

# **INDEPTH NETWORK**

## **ANNUAL REPORT**

**2003**

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## Executive Summary

The year 2003 brought along a series of challenges and huge expectations on the Network since several milestones were achieved in the previous year. These included the launch of the INDEPTH Strategic Plan; securing core funding was from the Rockefeller Foundation, Sida/SAREC and the Wellcome Trust; securing project funding from the World Bank; and the launch of the Network's first monograph, *Population Health and Survival at INDEPTH Sites* in the series *Population and Health in Developing Countries*. Consequently, 2003 was viewed as the year to "deliver the products".

This report provides INDEPTH's strides in 2003 to meet the challenge. It details the successes that were achieved in carrying out both research and capacity-building activities, as well as the challenges that were faced.

The thrust of the Network's scientific work in 2003 concerned the following activities: 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 about 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.

Pivotal among the Network's capacity strengthening initiatives was the establishment of the *INDEPTH Scientific Development and Leadership Programme* which culminated in the setting up of an INDEPTH-tailored M.Sc. course in Field Epidemiology at the University of the Witwatersrand in Johannesburg, South Africa. Commencing in January 2005, INDEPTH aims to use this programme to build 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.

A good number of INDEPTH capacity-building/strengthening workshops were funded by the Secretariat in 2003. Among them were the *Cause of Death* meetings in Ghana and Mozambique, the *Health Equity* workshop in Ghana, the workshops on *Migration and Urbanisation*, *Adult Health and Aging*, *HIV Surveillance*, and *Data Systems* in South Africa, and the *Analysis workshop* in Kenya. The Secretariat would like to thank the organisers and host institutions as well as co-sponsors of some of the workshops.

The Secretariat funded two sites in Asia to exchange scientific visits and learn from the experiences of the other. A team from Filabavi DSS in Vietnam visited Kanchanaburi DSS in Thailand. A few months later, a team from Kanchanaburi visited Filabavi.

The 3<sup>rd</sup> Annual General and Scientific Meeting (AGM) of the Network was held in Accra, Ghana in February 2003. The AGM brought together more than 80 scientists from INDEPTH member sites and elsewhere. The meeting plays a significant role in generating the scientific agenda of the Network. A series of oral presentations and posters gave participants the opportunity to share their experiences in demographic surveillance in Africa and Asia. INDEPTH sponsored ten young scientists from the sites to make presentations.

In December 2003, INDEPTH held an information session in Geneva, Switzerland, taking advantage of the seventh Global Forum for Health Research meeting. Network scientists presented papers on key ongoing scientific initiatives of INDEPTH.

The INDEPTH Board of Trustees and the INDEPTH Scientific Advisory Committees held several face-to-face and telephone conferences in 2003 to deliberate on Network administrative and scientific issues.

By the end of 2003, full membership of the INDEPTH Network increased to 34 field sites in 18 countries across Africa, Asia and Oceania. The eight DSS site additions in 2003 were: Ouagadougou DSS, **Burkina Faso**; Vadu DSS and Ballabgarh DSS, **India**; Chililab DSS, **Vietnam**; Wosera DSS, **Papua New Guinea**; and Karonga DSS, **Malawi**. Many applications for associate membership were received from researchers worldwide.

Finally, INDEPTH wishes to acknowledge the contribution of development partners who have funded or continue to fund the Secretariat and cross-site initiatives of the Network. In particular, the Secretariat thanks the Rockefeller Foundation, Sida/SAREC, the World Bank, the Wellcome Trust, and individuals, DSS sites and leaders and their staffs, and local institutions all of which contribute time, expertise and resources.

## **A. Introduction**

### **Vision of INDEPTH**

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.

### **Mission of INDEPTH**

- 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.

### **Objectives of INDEPTH**

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.

## Key Strategies

The Network pursues key strategies to achieve its objectives. Firstly, the Secretariat secures Internet domains for member sites in need and assists them establish their websites. Secondly, INDEPTH supports the development and dissemination of a methods bank that includes model survey instruments, data processing and analysis software, and quality control procedures. Thirdly, the Network strives to build and strengthen capacity through internships and fellowships for developing country nationals, short on-site training courses, and fosters south-south and south-north partnerships. Finally, INDEPTH strives to identify, synthesise and present the policy implications of results generated across multiple field sites to maximise the impact of the studies, media relations and policy dialogue.

## Strategic Goals

The **key strategic goals** of INDEPTH pursued in 2003 concerned the following cross-site initiatives:

- INDEPTH monograph series, a compilation of comparative data provided by member sites focused on a specific topic.
- Health equity platform to determine the relationship between inequity in health interventions, specific socio-economic factors and health outcomes.
- HIV/AIDS study to establish prevalence rates, support related behaviour studies, transmission assessments and test interventions.
- Adult health platform assessing the impact of disease, chronic illness, accidents, injuries, lifestyles and culture on the productivity of adults and the consequences for other family members including children and the aged.
- Pursuit of opportunities for INDEPTH to establish a health intervention trials platform for trials that require participation from multiple member sites to test vaccines and drugs in the following poverty-related diseases: HIV/AIDS; malaria; TB; and rotavirus.
- Migration and urbanisation platform that will utilise standardised population-based migration data to inform a comprehensive analysis and accompanying research into population migration within and across countries and continents.

## **B. Network Activities**

### **1. Scientific Work**

#### **1.1 INDEPTH Monograph Series**

The INDEPTH monograph series – *Population and Health in Developing Countries* – is a compilation of comparative data provided by member sites. They are focused on specific topics. The monograph series is a key network output that demonstrates INDEPTH's ability to coordinate the activities of individual field sites to create a network-level product that was previously unavailable to governments, donors and research organisations. The series is 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. The first volume – *Population, Health and Survival at INDEPTH Sites* – was published in January 2002 by IDRC, Ottawa Canada. 356pp; ISBN: 0-88936-948-8. This volume is also available online at: [http://web.idrc.ca/es/ev-32411-201-1-DO\\_TOPIC.html](http://web.idrc.ca/es/ev-32411-201-1-DO_TOPIC.html) A French edition was also published.

Forthcoming volumes are presented in the following sections.

##### *1.1.1 INDEPTH Model Life Tables for Sub-Saharan Africa*

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 provide invaluable tools for estimating mortality conditions among populations. Constructing model life models requires the availability of accurate empirical life tables that depict the different patterns of age-specific risks of death in the populations covered. INDEPTH provides the required longitudinal data on births, deaths and migrations covering some geographic areas in sub-Saharan Africa and Asia. Such unique data sets for the developing world make it possible to know the mortality levels and patterns of major regions that have often been characterized as data-poor settings. This book presents model life tables for sub-Saharan Africa using accurate empirical data from 19 INDEPTH sites in sub-Saharan Africa. A modified 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 sub-Saharan Africa, taking into account the effect of the HIV/AIDS epidemic. The monograph is now in press and will be published in 2004 by Ashgate Publishers in the UK.

##### *1.1.2 Causes of Death at INDEPTH Sites*

Efforts were made to collate and analyse cause of death data generated by verbal post-mortem as well as hospital recording from INDEPTH sites. The chapters from the respective sites are being used for comparative analysis. This activity has gone side by side with the development of an INDEPTH standardised verbal autopsy (VA) tool for use by all sites. The monograph will provide the first cause-specific mortality in many DSS sites. It is expected to be published in 2004.

#### Funded Workshops

The Secretariat funded several workshops in 2003 in its efforts to collate and analyse cross-site cause of death data.

#### a) Meetings of the Editorial Group

The Editorial Group met in **Accra, Ghana from 29 July to 1 August 2003**. The editors reviewed site-specific chapters, assessed the data submitted by sites and started the comparative data analysis.



*Editor's meeting in Akosombo, Ghana. L-R: Salim Abdullah (Ifakara, Tanzania), Osman Sankoh (INDEPTH Network), Seth Owusu-Agyei (Kintampo, Ghana), Martin Adjuik (Navrongo, Ghana), Cornelius Debpuur (Navrongo, Ghana) and John Arudo (Kisumu, Kenya).*

#### b) INDEPTH Cause of Death / MTIMBA Project Co-ordination Meetings

A meeting was hosted by the Manhica Health Research Centre (CISM) on **5-7 August 2003 in Maputo, Mozambique**. Present were representatives from Manhica, Mozambique; Oubritenga, Burkina Faso; Ifakara, Tanzania; Kintampo, Ghana; Rufiji, Tanzania; Nouna, Burkina Faso; Navrongo, Ghana; INDEPTH Secretariat, Accra, Ghana; Bandafassi, Senegal; and CDC, Atlanta, USA. The meeting's agenda involved the following main topics: 1. Site presentations of status of data collection and availability; 2. Templates for site data abstraction; 3. Future data collection activities; 4. Financial management and reporting issues; and 5. Workshop for data aggregation and report writing.

Another meeting was hosted by the INDEPTH Secretariat on **21-24 October 2003 in Ho, Ghana**. It was a follow up to the August meeting in Maputo, Mozambique. The primary objective was to discuss data analysis based on a revised template, evaluate the progress of the implementation of the project, and discuss future activities.

#### *1.1.3 Measuring Health Inequalities and Inequity through DSS*

The objective of the INDEPTH health equity Phase I study 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. Specifically, the study examined how

assets, gender, education, occupation, social connectivity and other socio-economic status proxies (e.g. housing and water source) relate to mortality in various population subgroups. Thirteen INDEPTH member sites conducted research in their respective countries. The reports were edited into chapters for this monograph which will include a critical assessment of the methods applied.

The following topics are covered in the contributions from the sites. Publication of this monograph is expected in 2004 by Ashgate Publishers in the UK.

1. Agincourt, **South Africa**: Socio-economic status and child mortality in a rural sub-district of South Africa.
2. Dikgale, **South Africa**: Socio-economic status and the diagnosis, treatment and control of hypertension in Dikgale South Africa.
3. Bandim, **Guinea-Bissau**: Maternal vulnerability and child survival in Guinea Bissau, West Africa.
4. Butajira, **Ethiopia**: Assessment of inequalities in morbidity and mortality in rural Ethiopia.
5. Navrongo, **Ghana**: Health inequalities in the Kassena-Nankana district, Ghana.
6. Nouna, **Burkina Faso**: Health inequalities in the rural district of Nouna, Burkina Faso.
7. AMMP, **Tanzania**: Trends in inequalities in under-five mortality in Tanzania.
8. Ifakara, **Tanzania**: Child health indicators – equity perspective in Southern Tanzania.
9. Rufiji, **Tanzania**: Initial studies on health inequalities in the Rufiji river basin, coastal Tanzania.
10. Farafenni, **The Gambia**: Parent's socio-economic status and social support as risks for child mortality: consideration for health equity in the Gambia.
11. Filabavi, **Vietnam**: Inequity in health and health care utilisation in Vietnam.
12. Matlab, **Bangladesh**: Health equity and inequality: evidence from Bangladesh.
13. Watch, **Bangladesh**: Reaching the disadvantaged: identification of gaps and needed interventions to promote health equity in rural Bangladesh

## 1.2 Health Equity Phase II

The INDEPTH Health Equity study has moved to the next stage to develop intervention studies or manipulate existing interventions to have a pro-poor focus in order to inform policy. A proposal development workshop was held in Ho, Ghana on 26-29 August 2003. Its objective was to develop small-scale prop-poor intervention proposals on Malaria, ITNs, Health Insurance, Home Management, and VCT/HIV/AIDS. Resource persons were Natasha Palmer from the London School of Hygiene and Tropical Medicine, Kabir Cham from WHO in Geneva, Switzerland, and Irene Agyepong from the Ghana Health Service in Accra. Attending the workshop were representatives from the following sites: Rufiji and Ifakara in Tanzania, Dikgale in South Africa, Nouna in Burkina Faso, Butajira in Ethiopia, Navrongo in Ghana, Rakai in Uganda, Kanchanaburi in Thailand, Purworejo in Indonesia and HSID in Bangladesh. The facilitators had a one-on-one meeting with the principal investigators (PIs) from the sites and the draft proposals were examined in detail. The PIs attended with their District Health Directors.

## 1.3 INDEPTH-ACAP Research Collaboration

The main objective of this collaboration is to pool the resources and expertise of the African Census Analysis Project (ACAP) at the University of Pennsylvania in Philadelphia, USA and

INDEPTH, to undertake high-quality joint research projects in order to inform demographic and health policy in Africa.

The first step of the collaboration started with a few INDEPTH sites that could contribute the basic data needed for investigating common research topics. Based on mutual understanding between INDEPTH and ACAP, Burkina Faso, Ghana, Mozambique, Senegal, South Africa, and Tanzania were selected for the initial phase and served as demonstrative examples of the usefulness of the collaboration.

In 2003 a joint research agenda was developed, datasets for the research programme were created and preliminary analysis was completed. Figures 1-3 show results comparing age-specific mortality rates from census and DSS data from some of the participating countries. The estimates compare very closely.

Data from the most recent censuses of those countries and the DSS data closest to the census year were used. The age-specific mortality rates computed from the census are based on deaths that occurred during the last twelve months collected in the censuses. Figure 1 shows non-adjusted age-specific mortality rates for females using data on deaths during the last 12 months from the most recent censuses of Senegal, Mozambique, Burkina Faso and Tanzania. The age-specific patterns of mortality depicted are consistent with expectation, which suggests that information from census on deaths during the last 12 months can give insights on the age patterns of mortality despite their deficiencies.

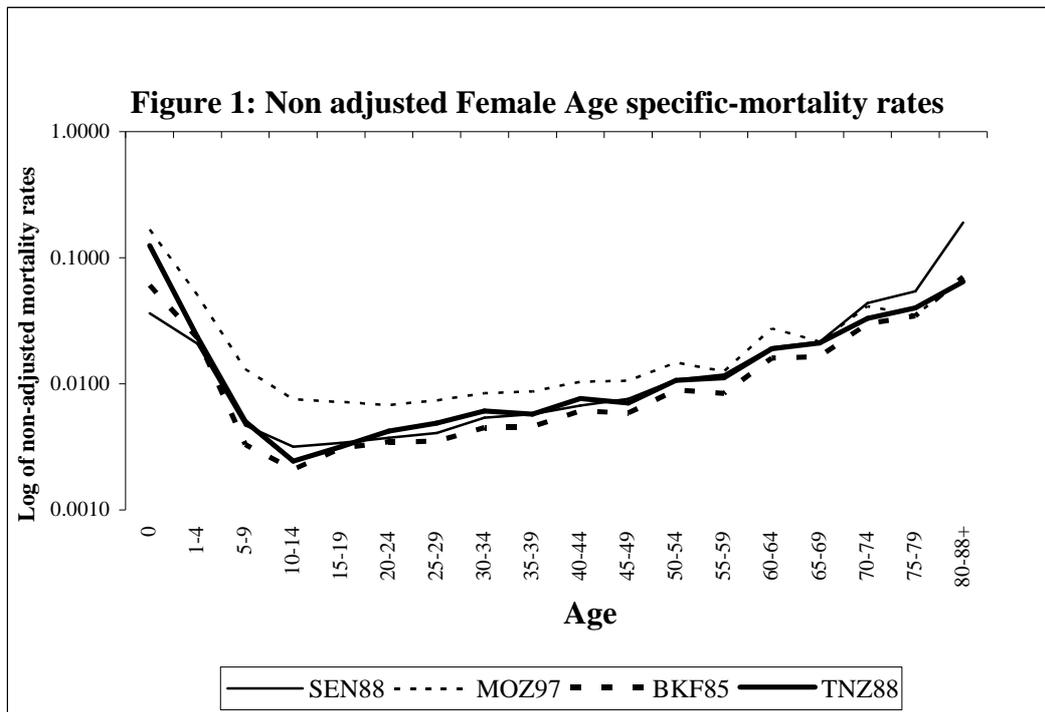
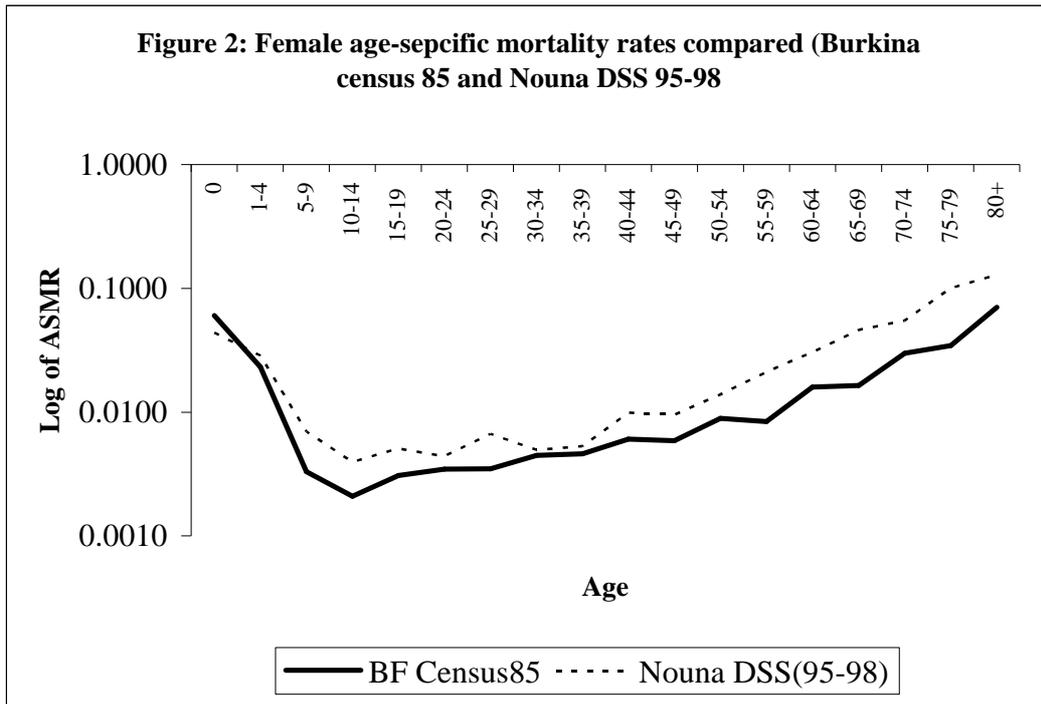
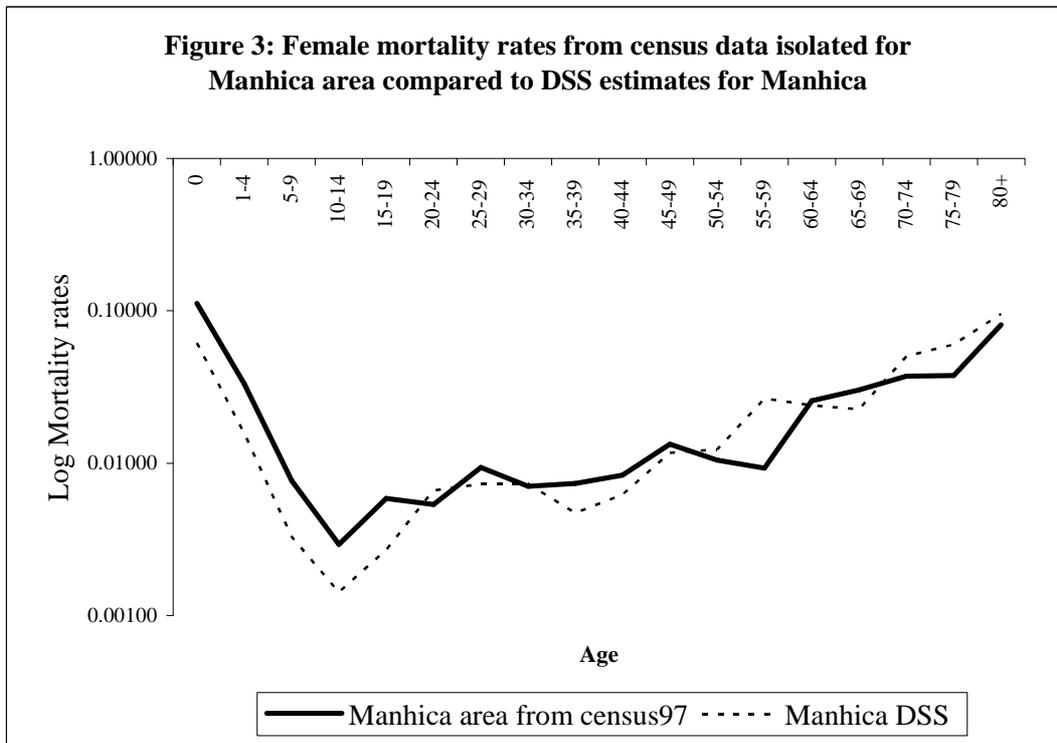


Figure 2 compares mortality estimates from the 1985 Burkina Faso census data using deaths during the last 12 months, to that of the Nouna DSS site covering a single district in Burkina Faso. It can be seen that similar patterns of mortality are exhibited. In figure 3, rates for the same locality in Mozambique are compared. 1997 census data for the Manhica site were isolated and the mortality rates based on deaths in the last 12 months were estimated. These were compared with mortality rates generated from the Manhica DSS for the 1998/99 period.



Again, the age patterns of mortality compare quite well. This kind of analysis allows for the use estimates of one data set to check on those from another. It demonstrates the potential of combining the different datasets to study different demographic and health processes. The DSS can be used as a gold standard to generate correction factors that can be used to correct errors in the census or demographic household survey (DHS).



From these initial analyses, a grant proposal to the NIH is being developed. Dr. Ayaga Bawah, co-ordinator for the collaboration, has made a few trips to the University of Pennsylvania to work with ACAP partners on the development of the proposal.



*ACAP Team at UPENN, Philadelphia. Dr Ayaga Bawah (2<sup>nd</sup> from right) and Prof. Tukufu Zuberi (3<sup>rd</sup> from right)*

### *1.3.1 In-country ACAP-INDEPTH meeting*

The first in-country meeting between the ACAP collaborator and INDEPTH member sites in Tanzania was held on 11 July 2003 at the UNICEF Conference Hall in Dar es Salaam. The meeting was attended by representatives from four INDEPTH sites (AMMP, Ifakara, Magu and Rufiji) and from the Tanzanian National Bureau of Statistics (NBS), which is the ACAP collaborator. Also in the meeting were participants from the INDEPTH Secretariat and from the Tanzanian National Surveillance System (NSS) which plays a co-ordinating role for all DSS activities in Tanzania

The NBS agreed to collaborate or involve DSS sites in the following possible areas: Harmonisation of tools of the DSS sites; Oversampling in DSS areas upon request; Preparation of the 2004 DHS; Training of enumerators; Exchange of raw data e.g. census (DSS sites will be charged a modest amount for processing); Participation in workshops; and Technical assistance.

Further in-country meetings are planned before the end of the grant period.



*Participants at the ACAP-INDEPTH in-country meeting in Dar es Salaam*

#### **1.4 Establishing an Health Intervention Trials Platform**

In 2002 the Secretariat developed a concept for the establishment of an INDEPTH Health Intervention Trials Platform. Input from international experts was sought at a brainstorming meeting later in the year. The concept was supported by the Board of Trustees and later by the General Assembly of the Network at the Networks AGM in February 2003 in Accra, Ghana.

The goal of this initiative is to enable participating INDEPTH sites compete effectively on the international arena for health intervention trials, thereby validate and confirm the intrinsic value of INDEPTH as a solid intervention trials platform in developing countries. A first phase of the platform will concentrate on sites in Africa and will involve writing a proposal that will focus on activities related but not limited to: Cohort identification; Epidemiology for current and other diseases; GCP/GLP; Ethics and Ethical certification from NIH and other established bodies elsewhere; and Data analysis for clinical trials.

The following INDEPTH sites will take part in the first phase of the proposed platform. Navrongo (**Ghana**); Nouna (**Burkina Faso**); Ifakara (**Tanzania**); Manhica (**Mozambique**); Africa Centre (**South Africa**); Agincourt (**South Africa**), Butajira (**Ethiopia**); Bandim (**Guinea Bissau**); Farafenni (**The Gambia**); Agincourt (**South Africa**); Magu (**Tanzania**), and Rakai (**Uganda**).

In connection with the establishment of the platform, the Secretariat funded an HIV Surveillance workshop in South Africa.

##### *1.4.1 Funded Workshop – HIV Surveillance, South Africa*

The HIV Surveillance Workshop was held in **Mtubatuba, South Africa from 29 September – 1 October 2003**. INDEPTH sites attending the workshop were either well-established sites with specialist HIV cohorts (Manicaland, Zimbabwe; Masaka & Rakai, Uganda; Magu, Tanzania; Karonga, Malawi) or sites with more general interests who are considering the addition of HIV surveillance and research to their activities (Butajira, Ethiopia; Manica, Mozambique; Kem-

Vadu, India; Ouagadougou & Nouna, Burkina Faso; Navrongo, Ghana; Ifakara, Tanzania; HSID, Bangladesh).

For both groups of sites there are potential advantages to developing joint funding initiatives. There are also possibilities for technical collaboration between sites. The research interests and benefits of collaboration differ between these specialist HIV cohorts and the more general DSS sites.

The advantages and opportunities for collaboration between specialist HIV cohorts are: pooling and meta-analyses of data between sites; designing multi-site intervention studies with large sample size; and INDEPTH sites could make joint approaches to large, international vaccine-, microbicide-, and anti-retroviral therapy initiatives as well as for trials of behavioural interventions.

The advantages and opportunities for collaboration between INDEPTH (& other) field-sites currently without HIV cohorts are: Sites can remain up-to-date and informed on HIV research issues and testing programs; They can receive technical support from more experienced sites on antenatal clinic surveillance and studies of sexual behaviour; and they can also work to strengthen and validate verbal autopsy data to better identify and track HIV/AIDS deaths.

## **1.5 Migration and Urbanisation**

The migration & urbanisation interest group will conduct 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. The aim will be 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 multi-site study will be supplemented by each site conducting independent local migration studies that look at migration within a defined geography and seek to explain the cause and effect of these migrations with regard to health and socio-economic factors. 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.

### *1.5.1 Workshops in 2003*

The group met on **21-24 January 2003 at the Zebra Lodge, Gauteng, Johannesburg, South Africa**. The meeting was sponsored by the Andrew Mellon Foundation, USA. The meeting undertook an enquiry into migration data collection among INDEPTH sites. Activities included presentations from site representatives, working group sessions and plenary discussions of the key topic areas. These included the definition of migration in DSS sites; validity of measurement and the comparability of data across sites; key methodological issues; contemporary migration research; and an agenda for multi-site research into migration and urbanization among selected INDEPTH sites.

Over 35 specialists, including researchers working at the front line, from universities, representatives of government agencies, and donors participated at the workshop. In total 14 DSS sites participated, including nine African sites coming from eight countries (South Africa, Burkina Faso, Kenya, Tanzania, Uganda, Ethiopia, Mozambique, and Ghana), and five Asian sites coming from Vietnam, Thailand, and Bangladesh. Participating scholars were from five research institutions, including Brown University, University of Pennsylvania, University of the

Witwatersrand, Pasteur Institute (France), and the Chinese University of Hong Kong. A representative from Statistics South Africa, and one from Mellon Foundation also participated in the workshop.

The full membership of the Group met at the AGM in **Accra in February 2003** to further discuss the research agenda and obtain support from the DSS sites. A meeting of the committee was held in South Africa in June 2003 to agree on data structure and other issues regarding the proposed monograph.

### *1.5.2 Preparations for the proposed monograph*

A subset of the working group committee was tasked with the development of a data template to be used by INDEPTH sites participating in the monograph initiative. The process included input from two scientific leaders in the field of migration and urbanisation, namely Sally Findley of Columbia University, USA, and Michael White of Brown University, USA, who will continue to support the monograph through its development. Key leaders within INDEPTH are Mark Collinson of the Agincourt Site and Kubaje Adazu of the Kisumu site, with support from Sureeporn Punpuing of the Kanchenaburi Site, Fred Nalugoda of the Rakai Site and George Wak of the Navrongo Site. The data template was made available for participating sites in January 2004 and datasets submitted at the INDEPTH Annual General and Scientific Meeting in Vietnam, in May 2004.

## **1.6 Establishing an INDEPTH Adult Health and Aging Platform**

There is a gap in our knowledge about adult health in developing countries. 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 through the use of indirect techniques have tried to provide some insights on levels of adult mortality. However, 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.

### *1.6.1 Funded Workshop – Adult Health and Aging Workshop, South Africa*

The Secretariat funded an Adult Health and Aging Workshop in **Johannesburg, South Africa from 29 October – 1 November 2003**. Participants came from 17 INDEPTH member sites. The workshop was hosted by the Agincourt Health and Population Unit, Health and Population Division, School of Public Health, Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, South Africa. For the INDEPTH Adult Health and Aging Group, the workshop was organised by Steve Tollman (Agincourt), Peter Byass (Butajira), Kathy Kahn and Dereshni Ramnarain (Agincourt), Jane Doherty (consultant).

The **objectives** of the workshop were to:

- Take stock of ongoing work in Adult Health and Aging at INDEPTH sites, through site presentations and a Network audit
- Work with an expert team to develop promising research directions and plan for development of a multi-site grant proposal

- Formulate core and optional ‘INDEPTH Adult Health modules’ for rapid introduction into a sub-group of INDEPTH sites – and potential extension across the Network.

The following were the **outcomes** of the workshop:

- 1) An audit of work on adult health in INDEPTH sites;
- 2) A follow-on workshop planned for 2<sup>nd</sup> May, to examine applications of existing site data relating to adult health issues. These may include mortality levels and trends among adults, morbidity data, socio-economic and environmental risk factors, specific adult health issues such as HIV/AIDS or non-communicable diseases, etc.;
- 3) Development of draft adult health modules for use in INDEPTH sites: a core module (for use in all participating sites), cardiovascular risk module, and functional status module (optional modules); and
- 4) Submission of joint World Health Survey Aging Study - INDEPTH funding proposal to the National Institute on Aging, USA.

### 1.7 The 3<sup>rd</sup> Annual General and Scientific Meeting

The **third** AGM was held in **Accra, Ghana on 3-7 February 2003** and was hosted by the Navrongo Health Research Centre and the INDEPTH Secretariat. Its theme was: The INDEPTH Network and the fight against poverty-related diseases. In addition to its administrative businesses such as meetings of site leaders, election of Board members, and annual report by the Executive Director, the Network agreed on a scientific agenda, prioritising the following activities: – INDEPTH Scientific Development and Leadership Program; Health Intervention Trials Platform; Collaboration between INDEPTH and the African Census Analysis Project (ACAP) based at the University of Pennsylvania in Philadelphia, USA; Adult Health and Health Equity. Secondary Level activities included Migration and Urbanisation, and Environment and Health.

The following presentations reflected a rich scientific programme at this year’s AGM. Posters were also presented.

1. *Monograph: INDEPTH Model Life Tables*
2. *Monograph: Causes of Death at INDEPTH Sites*
3. *INDEPTH-ACAP Collaboration*
4. *Confidential Distribution of HIV results using hand-held Computers*
5. *Ethical Issues in DSS – How Navrongo Health Research Centre is addressing these issues*
6. *Longitudinal population-based HIV surveillance Area, Hlabisa, South Africa*
7. *Reproductive Health in Niakhar, Senegal*
8. *Assessment of Maternal Mortality in INDEPTH sites*
9. *Mapping Inequalities in Rufiji DSA*
10. *Social Inequality in health of migrants and non-immigrants: A case study of Kanchanaburi province, Thailand*
11. *Human Capacity: Current Status, Unmet needs and obstacles to their work*
12. *INDEPTH Scientific Development and Leadership Programme*
13. *Burden of disease profiles – INDEPTH influencing Policy and Practice*
14. *Local Monitoring of Primary Health care Activities in Nigeria: Process, Progress and Problems*
15. *Child survival in West Africa – the impact of vaccinations*
16. *Risk of Child Mortality due to environmental Hazards in Bangladesh*
17. *Multi-Site Research on Migration and Urbanization in INDEPTH Sites*

18. *Health consequences of migration: evidence from the Agincourt Health and Population Unit*
19. *Adult Health in INDEPTH Sites using WHO STEPS*
20. *Characterizing the epidemiological transition: comparing patterns of non communicable diseases in Ethiopia, Vietnam and Indonesia*
21. *Preschool malnutrition and blood pressure in young adults in Niakhar, a rural area in West Africa*
22. *A Relational Data Model to manage Longitudinal Population Data*
23. *Demographic Surveillance Systems and Monitoring the Impact of Environmental Change on Infectious Diseases.*
24. *Voluntary counselling and HIV testing for pregnant women in Kassena-Nankana District*
25. *Health Transitions in rural South Africa: Adult Health, non- communicable diseases and its implication for decentralized district-based systems.*
26. *Health need, demand for health services and expenditure during monetary crises in Purworejo district, central Java, Indonesia*
27. *Gender and TB: A case study in Kanchanaburi, Thailand.*

The following working group sessions were convened. The working groups made short plenary presentations on their proposals for the way forward: INDEPTH Model Life Tables; INDEPTH Intervention platform (HIV, ARV, TB, Malaria & Rotavirus); *Health Equity; Reproductive Health; Policy to Practice; Human Resource Development; Migration and Urbanisation; Child Survival; Adult Health; Data Systems; Causes of Death; Ethics; and Environment and Health.*

#### The General Assembly

On behalf of the Secretariat, the Executive Director of the INDEPTH Network, Prof. Fred Binka presented his Annual Report 2002 to the General Assembly. He talked on the following topics. Details of his report are available in the published INDEPTH Annual Report 2002 which is available in hardcopy from the Secretariat or on the INDEPTH website.

1. Major Outcomes of the 2<sup>nd</sup> INDEPTH AGM in Addis Ababa
2. The INDEPTH-Donor Meeting in London, March 2002
3. INDEPTH Working Group Activities in 2002
4. Secretariat Work Plan 2002-2005 - An outline
5. Partnership: INDEPTH-ACAP Collaboration
6. INDEPTH Info Session in Arusha, Tanzania – November 2002
7. Representations of INDEPTH at international meetings in 2002
8. Financial Matters
  - Grant Proposals
  - Financial and Audit Report – 2002
9. Visitors to the Secretariat in 2002
10. Acknowledgements

#### Election of Board of Trustees

Dr. Bocar Kuyate (Nouna, Burkina Faso), Dr Kim Chuc (Filabavi, Vietnam), and Dr. Hassan Mshinda (Ifakara, Tanzania) were elected to the Board.

#### Scientific Advisory Committee

The newly constituted SAC met at the AGM. Professor Jane Menken was appointed Chair of the SAC and Professor Stig Wall, deputy Chair. The SAC held several meetings with the Board and Site Leaders and attended plenary and working group sessions.

### Site Leaders Meeting

The Board and the Secretariat met with INDEPTH Site Leaders. Among the issues discussed were the following: INDEPTH Authorship terms and Intellectual Property Rights; Eligibility for hosting AGMs; Working Group Leadership; Memorandum for INDEPTH Principal Investigators; and Application for research collaboration with the Network.



### **1.8 INDEPTH Session at Forum 7 in Geneva, Switzerland**

The Network held an information session in Geneva, Switzerland, taking advantage of the seventh annual meeting (Forum 7) of the Global Forum for Health Research on **3-7 December, 2003**. The session was chaired by Prof. Steve Tollman, Chair of the INDEPTH Board. The theme of the session was: Demographic Surveillance Systems and their contribution to Health Research in Developing Countries.

Prof. Fred Binka, Executive Director of the INDEPTH Network gave an introductory presentation that highlighted the key achievements of the Network, mentioning published and forthcoming works in the INDEPTH monograph series. He also informed of the INDEPTH Scientific Development and Leadership Programme for which the University of the Witwatersrand in Johannesburg, South Africa won a competitive selection to host a special INDEPTH Masters programme in field epidemiology. Prof. Binka also spoke briefly on the current research agenda of the network.

Dr. Davidson R. Gwatkin of the World Bank gave a synthesis of the INDEPTH Health Equity project. The key significance of the project is that INDEPTH has demonstrated that there are large inequalities in health even in smaller areas. Prof. Basia Zaba of the London School of Hygiene and Tropical Medicine (member on the INDEPTH Scientific Advisory Committee) gave an overview presentation of HIV/AIDS research in INDEPTH sites, highlighting the value added by INDEPTH in providing a platform to compare results within and across countries and

regions. Dr. Vicky Hosegood of the Africa Centre in Mtubatuba, South Africa (INDEPTH member site) who is also at the London School, illustrated with the HIV/AIDS research undertaken at the Africa Centre the contribution DSS can make to such types of research. Ending the presentations, Dr. Ayaga Bawah, head of the DSS at the Navrongo Health Research Centre in Ghana (INDEPTH member site), presented ongoing work on the INDEPTH Model Life Tables for sub-Saharan Africa. Dr. Bawah emphasised the use of an INDEPTH standard age population that typifies the young populations in sub-Saharan Africa.

Among the posters displayed was one on Kanchanaburi DSS, an INDEPTH member site in Thailand. The site leader, Dr. Varachai Thonghai was present.

The audience came from diverse constituencies including WHO, DFID, IDCCR,B, INCLN, University of Nairobi, University of Manchester, NIH, Ghana Health Service, Malawi Public Health Association, Muhimbili University Tanzania, and NIDI, The Hague, The Netherlands. Throughout the week, INDEPTH maintained a stall in the Marketplace.



*Fred Binka receiving visitors to the INDEPTH Stall at the MarketPlace*



*Outgoing Executive Secretary of the Global Forum Dr Loius Currat visited the INDEPTH stall and chatted with Fred Binka*



*The panel at the INDEPTH session. L-R: Prof. Fred Binka, Prof. Steve Tollman, Dr. Vicky Hosegood, Prof. Basia Zaba, Dr. Dave Gwatkin and Dr. Ayaga Bawah.*

## 1.9 Other Scientific Products developed in 2003

### *1.9.1 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:

Rose Lusinde, Honorati Masanja, Eleuther Mwageni, Marlies Craig and, Don de Savigny (2003). **Obtaining rainfall estimates from satellite remote sensing: A step-by-step technical guide for INDEPTH DSS sites.**

### *1.9.2 INDEPTH Working Paper Series*

The INDEPTH Network has decided to publish **online** a series of working papers to disseminate the research findings from 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 academic journals.

## 2. Capacity Strengthening Activities

### 2.1 The INDEPTH Scientific Development and Leadership Programme

One of the numerous strengths of INDEPTH DSS sites is that they comprise multidisciplinary teams of epidemiologists, biostatisticians, demographers and social scientists, who collect, clean, maintain, and analyse empirical information that can impact health policy and practice. The sites therefore have the requisite infrastructure for research to inform priority setting, policy and the allocation of resources. However, there is still need to strengthen (and in some cases to build) their capacities to maximise the benefits of the diverse technologies they use to generate these large volumes of data, and to add value to the data. The INDEPTH Network therefore considered it a priority in activity in 2003 to establish a scientific development and leadership programme whose key objectives are as follows:

- To develop a genre of developing-country scientists from INDEPTH sites and elsewhere through practical on-the-job training in a unique Masters programme that combines epidemiology, biostatistics, demography and other social sciences with a focus on demographic and health surveillance in developing countries, who
  - can identify key biomedical and public health problems that may be addressed by epidemiological or demographic studies and design solutions to those problems;
  - have the appropriate analytical skills and can understand, plan and execute field-based scientific research; and
  - have good communication skills to make research results understandable to diverse audiences.
- To develop the capacity of scientists in the INDEPTH Network to
  - have negotiating power to engage external collaborators;
  - to compete effectively for international resources; and
  - to take leadership roles at their workplaces.

A concept paper was developed by the Secretariat. A brainstorming session was held in **Accra on January 9-10 2003** to further refine the concept paper and solicit input from an international team of experts. The outcome was presented at the 3<sup>rd</sup> INDEPTH AGM held in Accra in February 2003.



*A team of international experts brainstorm on the concept for the INDEPTH Scientific Development and Leadership Programme*

A call for African Universities to partner with INDEPTH in the development of the programme was advertised in international magazines, the INDEPTH website, WHO/TDR website, and the AFRONETS website. The following universities applied: University of Nairobi, Kenya; Jomo Kenyatta University, Kenya; Makerere University, Uganda; University of Khartoum, Sudan; University of Cape Town, South Africa; University of Natal, South Africa; University of Western Cape, South Africa; University of Witwatersrand, South Africa; University of Science and Technology, Ghana; and Obafemi Awolowo University, Nigeria.

An 8-member international independent review panel chaired by Dr. Regina Rabinovich (INDEPTH Board Member) reviewed the applications. The University of the Witwatersrand (WITS) was selected as the best applicant. This decision was ratified by the INDEPTH Board of Trustees during its meeting on 25 August 2003.

The first Consultative meeting between INDEPTH and WITS took place at University of the Witwatersrand – **Johannesburg from the December 17 – 19 2003**. The purpose of the meeting was to negotiate and establish broad agreements with the hosting University, and also to agree on timelines for project development to proceed. A memorandum of agreement was signed between INDEPTH and WITS, and the first year support grant from INDEPTH was transferred to WITS.

## **2.2 Technical Workshop on multi-level modeling and analysis**

The workshop on multi-level modeling and analysis held in Nairobi, Kenya in **September** attracted 31 participants of whom 25 came from 17 INDEPTH sites in Africa and Asia. The INDEPTH Network sponsored the attendance of one participant from each of the 17 sites. The sites that sent more than one representative absorbed the financial responsibility for the extra participants.

The workshop was hosted by the African Population and Health Research Centre (APHRC) in Nairobi. It was organised by the INDEPTH Network Analysis Working Group as part of the Network's commitment to enhance analytical research capacity in member sites. The workshop was carried out to improve participants' analytical skills and capacity to use multi-level models in analysing the rich longitudinal, relational and multi-level data collected in the DSS sites. It was also expected to encourage participants and their sites to collect contextual information that would enable multi-level analysis to isolate the impact of the contextual factors in various health outcomes and processes.

Although other softwares were mentioned during the workshop, participants were mostly instructed in multi-level modeling concepts and analysis using the MLwiN software. At the end of the workshop, participants were expected to:

- appreciate the rationale for using multi-level modeling;
- format their data for multi-level analysis, using MLwiN;
- use MLwiN to analyze longitudinal multi-level data, using various models; and
- present, discuss and interpret the results from the multi-level analysis.

Resource persons were: Nyovani Madise, Social Statistician and Director of the Centre for AIDS Research at the University of Southampton; Eliya Zulu, African Population and health Research Center, Nairobi, Kenya; and Showkat Gani, Research Associate in the Research and Evaluation, BRAC, Bangladesh.

The University of Southampton co-sponsored the workshop by providing the lead instructor (Dr Nyovani Madise) and by playing a leading role in developing course materials through the Centre for Applied Social Surveys and the DFID-funded Opportunities and Choices Knowledge Program. The University of Southampton also provided funds to purchase MLwiN software that was given to each institution represented at the workshop, and produce course handouts used at the workshop. As part of its capacity-strengthening programme, the APHRC funded non-INDEPTH participants who were drawn from Universities in Kenya, Malawi, Tanzania, and Uganda.



*Participants at the Analysis Workshop in Nairobi, 2003*

### **2.3 Relational Database and SQL Workshop**

The key objective of the INDEPTH Data Systems Working Group is to develop/strengthen capacities in INDEPTH sites in various issues related to data systems. In this regard, the Data Systems WG held on **18-21 November** a successful workshop on “The Relational Database and SQL in the context of health and population surveillance” at the Africa Centre, Mtubatuba, KwaZulu-Natal, South Africa.

Participants were instructed in the relational model of data, the practical implementation of the relational model of data in a modern relational database management system, the Structured Query Language (SQL) that is used to manipulate a relational database, the Reference Data Model on which many DSS databases are currently based, and finally, in specific SQL queries that address common needs in health and population surveillance.

Hosts: The Institute of Behavioral Science, University of Colorado at Boulder; the Agincourt DSS, South Africa; and the Africa Centre DSS, South Africa. This workshop was a joint effort involving Wits-Agincourt, and the African Centre, with Sam Clark and Kobus Herbst acting as joint organisers/convenors. It was funded by the National Institute of Aging (NIA) of the NIH through the University of Colorado at Boulder.



*Some participants at the SQL Workshop*

## **2.4 INDEPTH-funded site exchange visits**

### *2.4.1 Filabavi DSS in Vietnam to Kanchanaburi DSS in Thailand*

The Secretariat funded Filabavi DSS in Vietnam to visit Kanchanaburi DSS in Thailand from **9-13 February 2003**. Dr. Nguyen Thi Kim Chuc, site leader of the FilaBavi DSS Site was head of the group. Other members were; Mr. Tran Nguyen Phu, Vice Chairman of the Bavi district People's Committee; Mr. Dinh Cong Ha, Vice Director of Bavi district Health Center; Mrs. Vu Thi Nham, Hanoi Medical University; Ms. Nguyen Thi Minh Hieu, Health Economics Dept., Institute for Health Strategy and Policy, Ministry of Health; Ms. Vuong Lan Mai, Health Economics Dept., Institute for Health Strategy and Policy, Ministry of Health; and Dr. Nguyen Thi Ngoc Bich, Hanoi Medical University.



*Filabavi in Kanchanaburi*

### *2.4.2 Kanchanaburi DSS in Thailand to Filabavi DSS in Vietnam*

The INDEPTH Secretariat funded a team from Kanchanaburi DSS in Thailand to visit Filabavi DSS in Vietnam on **31<sup>st</sup> August to 4<sup>th</sup> September 2003**. Those on the Kanchanaburi team were Dr. Varachai Thongthai, Site Leader; Dr. Sureeporn Punpuing, Deputy Site Leader; Ms. Yupin Vorasiriamorn, Head of Field Survey; Ms. Jirakit Boonchaiwatthana, Researcher; Ms.

Paramaporn Meesuwan, Researcher; Ms. Yaowalak Jiaranai, Field Supervisor; Ms. Wannee Hutaphaed, Data Processing Supervisor; and Ms. Sukanya Suvannasri, Accountant.



*Kanchanaburi in Filabavi*

## **2.5 ICT Initiatives to Strengthen the INDEPTH Network**

A high priority is placed by the INDEPTH network on information and communication links among its members. Information and Communication Technology (ICT) plays, and will continue to play an important role in strengthening the activities of the Network. Some of the present problems are unreliable Internet access, limited bandwidth, lack of support, complexity, high cost of communication and the cost of systems (hardware and software). The Secretariat has been taking a series of initiatives to overcome these problems, and create a common communication platform for sharing information among network members.

The overall objective of the Secretariat ICT initiatives is to maximise connectivity among member sites to enable timely and reliable transfer of data, best practice sharing, expertise sharing and overall collaboration. The Secretariat has also been developing its communication facilities. It acquired a VSAT and is now maintaining a listserv.

Five INDEPTH member sites were supported to have their own Internet domains. The website of the Navrongo DSS was developed into a prototype site through restructuring and training of staff. This was then extended to several sites within the Network.

The following websites were developed in 2003: Navrongo ([www.navrongo.org](http://www.navrongo.org)); Butajira ([www.butajira.org](http://www.butajira.org)); BRAC ([www.bracdss.net](http://www.bracdss.net)); Dikgale ([www.dikgale.org](http://www.dikgale.org)); INDEPTH ([www.indepth-network.net](http://www.indepth-network.net), [www.indepth-network.org](http://www.indepth-network.org)).

## C. GENERAL INFORMATION

### 1. INDEPTH Secretariat Staff

Fred Binka	-	Executive Director
Osman Sankoh	-	Manager, Communications and External Relations
Kwabena Owusu-Boateng	-	ICT Manager
Felicia Manu	-	Administrative Secretary
Sixtus Apaliyah	-	Accountant
Titus Tei	-	Administrative Officer

### 2. INDEPTH Board of Trustees

The following was the composition of the INDEPTH Board of Trustees in 2003.

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**, Tanzania Essential Health Interventions Project, Ministry of Health, Dar es Salaam, Tanzania.
8. **Peter Kim Streatfield**, Matlab, ICCDR,B, Dhaka, Bangladesh.
9. **Hassan Mshinda**, Ifakara Health Research Centre, Tanzania

### 3. INDEPTH Scientific Advisory Committee

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.

#### **4. INDEPTH participation in international conferences**

##### INDEPTH at WHO in Geneva - Consultative conference on the impact of ARV Therapy on the HIV epidemic

Dr. Osman Sankoh represented INDEPTH in a Consultative Meeting organised by WHO on **17-18 March 2003 in Geneva**, Switzerland to review the impact of scaling up anti-retroviral therapy (ART) on the HIV Epidemic – what can longitudinal community studies contribute to the evidence base? The purpose of the meeting was to bring together groups running longitudinal studies, and other interested parties, for discussions on the value of setting up a network of the longitudinal study sites in which the linkages of prevention and ART/care can be explored.

The objectives of the meeting were:

- To discuss the value of setting up a network of the longitudinal study sites in which the linkages of prevention and ART/care can be explored;
- Identify which research groups are interested in joining such a network;
- Identify the key research questions and how these can be jointly pursued; and
- Consider how best to take this agenda forward.

##### INDEPTH in Johannesburg, South Africa: The future of graduate programmes in Epidemiology

WHO/TDR organised a meeting on the future of graduate degree programmes in epidemiology in Africa. The meeting took place at the University of the Witwatersrand, Johannesburg - **South Africa on 28-29 August 2003**. INDEPTH was represented by Mr. Kwabena Owusu-Boateng (ICT Manager). The meeting was attended by representatives from the University of the Witwatersrand (South Africa), University of Western Cape (South Africa), University of Cape Town (South Africa), Makerere University (Uganda), and University of Zimbabwe.

##### INDEPTH in Montreux, Switzerland - WHO Health Metrics Network taskforce meeting

Dr. Osman Sankoh represented INDEPTH at a WHO Health Metrics Network taskforce meeting in **Montreux, Switzerland on 2-3 September 2003**. The objectives of the meeting included:

- To develop an integrated work plan for the development of a plan and strategy for the Health Metrics Network;
- To develop specific plans of action for the issue groups, including membership, outputs, and required assistance from the WHO secretariat; and
- To share and discuss cross cutting issues.

Osman Sankoh gave a talk on the opportunities and challenges of the INDEPTH Network. Other participants with affiliations to DSS sites were Don de Savigny (Rufiji DSS, Tanzania/TEHIP/IDRC), Philip Setel (AMMP, Tanzania) and Eliya Zulu (APHRC, Kenya).

##### INDEPTH in New York, USA: Conference on Climate Change and Health Scenarios

Dr. Osman Sankoh represented INDEPTH at a conference on climate change and health scenarios in **New York on 8-9 September 2003**. The conference was funded by the Swiss Reinsurance Company. Concerns about climate change are often placed into the distant future. But as the rate of climate change increases, so do the biological responses and the extreme weather-related costs. As a consequence of the ecological responses to climate change and the

accompanying intensification of extreme weather events, disease patterns and vectors (carriers) of disease are changing. INDEPTH recently established an Environment and Health group that aims to set up a platform that will research on the health consequences of environmental change.

#### INDEPTH in Santiago, Chile: Global Health Equity Initiative meeting

Dr. Eleuther Mwageni (Rufiji DSS, Tanzania) represented INDEPTH at a Global Health Equity Initiative meeting held in Santiago, Chile, from **7<sup>th</sup> to 14<sup>th</sup> November 2003**. The meeting was organised by the Chilean Health Equity Initiative with the support of the Global Equity Gauge Alliance (GEGA). The purpose of the Santiago meeting was to review the current situation of all GEGA supported projects and to plan further steps to better develop health equity. INDEPTH was invited to share its experiences with GEGA on health equity issues. Apart from the GEGA Secretariat, the meeting attracted 25 international participants from the following countries: South Africa, USA, Zambia, Kenya, Burkina Faso, Ecuador, Chile, India, Thailand, Brazil, Peru, Canada, and Tanzania. Majority of the participants were member teams of the GEGA. Dr. Mwageni gave a presentation on the INDEPTH Network and provided an example of the Rufiji DSS Health Equity study that was funded by INDEPTH.



*Dr. Eleuther Mwageni (L) with other participants at the Santiago meeting*

#### INDEPTH at the London School of Hygiene and Tropical Medicine: Using data to tackle health inequities

Dr. Ayaga Bawah (Navrongo DSS, Ghana) represented INDEPTH at a meeting at the London School of Hygiene and Tropical Medicine on **11-12 December 2003** on using data to tackle health inequities. The aims of the workshop were:

- to address the important role of data in informing policy and practice to reduce health inequities;
- to discuss how data at the national and local levels can be used, with a particular emphasis on low and middle income countries; and
- to propose a set of recommendations for taking the subject forward.

The meeting brought together 33 participants from global organisations, NGOs, funding bodies, academics, and local networks worldwide.

The key issues which emerged from the workshop were:

1. There is an urgent need to strengthen capacity in low and middle income countries in the analysis and use of existing data, and in particular data on inequalities. A strategy discussed is to write a grant proposal for funding a South-led consortium to develop a programme aimed at strengthening South capacity through in-country training and the strengthening of local institutions. If considered appropriate, LSHTM could offer existing distance-learning materials as short courses, and could consider developing new materials specific to inequalities data, subject to resources being made available.
2. In terms of carrying forward the work, there is need to build on structures and initiatives that already exist rather than creating new ones. Two such initiatives are the INDEPTH Network and the Global Equity Gauge Alliance (GEGA). Long-term investment is needed in the INDEPTH Network to enable expansion of existing sites, development of new sites, and methodologies for extrapolating information beyond the site location.
3. Funding is needed for systematic reviews of effective interventions for reducing inequalities.

## 5. Visits to DSS Sites

### Executive Director visits to INDEPTH Sites

The Executive Director was able to visit 5 INDEPTH sites in 2003. The first visit was on 27 February 2003 at Rakai DSS in Uganda. He was received by the site leader, Tom Lutalo, on behalf of the Rakai Project team. Fred Binka's second site visit took him to Manhica, Mozambique in mid March 2003. Pedro Alonso and Ariel Nhacolo received him on behalf of the Manhica DSS team. In a welcoming presentation, Ariel Nhacolo highlighted INDEPTH and the various activities associated with the Network.



The Executive Director was hosted on 29 March by the staff of the Africa Centre. The site leader Dr. Kobus Herbst welcomed Prof. Binka.



*Dr. Mike Bennish (R), Director of the Africa Centre and Prof. Jane Menken (L), Chair of the INDEPTH Scientific Advisory Committee during Fred Binka's visit*

On 16 April the Executive Director was hosted by the staff of the **Nairobi Urban Demographic Surveillance System (NUDSS)**, run by the African Population and Health Research Centre in Nairobi, Kenya. On his 5<sup>th</sup> visit in 2003, Fred Binka visited **Navrongo DSS in Ghana** on 4-6 May. He had discussions with a familiar Navrongo team, one which has supported the INDEPTH Network since its formative stages.

## **6. Visitors to the INDEPTH Secretariat**

### **Visitors from the donor community**

Hannah Akuffo; Sida/SAREC; Pat Naidoo; Rockefeller Foundation

### **SAC**

- Rainer Sauerborn; University of Heidelberg
- Bruce MacLeod; University of Southern Maine
- James Phillips; Population Council, USA
- Stig Wall; University of Umea, Sweden
- Basia Zaba; London School, UK
- Jane Menken; University of Colorado, USA

### **INDEPTH Site Leaders / Site representatives**

#### From South Africa

- C J Molaba, Agincourt
- Dikgale Obed Mokoena, Agincourt
- Kobus Herbst, Africa Centre
- Enid Schatz; Agincourt
- Kathy Kahn; Agincourt
- Tanya Welz; Africa Centre
- Steve Tollman; Agincourt
- Michael Bennish; Africa Centre

#### From Kenya

- Anastasia Wahome: APHRC
- Peter Ofware: Kisumu
- Kubaje Adazu; Kisumu

#### From The Gambia

- Sam Dunyo: Farafenni

From Mozambique

- Delino Nhalungo; Manhica
- Ariel Nhacolo; Manhica

From Guinea-Bissau

- Ceasario Martins; Bandim
- Peter Aaby; Bandim

From Senegal

- Diallo Aldiouma; Niakhar
- Adama Marra; Niakhar

From Vietnam

- N T K Chuc; Filabavi
- Pham Huy Dung; Filabavi

From Bangladesh

- Kapil Ahmed; Matlab
- Abdul Razzaque; ICDDR,B
- Showkat Gani; WATCH
- Ali Ashraf; HSID
- Noor Ahmed; HSID

From Tanzania

- Salim Abdulla; Ifakara;
- Honorati Masanja; Rufiji
- Don de Savigny; Rufiji
- Mulokozi Abdunoor; Ifakara
- Boniface Idindili; Ifakara

From Indonesia

- Nawi Ng; Purworejo
- Mohammad Hakimi; Purworejo
- Djaswadi Dasuki; Purworejo

From India

- Siddhi Hirve; Vadu

From Thailand

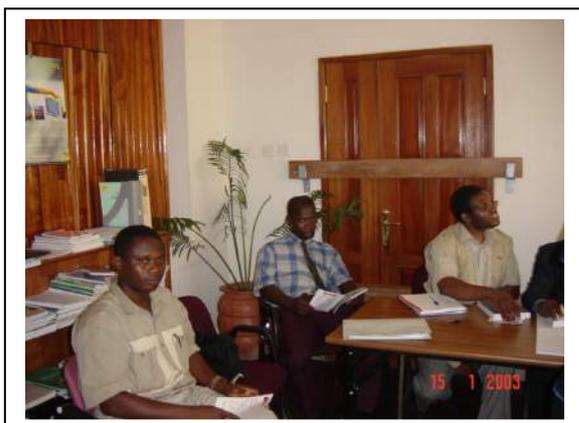
- YupinVorasiriamorn; Kanchanaburi
- Varachai Thongthai, Kanchanaburi

From Burkina Faso

- Adjima Gbangou, Nouna
- Florent Somé; Nouna

## Visitors from various institutions

Elinne N Minkanhan;WHO/AFRO; Stephen Blount, CDC, Atlanta; Guy Barnish, Liverpool School of Tropical Medicine; Mitchell Weiss, Swiss Tropical Institute; Ruth Bonita, WHO; Martin Bangha, ACAP, Univ. of Pennsylvania; Angelo Stefannini, Gates Malaria Partnership; Isabella Quakyi, University of Ghana; Sandra Baldwin, DFID, Ghana; Wilfred Mbacham, Biotechnology Centre, Cameroon; Peter Olumide, WHO; Christian Happi, Harvard School of Public Health; Stephane Tohon, WHO/AFRO; Constance Marfo, Gates Malaria; Arnon Mishkin, Boston Consultancy Group; Ibrahim Soci Fall, Institut de Santé et development; Alioune Dieye, European Commission; Peter Byass, University of Umea, Sweden; Pille Lindkvist, Swedish Institute for Infectious Disease Control; Valerie Delaunay, Unversite de Provence, France; Steve Wayling, WHO/TDR, Geneva, Switzerland.



*A team from WHO/AFRO visited the INDEPTH Secretariat.*

## 7. INDEPTH Membership in 2003

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 2003

Region	Name of INDEPTH Site
West Africa	Bandim, Farafenni, Mlomp, Bandafassi, Niakhar, Navrongo, Nouna, Oubritenga, Ouagadougou
East Africa	Butajira, Kisumu, Nairobi, Ifakara, Rufiji, Dar es Salaam, Hai, Karonga, Morogoro, Magu, Rakai
Southern Africa	Agincourt, Digkale, Africa Centre DIS, Manhica
Asia	Filabavi, Chililab, Matlab, HSID, Watch, Purworejo, Kanchanaburi, Vadu, Ballabgarb
Oceania	Wosera

### Associate membership in 2003

1. Gwembe DSS, Zambia
2. Kolendieba DSS, Mali
3. Ifeteto DSS, Nigeria
4. Seydou Doumbia, MRTC/Faculty of Medicine, Bamako, Mali
5. Nisser Ali Umar, Specialist Hospital, Bauchi, Nigeria
6. Mohammad Muhit, ChildSight Foundation, Dhaka, Bangladesh
7. Alo9k Ranjan Chaurasia, Shyam Institute, Bhopal, India
8. Omoluabi Elizabeth, Union for African Population Studies, Dakar, Senegal
9. Tony Fulford, MRC International Nutrition Group, LSHTM, UK
10. Fazia Mohamed Osman, Institute of Endemic Diseases, Khartoum, Sudan
11. Paul Milligan, MRC Laboratories, Banjul, The Gambia
12. Gulam Mustofa Khandaker, ChildSight Foundation, Dhaka, Bangladesh
13. Amr A H Hassan, INCLEN, Egypt

## D. Funding Issues and Auditors Report 2003

### 1 Funding Issues

The Network pursues a broad funding base by submitting a proposal for core institutional funding to various funding agencies. In 2003 continued to receive funding from the Rockefeller Foundation, the World Bank, and Sida/SAREC and the Wellcome Trust.

### 2 Auditors Report 2003

The following are audited accounts of the INDEPTH Network for the year ended 31<sup>st</sup> December 2003. Auditors: KPMG, Chartered Accountants, Accra, Ghana.

#### INDEPTH NETWORK RECEIPTS AND PAYMENT ACCOUNT FOR THE YEAR ENDED 31<sup>st</sup> DECEMBER 2003

	2003 US\$	2003 US\$	2002 US\$	2002 US\$
<b>Receipts</b>				
Grants received		1,492,186		1,531,441
Other Income		66,336		75,603
		<b>1,558,522</b>		<b>1,607,044</b>
<b>Expenditure</b>				
Meeting Expenses	430,868		197,521	
Workshops	384,211		200,458	
Development and maintenance of Websites	28,621		22,836	
General Expenses	466,204		453,719	
Intervention Trial Platform	2,794		-	
		<b>(1,312,698)</b>		<b>(874,534)</b>
<b>Excess of Receipts over Expenditure transferred to Accumulated Fund</b>		<b>245,824</b>		<b>732,510</b>

#### ACCUMULATED FUND FOR THE YEAR ENDED 31<sup>st</sup> DECEMBER 2003

	2003 US\$	2002 US\$
Balance at 1 <sup>st</sup> January	832,642	100,132
Surplus for the year	245,824	732,510
<b>Balance at 31<sup>st</sup> December</b>	<b>1,078,466</b>	<b>832,642</b>

**INDEPTH NETWORK**  
**BALANCE SHEET AS AT 31<sup>st</sup> DECEMBER 2003**

	<b>2003 US\$</b>	<b>2003 US\$</b>	<b>2002 US\$</b>	<b>2002 US\$</b>
<b>CURRENT ASSETS</b>				
Debtors	68,200		227,865	
Cash and Bank Balances	1,114,999		609,228	
	<b>1,183,199</b>		<b>837,093</b>	
<b>CURRENT LIABILITIES</b>				
Creditors	(104,733)		(4,451)	
		<b>1,078,466</b>		<b>832,642</b>
Represented by:				
Accumulated Funds		<b>1,078,446</b>		<b>832,642</b>

**INDEPTH NETWORK**  
**CASH FLOW STATEMENT FOR THE YEAR ENDED 31<sup>st</sup> DECEMBER 2003**

	<b>2003 US\$</b>	<b>2003 US\$</b>	<b>2002 US\$</b>	<b>2002 US\$</b>
Surplus for the period before returns on investment		243,761		730,783
Increase in Debtors	159,665		(211,276)	
(Decrease)/increase in Creditors	100,282		(54,525)	
		<b>259,947</b>		<b>(265,801)</b>
Net Cash flow from operating activities		503,708		464,982
<b>Return on Investment</b>				
Interest received		2,063		1,727
Increase in cash and cash equivalent		<b>505,771</b>		<b>466,709</b>
Analysis of changes in Cash and cash equivalent during the period				
Balance at 1 <sup>st</sup> January		609,228		142,519
Net cash inflow		505,771		466,709
Balance at 31 <sup>st</sup> December		<b>1,114,999</b>		<b>609,228</b>
Analysis of balances of cash and cash equivalents as shown in the balance sheet	<b>2003 US\$</b>	<b>2003 US\$</b>	<b>2002 US\$</b>	<b>2002 US\$</b>
Cash and Bank balances		<b>1,114,999</b>		<b>609,228</b>

## GRANTS RECEIVED

	<b>2003 US\$</b>	<b>2002 US\$</b>
<b>Rockefeller Foundation</b>		
- Strategic Plan	-	110,900
- Core Support	250,000	300,000
- INDEPTH / ACAP	74,800	149,000
Sida/SAREC	180,777	143,707
Population Council Mellon Grant	-	2,834
World Bank	825,000	825,000
Wellcome Trust	108,997	-
EDCTP	42,612	-
INDEPTH Prize	10,000	-
	<b>1,492,186</b>	<b>1,531,441</b>

## **E. ANNOUNCEMENTS**

### **1. The INDEPTH Prize**

The INDEPTH Prize for Extraordinary Research in Population and Health at INDEPTH Sites was established by the Board of Trustees of the INDEPTH Network in March 2002. The Prize fund of \$9000 was donated to INDEPTH Network by Dr. Peter Aaby, leader of the Bandim DSS site in Guinea-Bissau, West Africa. The Prize of \$3000 will be awarded annually (until the fund has been exhausted) at an INDEPTH Annual and General Scientific Meeting (AGM) or periodically to one or two researchers who have published innovative INDEPTH-relevant research work in recent past (from 2002) in a refereed journal or a comparable publication.

The objective of the Prize is to stimulate researchers at INDEPTH member sites to undertake innovative work leading to extraordinary results that have the potential to impact policy and practice. The results could challenge existing knowledge. The Prize has been established to honour the men and women who are advancing population and health research at INDEPTH sites in developing countries by creating novel methods -- or reinvigorating older, established methods -- to motivate and instruct the next generation of practicing developing country epidemiologists, demographers and social scientists.

The INDEPTH Prize is unique for two reasons. First, it aspires to influence the fundamental approach to population and health research in developing countries. Second, the prize rewards innovation and catalyses expansion of novel approaches in field-based research. Thus, one-half of the prize money goes to the individual or individuals who develop the innovative research methods that demonstrate impact; the other half recognises the DSS site where the research was conducted and is intended to provide the impetus for innovative research at INDEPTH sites.

#### ***Call for Nominations***

Any INDEPTH member site may nominate an eligible work during the nomination period. Nomination will accompany a short statement for the reasons of nomination as well as the nominated academic work itself.

### **2. The 4<sup>th</sup> Annual General and Scientific Meeting in Hanoi, Vietnam**

Country: Vietnam  
City: Hanoi  
Venue: Melia Hanoi Hotel  
Date: 3-7 May 2004  
Hosts: Hanoi Medical University and Filabavi DSS  
Theme: “INDEPTH Network: Using demographic surveillance systems to better understand population dynamics and health in developing countries”

For further information, please visit the INDEPTH website.