

ANNUAL REPORT 2009

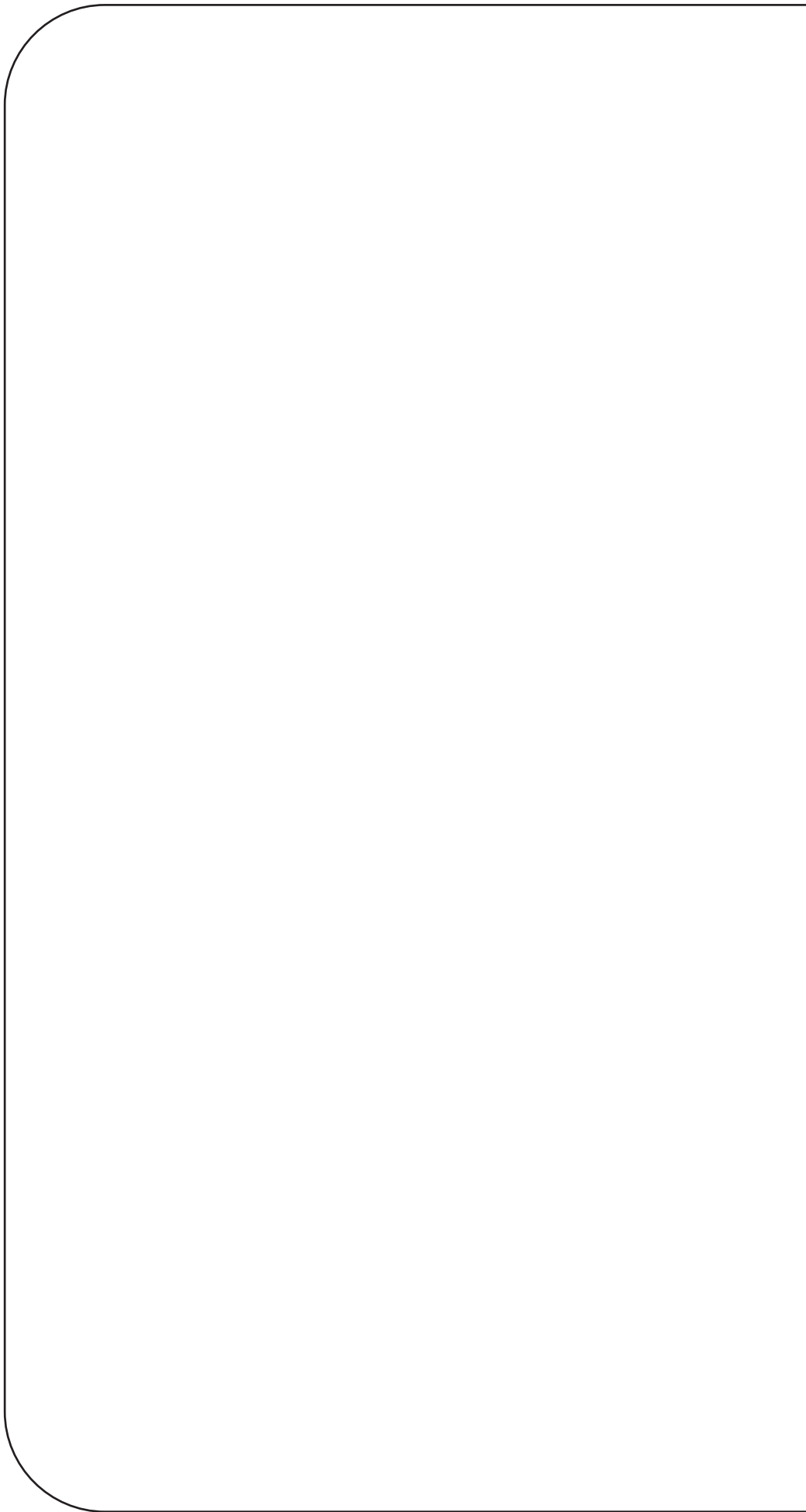


INDEPTH Network

Better Health Information for Better Health Policy

Contents

MESSAGE FROM BOARD CHAIRPERSON	03
MESSAGE FROM EXECUTIVE DIRECTOR	04
INTRODUCTION	06
A. SCIENTIFIC ACTIVITIES	07
Working Groups	07
i Adult Health and Aging	07
ii Sexual and Reproductive Health	07
iii Migration and Urbanization	08
iv Epilepsy	08
v NCD Monitoring in Asia	08
vi INDEPTH Data System (IDS)	09
vii Vaccination and Child Survival	09
viii ART Rollout	10
ix Fertility Monograph	10
x Second Edition of Mortality Monograph	11
xi Clustering of Mortality at INDEPTH Centres	11
xii Demographic and Health transition	12
Interest Groups	13
i. Cost of illness	13
ii. Antibiotic Resistance	13
iii. Tuberculosis	14
iv Chronic Obstructive Pulmonary Disease (COPD)	14
B. OTHER ACTIVITIES	15
i The 9th Annual General and Scientific Meeting, Pune, India	15
The General Assembly	16
Scientific Presentations	16
Working Group Meetings	17
The Scientific Advisory Committee	17
Poster Exhibitions	17
Presentation of Service Awards	18
Website Awards	18
Awards of Scientific Papers	18
Election of New Board Members	18
Press Conference	19
Field Trip	19
ii HDSS - University Collaboration in Africa	19
iii Realizing Rights	20
iv INDEPTH Effectiveness and Safety Studies of Antimalarials in Africa (INESS)	20
C. CAPACITY STRENGTHENING ACTIVITIES	22
i Scientific Development and Leadership Programme	22
ii Short Courses	22
iii Malaria Clinical Trials Alliance (MCTA)	22
iv Workshops	24
a. INDEPTH Cause of Death Determination Workshop	24
b. The Second Network Strategy Planning and Leadership Training Workshop	25
c. Biometric for Individual Identification in Health and Demographic Surveillance Workshop held in South Africa	26
d. Scientific Writing Workshop	26
D. SECRETARIAT & ADMINISTRATIVE ACTIVITIES	28
i Staff	28
ii Board of Trustees	28
E. SOME NOTABLE VISITORS TO INDEPTH SECRETARIAT IN 2009	29
F. INDEPTH AUDITORS FINANCIAL REPORT 2008	31



Message from Board Chairperson

During the year 2009, INDEPTH continued to make great strides and advancement both at the programmatic level and also institutionally.

The INDEPTH secretariat improved tremendously in efficiency enabling it to provide better co-ordination for the Network and its member centers. As a result, INDEPTH Network stands out as a credible institution undertaking excellent, quality evidence-based research.

This year as we mark INDEPTH @ 10 plus one and looking forward to our next Annual General Meeting, we cannot help but recall with pride our spectacular AGM held in Pune, India.

Our distinguished research activities stand tall globally, an indication that collectively scientists of the global south can and indeed are making significant contributions to the development of scientific and demographic research worldwide.

For me even more significant is the fact that INDEPTH's research demonstrates quite succinctly that with the right, adequate and timely support, the global south can generate homegrown solutions to its peculiar health problems.

This year as in previous ones, grants and support have continued to flow in, making it possible to undertake new projects as well as sustain the ongoing ones.

For example our INESS project and of course all other key projects are yielding very positive results and demonstrating the importance of our work in influencing policy formulation across Africa. We have managed to maintain a healthy and mutually trustful relationship with our member centers resulting in very positive outcomes.

Overall therefore, prospects are good for INDEPTH. Our work continues to be relevant, our approaches are people centered and participatory, our results are measurable and our institutional goals though ambitious are achievable given our commitment and determination to make a difference through our ability to build coalitions and strategic alliances.

Certainly the future of INDEPTH looks bright. While I look forward to a fruitful final term of my tenure as Board chair, I am also mindful of the many challenges that face institutions such as ours: reduced funding as a result of the much spoken of donor fatigue syndrome and over reliance on external support. I believe that the cordial relations we have established with our funders/donors will continue to grow over the coming years. We on the board will continue to explore new opportunities for sourcing for funds from the corporate world by demonstrating the critical synergies between research findings, provision of enhanced social services in the health sector and a healthy people as agents of economic development.

I believe as a team we can do this.



Dr. Seth Owusu-Agyei,
Board Chairman, INDEPTH Network
Accra, Ghana

Message from Executive Director

The past year seems to have gone by very fast almost like an hour, yet it is indeed a whole year and so soon it is time to reflect on one year post INDEPTH @ 10.

Being an organisation that is so full of eventful developments, the year 2009 was no exception and as such INDEPTH saw significant landmarks being registered every step of the way.

While I may make mention of a few of such milestones in this brief statement, I invite you to read the full report in detail and take note of the major successes as well as challenges that were encountered during the year.

First of all I should like to use this platform to extend sincere thanks to all stakeholders who have supported INDEPTH in one way or the other to make the past year a memorable one – the Board of Trustees, the Scientific Advisory Committee, INDEPTH leaders of HDSSs, Working Group leaders and their teams, institutional partners/collaborators, and of course my most efficient and supportive team at the secretariat. I acknowledge with deep gratitude our investment partners – funding agencies and in general all who have supported us on this journey to make “people count.”

We began the year 2009 on a very positive and energetic note and this continued throughout the year resulting in very robust and remarkable achievements in all areas of our work. These include programmes such as Adult Health and Ageing, Migration and Urbanization, Vaccination and Child Survival, Malaria Clinical Trials Alliance (MCTA), INDEPTH Effectiveness and Safety Studies of Antimalarials in Africa (INESS), Sexual Reproductive Health, and Developing Metrics for Monitoring and Evaluation, Developing the INDEPTH Strategic Plan 2010-14, an External Evaluation of INDEPTH, among others.

During the year, INDEPTH prepared and submitted a number of proposals some of which received funding to support very interesting and major researches.

With support of our in-country collaborators in Ghana, INDEPTH conducted country-wide dissemination seminars to enlighten stakeholders on a successful programme on reproductive health and the law which helped inform aspects of the Domestic Violence Bill. This project was conducted in collaboration with Nana Oye Lithur, a human rights lawyer and an advocate for the rights of minorities and women. Finally, I will like to acknowledge our colleagues from the Alliance for Reproductive Health Rights (ARHR) a non-governmental organisation that INDEPTH partnered to produce a documentary on maternal mortality that was launched in July 2009 at the British Council Hall by the Vice President of Ghana, His Excellency John Mahama

The year 2009 marked the end of one of our most rewarding and fruitful projects: the **HDSS–University collaboration in Africa**. Traditionally, African universities have not oriented their graduate population study programmes towards producing population scientists well grounded in practical research; and not all scientific staff at INDEPTH's HDSS member centres have sufficient technical expertise to make the most effective use of data collected by studying local populations. This HDSS-University collaboration project has shown how establishing long-term collaborative links between these institutions could remedy the situation. The project also introduced a fellowship programme attaching fellows to member centres. I am most delighted that at the end of the first set of fellowships, all four fellows were fully absorbed by the INDEPTH centres to which they were posted.

We continued our collaboration with the University of Witwatersrand in Johannesburg which anchors INDEPTH's groundbreaking Scientific Development and Leadership Programme. The goal of the programme is to develop a new generation of HDSS scientific leaders capable of identifying and tackling major biomedical and public health problems through practical training in data collection and analysis,

and of playing enhanced leadership roles in their workplaces. The programme has provided a springboard for young scientists in INDEPTH to assume leadership roles in their various areas of research at HDSS centres in Africa and Asia. INDEPTH looks forward to expanding the Leadership programme's impact with the re-entry grants launched in 2009 for MSc graduates returning to their home institutions, supporting PhD programmes, funding participation in key short courses, organising training workshops, and providing travel stipends to young scientists to present papers at our Annual General and Scientific Meetings and other international conferences.

The year 2009 also marked an important milestone of INDEPTH's leadership in sharing its research data with the international scientific community. Currently six INDEPTH members – Vadu in India, Kanchanaburi in Thailand, Wosera in Papua New Guinea, Agincourt and Digkale in South Africa, and Magu in Tanzania are part of our INDEPTH **Sharing and Access Repository (iSHARE)** initiative (www.indepth.ishare.org) in which agreed core variables of HDSS data are made available on the web. Should secondary analysts want to access any other data, they must

contact the INDEPTH members concerned with individual requests. This is a good starting point and we intend to expand the number of HDSSs and variables. Greater investment in analysis skills within each centre, and more resources that will allow INDEPTH investigators to dedicate time and intellectual capital to analysis rather than routine management tasks will be needed if our members are to meet their own analysis needs (and thus be able to share a broader spectrum of data) more quickly. May I end this message by once again extending my personal gratitude and that of the entire INDEPTH family to all and sundry who continue to make our work worthwhile.



Dr. Osman Sankoh,
Executive Director, INDEPTH Network
Accra, Ghana

Introduction

INDEPTH's Vision

INDEPTH will be an international network of demographic research institutions that provides health and demographic data to enable developing countries set health priorities and policies based on the best available evidence and to 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 low and middle income countries to provide a better understanding of health and social issues and to encourage the application of this understanding to alleviate major health and social problems.

INDEPTH's Strategic Objectives

1. To support and strengthen the ability of INDEPTH sites to conduct longitudinal health and demographic studies in defined populations
2. To facilitate the translation of INDEPTH findings to maximise impact on policy and practice
3. To facilitate and support research capability strengthening relevant to INDEPTH activities
4. To stimulate and co-ordinate multi-site applications to research funding bodies for specific research activities

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;
 - Co-ordinated multi-site research collaborations that evaluate interventions in diverse socio-culture and geographic environments; and
 - 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

During the year 2009, the INDEPTH Secretariat continued with its key strategies of promoting effective running of the Network, that is facilitating knowledge sharing among centres, helping to disseminate data and research outputs, convening analysis and capacity building/strengthening workshops and coordinating multi-site research collaborations. In addition, the secretariat continued to facilitate cross-site scientific visits, promote on-site training courses and internships and intensify efforts to standardize research methods and tools. The secretariat also continued to support website development, dissemination of models for survey design, data processing and analysis and quality control. There has been a continuous effort to establish and build collaborations with other institutions, particularly the universities, in order to harness their comparative advantage in training for the benefit of member centres.

WORKING GROUPS

i. Adult Health and Aging

The Adult Health and Aging working group launched a research project in 2003 to undertake research to help advance an empirical understanding of problems with the aged and older persons at INDEPTH centres. Eight centres are involved in this work and these comprise four centres in Africa and four from Asia. Three of the centres (Navrongo, Ghana, Agincourt, South Africa and Vadu (India), fielded a full version of the WHO Multi-Country Studies unit and developed the Study on Global AGEing and Adult Health (SAGE) and the rest of the centres (Ifakara, Tanzania, Nairobi, Kenya, Matlab, Bangladesh; Filabavi, Vietnam; and Purworejo, Indonesia), fielded a summarized version of the WHO-SAGE instrument.

The study aims to improve an empirical understanding of ageing and older persons within and across countries and to assess follow-up strategies or test new survey methods. The specific objectives are:

- To obtain reliable, valid and comparable data on levels of health on a range of key domains for older adult populations
- To examine patterns and dynamics of age-related changes in health and well-being using longitudinal follow-up of a cohort as they age, and to investigate socio-economic consequences of these health changes
- To cross-validate self-reported measures of health and the anchoring vignette approach

This project is now in its final stages of completion with analysis of data collected by the eight centres currently ongoing in earnest. By the time this report is published that work would have either been published or just about ready for publishing. All the papers will be published in a special journal supplement by Global Health Action, an open access peer-reviewed online journal.

The final stages of the work involved a number of meetings including a crucial meeting in May at Harvard to finalise the report. The publication

will be launched during the 10th INDEPTH AGM.

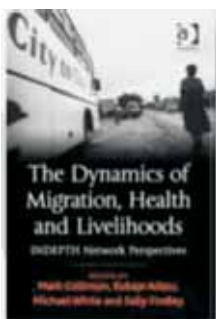
ii. Sexual and Reproductive Health

Several reproductive health and family planning interventions have been implemented in Africa and elsewhere with the aim of improving reproductive health and survival (maternal and child). Yet, not much is understood about their demographic and health impact in Africa. This is due to the lack of requisite data to evaluate their impact. INDEPTH proposes to utilize its health and demographic surveillance system (HDSS) member centres in Africa to evaluate the demographic and health impact of reproductive health and family planning interventions in Africa. Longitudinal data collected at the centres provide a unique opportunity to evaluate family planning and other reproductive health interventions in Africa in a much more rigorous manner.

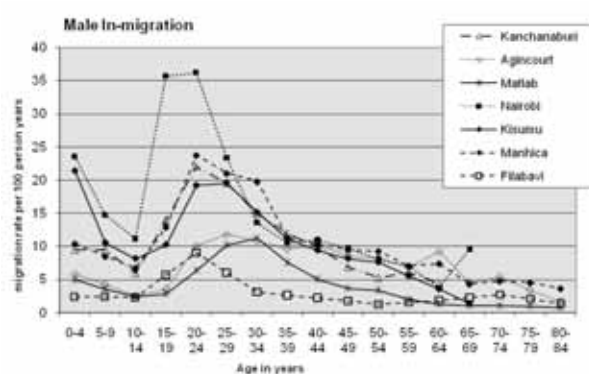
INDEPTH in 2009 received a grant from the Hewlett Foundation to get its member centres in Africa to utilise their longitudinal platform to evaluate the impact of existing reproductive health and family planning programmes in Africa. This project aims to utilise existing and, to a limited extent, collect additional data where necessary, to examine the impact of family planning and reproductive health interventions in selected African centres.

In December 2009 a call was issued for centres to compete to participate in the project. A well defined criterion was outlined based on which the participating centres were selected. A total of 10 proposals were received out of which five were recommended for funding by the review committee constituted from the Scientific Advisory Committee (SAC) and the Board. The five projects funded were from Kisumu, Nairobi, Navrongo, Rakai and Magu HDSS centres.

iii. Migration and Urbanization



The Migration and Urbanization working group published in December 2009 a major monograph on migration and health entitled “The Dynamics of Migration, Health and Livelihoods: INDEPTH Network perspectives”. This project was led by Drs. Mark Collinson (Agincourt HDSS) and Adazu Kubaje (Kisumu HDSS and now late) supported by Professors Michael White and Sally Findley. The overall objective of this work was to contribute to an empirical understanding of the dynamics between migration and health in Africa and Asia using HDSS data. This publication marked the conclusion of more than five years hard work and dedication by a team of researchers from seven HDSS centres and their collaborators in the field of migration.



An example of a male In-migration.

The publication highlights the methodological challenges of doing migration studies using HDSS data, describes the data and methodologies used and the context within which the research was conducted. The publication also focuses on substantive issues ranging from such topics as temporary migration of husbands, contraceptive use and fertility, to topics such as migration and agriculture production, etc. Below is a picture of some members of the editorial group in one of the working sessions



Migration and Urbanisation Working Group working on the manuscript

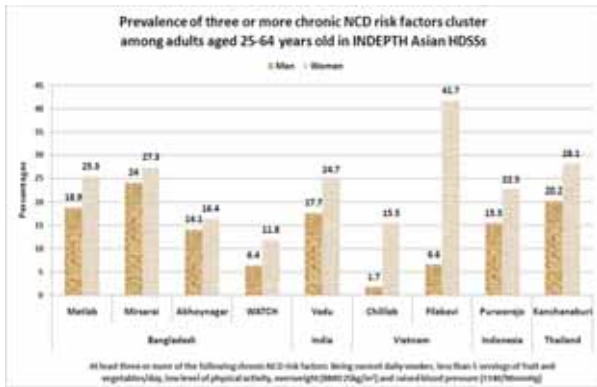
iv. Epilepsy

Led by Prof. Charles Newton of Kilifi Health and Demographic Surveillance System, five INDEPTH centres agreed to collaborate to undertake studies on epilepsy. Among other things, the project aims to look at the burden of epilepsy at the centres. The study was originally developed to be conducted at the Kilifi centre, but was extended to include other INDEPTH centres namely: Agincourt (South Africa), Iganga-Mayuge (Uganda), Kintampo (Ghana) and Rufiji (Tanzania). The proposal has received funding from the Wellcome Trust and the study is Epilepsy Group currently in progress. This work is an example of an INDEPTH study initiated by a site-scientist.

v. NCD Monitoring in Asia

The Non Communicable Disease (NCD) monitoring project funded by the INDEPTH Network, aims at strengthening the capacity of INDEPTH Asian centres for NCD risk factors surveillance. The specific objectives of the study are to:

- Collect information on NCD risk factors using the WHO STEP approach for risk factors surveillance;
- Compare NCD risk factors across INDEPTH Asian centres;
- Build capacity across INDEPTH centres in NCD risk factors surveillance. The project includes eight INDEPTH Asian centres, namely Matlab (Bangladesh), Abhoynagar/Mirsarai/Kamalapur (Bangladesh), WATCH (Bangladesh), Kanchanaburi (Thailand), Filabavi (Vietnam), Chililab (Vietnam), Vadu (India) and Purworejo (Indonesia).



Each of the INDEPTH Centres collected data on NCD risk factors from about 2000 individuals aged 25-64 years old. With mentorship from faculty members of the Umea University Department of Global Health and Emeritus Professor Ruth Bonita of the University of Auckland, New Zealand, the Asia NCD group published in 2009 a special supplement entitled “Risk factors for chronic non-communicable disease: the burden in Asian INDEPTH Health and Demographic Surveillance Centres” in the Global Health

Action journal

(<http://www.globalhealthaction.net/index.php/ghaissue/view/281>), an open source access journal.

vi. INDEPTH Data System (IDS)

With increase in membership of the network and each INDEPTH member centre coming on board with their own data capture system, INDEPTH members have a variety of data models that do not promote standardization, and hence limits the capacity to share data. In addition many of the data lack clear definitions and data documentation is also very poor. Coupled with this, is the issue of the complexity of relational databases maintained by INDEPTH centres that make it difficult to extract analytical datasets to facilitate data analysis and thus increase scientific productivity of the Network.

Motivated by these challenges INDEPTH decided to introduce the IDS as a means of developing a standardized data system that will provide a common platform for use by member sites across the network. The aim of the IDS is to contribute to scientific productivity and

knowledge production that addresses major health problems affecting developing countries. This will be done by:

- Improving access to comparable research data originating from INDEPTH health and demographic surveillance system centres.
- Improving the production of high quality analytical datasets from participating INDEPTH health and demographic surveillance system centres.

vii. Vaccination and Child Survival

The vaccination and child survival working group has been championed by Bandim Health and Demographic Surveillance System (HDSS) centre and the objective of the group is to examine broadly the impact of vaccinations on child survival at INDEPTH HDSS centres. The Bandim centre has done extensive work on the non-specific effects of specific antigens on child survival. The work has generated a lot of controversy and has led to requests for replication at different INDEPTH centres. Several INDEPTH centres have now been constituted as a working group on vaccinations and vaccines. The centres include Ballabgarh and Vadu (India), Navrongo and Kintampo (Ghana), Matlab (Bangladesh), Nairobi and Kilifi (Kenya), Nouna (Burkina Faso, Iganga/Mayuge (Uganda) and Rufiji and Ifakara (Tanzania).

In 2009 the vaccines group developed a proposal to conduct multi-centre studies on vaccination and child survival. The proposal was submitted to DANIDA which pledged two-thirds of the funding requested. The one-third funding is being sought from other funders. The title of the proposal is “Monitoring and assessing the impact of vaccinations and other childhood interventions for both boys and girls”.

Viii. ART Rollout

The provision of anti-retroviral therapy (ART) in developing countries is the largest and most intensive therapeutic initiative ever carried out in developing countries. It is the largest natural experiment ever to have been deployed in Africa and other parts of the world. Large-scale national

programmes are, with international assistance, trying to provide ART in coming years to a far higher proportion of those who need it.

Because ART is a lifelong treatment of a chronic disease and because HIV affects communities at many levels – individual health, family well-being, economic security, and the health care system – it is important to understand, over time, the effects of ART on individuals, populations and health systems.

INDEPTH has developed a proposal that aims to utilize the health and demographic surveillance systems at 5 participating INDEPTH centres in four African countries, to conduct a five-year evaluation of ART rollout programmes. The five INDEPTH centres are Ifakara (Tanzania), Bandim (Guinea Bissau), Agincourt (South Africa), and Kisumu and Nairobi (Kenya). Africa Centre is leading this effort.



ART Group met in Accra to work on the project Budget

ix. Fertility Monograph

Developing countries are undergoing profound changes in their demographic structures. In addition to rapid declines in mortality across almost all countries of the developing world, fertility is also declining rapidly in many countries of Africa and Asia at varying degrees. However, much of what is known about the fertility situation in the developing world come from demographic and health survey data (DHS). INDEPTH centres have been collecting basic

demographic data that will allow for the study of the core components of demographic change – fertility, mortality and migration. INDEPTH has so far done a good job in the area of mortality and migration. For instance, two monographs on mortality have so far been published, in addition to a major article on causes of death which was also published in 2006 in the WHO Bulletin.

On the other hand, not much work at least at the Network level has been done in the area of fertility. In this regard, an editorial group was constituted in 2008 to lead the production of a monograph on fertility using data from INDEPTH sites. The monograph will examine levels and trends in fertility at INDEPTH sites, and also look at the critical issues related to determinants of fertility behaviour. The editorial group is led by Jean-Christophe Fotso of APHRC, Dr Clifford Odimegwu (Agincourt/Wits), Dr Abdul Razzaque (Matlab), and Dr William Muhwawa (Africa Centre) and Dr Ayaga Bawah (INDEPTH Secretariat).

During the year 2009, a series of meetings were convened by the editorial group. These meetings were convened to review centre specific chapters and to conduct analysis on data received. Many of the draft chapters were reviewed and comments sent to the authors to address. Some chapters are now being revised.



Some members of the fertility editorial group met in Accra.

x. Second Edition of Mortality Monograph

Since its publication in 2002, the first INDEPTH Monograph on Mortality has generated a lot of interest and has been widely cited globally. Five years down the centres have collected a lot more data which the Network believes would enrich the volume, especially since it is now possible to consider trends of mortality in addition to levels and patterns.

Consequently, the Secretariat is strongly supporting a team of editors to work on the second edition of the monograph. The publication will have separate chapters on child and adult mortality, as well as causes of death at the participating sites.

Following the setting up of an editorial team to revise the first INDEPTH monograph on mortality, a template was prepared by the group and a call sent to the INDEPTH centres to elicit interest in contributing data for the project. There was overwhelming interest as 27 centres immediately expressed interest in participation and actually submitted data.

In 2009, the editorial group met in Accra to conduct analysis of the data. Further work continued throughout the year and preliminary results of the project were presented at various international conferences, including the Population Association of America (PAA) meeting in Detroit, USA, the International Union for the Scientific Study of Population (IUSSP) in Marrakech, Morocco and the INDEPTH AGM in Pune. These meetings provided good feedback on the project.

xi. Clustering of Mortality at INDEPTH Centres

Deaths often tend to cluster in specific areas due to risk factors associated with such areas. Some of these risk factors may include high density of mosquitoes, prevalence of floods, low levels of socioeconomic development, etc. These pockets of high and low levels of mortality can be modeled statistically and spatially. From June 1–3, 2009, a workshop on clustering of mortality was held to introduce scientists to spatial methods of modeling mortality at INDEPTH

centres. The workshop was held at the Elking Hotel, Accra, Ghana. The Facilitator was Miss Elizabeth Awuni from the Dodowa Health and Demographic Surveillance System (HDSS). The Objectives of the workshop were to:

- Equip participants with skills in spatial and cluster analysis of health and demographic system data;
- Analyse and interpret mortality data using SaTScan;
- Write site-specific and cross-site papers.

A total of 20 scientists participated in the workshop. They were introduced to the use of SaTScan methodology, which they subsequently applied to their data to try to identify clusters of mortality at their centres. At the end of the workshop, participants were able to produce preliminary results. The following INDEPTH members participated in the workshop: INDEPTH Secretariat, Dodowa HDSS, Matlab HDSS, Chakaria HDSS, Navrongo HDSS, Agincourt HDSS, Dikgale HDSS, Kisumu HDSS, Nairobi, Iganga/Mayuge HDSS, Rakia HDSS, Kanchanaburi HDSS, Ifakara HDSS, Rufiji HDSS, Chililab HDSS, Filabavi HDSS, Dodowa HDSS and Kintampo HDSS.

xii. Demographic and Health Transition

The shift from high to low levels of mortality and fertility now famously called the demographic transition occurred over a century ago in the developed world. While the reasons for the transition in Western Europe and North America are well documented, little is known about the transition in developing countries. Although the demographic transition is reported to be underway in many developing countries, it seems substantially different from what occurred in historical Europe and North America.

This project aims to examine the demographic and health transition in Africa and Asia using health and demographic surveillance data from four INDEPTH sites – two sites in Africa (Agincourt and Navrongo sites in South Africa and Ghana respectively) and two from Asia (Matlab and Filabavi sites in Bangladesh and Vietnam respectively). Long-trends in fertility, mortality and patterns of disease burdens will be examined over time to determine the nature of transitions occurring in these countries.

All four centres collect data on fertility and mortality, including causes of death data, in addition to a special module that was implemented in these centres on adult health and aging. The study on adult health and aging collected comprehensive information on health and well-being of adult and older populations, including questions related to physical activity and cognitive functioning and in two of the centres information on anthropometric measures and biomarkers. This information is being used to undertake a systematic analysis of the shifts in health and demographic patterns in Africa and Asia.

The specific objectives of the project are:

1. Explore demographic and health transitions at selected INDEPTH centres
2. Document changes in health and demographic transitions using data from the participating centres.
3. Compare transitions between the African and Asian centres and also between different sub-regions in Africa.
4. Compare the experience in the developing country-settings to what happened in the developed countries at the time of their transition.
5. To examine the implications of the transitions on the health care systems (to consider the possible cost implications: infrastructure – human and physical; health financing; education awareness and promotion implications)

Following the approval of the grant by IDRC on June 22, 2009, the INDEPTH Secretariat immediately called a meeting which took place from September 17-18, 2000, to discuss implementation strategies, agree on data needs and analysis plans, as well as start preparing analytical files.



Clustering of Mortality workshop participants

INTEREST GROUPS

i. Cost of Illness

Illness is a major risk to people's livelihoods in resource poor settings, particularly where there are rising levels of chronic illness. Although there is growing knowledge of the levels of household health expenditure, little is known either about the affordability of care or the loss of income due to ill health, and the extent to which together these lead to impoverishment.

Strategies to reduce the cost burdens of ill health and so improve access to treatment are increasingly regarded as a vital form of social protection for vulnerable households, and central to the achievement of the Millennium Development Goals. Health policies offering social protection include health care financing interventions such as risk-pooling through tax- and social insurance based-financing, fee exemptions, as well as cash transfers. Although these measures are in place in a range of low and middle income country settings, there is insufficient knowledge as to the extent of protection they provide.

A network of 15 INDEPTH members (Burkina Faso-Nouna, Burkina Faso-Ouagadougou, Ghana-Navarongo, Ghana-Dodowa, Ghana-Kintampo, Guinea Bissau-Bandim, South Africa-Agincourt, Tanzania-Ifakara, Tanzania-Magu, Bangladesh-Abhoynagar, Mirsarai and Kamalapur (AMK), Bangladesh-Chakaria, Bangladesh-Matlab, India-Vadu, Vietnam-DodaLab, Vietnam-

Filabavi) across Africa and Asia have developed comparative cross-country protocol to undertake a longitudinal investigation of household costs of illness and livelihood impact, in 8 low and middle income countries across Africa and Asia with varying health care financing and social protection mechanisms. This project aims to:

1. Measure the changing costs of illness (both the loss of income and costs of seeking care) for households at each DHS site over a 3 year period;
2. Measure changing patterns of households' morbidity by disease and assess the relative importance of different diseases in generating cost burdens over the same period;
3. Examine households' interaction with the health system and assess livelihood impacts in order to understand the extent and the process by which the costs of illness lead to impoverishment;
4. Determine the extent to which existing health financing mechanisms in each site (such as community based insurance, social health insurance, free care, exemptions, and cash transfers) protect households from impoverishment;

ii. Antibiotic Resistance

On October 30, 2009 a joint INDEPTH-ReAct workshop was held in Pune, India as a sideline to the INDEPTH Annual General Meeting held from 26 to 29 October 2009.

The meeting was attended by 33 participants from both INDEPTH and ReAct, representing four continents; Asia, Africa, Europe and Oceania.

The purpose of the workshop was to explore the possibility for the two networks to collaborate in the field of antibiotic resistance.

Working together with INDEPTH Network provides a unique opportunity to obtain much needed data on antibiotic resistance from parts of the world where the situation is largely unknown. "I see great potential in this partnership", comments ReAct representative



AGM 2009 ReACT workshop participants

Workshop participants came from: Australia, Bangladesh, Burkina Faso, Kenya, Ghana, India, Malaysia, Mozambique, Nepal, the Netherlands, Sweden, Tanzania, Thailand, Uganda and Vietnam

iii. Tuberculosis

The goal of the TB working group is to conduct TB cross-site work which will maximize the use of the HDSS's to conduct TB research in developing countries. The initial work will focus on: Linking TB patient registers to the HDSS data. Most HDSS's do not collect TB related data, more especially from adults. So a primary step is to link HDSS data and TB register data from the clinics in/around the HDSS.

Conducting initial analyses to establish leads on how to proceed. Initial ideas would be to link the SES data/asset scores/etc to notified TB cases (or TB prevalence data if it exists)-this will help demonstrate the association between TB and SES in the HDSS and allow the HDSS to compare across centre; as well as evaluate the association

between recent/new in-migrants and TB. A third association, if possible, would be HIV, TB and the HDSS information. The group will start with these as they form the basic foundation for establishing TB research in the HDSS centres.

iv. Chronic Obstructive Pulmonary Diseases (COPD)

Exposure to indoor pollution is a major risk factor in a significant number of respiratory tract infections, asthma, lung cancer, chronic obstructive pulmonary disease (COPD), cataract and blindness. Amongst these, acute respiratory infections amongst children and COPD amongst adults seem to be of major concern. In the western world, whilst tobacco smoking is the major risk factor for COPD, in the developing countries, exposure to biomass fuel is the major risk factor. COPD mortality is predicted to almost double by the year 2030.

The true burden of Chronic Respiratory Diseases due to exposure to indoor air pollutants in African countries and South-East countries has been poorly studied. There is therefore a dire need to conduct such epidemiological studies in these regions of the world, which will not only help in understanding the burden of non-communicable chronic respiratory diseases, but will also help to inform people and policy makers and ultimately lead to developing strategies for prevention and management of these diseases. In early 2009, INDEPTH funded a workshop that brought together several centres to explore possibilities of raising funds for doing research in this area.

i. The 9th Annual General and Scientific Meeting, Pune, India

The 9th Annual General and Scientific Meeting (AGM) was held at the International Institute of Information Technology, (I²IT), Pune, India in October 2009. The theme for the AGM was “*Poverty, Health and Demographic Dynamics Evidence from South-South Collaborations*”.

The AGM was organized on behalf of INDEPTH Network by Vadu and Ballabgarh Health and Demographic Surveillance Systems (HDSS). The AGM offers the opportunity for INDEPTH Network to reflect on its achievements, challenges and plans the way forward.

Participants

More than 250 participants attended the AGM and these included scientists, policy makers, researchers, government officials, volunteers, diplomats, academics, funders and INDEPTH's development partners, among other stakeholders. 15 young scientists were funded to attend the AGM as both oral and poster presenters.

Opening and Closing Ceremony

Professor Samir Brachmachari, Director General, Council for Scientific and Industrial Research (CSIR) of India officially opened the AGM and it was closed by the Chairperson of INDEPTH Network Board of Trustees, Dr. Seth Owusu-Agyei.

The AGM was formally declared open by Prof R. K. Mutatkar, President of The Maharashtra Association of Anthropological Sciences and Hon. Professor of Anthropology, School of Health Sciences and University of Pune. He underlined the importance of anthropology as a holistic discipline in studying man and his culture in totality and in innovating qualitative research methods. He pointed out that the methodological issues in micro-macro studies and quantitative-qualitative methods were very significant for scientific validity and reliability of community-based research.

Professor Samir Brachmachari in a keynote address called on scientists to persevere to make health delivery available to all so as to solve medical problems confronting humanity.

He said scientific knowledge has to be leveraged for socio-economic development since it is important to understand scientific developments and policies. This is because they often go together and cited the example of Vadu and Ballabgarh Health and Demographic Surveillance Systems (HDSS) centres in India who are providing medical care for people in the rural areas. Acknowledging the work of INDEPTH, he reminded them that 3 billion poor people of the world look up to the Network to make a difference in their lives.

On his part, the chair of the INDEPTH Board, Dr. Seth Owusu-Agyei, noted that INDEPTH Network being 10 years old and meeting for the 9th AGM was indeed a great feat and that once applications from new sites are approved by the Board membership of the Network will increase from 34 to 38 centres.

He appreciated that the nature and scope of work put in by INDEPTH centres had increased. “We are doing very relevant work and the main beneficiaries are the millions of poor people” he noted. He urged greater participation from all INDEPTH centres so that more and more people could reap the fruits of the Network's efforts.

Dr Osman Sankoh, Executive Director, described INDEPTH Network as a shining example of the adage: “with commitment, people can make things work”. He welcomed the new centres in Cambodia and Kenya. He informed that INDEPTH Network had funded 15 young scientists and underlined the importance of the new generation's contribution. Describing the first AGM in India as a milestone, he was glad that all members of the Board of Trustees were present.

Dr Ajit Kumar Verma, Director, International Institute of Information Technology (I²IT), which was the venue of the AGM, lauded the work of INDEPTH and underlined the critical importance of reliable data in providing for healthy, hygienic living. He was happy that I²IT was associated with INDEPTH Network.

Dr Kurus Coyaji, Medical Director of KEM Hospital, disclosed that the hospital was 94 years old while the KEM Hospital Research Centre, which supports the Vadu HDSS, was set up in 1985. Briefing the audience about the activities of the hospital, he reiterated its commitment to delivering quality medical care to the people of India.

A minute of silence was observed for the late Dr Kubaje Adazu from the Kisumu HDSS who was a member of the INDEPTH working group on Migration and Urbanisation project.



Members of the high table from left to right Dr. Siddhivinayak Hirve Director Vadu HDSS, Dr. Verma, Director (I²IT) Dr. Osman Sankoh, Executive Director INDEPTH Network, Prof. R.K Mutatkar Senior Anthropologist in India, Prof. Brachamari Director CSIR of India, Dr. Seth Owusu Agyei Board Chair of INDEPTH Network and Dr. Coyaji Director Kem Hospital

The General Assembly

The General Assembly marked the climax of the AGM. It was attended by all INDEPTH Network stakeholders and was chaired by Dr. Seth Owusu-Agyei the Board Chair. The Executive Director Dr. Osman Sankoh, on behalf of the Board and the Secretariat, gave a vivid account of the Network's activities over the past year. He elaborated on a

wide range of issues and the increased portfolio of activities undertaken in the past years, those to be undertaken in the future as well as the present ones. He emphasized that the Network is expanding as more sites are seeking to become members. The 2008 Audit Report was presented by a partner of Price Water House Coopers Mr. Hayfron Aboagye, who said proper books have been kept by the Secretariat and that cash flow and the bank statements are a true reflection of the accounts. The Executive Director of INDEPTH Network Dr. Osman Sankoh after his presentation took the opportunity to introduce the Secretariat team who attended the AGM in India as they received a round of applause for the good work done in 2009.



AGM 2009 Participants

Scientific Presentations

Scientists and researchers from the various INDEPTH centres presented current research findings and work on various health and demographic issues on malaria, typhoid, HIV/AIDS, non-communicable diseases, technological innovations in health research, strengthening health systems, data systems, demographic and health transitions in the

developing world, clinical trials, adult and childhood mortality, among many others.



A cross section of scientists in one of the scientific sessions

Working Group Meetings

The AGM usually provides a forum for our working groups to meet and update their members on progress of work. The following working groups had special sessions at the 2009 AGM: *Migration and Urbanization, Adult Health and Aging, 2nd Edition of Mortality Monograph, Fertility Monograph, INDEPTH Effectiveness and Safety Studies of Anti-malarials in Africa, Asia NCD Group, Vaccinations and Child Survival,*



Working Group on Sexual and Reproductive Health at the AGM

Environment and Health, Sexual and Reproductive Health and Cost of illness. Several research capacity strengthening sessions were conducted for young scientists.

The Scientific Advisory Committee

During the AGM and under the Chair of Prof. Don de-Savigny, the Scientific Advisory Committee (SAC) met several times to discuss various issues pertaining to the scientific agenda of the Network in order to help move the science forward. The Secretariat made a detailed presentation on the status of the scientific activities to the SAC.



SAC members who attended AGM 2009. From left to right:
Prof. Stig Wall, Member, Sweden
Prof. Bruce MacLeod, Member, USA
Prof. Don de-Savigny, Member, Switzerland
Prof. Bhattacharjee, Member, India

Poster Exhibitions

A poster stand exhibition was organized for INDEPTH centres that had posters to display. Many posters were displayed providing an opportunity for participants to view the materials during short breaks between the sessions. There was also a special poster session exclusively for young scientists. Fifteen young scientists displayed posters in this session.

1. Ravinder Bisla, Ballabgarh Health and Demographic Surveillance System Centre, India
2. Palanivel C. Ballabgarh Health and Demographic Surveillance System Centre, India
3. Ane Baernet Fisker, Bandim Health and Demographic Surveillance System Centre, Guinea Bissau
4. Hein Thu Ho, Chililab Health and Demographic Surveillance System Centre, Vietnam
5. Justice Ajaari, Kintampo Health Research Centre, Ghana
6. B. Nhandi, Magu Health and Demographic Surveillance System Centre, Tanzania
7. Charfudin Saco, Manhica Health and Demographic Surveillance System Centre, Mozambique
8. Rose N. Oronje, Nairobi Health and Demographic Surveillance System Centre, Kenya
9. Francis Yeyi, Navrongo Health and Demographic Surveillance System Centre, Ghana
10. Savadogo G., Nouna Health and Demographic Surveillance System Centre, Burkina Faso
11. Mansour Ndiath, Niakhar Health and Demographic Surveillance System Centre, Senegal

Presentation of Service Award

Dr Siddhivinayak Hirve of Vadu Health and Demographic Surveillance Systems site was presented with the **Outstanding Support Award** for his contribution to INDEPTH Network as Vice Chair of the Board of Trustees between the years 2007-2009.



Dr Siddhivinayak Hirve of Vadu HDSS receiving his award from Dr Seth Owusu-Agyei chair of INDEPTH Board

Website Awards

Vadu Health and Demographic Surveillance System an IDEPTH member in India won the first prize for the best website (<http://www.kemvadu.org/hdss.htm>). Agincourt Health and Demographic Surveillance System member (<http://healthpop.agincourt.wits.ac.za>) received the second prize with Africa Centre Health and Demographic Surveillance System member (<http://www.africacentre.ac.za/>) winning the third place. The awardees were presented with certificates each.



Dr Siddhivinayak Hirve receiving the best website award on behalf of Vadu HDSS

Awards for Scientific Papers

The INDEPTH best published paper for 2009 was won by the Agincourt Health and Demographic Surveillance System with a publication titled "Implications of mortality transition for primary health care in rural South Africa: a population-based surveillance study" Stephen M. Tollman, Kathleen Kahn, Benn Sartorius, Mark A. Collinson, Samuel J. Clark, and Michel L Garenne. A cash prize of \$3000 was awarded to the INDEPTH centre. Best Poster Award 2009 went to the Bandim Health and Demographic Surveillance System with a poster titled "Vitamin A Supplementation at birth primes the response to a subsequent dose of Vitamin A Supplementation: A beneficial effect for girls".

Election of New Board Members

There was a keenly contested election of new members to the INDEPTH Board of Trustees during the 9th AGM in India. The Board Chair, Dr. Seth Owusu Agyei from the Kintampo Health and Demographic Surveillance Systems (HDSS) centre, retained his position as Chairman. His tenure of office will run from October 2009 to 2010. Newly elected Board members were: Dr. Honorati Masanja from the Rufiji HDSS, Dr. Ali Sie from the Nouna HDSS, and Dr. Sanjay Juvekar from the Vadu HDSS. Another Board member who retained her position was Dr. Kayla Laserson from the Kisumu HDSS. She was also nominated to be the new Vice-Chair, taking over from Dr. Siddhivinayak of the Vadu HDSS. Also retaining their positions were Dr. Osman Sankoh, Executive Director of the INDEPTH Network, Dr. Peter Aaby from the Bandim HDSS, Dr. Cheikh



New INDEPTH Board Members 2009, after the election

Mbacke from the Hewlett Foundation, Dr. Andreas Heddini of the Swedish Institute of Infectious Diseases, and Board Secretary, Dr Kofi Baku of the University of Ghana who supervised the elections.

Press Conference

A press conference was organized on 24th October 2009 that was addressed by the former vice chair of the Board of Trustees and host for the 2009 AGM, Dr. Siddvinayak Hirve, INDEPTH Executive Director, Dr Osman Sankoh, and the Senior Programmes Manager Dr. Ayaga Bawah, and Professor Marianne Alberts represented INDEPTH centres. 10 journalists attended from India.

Field Trip

AGM participants undertook a field trip to Vadu Rural Health Programme which is the research institution of KEM hospital and also one of the two INDEPTH member centres in India. The head and elders of the locality met and welcomed all the AGM participants who had visited the centre. In a welcome speech, the chief of Vadu thanked the participants for the visit and gave a brief overview of the history of the village. As a gesture of love and appreciation for visiting Vadu, the head and elders of the village decorated four senior scientists- Prof. Don De-Savigny, Dr Kim



An elder from Vadu decorating Professor Don de- Savigny with a head gear

Streatfield, Dr Sonia Buist and Prof. James Phillips with head gears. Participants later toured the centre and the village.

The 10th INDEPTH Annual General and Scientific Meeting, 27th -30th September 2010 in Accra, Ghana

The Executive Director of INDEPTH Network announced to the entire INDEPTH family the 10th Annual General and Scientific Meeting (AGM), which would take place in Accra, Ghana from September 27th to the 30th September 2010. It would be hosted by the secretariat and three INDEPTH members in Ghana namely: Dodowa, Kintampo and Navrongo .

ii. HDSS–University Collaboration in Africa

The INDEPTH Network Secretariat secured funding in late 2005 from the Hewlett Foundation to organise a consultative meeting of Health and Demographic Surveillance System (HDSS) members and University population programmes in Ghana, Kenya and South Africa. The meeting was held in February 2006. It deliberated on opportunities for a partnership between the two institutions and sketched out a grant proposal for such a partnership. In late 2006, the Hewlett Foundation funded the Secretariat's proposal to match analytic and training skills and opportunity among HDSS sites and university population training centres.

The Secretariat launched a short-term fellowships programme and announced a call for proposals. Initially both the centres and the universities were slow in taking advantage of the opportunity. However momentum grew after the AGM in Nairobi where a roundtable was organized to discuss how to get the collaborating institutions to submit proposals. The Secretariat went on to develop an online database of the expertise available both in the participating universities and at the HDSS sites.

The fellowship programme ended in 2009 with all four fellows fully absorbed by the INDEPTH members to which they were posted. The pictures below show the four Hewlett Fellow who have all now been absorbed by the respective centres as full employees.



*Ms Doris Ottie-Boakye
Dodowa HDSS, Ghana*



*Mr Chifundo Kanjala,
Digkale HDSS, South Africa*



*Mr Obed Ernest Nettey
Kintampo HDSS, Ghana*



*Ms Rhoune A Ochako
Nairobi HDSS, Kenya*

iii. Realizing Rights

This project is collaboration with the Institute of Development Studies, University of Sussex (UK), London School of Hygiene and Tropical Medicine (UK), Engender Health (USA), African Population and Health Research Centre (Kenya), and Building Resources Across Communities in BRAC (Bangladesh). The programme has 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.

In 2009 INDEPTH conducted a series of nationwide dissemination workshops to disseminate results of a report on reproductive health rights in Ghana that was submitted earlier to some select parliamentary sub-committees. The report reviewed laws relating to reproductive health and related issues with respect to women and other vulnerable groups. An analysis of contraceptive use dynamics in Africa was also conducted using demographic survey data from 7 African countries. Additionally, during the 2008/9 year INDEPTH



Dr Ayaga Bawah Senior Programmes Manager of INDEPTH Network showcasing the organisation at the launch of the documentary with the Vice President of Ghana seated 1st right

worked with the Alliance for Reproductive Health Rights a non-governmental organisation (ARHR) to produce a documentary on maternal mortality and subsequently launched the documentary in July 2009 under the patronage of the Vice President of the republic of Ghana.

iv. INDEPTH Effectiveness and Safety Studies of Antimalarials in Africa (INESS)

During the year under review the INDEPTH Effectiveness and Safety Studies (INESS) project registered appreciable progress.

The goal of the project is to provide national, regional and international health decision makers with independent and objective

evidence on the safety and effectiveness of new antimalarial drugs as a basis for malaria treatment policy in Africa. Upon completion it will enhance Africa's capacity to monitor local health systems in order to track costs, effective coverage, and effects of new or alternative post-registration antimalarial treatments.

INESS is coordinated from a secretariat in Dar es Salaam, Tanzania and works through a governance structure made up of a Governance Council, Scientific Review Board and a Safety & Monitoring Panel.

As part of the project implementation process a number of important meetings were held in 2009. These include:

Meetings with National Malaria Control Program (NMCP) managers in the various countries to introduce the study and solicit their acceptance and involvement, discuss implementation issues, familiarize the INESS team with ongoing developments in the area of malaria in particular malaria health services and Antimalarials policies, negotiate for donation of Rapid Diagnostic Tests (RDTs).

A workshop was held in Dar es Salaam for centres in two of the participating countries: Tanzania and Ghana to consider the following:

- Development of country specific protocols
- Designing and adapting of centre specific protocols and modules
- Methodologies for gathering views and opinions with regards to the generic protocols
- Critical examination of ethical and methodological approaches of the study in general

In April 2009, there was a meeting between the INESS team and its major stakeholders such as Sanofi-Aventis and Novartis in Geneva to discuss issues of drug safety, supply and distribution and also introduce the study to selected drug companies. There was full endorsement of the

INESS approach as well as fruitful discussions on how to forge partnerships with ongoing malaria initiatives in Tanzania and Ghana such as the Affordable Medicines for Malaria (AMFm) under the Global Fund.

In July 2009 a meeting of the Governance Council was held to:

- Orient its members to INESS in general
- Discuss and endorse the Terms of Reference for the Council
- Discuss and agree on the operations of the project.

The data analysis and synthesis task team led by the University of Ghana School of Public Health (SPH) has been able to:

- review progress in data collection for each of the modules in each HDSS centre
- review the approaches and tools in particular the questions for each module
- agree on an analysis plan, schedule and roles of the statisticians at HDSS and INESS secretariat levels
- receive inputs from the different stakeholders on the kind of information that would benefit their malaria control activities as a whole.



INESS Training of Trainers workshop participants, July 2009

i. Scientific Development and Leadership Programme

The INDEPTH Scientific Development and Leadership Programme is in its fourth year with Ms. Doreen Nabukalu from the Iganga/Mayuge Health and Demographic Surveillance System (HDSS) in Uganda as the only student in 2009 to pursue the MSc. Programme in Population-based Field Epidemiology. The programme is ran by the University of Witwatersrand in Johannesburg, South Africa. She will complete the 18-month course which she began in February, in June 2011. The course focuses on five areas: epidemiology; biostatistics and data management; demography and other social sciences; information technologies for demographic and health surveillance; and leadership with a substantial amount of field-based training component at three INDEPTH centres. The learning centres are Navrongo (Ghana), Africa Centre (South Africa) and Ifakara (Tanzania) HDSS.

The key objectives of the Scientific Development and Leadership Programme are to get participants to:

- Develop a genre of African 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;
- Be able to 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;
- Have good communication skills to make research results understandable to diverse audiences;
- Develop the capacity of scientists in the INDEPTH Network to have negotiating power to engage external collaborators;
- Compete effectively for international

resources;

- Take leadership roles at their workplaces.

ii. Short Courses

INDEPTH announced two short courses in *Population Studies and Reproductive Health and HIV/AIDS* to take place from 9th September to 4th November 2009 and 5th November to 30th December 2009. The short courses are under the Network's Phase II of the Scientific Development and Leadership Programme. The Institute for Population and Social Research (IPSR) at Mahidol University, Bangkok, Thailand facilitated the short courses. Applicants were selected based on having a Bachelor's Degree or higher with good command of the English language, relevant work experience and good reasons for requiring the training. The following INDEPTH members were selected to attend the training.

INDEPTH Member	Country
Dodalab	Vietnam
Matlab	Bangladesh
Dodowa	Ghana
Filabavi	Vietnam
Kintampo	Ghana

iii. Malaria Clinical Trials Alliance (MCTA)

The Malaria Clinical Trials Alliance was established in 2006 as a project of the INDEPTH Network with initial funding from the Bill & Melinda Gates Foundation.

Main objectives of MCTA are:

- To facilitate the development of sufficient near term research capacity in Africa for the conduct of GCP-complaint malaria drug and vaccine clinical trials.
- To support, strengthen, mentor and network trial sites to facilitate their progression towards self-sustaining clinical research centres.

These objectives were achieved through an interactive approach with site assessment visits

using standard questionnaire to determine infrastructural and human capacity at the sites and whether these were GCP compliant. Emphasis was placed on major support to the sites in the area of clinical facility refurbishment to facilitate recruitment of subjects, laboratory facilities, regulatory development of sites and strategic plan mentorship. There was interaction with the research team on the ground to understand the areas that require support and which most sponsors of clinical trials would not want to invest in especially “Brick and Mortar” and major laboratory equipment.

In 2009 the MCTA project continued with its activities from the preceding three years but relatively scaled down infrastructural support while emphasising the long-term sustainability of the sites.

Twelve sites including Kombewa, Kilifi, Korogwe, Bagamoyo, Manhica, Nanoro, Kintampo, Lambarene, UCAD and Lilongwe continued to receive support in the area of clinical trials facilities, recruitment centres, laboratory facilities, dispensaries/health centres, and GCP regulatory compliant units for regulatory issues and monitoring. They were also assisted to better document their financial management systems including provision of softwares and partial support for auditing. Major support was given to 11 sites to build archiving blocks. This is in response to the need for GCP compliant long-term storage facilities for case record forms at the sites where major trials were being conducted. Ultra modern digital X-ray machines with all the necessary accessories were also donated and were operational at all the 11 sites involved in the RTS,S phase 111 malaria vaccine trial. This was meant to improve the diagnosis of severely ill children both for clinical trials and routine health care.

A series of networking and training activities including GCP and microscopy workshops as well as, accreditation programmes for senior research staff (ACRP) to get more certified research scientists were successfully implemented. Web-

based fora were created to facilitate discussions among the teams involved in radiology, clinical and microbiology on the use of major equipment related to radiology, clinical trials and microbiology and maintenance of laboratory equipment. This was mainly to strengthen the infrastructure capability and improve experience sharings of equipments at the various sites.

Exchange programmes using MCTA short-term fellowships were granted to research scientists to visit other sites and know more about different clinical trials and laboratory techniques used by colleagues. This was also to exchange experiences that could be useful for future research work at the sites.

A mentorship programme involving senior scientists with experience in site development which was started in late 2007 and continued in 2008 was also extended into 2009 with at least seven sites, including Korogwe, Agogo, Kintampo, Kisumu-Kombewa, Kisumu-Siaya and UCAD benefitting from the programme. Substantial experience was gained in the development and implementation of the sites strategic plan over a period of time.

For long-term sustainability, at least 12 sites on the platform developed strategic plans with support from MCTA. 6 sites received partial support for their strategic plans to develop phase1/11a facilities to conduct early phase clinical trials. Two additional sites which have done a lot of work in malaria research in sub-Saharan Africa received strategic support for infrastructural upgrading for biomedical research. This was to strengthen the number of sites in Africa as we move to the next phase of the programme which would contribute to the development of new tools and malaria research agenda towards elimination and eradication.

During the AGM in Kisumu, sites expressed keen interest in diversifying their research portfolio and in long-term sustainability. Twelve site representatives were therefore supported to come together to develop a common protocol to

start or enhance work in tuberculosis. This was facilitated by experts from WHO/TDR and national control programmes.

To enhance visibility of the sites in the African region and beyond, MCTA continued its collaboration with the African Media and Malaria Research Network (AMMREN). AMMREN successfully visited and interacted with research scientists at various sites to understand their work and communicate the information to the public. The journalists took advantage of the visits to produce documentaries for stakeholders and the public. These helped in better articulating the work and research findings to the communities and policy makers. Over 60 journalists benefitted from training programmes on scientific reporting through the support provided by MCTA to AMMREN.



Newly constructed and well equipped Korogwe Laboratory in Tanzania

Useful lessons have been learnt as the first phase of MCTA comes to a close. Plans for the second phase are underway under the name: INDEPTH CLINICAL AND EPIDEMIOLOGY PLATFORM (ICEP). The success story of MCTA has proved that even with limited resources but with clearly guided infrastructural development and improved human capacity much success can be recorded in the development of sites in sub-Saharan Africa to contribute to new drugs, vaccines and tools to

combat the major diseases on the continent.

Building on lessons learned in the first phase, MCTA's second phase will leverage this capacity to continue to provide facilities for clinical trials and also contribute to the malaria elimination and eradication agenda of Africa by providing the much needed epidemiology transition data. The next phase will also create the platform for the evaluation and monitoring of the impact of malaria eradication strategies.

iv. Workshops

The Secretariat in 2009 increased its emphasis on strengthening capacities at its member centres in order to help increase both their scientific and administrative productivity. In this regard, in addition to the long-term programme of training young scientists, through the MSc Programme in Population-based Field Epidemiology at Wits University, the following workshops were organized for member centres.

a. INDEPTH Cause of Death Determination Workshop

This workshop took place from the 19th to 21st January, 2009 in Accra, Ghana. Professor Peter Byass of Umea University was the main facilitator and he took participants through the theoretical processes involved in determining cause of death. Participants shared experiences on how Verbal Autopsy data is collected, processed and analyzed. The approaches used in interpretation and determination of cause of deaths were also discussed. Participants were then introduced to the process of determining cause of death using the Inter VA software.

The objectives of the workshop:

- To review the field of cause of death assignments, in terms of principles and practice.
- To do hands on work with some Verbal Autopsy (VA) data to see how the process of moving from interview to cause(s) of death can be handled and analysed.
- To review the needs of participating sites in this area, in terms of further methodological

development and technical assistance, which will then become a working agenda for INDEPTH/UMEA/IHME to move forward.

To facilitate cross site VA data analysis and publications it was recommended that participants should build on the program they developed to convert their data to the format readable by the software to be shared.

b. The 2nd INDEPTH Network Strategic Planning and Leadership Training Workshop

The 2nd Strategic and Leadership Training Workshop took place from the 23rd -27th March 2009 at the Institute for Population and Social Research, Mahidol University, Thailand and facilitated by the Strathmore Business School, Kenya. 16 participants from 8 INDEPTH members and two INDEPTH secretariat staff attended. The workshop was designed to ensure that participants gain practical experience in the development and implementation of strategic plans.

The objective of the workshop

- To develop leadership and strategic planning skills of participants.

The leadership and strategic management skills enabled the participants to conceptualize the development of sustainable research centers based on corporate principles while maintaining the research environment and structure.

The hands-on team approach enabled participants to experience the challenges of strategic planning, how to deal with such challenges and the role of leadership in the strategy development process.

At the end of the workshop participants indicated the need to be equipped with knowledge on leadership and change management. A number of participants were interested in follow up mechanisms especially at their centres to check on progress of implementation of the balanced scorecard framework.

INDEPTH Member	Country
Matlab	Bangladesh
Chakaria	Bangladesh
Butajira	Ethiopia
INDEPTH Secretariat	Ghana
Niakhar	Senegal
Magu	Tanzania
Kanchanaburi	Thailand
Chililab	Vietnam
Filabavi	Vietnam



Workshop Participants

c. Biometrics for Individual Identification in Health and Demographic Surveillance Workshop held in South Africa

The Biometrics for Individual Identification in Health and Demographic Surveillance workshop was held in South Africa from the 2nd to 5th March 2009 at Africa Centre for Health and Population Studies, Mtubatuba, South Africa. 20 participants from various INDEPTH Health and Demographic Surveillance Systems centres participated in the workshop.

The workshop had the following objectives:

- Provide participants with theoretical background to biometrics for individual identification;
- To identify and investigate specific usage scenarios for fingerprints identification with relevance to health and demographic surveillance;
- To share actual implementation experiences of sites that have used fingerprints identification as well, providing hands-on experience with systems using fingerprint identification.

The workshop brought to the fore the fact that biometrics is related to information technology consisting in electronic identification of human beings based on their physical or behavioural characteristics. It was also noted that biometrics has the advantage over other form identification because it cannot be guessed or stolen and also one can keep track of users' activities with biometrics. Biometrics is also convenient.

By the time the workshop ended, participants were able to assess the applicability of biometric techniques for individual identification at the INDEPTH centres. They gained insight into the technical requirements for introducing and using fingerprint recognition in their existing data management systems. Participants had hands-on experience with actual systems using fingerprint identification

INDEPTH Centre	Country
Navrongo	Ghana
Nouna	Burkina Faso
Vadu	India
Nairobi	Kenya
Manhica	Mozambique
Iganga	Uganda
Kintampo	Ghana
Kisumu	Kenya
Manhica	Mozambique
Secretariat sponsored	Ghana
INDEPTH Secretariat	Ghana
Agincourt	South Africa
Africa Centre	South Africa
Ifakara	Tanzania
Magu	Tanzania



Workshop participants

d. Scientific Writing Workshop

A scientific writing workshop for some selected scientists from INDEPTH centres was held at Ho in Ghana from 18th -20th May 2009. The facilitator, Susanne Groener, the Managing Editor of *Tropical Medicine and International Health* handled sessions on techniques of writing biomedical research papers. One of the papers has been published in *Plos Medicine*, and two in the *Tropical Medicine and International Health* whilst 6 papers were being prepared for publication.



Susan Groener 3rd right and Scientists

INDEPTH Centre	Country
Kintampo	Ghana
INDEPTH Secretariat	Ghana
Dodowa	Ghana
Africa Centre	South Africa
Navrongo	Ghana
Nouna	Burkina Faso
Sapone	Burkina Faso
Vadu	India
Wosera	Papua New Guinea

I. Staff

The secretariat increased in staff strength in 2009. Below are the names of staff that were recruited.

Baaba Johnson (Ghanaian)
Communications Officer

Aziza Mwisongo (Tanzanian)
Project Manager (INESS)

Aminatta Mambia (Tanzanian)
Administrative Assistant (INESS)

Dan Kajungu (Ugandan)
Statistician (INESS)

Martin Adjiuk (Ghanaian)
Statistician (INESS)

Abdallah Mchawi (Tanzania)
Accountant (INESS)

ii. Board of Trustees in 2009

The Board of Trustees provides the oversight for the activities of the INDEPTH Secretariat and the Network as a whole. The board appoints and supervises the Executive Director of INDEPTH Network.



Dr Seth Owusu-Agyei (Chair)
INDEPTH Centre Leader, Kintampo, Ghana



Dr Kayla Laserson (Vice Chair)
INDEPTH Centre Leader, Kisumu, Kenya



Dr Andreas Hedding
Swedish Institute for Infectious Disease Control, Sweden



Dr. Cheikh Mbacke - Senior Advisor
Population Program, Hewlett Foundation, Dakar



Prof. Peter Aaby
INDEPTH Centre Leader, Bandim, Guinea Bissau



Dr Sanjay Juvekar
Senior Health Scientist, Vadu, India



Dr Ali Sie
INDEPTH Centre Leader, Nouna, Burkina Faso



Dr Honorati Masanja
INDEPTH Centre Leader, Rufuji, Tanzania



Dr Kofi Baku
Senior Lecturer, Univ of Ghana, Ghana



Dr Osman Sankoh - Executive Director
INDEPTH Network Secretariat, Ghana



Dr Marcel Tanner
Director, Swiss Tropical and Public Health Institute

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Some Notable Visitors to INDEPTH Secretariat in 2009

Gates Foundation's Jessica Milman and Heidi Hanson Visit INDEPTH Secretariat

Bill & Melinda Gates Foundation (one of the core funders of INDEPTH Network) Senior Program Coordinator Jessica Milman and Heidi Hanson Program Coordinator, Infectious Disease Global Health Program visited the INDEPTH Network Secretariat on 15th July 2009 after a tour of the Kintampo Health and Demographic Surveillance Systems (HDSS) to acquaint themselves with demographic and health research operations. Dr Osman Sankoh the Executive Director of the INDEPTH Network in his presentation to the team elaborated on the Network's activities and thanked Bill & Melinda Gates Foundation for the support they continue to give to INDEPTH Network. Dr Ayaga Bawah, the Senior Programmes Manager of INDEPTH also added that there are new Health and Demographic Surveillance System (HDSS) emerging in other African countries so there is the need to generate funding for INDEPTH Network in order to develop proposals in new areas such as tuberculosis and health systems research.



INDEPTH Executive Director Dr Osman Sankoh (3rd right) and Ms Jessica Milman (3rd left) with Ms Heidi Hanson (extreme right) and secretariat staff

Name	Organisation
Jas Vaghadia	IDS, University of Sussex UK
Peter Byass	Umea University Sweden
Eleuther Mwangeni	Ardhi University Tanzania
Mitchell Waiss	Swiss Tropical and Public Health Institute, Switzerland
Mercy Akomey	Sch. of Public Health, Ghana
Susanne Groener	London School of Health and Tropical Medicine, UK
Brivide Sikapanix	Ministry of Health Zambia
Margaret Tembo	CSO, Zambia
Gershon Chongwe	IDRC, Noola Zambia
Yudif Hemed	Independent Consultant
Victor Chachme	IDRC, Noola Zambia
Wendy Baldwin	Population Council, New York
Litta Naikushu	Population Council, New York
Pascale Allotey	Monash Global Health, Malaysia
Kilsey Moore	Institute of Health Metrics, USA
Steve Lim	Institute of Health Metrics, USA

REPORT OF THE BOARD OF TRUSTEES FOR THE YEAR ENDED 31 DECEMBER 2009

The Board of Trustees has the pleasure in submitting the report and the audited financial statements of INDEPTH Network for the financial year ended 31 December 2009.

Statement of the Board of Trustees responsibilities

The Board of Trustees is responsible for the preparation of financial statements for each financial year, which gives a true and fair view of the state of affairs of the Organisation and of the surplus or deficit and cash flows for that period. In preparing those financial statements, the Executive Board has selected suitable accounting policies and then applied them consistently, made judgments and estimates that are reasonable and prudent and followed International Public Sector Accounting Standards (IPSAS).

On 23 December 2009, the IPSAS Board issued IPSAS 28, 29 and 30 on Financial Instruments: Presentation, Recognition and Measurement and Disclosure respectively to replace IPSAS 15 – Financial Instruments: Disclosure and Presentation. The effective dates for the application of these standards are for financial statements beginning on or ending 2013. Management has considered the early adoption of these Standards for the financial statements for the period under review.

The Board of Trustees is responsible for ensuring that the Organisation keeps proper books of account and accounting records that disclose with reasonable accuracy at any time the financial position of the Organisation. The Board is also responsible for safeguarding the assets of the Organisation and taking reasonable steps for the prevention and detection of fraud and other irregularities.

Principal activities

The main activities of the organisation is to carry out health research in low and middle income countries, co-ordinate and disseminate health information from different health research centres across the developing world.

Results

The Statement of Financial Performance on page 5 shows a deficit for the year of **US\$4,532,069** for the INDEPTH Network activities (2008 surplus: US\$8,186,067), whilst **US\$10,807,912** (2008: US\$15,339,981) was Carried Forward for the programme activities.

Auditors

PricewaterhouseCoopers will continue in office as auditors of the organisation in accordance with Section 134 (5) of the Companies Code, 1963 (Act 179).

BY ORDER OF THE BOARD

Executive Director:

Board Chairman:

 May 2010

REPORT OF THE INDEPENDENT AUDITOR TO THE BOARD OF TRUSTEES OF INDEPTH NETWORK

REPORT ON THE FINANCIAL STATEMENTS

We have audited the accompanying financial statements of INDEPTH Network set out on pages 5 to 20. These financial statements comprise the statement of financial position as at 31 December 2009, the statement of financial performance, the cash flow statement and the statement of changes in net assets for the year then ended and a summary of significant accounting policies and other explanatory information.

Board of Trustees' responsibility for the financial statements

The Board of Trustees is responsible for the preparation and fair presentation of these financial statements in accordance with International Public Sector Accounting Standards and with the requirements of the Companies Code, 1963 (Act 179). This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

Auditor's responsibility

Our responsibility is to express an independent opinion on these financial statements based on our audit. We conducted our audit in accordance with International Standards on Auditing. Those standards require that we comply with ethical requirements and plan and perform our audit to obtain reasonable assurance that the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the organisation's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the Board of Trustees, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Opinion

In our opinion the accompanying financial statements give a true and fair view of the financial position of INDEPTH Network as at 31 December 2009 and of its financial performance and its cash flows for the year then ended in accordance with International Public Sector Accounting Standards and comply with the requirements of the Companies Code, 1963 (Act 179).

INDEPTH Financial Report

REPORT OF THE INDEPENDENT AUDITOR TO THE BOARD OF TRUSTEES OF INDEPTH NETWORK (CONTINUED)

REPORT ON OTHER LEGAL REQUIREMENTS

The Companies Code, 1963 (Act 179) requires that in carrying out our audit we consider and report on the following matters. We confirm that:

- i) we have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit;
- ii) in our opinion proper books of account have been kept by the organisation, so far as appears from our examination of those books; and
- iii) the organisation's statement of financial performance and statement of financial position are in agreement with the books of account.

PricewaterhouseCoopers
Chartered Accountants

.....*31st*.....May 2010

PRICEWATERHOUSECOOPERS 
Accra, Ghana
Mark Appleby (101193)

INDEPTH Financial Report

INDEPTH NETWORK
Financial Statements
For the year ended 31 December 2009

STATEMENT OF FINANCIAL PERFORMANCE

(All amounts are expressed in US\$)

	Year Ended 31 December	
	2009	2008
Operating revenue		
Grants	8,450,197	17,123,756
Other revenue	431,195	446,577
Total operating revenue	8,881,392	17,570,333
Meeting expenses	555,222	566,391
Scientific workshop and coordination expenses	1,790,000	1,514,096
Capacity strengthening workshop expenses	1,099,235	844,327
General Secretariat running cost	1,436,851	1,412,435
Sub grants	8,182,799	4,702,228
Annual General and Scientific meeting expenses	349,354	344,789
Total expenditure	13,413,461	9,384,266
(Deficit)/Surplus	(4,532,069)	8,186,067

CHANGES IN ACCUMULATED FUND (All amounts are expressed in US\$)	AS at 31st December	
	2009	2008
Balance b/d	15,339,981	7,153,914
Surplus for the year	(4,532,069)	8,186,067
Balance c/d	10,807,912	15,339,981

INDEPTH Financial Report

INDEPTH NETWORK
Financial Statements
For the year ended 31 December 2009

STATEMENT OF FINANCIAL POSITION (All amounts are expressed in US\$)

	AS at 31 December	
	2009	2008
Non-current assets		
Property, plant and equipment	122,950	103,655
Current assets		
Cash and cash equivalents	10,432,396	15,083,982
Receivables from Exchange transaction	135,973	89,377
Receivables from non-exchange transaction	39,433	11,820
Operating lease	91,880	76,356
	<u>10,699,682</u>	<u>15,261,535</u>
Total assets	10,822,632	15,365,190
Current liabilities		
Accounts Payable	<u>14,720</u>	<u>25,209</u>
Net assets	<u>10,807,912</u>	<u>15,339,981</u>

The financial statements and accompanying notes on pages 5 to 20 were approved by the Board of Trustees on ^{14/5}..... May, 2010 and signed on their behalf by:

Executive Director:

Board Chairman:

ANNUAL REPORT 2009

INDEPTH Network

Better Health Information for Better Health Policy



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