child injuries in Ba Vi district, Ha Tay province
8	Purworejo, Indonesia	Nawi Ng	Combining risk factor and demographic surveillance – potentials of WHO STEPS and INDEPTH methodology for assessing the epidemiologic transition
9	Agincourt, South Africa	Rhian Evans	Enhanced delivery and uptake of government provided child welfare grants through a university/government partnership
10	Butajira, Ethiopia	Wakgari Deressa	Responses to Malaria among under five children in Rural Ethiopia
11	Nairobi, Kenya	Robert Ndugwa	Child morbidity and health seeking behaviours among slum residents in Nairobi City
12	Digkale, South Africa	Solly Choma	Iron status among non-urban adults residing in Dikgale and surrounding villages

The INDEPTH Network would like to acknowledge with appreciation the financial support from The Wellcome Trust that enabled the Secretariat to organise the workshop. INDEPTH would also like to thank the following facilitators who offered their time and expertise to help our young scientists: Prof. Peter Smith (London School of Hygiene and Tropical Medicine), Dr Kwadwo Koram (Noguchi Memorial Institute, University of Ghana, Legon, Ghana), Prof. Fred Binka (INDEPTH Network), and Dr. Osman Sankoh (INDEPTH Network).

INDEPTH would like to thank the following people who reviewed the draft papers and submitted detailed comments to our young scientists: Prof. Peter Smith (London School, UK), Dr. Kwadwo Koram (Noguchi Memorial Institute, Ghana), Dr. Tom Smith (Swiss Tropical Institute, Basel, Switzerland), Prof. Rainer Sauerborn (University of Heidelberg Medical School, Germany), Prof. Basia Zaba (London School, UK), Dr. Kim Streatfield (MATLAB,

Bangladesh), Prof. Steve Tollman (University of the Witwatersrand, South Africa), Prof. Anne Mills (London School, UK), Dr. Alex Ezeh (African Population and Health Research Centre, Nairobi, Kenya), Dr. Ruth Bonita (WHO, Switzerland), and Dr. Joanna Schellenberg (London School, UK).

3. ICT Initiatives to Strengthen the INDEPTH Network

In addition to maintaining its website, the INDEPTH Secretariat continues to help member sites develop their own websites by registering domains and creating websites. The INDEPTH ICT Manager was able to assist six member sites who requested for assistance. The Secretariat will be awarding an INDEPTH Prize for the best website based on content and frequency of update.

4. Collexis® – Shared Knowledge (Sida/INDEPTH Project)

The main goal of the project is to install Collexis technologies and make them accessible from the INDEPTH Secretariat. INDEPTH databases will be fingerprinted and connected interactively to major health information resources like the Cochrane Library, MedLine and Free Medical Journals. This will strongly support the networking objectives of INDEPTH and also increase the visibility of its experts around the world. A BETA version of the fingerprinting software was installed on the INDEPTH Server, and was tested by staff in the Secretariat. The INDEPTH ICT Manager took part in a technical training workshop on the development and use of the Collexis ASP application in Cape Town in August 2004. Thereafter, a revised version of the application was installed for continued testing. So far, 22 websites of INDEPTH member sites and the INDEPTH website have been fingerprinted and are now available in the INDEPTH ASP application.

5. Technical Support and Site Exchange Visits

Africa Centre, South Africa provides technical assistance to Kanchanaburi DSS, Thailand

The INDEPTH Secretariat provided support to Christian Kyony from the Africa Centre DIS in Somkhle, South Africa to assist Kanchanaburi DSS in Thailand with SQL Transition. The main objective of the 5-day workshop held at the Kanchanaburi field station from 1-5 November 2004 was to facilitate the transition from an SPSS flat file system to an SQL relational database system. As a facilitator, Mr. Kyony's focus was not to provide a final solution but to train the local staff to understand the rationale behind the changes and carry out the implementation on their own. Participants at the workshop included the data manager, field supervisors and M.Sc. students.



*Christian Kyony with
Kanchanaburi team*

Site Technical Exchange Visits

The INDEPTH Secretariat supports member sites to exchange visits and share experiences in DSS work. From 20-23 October 2004, the **Karonga DSS in Malawi** paid a site visit to the **Ifakara DSS in Tanzania**. The visiting team included Dr. Andreas Jahn, site leader, field supervisors, interviewers, data management clerks, data supervisors and medical assistants.

The project was planned as a mutual site visit in order to allow the respective field teams to experience the data collection and processing at their partner site in practice. The organisers intended to make their field staff, who are generating the data, appreciate the similarities and potential differences between sites that may affect the analysis of DSS data at the network level.

Although both DSS sites are operating in close agreement with the core concepts formulated by the INDEPTH network, the teams noticed several interesting differences in data collection and management.



D. Collaborations

1 The INDEPTH Bid for Grand Challenge

Collaborators: INDEPTH Network (lead), London School of Hygiene and Tropical Medicine, UK, the Swiss Tropical Institute in Basel, Switzerland and SattelLife, USA and ACAP.

Bid unsuccessful.

Together with these collaborators, INDEPTH submitted a proposal to the NIH for the Gates Grand Challenge 13. The goal of the proposed programme of research was to establish a fundamentally new sentinel health and disease surveillance model to inform optimal delivery and evaluation of interventions, strengthen health systems, and contribute to a global database for equitable health development. Its purpose was to develop technologies for new health surveillance model for resource-constrained settings to inform optimal selection, delivery and evaluation of interventions; strengthen health systems; contribute to global databases for equitable health development. The bid was not successful.

2. INDEPTH and the London School: CREATIVE – Concepts, Research, Evidence and Action for Targeted Interventions to reduce Vulnerability and improve Equity

Collaborators: London School of Hygiene and Tropical Medicine (UK; lead), STI (Basel), KNCV Tuberculosis Foundation (Amsterdam), ZAMBART (Zambia), Ifakara Centre (Tanzania), Makerere University (Uganda), Centre for Health Research and Development (India), and INDEPTH Network. Proposal funded by DFID.

The Objectives of this grant proposal are to: improve health of the poor and vulnerable through generating and facilitating the uptake of evidence based policies, and approaches to effective control and prevention of communicable diseases; develop concepts, methods and tools to achieve the millennium development goals through effective interventions in vulnerable groups; build capacity in southern partner and collaborating institutions for conducting research to generate policy-relevant new knowledge; and facilitate effective and timely dissemination of new knowledge to policy makers and planners.

3. INDEPTH and the University of Sussex: Bridging the Gap: Translating Sexual and Reproductive Health Rights into Policy and Practice

Collaborators: The Institute of Development Studies, University of Sussex, UK (lead), London School of Hygiene and Tropical Medicine, Engender Health, African Population and Health Research Centre, BRAC Bangladesh, and INDEPTH Network. Proposal funded by DFID.

The programme will have three main research themes.

- Improving the evidence base on SRH morbidities in vulnerable populations and strengthening surveillance capacity.
- Understanding the constraints to and opportunities for realisation of rights to SRH services and to low cost SRH technologies for the poorest and most disadvantaged populations. It will look at both demand and supply side and examine ways of linking SRHR to health systems planning and implementation.

- Understanding how the language and frameworks of SRHR, derived mainly from international law and conventions, are translated into cultural and political realities and how rights-based approaches can be implemented where governance and implementation are weak or social/power structures are adverse to rights.

4. INDEPTH and the University of Ghana: Health Informatics

The INDEPTH Network is taking advantage of a new Masters programme in Health Informatics at the University of Ghana to develop capacity of INDEPTH member sites by supporting 2-3 students from INDEPTH sites to participate in this programme. The purpose is to train INDEPTH scientists in the development of the HRS software which is widely used in INDEPTH sites. INDEPTH has been contributing to the development of the programme's curriculum.

The new programme is a multi-disciplinary arrangement between the School of Public Health and the Computer Science Department, which will award an MPH in Health Informatics. The programme will encourage application from nurses, physicians, researchers, medical librarians, and other health research professionals.

5. INDEPTH and the University of the Witwatersrand: The INDEPTH Leadership Programme

As indicated above in B1, the INDEPTH Network has successfully forged a partnership with the University of the Witwatersrand in Johannesburg, South Africa to establish the new Masters programme in population-based field epidemiology.

E. INDEPTH Visits to Member Sites

1. INDEPTH in Niahkar, Senegal

From 17-18 May, Osman Sankoh from the INDEPTH Secretariat visited Niakhar DSS in rural Senegal, about 150 km from the capital city of Dakar. Mr. Adama Mara was kind enough to drive Osman to Niakhar. Osman was welcomed in Niahkar by the station manager, Mr. Emile Ndiaye and the field supervisor, Mr. Samba Diatte. During the visit, Osman had the opportunity to see field worker Mr. Ousmane Faye, conduct household interviews in one of the villages. On his way back from Niakhar, Osman was introduced to the staff at IRD in Dakar, the host institution of the Niahkar DSS.



2. INDEPTH in Bandim, Guinea-Bissau

INDEPTH was present at the 25 years anniversary celebrations of demographic surveillance in Bandim, Guinea-Bissau. Osman Sankoh was warmly welcomed by the site leader, Prof. Peter Aaby, and several of a familiar Bandim staff including Dr. Amabelia Rodrigues and Dr. Sidu Biai. Osman's talk at the conference – *INDEPTH Network: A new perspective on research collaboration* – enlightened participants on the value INDEPTH adds to its member sites. The excellent presentations made by the Bandim team gave a general overview of past, ongoing and planned research activities at the Bandim semi-urban DSS site. At the close of the conference, the site leader drove Osman round Bandim, showing typical aspects of the demographic surveillance area. The INDEPTH guest also saw several Bandim staff at work.



Osman and Peter Aaby at the Celebrations



Bandim staff at work

3. INDEPTH in Kanchanaburi, Thailand

Prof. Fred Binka visited INDEPTH's member-site in Thailand – Kanchanaburi DSS, on 25 August 2004. During his one-day visit at the site, the Executive Director was shown data collection procedures at the rural and urban areas of the DSS. Preceding the field visit were presentations on the activities at Kanchanaburi by Dr. Chanya Sethaput, Dr. Sureeporn Punpuing, Dr. Aree Jampaklay, and Ms. Jongjit Rittrirong. While in Bangkok, Fred met Dr. Churnrurtai Kanchanachitra, the Director of the Institute for Population and Social Research (IPSR) and IPSR faculty members at Mahidol University – the host institution for Kanchanaburi DSS. Fred was also delighted to meet with staff from Chililab DSS, an INDEPTH site in Vietnam, who were also visiting Kanchanaburi.



Highlights of Fred's visit in Kanchanaburi, Thailand

F. The INDEPTH Secretariat

1. INDEPTH at the World Bank and at the Rockefeller Foundation in USA

The INDEPTH Executive Director visited in October 2004 two of the Network's US-based key investors, the World Bank in Washington and the Rockefeller Foundation in New York. Prof. Binka made presentations at the two institutions. His presentations gave an overview of completed and on-going cross-site activities of the Network, including studies in health equity that have shown a significant result of the existence of health inequalities and inequities even in small, seemingly homogenous areas. Examples of findings from some INDEPTH sites -- such as Manhica (Mozambique), Navrongo (Ghana), Agincourt (South Africa), Ifakara (Tanzania) and Matlab (Bangladesh) -- that have influenced policy and programme development were featured. Fred's also discussed the lessons learnt so far, and further opportunities for the Network to help close the information gap caused by inadequate human and financial resources for data collection, analysis, and dissemination that is hindering effective policy development and understanding of progress toward the Millennium Development Goals.

2. INDEPTH Secretariat – Running of the Network

INDEPTH is led by a permanent executive body ("the Secretariat"), which is headed by a full-time Executive Director. Additional network support capabilities are to be provided by the Secretariat through a Communications and External Relations Manager, IT Manager, Accountant, Administrative Officer and Administrative Secretary.

The principal overall responsibilities of the Secretariat are to:

- Identify key health and social issues and questions that need to be investigated;
- Maintain donor relations and generate funding for network-level studies and evaluations;
- Efficiently coordinate and support the conduct of network studies and evaluations;
- Publish and disseminate results to impact health and social policy and practice;
- Promote DSS and its capabilities;
- Position INDEPTH among regional and international institutions; and
- Organizes meetings of the Board of Trustees and the Scientific Advisory Committee.

In identifying key issues and raising funds for network studies, the Secretariat maintains ongoing dialogues with sites and with key donors and other stakeholders. In developing specific proposals the Secretariat will work closely with interested sites to build a Working Group and nominate the Principal Investigator.

Secretariat Staff

1. **Fred Binka** - Executive Director
2. **Osman Sankoh** - Communications and External Relations Manager
3. **Kwabena Owusu-Boateng** - ICT Manager
4. **Felicia Manu** - Administrative Secretary
5. **Sixtus Apaliyah** - Accountant
6. **Titus Tei** - Administrative Officer

3 The INDEPTH Board of Trustees

The Board consists of 9 total members: 6 Elected Members representing the sites and selected by them; 2 Appointed Members selected by the Elected Members to reflect donor perspectives, and 1 unaffiliated member, also selected by the Elected Members. The Board of Trustees' primary role is to provide oversight and accountability for the activities of the Secretariat and network as a whole. The Board had two face-to-face conferences and one telephone conference in 2004.

The following was the composition of the INDEPTH Board of Trustees in 2004.

1. **Steve Tollman (Chair)**, Health and Population Division, Agincourt Health and Population Unit, School of Public Health, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa.
2. **Nguyen Thi Kim Chuc**, Filabavi Field Site, Institute of Health Strategy and Policy, Hanoi, Vietnam.
3. **Alex Ezeh**, African Population and Health Research Centre, Nairobi, Kenya.
4. **Bocar Kouyate**, Centre de Recherche en Sante de Nouna, Nouna, Burkina Fasso.
5. **Regina Rabinovich**, Bill & Melinda Gates Foundation: Infectious Diseases, Global Health Program, Seattle, USA
6. **Anita Sandstrom**, Swedish HIV/AIDS Team for Africa, Embassy of Sweden, Zambia
7. **Donald de Savigny**, Swiss Tropical Institute, Basel, Switzerland.
8. **Peter Kim Streatfield**, Matlab, ICCDR,B, Dhaka, Bangladesh.
9. **Hassan Mshinda**, Ifakara Health Research Centre, Tanzania

4. The INDEPTH Scientific Advisory Committee

The INDEPTH permanent Scientific Advisory Committee (SAC) assists in maintaining the focus of INDEPTH on health, population and social issues and areas of greatest potential impact; encourages linkages between INDEPTH and related agencies, research bodies and networks; and helps maintain the highest scientific standard for INDEPTH studies. In addition, the SAC facilitates ongoing communication between INDEPTH and donors and key scientific stakeholders. The SAC currently consists of 11 members selected on their personal merits and representing diverse constituencies including NGOs, academic institutions pharmaceutical and clinical research organizations, etc. In 2004 the SAC had one face-to-face and one telephone conference.

Members on the INDEPTH SAC are as follows:

1. **Jane Menken (Chair)**, Demography, University of Colorado at Boulder, USA.
2. **Stig Wall (Deputy Chair)**, Epidemiology, Umea International. School of Public Health, Sweden.
3. **Pham Huy Dung**, Health Policy, Institute of Reproductive Health, Hanoi, Vietnam.
4. **Bruce MacLeod**, Information Technology, University of Southern Maine, USA.
5. **Soulaymane Mboup**, Infectious Diseases, Laboratoire de Biologie Cellulaire, Senegal.
6. **Anne Mills**, Health Economics, London School of Hygiene and Tropical Medicine.
7. **James Phillips**, Demography, Population Council New York, USA.
8. **Rainer Sauerborn**, Public Health, University of Heidelberg, Germany.

9. **Joanna Schellenberg**, Statistics/Epidemiology, London School of Hygiene and Tropical Medicine, UK.
10. **Thomas Smith**, Biostatistics/Epidemiology, Swiss Tropical Institute, Switzerland.
11. **Basia Zaba**, Demography, Centre for Population Studies, London School of Hygiene and Tropical Medicine, UK.

5. Visitors to the Network in 2004

Name	Institution
1. Steve Wayling	WHO, 1211 Geneva 24, Switzerland
2. Dereshni Ramnarain	Wits Medical School, Johannesburg
3. Sureeporn Punpuning	Inst. of Population & Social Research Mahidol Univ. Salaya, Thailand
4. Edward Galiwango	Makerere Univ. Iganga DSS, Inst of Public of Public Health, Uganda
5. Jorn Klunasoyr	Centre for International Health, Norway
6. Holly Ladd	Satellite, USA
7. Simon Braker	London School of Hygiene & Tropical Med.
8. Ann Blanc	Buffet Foundation
9. George Brown	Buffet Foundation
10. Daniel Chandramoham	LSHTM, Keppel St. London
11. Joseph S Akuamoah	Malaria Consortium
12. Walter Kazaai	Malaria Consortium
13. Sunil Mehra	Malaria Consortium
14. Katherine Narunddu	Rockefeller Foundation, Kenya
15. Pat Naidoo	Rockefeller Foundation, Kenya
16. Islam Molla	ICDDR, Bangladesh
17. Taslim Ali	ICDDR, Matlab, Bangladesh
18. Ali Ashraf	ICDDR, HSID, Bangladesh
19. Sentu Gomes	ICDDR, Matlab, Bangladesh

G. INDEPTH Membership in 2004

There are two categories of INDEPTH membership. A **full member** is any demographic surveillance system (DSS)-based site with existing or committed funding, and the DSS site fulfils the following characteristics:

- A geographically defined population is under continuous demographic monitoring, with timely production of data on all births, deaths, and migrations — sometimes called a demographic surveillance system (DSS); and
- This monitoring system provides a platform for a wide range of health-system innovations, as well as social, economic, behavioural, and health interventions, all closely associated with research activities.

Interested professionals, research institutions and donors are eligible to participate as **associate members**.

List of full members in 2004

Region	Name of INDEPTH Site	Country
West Africa	Bandim	Guinea Bissau
	Farafenni	Gambia
	Mlomp	Senegal
	Bandafassi	Senegal
	Niakhar	Senegal
	Kintampo	Ghana
	Navrongo	Ghana
	Nouna	Burkina Faso
	Oubritenga	Burkina Faso
	Ouagadougou	Burkina Faso
East Africa	Butajira	Ethiopia
	Kisumu	Kenya
	Nairobi	Kenya
	Ifakara	Tanzania
	Rufiji	Tanzania
	Magu	Tanzania
	Rakai	Uganda

Southern Africa	Agincourt Dikgale Africa Centre DIS Karonga Manhica	South Africa South Africa South Africa Malawi Mozambique
Asia	Filabavi Chililab Matlab HSID Watch Purworejo Kanchanaburi Vadu Ballabgarh	Vietnam Vietnam Bangladesh Bangladesh Bangladesh Indonesia Thailand India India
Oceania	Wosera	Papua New Guinea
Latin America	Leon	Nicaragua

H. Auditors' Report 2004

The following statements were provided by the accounting firm KPMG, Chartered Accountants in Accra, Ghana.

INDEPTH NETWORK INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st DECEMBER 2004

	2004 US\$	2004 US\$	2003 US\$	2003 US\$
Receipts				
Grants		2,181,252		1,492,186
Other Income		87,271		66,336
		2,268,523		1,558,522
Expenditure				
Meeting Expenses	993,188		394,741	
Workshops	689,991		384,211	
Development and maintenance of Websites	19,372		28,621	
General Expenses	588,830		502,331	
Intervention Trial Platform	17,195		2,794	
		(2,308,576)		(1,312,698)
(Deficit)/Surplus of Income over Expenditure transferred to Accumulated Fund		(40,053)		245,824

ACCUMULATED FUND FOR THE YEAR ENDED 31st DECEMBER 2004

	2004 US\$	2003 US\$
Balance at 1 st January	1,078,466	832,642
Prior year unutilized grant adjusted	(852,996)	-
	225,470	832,642
(Deficit)/Surplus of Income over Expenditure transferred from Income & Expenditure Account	(40,053)	245,824
Balance at 31st December	185,417	1,078,466

**INDEPTH NETWORK
BALANCE SHEET AS AT 31st DECEMBER 2004**

	2004 US\$	2004 US\$	2003 US\$	2003 US\$
Current Assets				
Debtors	31,600		68,200	
Cash and Bank Balances	1,174,727		1,114,999	
	1,206,327		1,183,199	
Current Liabilities				
Creditors	(596,089)		(104,733)	
Net Current Assets		637,238		1,078,466
Deferred Income		(451,821)		-
Net Assets		185,417		1,078,466
Represented by:				
Accumulated Funds		185,417		1,078,466

**INDEPTH NETWORK
CASH FLOW STATEMENT
FOR THE YEAR ENDED 31st DECEMBER 2004**

	2004 US\$	2004 US\$	2003 US\$	2003 US\$
Surplus for the period before returns on investment		(44,930)		243,761
Decrease in Debtors	36,600		159,665	
(Decrease)/increase in Creditors	(388,640)		100,282	
Increase in deferred income	451,821			
		99,781		259,947
Net Cash flow from operating activities		54,851		503,708
Return on Investment				
Interest received		4,877		2,063
<i>Increase in cash and cash equivalent</i>		59,728		505,771
Analysis of changes in Cash and cash equivalent during the year				
Balance at 1 st January		1,114,999		609,228
Net cash inflow		59,728		505,771
Balance at 31 st December		1,174,727		1,114,999
<i>Analysis of balances of cash and cash equivalents as shown in the balance sheet</i>				
Cash and Bank balances		1,174,727		1,114,999

GRANTS

	Unutilised Grants at 1/01/04 US\$	Grants Received US\$	Grants Utilised US\$	Unutilised Grants at 31/12/04 US\$
Rockefeller Foundation				
- Starter kit	-	45,085	45,085	-
- Core Support	134,886	500,000	409,506	225,380
- INDEPTH / ACAP	130,461	75,400	9,717	196,144
Sida/SAREC	-	196,745	165,190	31,555
VW Grant	-	56,560	56,560	-
World Bank	587,649	825,000	1,304,689	107,960
Wellcome Trust	-	90,505	90,505	-
Bill & Melinda Gates Foundation		551,821	100,000	451,821
	852,996	2,341,116	2,181,252	1,012,860