

# ANNUAL REPORT



# 2015



## **INDEPTH Network**

*Better Health Information for Better Health Policy*

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*Better Health Information for Better Health Policy*

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# Statement from Board Chair



On behalf of the Board of Trustees, it is a great honour and privilege for me to present to you the 2015 Annual Report - the narrative and audited Annual Accounts – prepared by the INDEPTH Secretariat.

One of the highlights of the year was the 13<sup>th</sup> INDEPTH Scientific Conference (ISC 2015) successfully held in Addis Ababa, Ethiopia, from 11-13 November 2015. The Annual General Meeting was held immediately after the scientific component of the ISC. Two new members of the Board were elected: Prof. Oche Mansur Oche (Nahuče HDSS, Nigeria) and Prof. Alemayehu Worku (Butajira HDSS, Ethiopia), while Dr Abdramane Soura (Ouagadougou

HDSS, Burkina Faso) and Prof. Abhijit Chowdhury (Birbhum HDSS, India) were re-elected. Let me take this opportunity to welcome them aboard. It was during the same event that we also officially welcomed INDEPTH's new member, the Arba Minch University from Ethiopia and their Arba Minch HDSS.

I am delighted to note that we generally made notable progress in all the main areas of our work - Research, Capacity Strengthening and Policy Engagement. I commend the Secretariat, the Scientific Advisory Committee, all Working Groups, projects and member Centres for working tirelessly in maintaining the core activities, developing proposals and raising the necessary funds for research and translational work. These important activities included the new Comprehensive Health and Epidemiological Surveillance System (CHESS), whose pilot got funded by the Research Cooperation Unit of the Swedish International Development Agency (Sida); the project on Antibiotics Resistance, ABACUS, which received initial funding from Wellcome Trust/VW Foundation through Oxford University, UK, as well as the Every Newborn Measurement Improvement Plan for Maternal and Peri-natal Health Metrics (ENAP) with a grant from the Children Investment Fund Foundation through the London School of Hygiene and Tropical Medicine, UK.

Today, change is and ever more rapidly changing dynamics are the feature of a “normal pace”. Being

ready for tomorrow means having the vision and the capabilities to be relevant in the world of tomorrow. From early 2016, the Secretariat will start preparations for the development a new strategic plan as the current one 2013-2016 ends soon. Developing a sound strategic plan is the priority of 2016 where we need the contribution from all network members stakeholders, partners and funders. The new strategic plan will also include INDEPTH's relevance to the national levels particularly the Civil Registration and Vital Statistics (CRVS). It is through this national focus, sound high quality core activities of the HDSS and by being sensitive to the setting-specific conditions that we shall develop a global contribution to global science and emerging issues within the context of the pursuit of the Sustainable Development Goals (SDGs).

For many years the Network has focused its resources on data collection, quality assurance and analyses of core data and special indepth-studies. Now we are ready to add the dimension of synthesis and comparatively analyses with a direct impact on national and global policies and strategies. We are

committed to meet these new but stimulating challenges and we count on all network members to join our new strategic moves.

Finally, my deepest appreciation goes to all network members and leaders our partners and funders and all our collaborating institutions — locally, nationally and internationally. Their wonderful, unfailing commitment to our joint aims, countless new ideas, advice and hard work made possible the achievements described here.

I wish you a stimulating read and look forward to your comments and suggestions as well as the development of possible new collaborations. Thanking you all, I remain

**Marcel Tanner**  
Chair

# Message from the Executive Director



How time flies! The year 2015 has ended. We thank God for His manifold blessings.

I wish to thank each and everyone – the Board, Scientific Advisory Committee (SAC), Centre Leaders and their hosting institutions, Working Groups and Project Leaders, Funders, Partners/ Collaborators, Secretariat Staff, Research Participants and Communities in all the countries where our member HDSSs are located – for your continued support during the year.

The Network successfully organised the INDEPTH Scientific Conference (ISC 2015) and its 14th Annual

General Meeting from 11 – 14 November in Addis Ababa, Ethiopia. I am pleased to say that the conference was a huge success with 279 delegates from 25 countries attending. We were very honoured to have among the participants two Ethiopian Federal Government ministers of Health and 14 presidents and six vice-presidents from 20 universities in Ethiopia.

During the ISC 2015, we also welcomed a new member to the fold, after the Board approved the 46th member of INDEPTH, Arba Minch University, from Ethiopia which runs Arba Minch HDSS, the 53rd HDSS in INDEPTH.

We chalked another milestone when on July 1, the update of INDEPTHStats and INDEPTH Data Repository was accomplished ([www.indepth-ishare.org](http://www.indepth-ishare.org)). This was in fulfilment of our resolve to publish and share data responsibly. The updated INDEPTHStats has new data for 2012 from 24 HDSSs and additional four datasets bringing the total of 31 HDSSs covering 15 countries. Also, the updates on the INDEPTH data repository brought the total to 20 HDSSs on the repository covering 11 countries.

In order to strengthen the capacity of INDEPTH scientists, the Network continued to support students for Masters and PhD training. We also organised several training workshops to improve skills of scientists and data managers.

The Network's member research centres collectively achieved more than 400 peer-reviewed publications in reputable international journals. The Secretariat's team was able to publish five systematic review papers. Three articles on INDEPTH also appeared in top global journals: The Lancet Diabetes & Endocrinology, The Lancet Global Health and The International Journal of Epidemiology.

One of the main activities of 2015 was development of a Strategy for Policy Engagement and Communication (PEC) in order to strategically streamline the Network's approach to policy influencing activities. The Network during the year also recruited a PEC Manager. We are fully committed to engaging policymakers so that the high quality data that is generated can be used to guide policy and planning processes.

The Network also wants to build on member centres' existing strength in policy and practice and this was evident in the in-country meetings that we organised in India and Tanzania that brought together researchers and policymakers to dialogue on how to bridge the gap between research and policy.

I recognise the efforts of Working Groups and Project Leaders some of whom did very well in attracting funds for research. We are looking forward to the

New Year 2016 as we embark on the new generation of surveillance operations (CHESS).

The key challenge in the pursuance of our work remains invariably the inadequacy of dedicated funds at our disposal. This situation was further compounded in by the resultant huge exchange loss on our core funds from Sida (due to the fall in the Swedish Krona).

Once again thank you to all of you for your continued support. I am very grateful to our core support funders Sida/Research Cooperation, William & Flora Hewlett Foundation and Wellcome Trust. We also appreciate the support from several funders who funded various INDEPTH projects in 2015: Bill & Melinda Gates Foundation, EU/ Staten Serum Institute, EU/Heidelberg University, NIH/ Wits Health Consortium, DANIDA/Staten Serum Institut, USAID/Population Council and GAVI.  
May 2016 be our best year yet!

**Prof Osman Sankoh**  
Executive Director  
INDEPTH Network.

# Executive Summary

INDEPTH in 2015 further strengthened effective data management systems and harmonised data across member centres alongside the training of a new generation of data managers and scientists. Among the key accomplishments during the year was the constitution the Capacity Strengthening and Training Strategic Group that will regularly discuss and advice on capacity strengthening and training issues of the Network. The first meeting of the Group was held 17-19 August 2015 in Accra.

The 13<sup>th</sup> INDEPTH Scientific Conference (ISC 2015) was successfully held in Addis Ababa, Ethiopia, from 11-13 November 2015. The three-day conference was on the theme "Health and Demographic Research to inform the Post 2015 Development Agenda". Attendance at the conference was impressive with 279 participants from 25 countries and 4 continents with over 100 oral presentations were delivered in parallel and plenary sessions through a diversity of topics.

As part of the efforts to harmonise and standard data collection and improve quality as well as the turnaround time from data collection, processing and cleaning to availability for analysis, we effectively embarked on assisting member centres to migrate from paper to electronic data capture using the OpenHDS platform. One centre completed the migration process and started full electronic data capture using OpenHDS while 5 member HDSSs in

Ethiopia completed an intensive training to kick start the switch to the OpenHDS platform.

In keeping with the initial pledge, the INDEPTH Data Repository was effectively updated with new data on 1<sup>st</sup> July 2015 bringing the total to 20 HDSS datasets on the repository and INDEPTHStats updated to a total to 31 HDSSs covering 15 countries. Moreover, this Data Repository has now gained recognition by PLOS-ONE, a reputable international academic journal, as an approved repository to lodge publication datasets.

We will continue the efforts to address these challenges in 2016 through soliciting for more dedicated funds to cover training activities. We will also continue to engage other university partners for joint efforts to foster this objective as well as embedding some elements of training into the various funded projects.

During the year, our team together with the London School of Hygiene and Tropical Medicine (LSHTM), Save the Children Foundation and Makerere University drafted a proposal to Children Investment Fund Foundation (CIFF) on the Every Newborn Action Plan (ENAP) Project which was funded. The project will receive £802,079 for 60 months starting from January 2016.



We also submitted a proposal to Wellcome Trust to assess and compare community-based antibiotic access, consumption and the factors that underpin them. The overall aim of the project is to compare community-based antibiotic access and consumption practices across a range of low and middle-income countries (LMICs) in Asia and Africa in order to identify targets for community-based intervention strategies to improve rational antibiotic use and to inform the design of these interventions. This project will provide a standardised framework for appraising current antibiotic use patterns, demand and access, for use in other LMICs.

This project has been funded by the Wellcome Trust to be led by Prof. Heiman Wertheim, a clinical microbiologist at the Oxford University Clinical Research Unit in Hanoi, Vietnam. The amount involved is €799,828 over 2 years and 6 months. Partners and HDSS involved include Umea University in Sweden and University of Oxford, UK. The HDSSs are Matlab, Bangladesh; Manhica, Mozambique; Kanchanaburi, Thailand; Filabavi, Vietnam; Kintampo, Ghana; Dodowa, Ghana; and Agincourt, South Africa.

The new Policy Engagement and Communications Strategy was adopted by the AGM in November 2015 and the Secretariat working with members of the Research to Policy Strategic Group are taking the lead in its implementation.

Like the previous year, INDEPTH work was published in leading international journals as editorials,

systematic reviews and over 400 peer-reviewed papers. We were also fully committed to engaging policymakers. This was evident in the in-country meetings that we organised in India and Tanzania that brought together researchers and policymakers.

There was extensive media coverage for programmes organised by INDEPTH. A database of key journalists was established and the PEC manager visited major media houses to enhance media relations. A lot of effort also went into establishing links with other stakeholders in Ghana and internationally.

The year 2015 was a good year for external engagements. The Executive Director participated actively in 4 expert meetings on Strengthening Civil Registration of Vital Statistics in Africa. Other major forums attended included: 9th European Congress on Tropical Medicine and International Health; Joint Coordinating Board of TDR; MA4Health global summit, ECA-AUC Conference on data revolution in Africa. Other Senior Staff attended Days of Nouna Health Research Centre (CRSN) in Burkina Faso; The Population Association of America (PAA) Annual Meeting and two In-Country meetings of policy-relevant stakeholders and HDSSs in India and Tanzania.

Meetings of the Board and Scientific Advisory Committee (SAC) were held from 1-5 February 2015 in Dubai. The SAC had a session with the Working Groups and Projects leaders to provide relevant guidance and enrich the scientific productivity of the

respective working groups and projects. The Board met on 3-4 February 2015 under the Chairmanship of Prof. Marcel Tanner and elected Dr. Catherine Kyobutungi (Nairobi HDSS, Kenya) as its vice chair.

The SAC and the Board also met at Ghion Hotel in Addis Ababa, Ethiopia, in November 2015. Two new members were elected to the Board during the AGM on 14 November 2015 in Addis Ababa.

# Summary of Progress in Relation to Strategic Objectives

**Objective 1: To strengthen the capacity of INDEPTH member centres to conduct longitudinal health and demographic studies**

## ***New Strategic Group***

Among the key accomplishments was the constitution of a Strategic Group for capacity strengthening and training that will regularly discuss and advise on capacity strengthening and training issues of the Network. The first meeting of the Strategic Group was held in Accra from 17-19 August 2015. Based on a review of experiences and challenges faced by member centres, the meeting made some recommendations to help position INDEPTH and its member centres to continue to play the expected leadership role in promoting evidence-based health policies in LMICs.

## ***Data management systems and data sharing***

INDEPTH in 2015 further strengthened effective data management systems and harmonized data across member centres alongside the training of a new generation of data managers and scientists. We effectively embarked on assisting member centres to migrate from paper to electronic data capture using the OpenHDS platform. One centre (Nanoro in Burkina Faso) actually completed the migration process and started full electronic data capture using

OpenHDS while the five member HDSSs in Ethiopia (Butajira, Dabat, Gilgel Gibe, Kersa, Kilite Awlaelo and one applicant member – Arba Minch) completed an intensive training to kick start the switch to the OpenHDS platform.

The INDEPTH Data Repository was effectively updated with new data on 1 July 2015 bringing the total to 20 HDSS datasets on the repository and INDEPTHStats updated to a total to 31 HDSSs covering 15 countries. Moreover, this Data Repository has now gained recognition as an approved repository to lodge publication datasets by the reputable PLOS journals.

## ***Training Support***

We continued efforts to support MSc and PhD training. We had seven (7) MSc trainees at the University of the Witwatersrand in Johannesburg, South Africa and two (2) PhD top-up studentships were awarded.

## ***Challenges***

The key challenges in 2015 remained limited funds. For this reason, we had to cut down on number of funded students and even suspended some training workshops. We will continue the efforts to address these challenges in 2016 through soliciting for more dedicated funds to cover training activities. We will

also continue to engage other university partners for joint efforts to foster this objective as well as embedding some elements of training into the various funded projects. In parallel we will also continue active search and identifying various partner opportunities that can benefit members.

**Objective 2: To stimulate, co-ordinate and conduct cutting-edge multicentre health and demographic research**

### **Working Groups**

In 2015, there were 12<sup>1</sup> active Working Groups. Five of these groups had ongoing projects: (1) the iHOPE project as part of the Health Systems Working Group; (2) Health Transitions to Adulthood study as part of the Sexual and Reproductive Health Working Group; (3) the OPTIMUNISE project which is implemented by the Vaccination and Child Survival Working Group; (4) the Cause of Death Determination (CoDD) Using Inter VA-4 project which is undertaken by the CoDD Working Group and; (5) the Narvongo Newborn study undertaken as part of the Maternal Newborn and Child Health (MNCH). Three Working Groups developed multicentre proposals of which two were successful. The Antibiotics Resistance WG successfully submitted a proposal on 'ABACUS', to the Wellcome Trust for €799,828 (\$880,202). The MNCH Working Group was also successful in their proposal – Every Newborn Measurement Improvement Plan for Maternal and Peri-natal Health Metrics (ENAP) – to the Children's Investment

Fund Foundation for £802,079 (\$1,132,371) over five years. Lastly, the Education WG also developed a proposal with three centres which was submitted to the Economic Social Research Council UK for a 3-year research project costing £687,168.29 (\$970,140); the application was however not successful.

### **Interest Groups**

Six<sup>2</sup> Interest Groups were active in 2015. There was significant effort from at least four of these groups to raise funds; the remaining two groups were also keen to develop proposals but were unable to find a suitable call to target. The proposals submitted included: (1) Indoor Air Pollution Interest Group's "Evaluation of Interventions to reduce Household Air Pollution and its Effects on Pulmonary Function in Healthy and COPD/Asthma Affected Individuals" to UKAID – Wellcome Trust – MRC – Joint Global Health Trials Scheme for £150,000 over 2 years; (2) the Sickle Cell Group submitted a proposal – "Sickle Cell Disease in Sub-Saharan Africa" – to NIH for \$590,000 over 5 years; (3) in response to a call by the Gates Foundation the Nutrition Group submitted four proposals with each requesting \$300,000 over a 2 year period and; (4) the Mental Health Group submitted a proposal to DANIDA for 10,000,000 Danish Krona (\$1,474,480) but the funder suspended the call indefinitely. Though most of these have been unsuccessful, they demonstrate a determination by the centres to raise funding through grants.

<sup>1</sup>Health Systems, Antibiotic Resistance, Maternal Newborn and Child Health, Sexual and Reproductive Health, Vaccination and Child Survival, Migration, Urbanisation and Health, Cause of Death Determination, Adult Health and Aging, Education, Social Science Research, Environment and Health

<sup>2</sup>Indoor Air Pollution, Sickle Cell, Nutrition, Mental Health, HIV/AIDs, Malaria/non-malaria fevers illness

## ***Strategic Group***

The key activity for the Data Analysis Strategic Group in 2015 was a proposal development workshop to draft a concept note for the Wellcome Trust Enhancement Grant. The team succeeded in drafting and submitting a concept note – “Assessing the Epidemiological Transitions in Africa and Asia from Established Population-based Surveillance” – for \$100,000 over 6 months. In January 2016, the Wellcome Trust invited the group to submit a full proposal.

## ***Network Projects***

There were nine<sup>3</sup> ongoing network projects in 2015 including those indicated above in the Working Group section. One of the projects is iHOPE which was funded by the Gates Foundation for \$2,250,080 between 2016 and 2018. Another project is OPTIMUNISE, funded by the EU between 2011 and 2016 at a cost of €149,998 (\$165,110). Three of the nine projects were funded through INDEPTH core support: (1) the Navrongo Newborn study costing \$56,400 between 2014 and 2015; (2) the CoDD using InterVA and; (3) the Social Autopsy study with \$70,000 funding between 2015 and 2017. A significant development at the end of 2015 for Network projects was a close collaboration between the University of Stanford and INDEPTH. The University of Stanford has expressed interest in collaborating with INDEPTH pledging seed funding of \$200,000 to one of its faculties to explore research problems related to genetics. The University will work closely with the AWIGEN Group since the

group's activities fall within the remit of genetic studies.

## ***The Secretariat's efforts***

The secretariat led eight of the 17 proposals; it contributed substantive knowledge and administrative support to two of the submissions; and facilitated the submission of the remaining proposals. Among the proposals led by the Secretariat was CHES, which was funded by the Swedish International Development Agency (Sida) for \$460,000 as part of Sida's core support to INDEPTH. The secretariat made a significant input into the development of the two successfully funded proposals that were developed by the MNCH and Antibiotics Resistance working groups.

## ***ISC 2015***

The 2015 INDEPTH Scientific Conference (ISC) was held at Ghion Hotel in Addis Ababa, Ethiopia, 11<sup>th</sup>-13<sup>th</sup> November. Over 100 oral presentations were delivered during the 2015 ISC of which 92 were based on large INDEPTH projects or empirical data from INDEPTH member centres. Attendance at the conference was impressive with 279 participants from 25 countries and 4 continents.

## ***Research Collaborations***

We continue to maintain existing and pursue new strategic partnerships. We attracted six faculty members of Stanford University to the ISC and we are working towards joint research work. Oxford University and Umea University partnered with

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<sup>3</sup>iHOPE, INESS, Social Autopsy, AWI-Gen, Navrongo Newborn study, OPTIMUNISE, CoDD, Health Transitions to Adulthood study, Stanford collaboration

INDEPTH for the ABACUS project funded by Wellcome Trust. London School of Hygiene and Tropical Medicine partnered with INDEPTH and won the CIFF project on Every New born action Plan (ENAP) Metric.

### **Challenges**

The key challenge was allocating core funds to support a bigger need by working groups to meet and develop proposals and conduct research activities. This was in a way positive for the Network. The Secretariat will therefore continue to work hard to raise core support. However, working groups will continue to be supported to develop proposals for larger multicentre projects.

**Objective 3: To facilitate the translation of INDEPTH findings to maximise impact on policy and practice**

### **PEC Strategy**

We successfully developed a strategy for Policy Engagement and Communications for the Network.

#### External Engagements and Media Relations

INDEPTH contributed to several expert meetings on Strengthening Civil Registration and Vital Statistics (CRVS) in Africa. Other major international forums in which INDEPTH was present included: 9th European Congress on Tropical Medicine and International Health in Basel, Switzerland; Joint Coordinating Board of TDR in Geneva, Switzerland; MA4Health Global Summit in Washington D.C., USA; UNECA-AUC Conference on data revolution in Africa in Addis

Ababa, Ethiopia; Scientific Days of Nouna Health Research Centre (CRSN) in Nouna, Burkina Faso; The Population Association of America (PAA) Annual Meeting in the New Orleans, USA; WHO/UNECA Meeting of Experts on Improving Mortality Statistics in Africa in Addis Ababa; the 7th African Population Conference in Pretoria, South Africa; and two In-Country meetings of policy-relevant stakeholders and HDSSs in Pune, India and Dar es Salaam, Tanzania.

There was extensive media coverage for programmes and events organised by INDEPTH. A database of key journalists was established and the PEC manager visited major media houses to enhance media relations. We focused efforts on establishing links with other stakeholders in Ghana and internationally.

### **Website and Social Media**

The Network completed the design of a new website which will be launched in 2016. In order to enhance dialogue and share learning and information with stakeholders, the Secretariat was very active on social media, particularly Facebook and Twitter. Visitor statistics for both the website and social media platform were impressive and showing an upward trend.

### **Publications**

As in previous years, more than 400 peer-reviewed publications appeared in reputable international journals from INDEPTH member centres. By the end of the period under consideration, five systematic

review papers had been published. INDEPTH work was also highlighted in top global journals The Lancet Diabetes & Endocrinology 2015: “An INDEPTH look at global data collection”. The Network published its vision for the future in The Lancet Global Health: “Comprehensive Health and Epidemiological Surveillance System (CHESS) - an innovative concept for a new generation of population surveillance from the INDEPTH Network”. An Editorial on AWI-Gen featured in the International Journal of Epidemiology, the article titled “African partnerships through the H3Africa Consortium bring a genomic dimension to longitudinal population studies on the continent” Six HDSS profiles were also published in the International Journal of Epidemiology (IJE) bringing the total published so far to 26.

### ***Challenges***

Many member research centres do not have dedicated staff for communications. The Secretariat, however, continues to interact with designated communication focal persons using list-serves for sharing information and a Google Alert account to capture information related to centres.

# Capacity Strengthening and Training

## Master's Training Programme at the University of the Witwatersrand

Funded students of the pioneer batch (2014-2015) of the Research Database Management (RDM) track successfully completed the programme and returned to home institutions. They are Ms. Mieks F. Twumasi from Kintampo HDSS (Ghana), Adama Baguiya (Kaya HDSS, Burkina Faso) and Nelson Mbaya (Nairobi HDSS, Kenya). It is worth noting (as in the 2014 Annual Report) that four funded students were initially on the pioneer batch, just half way into the programme one of them (Tumaini Kilimba, from Ifakara HDSS, Tanzania) received funding from another donor and is expected to refund the amount of scholarship received from INDEPTH.

Meanwhile, four INDEPTH-funded students for the second batch (2015-2016) of the RDM track who joined the programme at Wits University in South Africa, in January completed course work and are preparing for field attachment. They are Djibril Dione (Niakhar HDSS, Senegal), Kouliga Kombassere (Ouagadougou HDSS, Burkina Faso), Admas Abera Aberei (Kersa HDSS, Ethiopia) and Robert Adda from Kintampo HDSS in Ghana.

## Master's Training: INDEPTH Funded Graduates

One of the INDEPTH-funded graduates, Emmanuel K. Dakwa from Dodowa HDSS in Ghana, of the 2013/2014 batch of the MPH programme of the James P Grant School of Public Health at BRAC

University in Bangladesh had his Master's research work finally published in the BMC Health Services Research Journal. The paper is titled: Emmanuel Kwame Darkwa, M. Sophia Newman, Mahmud Kawkab and Mahbub Elahi Chowdhury "A qualitative study of factors influencing retention of doctors and nurses at rural healthcare facilities in Bangladesh" BMC Health Services Research 2015, 15:344, doi:10.1186/s12913-015-1012-z (Also available at <http://www.biomedcentral.com/1472-6963/15/344>)

Another INDEPTH funded graduate of the 2009-2010 batch, Wits MSc Programme (George Otieno of Kisumu HDSS, Kenya) had his Master's research paper recently published. The paper title is: George Otieno, Edmore Marinda, Till Bärnighausen and Frank Tanser "High rates of homicide in a rural South African population (2000–2008): findings from a population-based cohort study" Population Health Metrics (2015) 13:20 DOI 10.1186/s12963-015-0054-0

## ISSP Workshop to Revise Curricula for Master's Training

In response to the invitation of the Director of ISSP, University of Ouagadougou in Burkina Faso, Prof. Jean Francois Kobiane and recommendation of Dr. Abdramane Soura (Ouagadougou Centre Leader and Board member), the Capacity Strengthening and Training Manager Dr. Martin Bangha participated in



the workshop in March 2015 marking the 10<sup>th</sup> Anniversary of Master's training in Population and Health at the Higher Institute for Population Science (ISSP) of the University of Ouagadougou. This workshop afforded the ISSP colleagues the opportunity to do a general assessment of the content of the training programme and to revise by formally introducing two defined tracks that were officially approved by the University Council.

### Doctoral (PhD) Training Support

Raymond Aborigo of Navrongo HDSS who was partially supported by INDEPTH to completed his PhD in Global Public Health at Monash University Malaysia, submitted his thesis and reported back to his centre. His PhD research aimed at contextualising maternal morbidities and mortalities through maternal health audits. The study tested a tool for monitoring severe maternal morbidities within the community with a huge potential to be replicated for severe child morbidities. Another partially supported PhD student (Vijendra Ingole of Vadu HDSS) is on course on the doctoral program in Epidemiology and Global Health at the Department of Public Health and Clinical Medicine, Umea University, Sweden. He is currently doing an internship at the LSHTM in the UK and should be completing his PhD programme next year.

In the course of 2015, INDEPTH hosted George Wak of Navrongo HDSS, Ghana, on internship (during his experiential learning period) for the second year doctoral training programme in Population Studies at the Regional Institute for Population Studies (RIPS), University of Ghana, Legon. Furthermore, to

enable him focus on his studies and complete the programme in time, INDEPTH approved his application for financial support covering his dissertation years (2015-2017).

### INTREC Project



*Participants of INTREC Stakeholders Conference in Accra, Ghana, 26-27 March 2015.*

This project, launched in early 2012, which addressed Inequities and Social Determinants of Health in Asia & Africa was in the final Work Package (Dissemination stage) and officially ended in June 2015. Essentially, the INTREC (INDEPTH Training and Research Centres of Excellence) consortium consisted of six partner institutions: five of which are universities: Umea University in Sweden; Gadjah Mada University in Indonesia; Heidelberg University in Germany; the University of Amsterdam in The Netherlands; and Harvard University in the USA and INDEPTH.

Funded by the EU under the Seventh Framework Programme, to the tune of 1.99 million Euros over a period of 42 months (3.5 years), the overall aim of INTREC has been (a) to provide SDH-related training for researchers from the INDEPTH Network of Demographic and Health Surveillance Sites in Africa and Asia, thereby facilitating the production of evidence on associations between SDH and health outcomes; and (b) to enable the sharing of this information through promoting links between the researchers and decision makers, and by ensuring that research findings are presented to decision makers in an actionable, policy-relevant manner. The seven initial focus countries for INTREC were Ghana, South Africa and Tanzania in Africa; and Bangladesh, India, Indonesia, and Vietnam in Asia with as participating centres: Navrongo, Agincourt, Ifakara, Matlab, Vadu, Purworejo and Filabavi respectively.



*Panel discussion during the Accra Stakeholders Conference.*

Activities in 2015 were to wrap up the project with a stakeholders' conference in Accra as the main final event. Following a preparatory consortium meeting held in Umea on 26-27 March 2015, a consensus date was reached for the final Stakeholder's event in Accra which was subsequently held from 21-22 May

2015. The main objectives of the conference were to: (a) Review of INTREC's accomplishments (challenges and contributions to the global SDH movement); (b) Receive feedback on the draft INTREC conceptual framework; and (c) Discuss the future of the INTREC concept and products. The conference was a success with over 40 delegates of various backgrounds from five continents. The delegates consisted of representatives of consortium partners, INTREC social scientists, trainees, IAG members, stakeholders including centre leaders in participating countries, collaborators and members of the INDEPTH Secretariat. The project officially ended on 30 June 2015 and the final reports submitted to the EU at the end of August. As at the close of the project, a total of 23 INDEPTH member researchers from 9 countries (namely Ghana, Tanzania, South Africa, Kenya, Ethiopia, Vietnam, Indonesia, India, and Papua New Guinea), had participated in the training programme developed.

### **Member HDSS Cohort Profiles in IJE**

INDEPTH and the *International Journal of Epidemiology* (IJE) agreed in a collaboration to showcase the wealth of data collected and the amount of work going on at the various INDEPTH member HDSSs and make them more visible; and also to generate interest in and enhance the usefulness of HDSS data. The INDEPTH-IJE collaborative agreement is to support and publish cohort profiles of all INDEPTH member HDSSs. In keeping with this agreement, the Secretariat (in collaboration with the IJE) has been organising Profile Writing workshops in Accra to help members

develop their profiles for publication. Two of such workshops have been organised, first in November 2012 and the second in April 2014. Aside from the workshops, the Secretariat in collaboration with the IJE editors continues to work with remaining member centres to ensure that all have their profiles for consideration and publication in IJE.

In the course of 2015, six (6) HDSS profiles were published bringing the total published so far to 26. These are:

1. Coleman Kishamawe, Raphael Isingo, Baltazar Mtenga, Basia Zaba, Jim Todd, Benjamin Clark, John Chungalucha, and Mark Urassa **Health & Demographic Surveillance System Profile: The Magu Health and Demographic Surveillance System (Magu HDSS)** *Int. J. Epidemiol.* first published online September 24, 2015 doi:10.1093/ije/dyv188 (11 pages)
2. Marianne Alberts, Sekgothe A Dikotope, Solomon R Choma, Matshane L Masemola, Sewela EP Modjadji, Felistas Mashinya, Sandra Burger, Ian Cook, Sanette J Brits, and Peter Byass. **Health & Demographic Surveillance System Profile: The Dikgale Health and Demographic Surveillance System** *Int. J. Epidemiol.* first published online August 13, 2015 doi:10.1093/ije/dyv157 (7 pages)
3. Eveline Geubbels, Shamte Amri, Francis Levira, Joanna Schellenberg, Honorati Masanja, and Rose Nathan. **Health & Demographic Surveillance System Profile: The Ifakara Rural and Urban Health and Demographic Surveillance System (Ifakara HDSS)** *Int. J. Epidemiol.* first published online May 15, 2015 doi:10.1093/ije/dyv068 (14 pages)
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The profile of Kersa HDSS in Ethiopia has gone through final revision and hopefully will be approved before December ending for publication. Meanwhile, the recent publication of Magu profile completes the list from the first workshop in 2012. Every HDSS from that workshop now has its profile in IJE. With regard to the April 2014 workshop, only four profiles remain outstanding (under revision).

Thanks to this level of success and the resultant visibility from these profiles, INDEPTH is always featuring in the IJE's annual reports.

### **Migration to Electronic Data Capture Using the OpenHDS Platform**

In order to speed up the turnaround time for data collection, processing and cleaning to availability for analysis, all INDEPTH members centres are being encouraged to migrate their HDSS data currently on the HRS2 platform unto the electronic data capture system called the OpenHDS. It will be noted that the OpenHDS data platform was developed to handle longitudinal HDSS data. It is developed based on many of the concepts in HRS2, the common Software that had been in use by most member HDSSs to manage their data. The OpenHDS system was first introduced (piloted) in Cross River HDSS, Nigeria and subsequently, rolled out in few HDSS (including Ifakara, Rufiji and Manhica with INDEPTH Network support).

Following a training workshop in November 2014 for data managers from 12 member centres of the Network in nine countries in Africa and Asia, and after several weeks of testing the application on the field, the Nanoro HDSS team in Burkina Faso started the full electronic data collection using the platform in August. Noteworthy is the technical support of the Swiss TPH team who spent two weeks in Nanoro in June to assist in the final setting up the system and migrating the database from HRS2 to OpenHDS. INDEPTH Capacity Strengthening Manager, Dr Martin Bangha, also visited Nanoro HDSS in March

and July to facilitate the process and assess the progress made.

Furthermore, an In-Country workshop was organised in Ethiopia from 5-15 October 2015 during which the 5 member HDSSs in the country already on the HRS2 platform have completed an intensive training to kick start the switch to the OpenHDS platform. This will be followed by regular interaction with the Swiss TPH team to finalise the process for the 5 HDSSs to use the OpenHDS platform. The HDSSs are Dabat HDSS, Kilite Alwaelo HDSS, Butajira HDSS, Kersa HDSS and Gilgel Gibe HDSS. Meanwhile, the Secretariat also supported the OpenHDS team from Swiss TPH to travel to Birbhum HDSS in India, to assess the feasibility and possible timelines of migrating the Birbhum HDSS data system to OpenHDS. The initial report is that this was successful and productive mission for all the parties involved. The next step will entail the actual migration an implementation of the system by Birbhum.

### **INDEPTH Data Repository**

Launched on 1<sup>st</sup> July 2013, the INDEPTH Data Repository ([www.indepth-ishare.org](http://www.indepth-ishare.org)) is an online archive of fully documented high-quality longitudinal datasets from INDEPTH member HDSS centres. It is the first repository that specializes in longitudinal population-based data from LMICs. It was initially launched with datasets from six member centres namely Vadu HDSS (India), Nairobi HDSS (Kenya), Magu HDSS (Tanzania), Chililab HDSS (Vietnam), Agincourt HDSS (South Africa) and Africa

Centre HDSS (South Africa), and updated on 1 July 2014 with new data from 5 of the 6 and additional seven (7) new datasets from Ouagadougou HDSS (Burkina Faso), Taabo HDSS (Côte d'Ivoire), Gilgel Gibe HDSS (Ethiopia), Kilite Awlaelo HDSS (Ethiopia), Dabat HDSS (Ethiopia), Mbita HDSS (Kenya), and Karonga HDSS (Malawi) making a total of 13 HDSS datasets on the repository.



*Group photo for data managers and trainers during the Dubai workshop, 8-12 June 2015.*

Data managers from 16 INDEPTH member centres participated in the five-day data management refresher workshop from 8-12 June, 2015 in Dubai. The aim of the workshop was to assist member centres to produce core micro datasets and indicators in preparation for the July 1st update of the INDEPTH Data Repository and INDEPTHStats. Following this effort and the ensuing data plausibility

checks, on 1 July 2015 the INDEPTH Data Repository was update with new datasets from all of the previous 13 HDSSs and additional seven: Dikgale HDSS (South Africa), Kersa HDSS (Ethiopia); Iganga Mayuge HDSS (Uganda); Rufiji HDSS (Tanzania); Mlomp HDSS and Niakhar HDSS (Senegal); and Filabavi HDSS (Vietnam) bringing the total to 20 HDSS datasets on the repository.

The INDEPTH Data Repository is also now recognised by PLOS-ONE, a reputable international academic journal, as an approved repository to lodge publication datasets. The first such dataset, “South Africa - Participation in Africa Centre's HIV surveillance between 2003 and 2012” was added in February 2015.

### **INDEPTHStats**

INDEPTHStats

([www.indepth-ishare.org/indepthstats](http://www.indepth-ishare.org/indepthstats)) is the corresponding data visualisation website that contains summary statistics, images and graphs of key health and demographic indicators generated from the respective INDEPTH member HDSS centres.

INDEPTHStats provides researchers, government officials and policymakers with information that can guide their decision-making, including crude birth and death rates, age specific fertility and death rates, infant, child, and under five mortality rates, as well as numerous other health and demographic indicators.

It was also launched on 1 July, 2013 with initial data from eighteen (18) member HDSSs and updated to

27 HDSSs on 1 July 2014. The 1<sup>st</sup> July 2015 update of INDEPTHStats was successfully accomplished. This updated INDEPTHStats with new data for 2012 from 24 HDSSs of the previous 27 HDSS and additional four (4) datasets bringing the total to 31 HDSSs covering 15 countries. As pledged at the initial launch, on 1 July every year the INDEPTH Data Repository and INDEPTHStats are updated with fresh data from the member centres.

### Capacity Strengthening and Training Strategic Group



*Representatives of 12 member centres of the 1st meeting of Strengthening and Training Strategic Group, Accra, Ghana, 17-19 August 2015*

In order to ensure that we are effectively pursuing this strategic objective and reaching out to most members, the INDEPTH Secretariat constituted during the second quarter of 2015 a **Capacity Strengthening and Training Strategic Group** that will regularly discuss and advise on capacity strengthening and training issues of the Network. The first meeting for the Strategic Group was held on 17-19 August 2015 in Accra.

In all 12 member centres were represented at the meeting with 10 centre leaders in attendance (see

table below). All the represented centres provided an overview on how they handle capacity strengthening at their respective centres, outlining their successes and challenges. Based on their experiences and challenges as well as the results of the needs assessment survey, a number of key resolutions came up for the effective and efficient network-wide capacity activities. These will be tabled for discussion at the AGM in Addis Ababa, Ethiopia, in November 2015.

**Table 1: List of participants at the First Strategic Meeting**

1	Manhica HDSS, Mozambique	1.Dr. Macete Eusebio 2.Dr Maria Manaca
2	Kintampo HDSS, Ghana	1.Dr. Seth Owusu-Agyei 2.Dr Kwaku-Poku Asante
3	West Kiang HDSS, The Gambia	1.Mr. Bakary Sonko 2.Dr Momodou Darboe
4	Kombewa HDSS, Kenya	1.Dr. Walter Otieno 2.Dr. Solomon Otieno
5	Kersa HDSS, Ethiopia	1.Dr. Nega Assefa Kassa 2.Mr. Wondimye Ashenafi Cheru
6	Nanoro HDSS, Burkina Faso	1.Prof. Halidou Tinto
7	Navrongo HDSS, Ghana	1.Dr. Abraham Oduro
8	Gilgel Gibe HDSS, Ethiopia	1.Prof. Fasil Tessema 2.Dr. Muluemebet Abera Wordofa
9	Nahuche HDSS, Nigeria	1.Prof. Oche Mansur Oche
10	Taabo HDSS, Cote d'Ivoire	1.Prof. Bassirou Bonfoh 2.Prof Kouassi Dongo
11	Nouna HDSS, Burkina-Faso	1.Dr Maurice Yé
12	FilaBavi HDSS, Vietnam	1.Ms Le My Lan

## International Workshop for Fieldworkers on Curriculum Development and Harmonization

At an initial conference held in 2014 in Kilifi, Kenya, to share experiences of fieldworker training and professional development (with INDEPTH represented). One of the key outcome was the recommendation to develop a harmonised curriculum for fieldworkers' training that can be adopted by research institutions in Africa. In order to implement this recommendation it was agreed that a follow up workshop be scheduled for 2015 whose aim is to develop a framework for the generic curriculum (including identifying generic and context specific modules from the various curricula that are already in use across institutions in Africa)

In recognition of INDEPTH's involvement in developing and supporting training in most HDSS centres across Africa, the Secretariat was approached to support addition centres to attend. After an open call to centre for nominations, a transparent process was adopted to select five fieldworker supervisors to attend this 2<sup>nd</sup> Fieldworkers Continuing Professional Development Workshop from 2-4 November in Banjul, The Gambia on INDEPTH sponsorship. This workshop is co-organized by colleagues in Kilifi HDSS and MRC The Gambia and the main goal is to develop a generic curriculum for fieldworkers' training in Africa.

**Table 2: List of INDEPTH sponsored participants to Banjul Workshop**

Participant	HDSS, Country
Nasiru Sahabi	Nahuche, Nigeria
Dr. Muluemebet Abera Wordofa	Gilgel Gibe, Ethiopia
Poda G. Guy	Nanoro, Burkina Faso
Judith O. Nanyonga Kaija	Iganga/Mayuge, Uganda
Ivan Monteiro	Bandim, Guinea Bissau

# Data Analysis

## Researchers Meet on Data Analysis



*Data Analysis Strategic Meeting, Accra, Ghana, 22-24 September 2015.*

Meeting of the Data Analysis Strategic Group was held from the 22-24 September in Accra, Ghana. The team worked on the enhancement grant proposal to be submitted to Wellcome Trust. Dr Momodou Jasseh, a former Board member from Farafenni HDSS in The Gambia was appointed leader of the Strategic Group. Prof. Sanjay Rai, Ballabgarh HDSS in India will co-lead the group. Prof. Ayaga Bawah will provide support as a partner. The group is aiming at submitting the proposal to Wellcome Trust in January 2016.

## Inaugural Meeting of DELTAS Held in South Africa

INDEPTH's Capacity Strengthening and Training Manager, Dr Martin Bangha, on 4 December 2015 attended the inaugural inception meeting of the DELTAS Sub-Saharan Africa Consortium for Advanced

Biostatistics Training (SSACABT) in South Africa. Funded by the Wellcome Trust, SSACABT is a consortium of about 20 African and Northern institutions (including INDEPTH) led by the Wits University, South Africa.

The main objective of the workshop was to give an opportunity to partners to have a clear and harmonised understanding of the consortium initiatives, operations and facilitate the kick start of activities at the various partner institutions.

The workshop also provided an opportunity for networking between partners and to discuss operational policies and guidelines, student selection, monitoring and evaluation of deliverables, as well as governance and research management.



*INDEPTH's Capacity Strengthening and Training Manager, Dr Martin Bangha (right) with the Project Director of SSACABT, Tobias Chirwa.*



# Scientific Research and Co-ordination

## SAC & Working Groups Meetings

On 1 February 2015 the INDEPTH Scientific Advisory Committee (SAC) had a whole day open session with the Working Group and Project Leaders and the following day a close session of only the SAC members. The initial idea of this meeting was primarily an opportunity for SAC members to engage in discussion with groups and projects so as to provide guidance on the science, methods and themes/ideas to enrich the scientific agenda/productivity of the respective working groups and projects.



*SAC members, Working Group and Project Leaders in a group photo, Dubai, 1 February 2015.*

## SAC Members who attended include:

1. Prof. Peter Byass (Chair – Umea University, Sweden)
2. Prof. Don de Savigny (Swiss TPH, Switzerland)
3. Prof. Philippe Bocquier (Université Catholique de Louvain SSH/IACS, Belgium)
4. Dr. Ime Asangansi (Université Catholique de Louvain SSH/IACS)
5. Dr. Jocalyn Clark (Editor, Journal of Health, Population and Nutrition, Bangladesh)
6. Prof. Anna-Mia Eskrom (Department of Infectious, Sweden)
7. Carla AbouZahr (Consultant, Australia)
8. Prof. Harry Campbell (Public Health in the Division of Community Health Sciences University of Edinburgh, UK)
9. Dr. Halima Mwenesi (African Leaders Malaria Alliance (ALMA, Kenya )

## The following Working Groups Leaders attended:

1. Adult Health & Aging (**Prof. Steve Tollman**)
2. Vaccinations & Child Survival + Optimise (**Prof. Peter Aaby**)
3. Cause of Death Determination (**Prof. Peter Byass**)
4. Health Systems (**Prof. Don de Savigny**)
5. Migration, Urbanisation & Health (**Dr. Mark Collinson**)
6. Maternal & Child Health (**Dr. Peter Waiswa**)
7. Social Science Research (**Prof. Margaret Gyapong**)

8. Data Analysis (**Dr. Momodou Jasseh**)
9. Research to Policy (**David Mbulumi**)

#### **The following Projects were represented**

1. EVIDENCE (**Prof. Jacques Emina**)
2. ITHAS (**Prof. Jacques Emina**)
3. AWI-Gen (**Prof. Steve Tollman**)
4. INESS (**Prof. Fred Binka**)
5. INTREC (**Dr. Martin Bangha**)
6. iHOPE (**Dr. James Akazili**)
7. iSHARE2 (**Dr. Kobus Herbst/ Dr. Sanjay Juvekar**)
8. OpenHDS (**Dr. Nicolas Maire/ Dr. Ime Asangasi**)
9. INDEPTH-Stanford Collaboration (**Prof. Steve Luby**)
10. (Consultant) **Arnon Mishkin**

#### **Working Groups/Projects**

Scientific research and coordination activities are conducted through Working Groups and Interest Groups. Each Working Group evolves from being an Interest Group focusing on a specific research topic, project or programme identified as being of priority interest, and on which a number of member centres wish to work collaboratively.

#### **Maternal and Child Health**

The INDEPTH Network Maternal and Newborn Working Group (**MNWG**) was formed in 2010 as an interest group. Its main goal was, and continues to be, to generate multi-site and multi-country evidence to inform policy and programmes, specifically for maternal and newborn health and

survival in low- and middle income countries (LMICs). In 2012, the group was upgraded to a Working Group. Currently, the group has 20 centres. Dr. Peter Waiswa of Iganga-Mayuge HDSS in Uganda, is the PI for the group.

Maternal and newborn health is closely related and should be linked in all health systems, particularly for care at and around the time of birth. However, lack of information systems on the number and causes of deaths in many low-and middle-income countries (LMICs) makes tracking of mortality and coverage of interventions a challenge. In line with the Every Newborn Action Plan Measurement Agenda, the INDEPTH Maternal and Newborn Working Group through Health and Demographic Surveillance Sites are working to help bridge this information gap.

The Every Newborn Action Plan (ENAP) is a global multi-partner movement to end preventable maternal and newborn deaths and stillbirths. Through a series of consultations, multiple stakeholders (governments, United Nations (UN) agencies, donors, business communities, professional associations, academic and research institutions, global initiatives and civil society members) developed an impact framework and an action and measurement agenda for integration within national newborn health plans. ENAP prioritises achieving universal coverage of these interventions particularly during childbirth and the first week of life. Yet many of these interventions are not systematically measured. One of the five ENAP strategic objectives is to count every newborn.



*Maternal and Child Health Work Group members during their meeting in Kampala, Uganda, 18 - 19 June 2015.*

The Working Group held a meeting from 18 - 19 June 2015, in Kampala, Uganda, to finalise the group's strategic plan, harmonize existing efforts, and identify opportunities for further collaboration. The workshop was funded by Save the Children and Children Investment Fund Foundation (CIFF). There were 37 participants from 15 HDSS in seven countries.

The HDSSs included Nahuche, Nigeria; Gilgel Gibe, Ethiopia; Kersa, Ethiopia; Kilite, Ethiopia; Dabat, Ethiopia; Butajira, Ethiopia; Ballabgarh, India; Iganga-Mayuge, Uganda; MRC/UVRI General Population Cohort, Uganda; Rakai, Uganda; Navrongo, Ghana; Dodowa, Ghana; Rufiji, Tanzania;

Farafenni, The Gambia; Rufiji, Tanzania; Magu HDSS, Tanzania; Kintampo, Ghana and the INDEPTH Secretariat in Ghana. Facilitators for the workshop included Dr. Peter Waisa (Iganga-Mayuge HDSS), Dr. Joy Lawn (LSHTM), Kat Kerber (Save the Children), Prof. Stefan Peterson (Uppsala university/Karolinska Insitutet) and Dr. Hannah Jayne Blencowe (LSHTM).

During the year, the team together with the London School of Hygiene and Tropical Medicine (LSHTM), Save the Children Foundation and Makerere University drafted a proposal to Children Investment Fund Foundation (CIFF) on the Every Newborn

Action Plan (ENAP) Project. CIFF accepted the proposal to take forward the Every Newborn Action Plan metrics work with INDEPTH. The project funded amount £802,079 is for 60 months starting from January 2016. This project will specifically tackle the following questions:

1. Improving demographic surveillance: What differs in surveillance systems and what factors optimize capture of pregnancy outcomes? Which pregnancies are missing and why are they not being captured? How can community informants be better used to identify pregnancies and report births early?
2. Evaluating the best and most cost effective ways for survey modules to capture birth outcomes: Comparing DSS with survey assessments of birth history and pregnancy history in terms of capturing stillbirth and neonatal death outcomes. Can birth weight and gestational age also be assessed, and more accurately?
3. Increasing the accuracy and consistency of neonatal cause of death attribution: How do the existing hierarchies and algorithms used to categorize causes of neonatal death compare? How can this be improved?

### **INDEPTH Health Transition to Adulthood Study (IHTAS)**

Sexual and reproductive health interventions are among the most pressing health needs of adolescents, especially unmarried adolescents.

Numerous attempts have been made to make such services more accessible to adolescents either through training health workers to be more adolescent-friendly, or by providing specific services for them, such as through youth clinics, youth-friendly corners within existing clinics, or the provision of SRH services within youth centres. These attempts have rarely been effective, let alone cost-effective. This has been at least partly because of the stigma associated with unmarried adolescents or young people attending a clinic that is clearly identified with the provision of sexual and reproductive health services.

In 2013, INDEPTH was awarded a grant by the Hewlett Foundation to undertake a preliminary study on adolescent reproductive needs in low-and middle-income countries. Dodowa HDSS in Ghana and Kilifi HDSS in Kenya were selected after a call sent out to the centres. The project was to be in three Phases: Phase one was to do a systematic review on adolescent reproductive health in the two countries; Phase two was to collect additional data to supplement the existing data on adolescent reproductive health in the two HDSSs; and Phase three was to do an intervention studies based on the findings from the two phases.

Phase one and two have been successfully implemented and key findings has been developed into a proposal for funding for the phase three. A final report marking the end of the project was submitted to the Hewlett Foundation in March 2015. The team is now looking for funding for phase

three intervention studies. Prof. David Ross (WHO) was the PI of the project. Papers are being written by Dodowa and Kilifi HDSS.

The team submitted abstracts to the 2015 INDEPTH Scientific Conference (ISC 2015) in Addis Ababa, Ethiopia. Four oral and five poster abstracts were accepted for presentation.

### Antibiotic Resistance

Resistance to commonly used and affordable antibiotics for common bacterial infections is a major health threat for the 21st century. The problem is particularly pressing in low- and middle-income countries (LMICs) due to the high infectious disease burden, erratic access to antibiotics and poor community surveillance programmes. Antibiotic resistance (AR) is a major current health threat.

Consumers' knowledge and understanding about antibiotics is generally poor. For example, they cannot differentiate antibiotics from anti-inflammatory agents or know whether an upper respiratory tract infection is self-limiting. Consumers' self-medication usually results in irrational antibiotic use, especially for non-bacterial diseases, facilitating further antibiotic resistance development and spread. Efforts to curtail self-medication involve addressing both supply and demand through a combination of limiting the access to antibiotics and educating consumers. Successes in banning over the counter (OTC) sales of antibiotics are reported in some counties such as Chile. However, implementing such regulations in countries with poor healthcare

delivery systems could adversely affect access to antibiotics. In this case, one may consider strengthening the capacity for drug vendor outlets to improve rational antibiotic dispensing.

In 2015 INDEPTH submitted a proposal to Wellcome Trust to assess and compare community-based antibiotic access, consumption and the factors that underpin them. The overall aim of the project is to compare community-based antibiotic access and consumption practices across a range of low and middle-income countries (LMICs) in Asia and Africa in order to identify targets for community-based intervention strategies to improve rational antibiotic use and to inform the design of these interventions. This project will provide a standardized framework for appraising current antibiotic use patterns, demand and access, for use in other LMICs.

#### Research questions

1. What is the level of community awareness in the six sampled LMICs about antibiotics, antibiotic resistance and their indications for use?
2. What are the human usage patterns of antibiotics in the six sampled LMICs?
3. What are the health care seeking behaviours that lead to antibiotic demand in the six sampled LMICs?
4. What are the social, cultural and economic factors that affect antibiotic demand and use in the six sampled LMICs?

This project has been funded by the Wellcome Trust to be led by Prof. Heiman Wertheim, a clinical

microbiologist at the Oxford University Clinical Research Unit in Hanoi, Vietnam. The amount involved is €799,828 over 2 years and 6 months. Partners and HDSS involved include Umea University in Sweden and University of Oxford, UK. The HDSSs are Matlab, Bangladesh; Manhica, Mozambique; Kanchanaburi, Thailand; Filabavi, Vietnam; Kintampo, Ghana; Dodowa, Ghana; and Agincourt, South Africa.

### Social Autopsy

Under-five mortality remains rampant in many African and Asian settings. In children aged 1-59 months infectious diseases play a major role in their deaths. Many children could be saved with timely, correctly conducted treatment. In order to define the most effective, setting-specific strategies to address high child mortality rates, quality information on factors contributing to infant and child mortality are essential, on biomedical but also on public health factors that influenced the course of disease. While verbal autopsies are conducted to determine the most likely biomedical cause of death, pathway analysis, also called social autopsies, are conducted in the same way to determine public health factors that have contributed to the failure of saving a child and to identify missed opportunities.

Initially, social autopsy was used to investigate maternal mortality, subsequently to also investigate child death. The majority of these social autopsy questionnaires are based on the three delays model (i) the delay of seeking care; (ii) the delay related to transport and distance; and (iii) health services delays (thus delay in administering appropriate

care). The pathway to survival framework has been created simultaneously with Integrated Management of Childhood Illnesses (IMCI), a World Health Organization (WHO) tool kit for the recognition and treatment of common childhood illnesses, in order to better accompany interventions taking into account the complexity of factors influencing disease outcomes. A variety of factors influence these delays, adequate use and quality of health services.

An INDEPTH working group has reviewed nine different social autopsy tools in order to develop their first tool, which is used in Uganda and Ghana. The WHO/UNICEF supported child health epidemiology reference group (CHERG; [www.cherg.org](http://www.cherg.org)) has also developed a tool. Both tools still have their weaknesses and warrant further development, harmonization and field validation.

In March 2015 a call for a comparative study on Investigating child mortality and survival to be led by Taabo HDSS in Cote d'Ivoire, was made to the five HDSSs in Burkina Faso. This project aims at conducting a social autopsy and comparative study in the Taabo HDSS and in at least one other INDEPTH Network African, preferably Francophone, HDSS site. After rigorous selection process, Taabo (Cote d'Ivoire) together with Nouna (Burkina Faso) were selected to implement the project. With this study, we will take the existing INDEPTH tool one step further, including new elements and allowing for comparison with surviving children. The project is expected to run for two years starting November 2015.

It being funded from the INDEPTH core budget and being led by Fabienne Jäger (Taabo HDSS, Cote d'Ivoire).

## Education

Dr. Moses Ngware from Nairobi HDSS is the group leader, Dr. Mamusu Kamanda anchors the group from the Secretariat in Accra. The Working Group looks at the educational aspect of the HDSS data. A workshop was organised from 25–27 March, 2015 in Accra to re-launch the Education Working Group and start working on papers based on datasets the centres had submitted. Eleven HDSSs participated in this workshop (Nairobi, Kenya; Farafenni, The Gambia; Nouna, Burkina Faso; Ougadougou, Burkina Faso; Kitampo, Ghana; Navrongo, Ghana; Dodowa, Ghana; Iganga/Mayuge, Uganda; Rufiji, Tanzania; Ifakara, Tanzania; and Birbhum, India). The workshop ended with three draft multi-centre papers and an analysis plan. A draft systematic review on education papers published between 1998 and 2013 which focus on school access and the 'Education for All' agenda has been accepted for publication in *Global Health Action*.



*Education Working Group meeting participants in Accra, Ghana, 25 March 2015.*

The Education Working Group in May submitted a research proposal to the ESRC/DFID call for education and development. The study will explore how continuing professional development, implemented as part of an innovative intervention – academic school partnerships – affects: (1) levels of teacher effectiveness and (2) reading scores in English among children in primary grades 4-6. INDEPTH (the Secretariat, Dodowa, Kintampo, and Navrongo) and the University of Southampton are partners in this proposal. Unfortunately the proposal was unsuccessful.

## H3Africa Meeting Held in Zambia

Investigators for the Human Heredity and Health in Africa (H3Africa) initiative shared updates on their projects during a meeting with partners and other project team members in Livingstone, Zambia from 8-12 May 2015. Over 60 delegates attended the meeting which provided the opportunity for the investigators and Steering Committee to meet and consider the progress and direction of the Consortium. The INDEPTH Network Secretariat was represented by Senior Finance Manager Sixtus Apaliyah and Adam Osman, who is a Senior Accountant.



*INDEPTH Secretariat staff Adam Osman (left) and Sixtus Apaliyah with other delegates of H3Africa Meeting, held in Livingstone, Zambia, 8-12 May 2015.*

H3 Africa is the first research initiative to have attracted joint funding from both the Wellcome Trust (UK) and the National Institutes of Health (USA). The initiative aims to 'facilitate a contemporary research approach to the study of genomics and environmental determinants of common diseases with the goal of improving the health of African populations. To accomplish this, the H3Africa Initiative aims to contribute to the development of the necessary expertise among African scientists, and to establish networks of African investigators' <http://h3africa.org>.

Led by Prof. Michele Ramsay (Wits University) and Prof. Osman Sankoh from INDEPTH, AWI-Gen is a Wits-INDEPTH Collaborative Centre under the umbrella of H3Africa Consortium and aims to study genetic and environmental contributions to susceptibility to Cardio-metabolic diseases in four African countries



*Delegates of H3Africa meeting in Livingstone, Zambia.*

The project is collecting 2000 DNA samples (equivalent numbers of males and females; aged 40-60 years), following informed consent, from each of six sites, two each in western (Ghana and Burkina Faso), eastern (Kenya and Tanzania) and southern Africa (South Africa), contrasting urban and rural communities risk of obesity and related metabolic disorders. The Collaborative Center will bring together a powerful team of researchers on the African continent to address three broad themes:

- a. Capacity development to enhance capability for genomic research in Africa to address critical problems of health and disease;
- b. Understanding the genomic architecture of sub-Saharan African populations and its impact on disease susceptibility; and
- c. To identify genetic, genomic and environmental risk factors for obesity by leveraging on existing longitudinal cohorts and adding a genomic dimension to the research.

#### **Funding**

The \$235,000 project is funded by the National Institutes of Health (NIH), United States of America, for duration of August 2012 to July 2017.

#### **Ebola Initiative**

Dr. Mamusu Kamanda, a postdoctoral researcher (Education Research) from the Secretariat, attended a Partnership Strengthening Workshop in Johannesburg, South Africa, from 23- 25 June 2015 which was organized by Enhancing Learning and Research for Humanitarian Assistance as part of their



programme for 'Research for Health in Humanitarian Crises' (R2HC).



*Dr Mamusu Kamanda (seated centre) with Partnership Strengthening Workshop in Johannesburg, South Africa, from 23- 25 June 2015.*

In July we successfully coordinated the development of a new grant proposal which we successfully submitted to R2HC, UK in response to a call for Research for Health in Humanitarian Crises. Grant Amount: £615,000. Proposal Title: *Identifying and Analysing the multilevel effects of stigma on the response to the Ebola Epidemic in Sierra Leone*. Partners are: Umea University, Sweden; Medical Research Centre, Sierra Leone; and Centre for Health Research and Training in Sierra Leone. The project will explore and analyse how stigma and fear influenced the response of individuals, families, communities and institutions in the response to the Ebola Virus Disease (EVD) epidemic in Sierra Leone. It will identify the multilevel effects and analyse their impact.

### **INDEPTH Household Health Expenditure Project (iHOPE) Holds Workshop in Accra**

A workshop for developing estimation methodology for a project on household Out-of-Pocket expenditures was held in Accra, Ghana in March 2015. The four-day workshop was opened by the Executive Director of INDEPTH Network Prof. Osman Sankoh who recalled how the idea of the iHOPE project developed during a conference in China back in 2012 where he met people who were interested in the subject. He also acknowledged the contribution of the INDEPTH Network sites in an early draft of the project where a group of people from a selected member sites met in Accra, Ghana in June 2014.

The iHOPE Project aims at improving estimation of Out-of-Pocket expenses (OOPs) in a household survey, develop a set of questions to facilitate OOP specific disease measurement, test and develop alternative approaches to Household surveys and provide a socio-economic context to interpret OOPs.



*iHOPE Project Inception Workshop participants, Accra, Ghana, 4 – 7 March 2015*

The workshop participants included Dr. Abdramane Soura (Ouagadougou HDSS, Burkina Faso), Dr. Abraham Oduro (Navrongo HDSS, Ghana), Dr. Tran Khanh Toan (Dodalab Urban HDSS and FilaBavi Rural HDSS, Vietnam), Dr. Gabriela Flores (WHO, Geneva), Dr. Tessa-Tan-Torres Edejer (WHO in Geneva), Dr. Fabrizio Tediosi (Swiss TPH, Switzerland), Dr. Gemini Mtei (Ifakara HDSS, Tanzania), Maxwell Dalaba, a PhD candidate at the Institute of Public Health, University of Heidelberg, Germany; Fadima Yaya Bocoum (Institut de Recherche en Sciences de la Santé (IRSS) in Burkina Faso; Roch Modeste Millogo (Ouagadougou HDSS, Burkina Faso), Samuel Tomilola Oladokun ( Navrongo HDSS, Ghana) and Yadeta Dessie Bacha (Kersa HDSS, Ethiopia). Dr. James Akazili is the Project Manager.

The participants agreed on specific activities and timelines of the project, reviewed the literature on various methodologies of measuring Out-of-Pocket (OOP) health care payment and started the development of an instrument for measuring OOP. The US\$2,230,000 iHOPE is Funded by the Bill & Melinda Gates Foundation over 36 months. It starts with three implementing centres – Ouagadougou, Filabavi and Navrongo.

### **iHOPE SAG Meeting in Geneva**

The first meeting of the Scientific Advisory Group (SAG) of INDEPTH Network's iHOPE Project was held in Geneva, Switzerland from 4-5 June 2015. The SAG, which is a group of international experts who provide independent scientific advice reviewed the iHOPE project's overall objectives and approved an agreed project design and implementation plan



*SAG team and INDEPTH delegates during the Geneva, Switzerland meeting, and 4-5 June 2015.*

The SAG team comprises members from WHO and Swiss TPH, World Bank, Erasmus University in The Netherlands, South Africa's University of Cape Town, MEASURE DHS Project (USAID), MACRO, NIDI, Institute of Metrics and Education and Gates Foundation. These include Dr. David Evans, Dr. Diane Steele, Mr. Olivier Dupriez, Prof. Owen O'Donnell, Dr. John Ataguba, Dr. Fred Arnold, Dr. Patricia Hernandez, Prof. Emmanuela Gakidou and Dr. Hong Wang. Also present in this meeting were Dr. Tessa Edejer, Dr. Flores Pentzke Saint-Germain and Dr. Fabrizio Tediosi from the partners – WHO and Swiss TPH.

Representing iHOPE-SAG Meeting was the Project Manager, Dr. James Akazili. Others were Dr. Abdramane Soura, Prof. Nguyen Thi Kim Chuc and Yadeta Bacha from INDEPTH member HDSS of Ouagadougou, Filabavi and Kersa in Burkina Faso, Vietnam and Ethiopia respectively. The INDEPTH Network Executive Director, Prof. Osman Sankoh also attended the meeting.

## iHOPE Protocol Review Meeting

A 4-day meeting of INDEPTH's iHOPE Project was held in Accra, Ghana from 29 September 2015 to review the protocol of the project. Participants included Dr. James Akazili (INDEPTH Secretariat, Accra), Dr Tessa Edejer (WHO, Geneva), Dr. Maria Gabriela Flores Pentzke Saint-Germain (WHO, Geneva), Dr. Rose Lavado (World Bank, Washington), Dr Patrick Asuming and Dr Gilbert Abiuro (University of Ghana).



*iHOPE protocol review meeting, Accra, Ghana, 29 September - 2 October 2015*

## Maternal and Child Health



*Samuelina Arthur, INDEPTH Secretariat, with Prof. John Caterline and Prof. Clémentine Rossier.*

INDEPTH Network in partnership with Population Council in 2013 got funding to implement the EVIDENCE Project funded by the USAID. The EVIDENCE Project aims at strengthening Family Planning (FP)/Reproductive Health (RH) programming through implementation science. Specifically: Generate new evidence to increase the effectiveness of FP/RH programming; synthesize and share evidence in order to accelerate scale up of the evidence-based improvement in FP/EH policies and programs; and Provide technical assistance for application and use of evidence to improve FP/RH programming. A call was sent out to the centres and Ouagadougou HDSS (Burkina Faso) was selected at the long run to implement the project. EVIDENCE is a five year (2013-2018).

In view of this, experts in fertility and family planning met in Accra recently to review existing approaches to the conceptualization and measurement of unintended pregnancy. The meeting held at Labadi Beach Hotel from 2-4 June, 2015, was attended by 24 participants including representatives of INDEPTH Network. The meeting funded by USAID with a theme “Conceptualizing and Measuring Unintended Pregnancy and Birth: Moving the Field Forward” also aimed at getting a clearer understanding and definition of unintended pregnancy and identifying challenges and opportunities for communicating evidence on unintended pregnancy, and informing policy, planning and investment decisions. Representatives from INDEPTH included Prof Clémentine Rossier, Prof Jacques Emina and Ms Samuelina Arthur. A total of 24 participants

attended the meeting including delegates from INDEPTH member centres (Ouagadougou and Nairobi HDSSs) also attended the meeting.

### Vaccination and Child Survival

The Vaccination and Child Survival Working Group, which is under the leadership of Prof. Peter Aaby (Bandim HDSS in Guinea Bissau) was created to monitor childhood interventions for child survival and to optimise the impact and cost-effectiveness of child health intervention programmes for vaccines and micronutrients in low- and middle-income countries. It also aims to stimulate research in child interventions. Participating centres include Bandim in Guinea Bissau, Chakaria in Bangladesh, Kintampo and Navrongo (in Ghana), Nairobi (Kenya), Nouna in Burkina Faso and Vadu in India.

### Achievements in 2015

1. Strategic Advisory Group of Experts on Immunisation (SAGE) has recognised that BCG and Measles Vaccine (MV) are likely to have beneficial non-specific effects;
2. Completed a major report for GAVI which showed that a) Measles Vaccine (MV) is the missing vaccine for the children to be fully immunised; and b) not being fully immunized (i.e. not having MV) is associated with 30% higher mortality between 12 and 36 months in the 5 INDEPTH sites which contributed data;
3. We have as the first tested the overall mortality impact of the many campaigns

- being conducted in low-and middle-income countries;
4. We have shown in several studies that OPV (Oral Polio Vaccine) has major beneficial non-specific – unfortunately the world is about to eradicate OPV;
5. The same non-specific effects of vaccines on mortality and morbidity found at the INDEPTH sites have been shown in relation to morbidity in a high-income country using register based studies;
6. Several sites have reached MDG4 – and vaccine have played a much larger role in this process than usually assumed;
7. We have shown in several studies that the sequence of vaccination has a major impact on child survival;
8. When DTP was introduced in Bandim in 1981 it was associated with four-fold higher mortality than being unvaccinated;
9. We have established several general principles for the immune training effects of vaccines which fundamentally contradict the current vaccine paradigm: a) live is good for child health but inactivated is bad; b) girls and boys usually react differentially; c) interventions interact; and d) boosting with live vaccines is beneficial.

### Challenges faced and how you hope to address these challenges in 2016

1. Finalise around 15 papers related to the individual PhD projects, the Optimunise Project and the GAVI collaboration;

2. Four PhD students to present their theses in 2016 (Heidelberg, Germany; Nairobi, Kenya and two in Denmark);
3. Finalise the early measles vaccination trials in Nouna, Burkina Faso and rural Guinea-Bissau;
4. Finalise the Optimunise EU-Project with a stakeholder meeting in Accra in the fall of 2016;
5. Finding new funding for the vaccine network – and further research training.

### Adult Health and Aging

Unlike in developed countries, little is known about the impact of adult health and ageing in low-and-middle income countries. Longitudinal data is critical to assessing patterns of deterioration in the well-being of older adults due to the impact of infectious and non-communicable disease as well socio-economic factors. Participating member centres in the group are Agincourt (South Africa), Filabavi (Vietnam), Ifakara (Tanzania), Matlab (Bangladesh), Nairobi (Kenya), Navrongo (Ghana), Purworjo (Indonesia) and Vadu (India). This group aim is to establish cohorts of older adults in a range of African and Asian settings at different stages of the health transition.

The group continued with the implementation of the **Health and Aging in Africa: Longitudinal Studies of INDEPTH Communities (HAALSI) Project**.

#### Activities / achievements 2015-2016

1. Health and Aging in Africa: Longitudinal

Studies in INDEPTH Communities (HAALSI) funded by NIH/NIA in collaboration with Center for Population and Development Studies, Harvard (Lisa Berkman et al)

- a. Start-up involves Agincourt, Navrongo and Ifakara
- b. Full baseline study in Agincourt (N=5000): fieldwork nearly complete (household and laboratory-based)
  - i. With research focus on intersections between HIV/AIDS – cardio-metabolic conditions – cognitive/physical function; and their effects on socioeconomic status
  - ii. We used a computer-assisted personal interviewing (CAPI) system; and innovative cognitive assessment instrument developed in Oxford
- c. Pilot studies completed in Navrongo and Ifakara / Dar-es-Salaam urban cohort
- d. Preliminary analyses and early draft manuscripts underway
- e. Opportunities for multiple graduate students.

Key achievement: no precedent outside WHO-SAGE for development of extensive instruments, methods and processes for complex study on Ageing in sub-Saharan Africa; will establish a

major resource with INDEPTH that can be disseminated across the Network.

**2. Integration of AWI-Gen (Ramsay, Sankoh) and HAALSI (Berkman, Tollman) funded by an NIH supplementary grant; this enabled:**

- a. Harmonising these studies, as proof of principle, in Agincourt; with derivation of a common survey instrument for cardio-metabolic enquiry that was applied across AWI-Gen sites
- b. Additional analyses on bloods drawn from Nanoro, Navrongo and Nairobi.

iii. If possible to harmonise with the PURE studies (Salim Yusuf et al) we will do so – discussions underway

- b. Study will repeat questions from wave 1 and add selected physical and blood measures as well as collection of saliva for DNA
- c. Wave 1 gave rise to multiple publications and supported several masters and doctoral students and in time we expect this with wave 2.

**4. HAALSI phase 2**

Phase 1 work is funded by a 3-year PO1 award and resubmission for phase 2 is due in January 2016; the outcome should be known late in 2016 in time to start in 2017 Guided by NIA, and with a difficult funding climate at NIH, we are working out a grant application strategy – which may involve a number of application types (PO1, RO1, R21).

**Looking towards 2016**

**3. INDEPTH-SAGE Wave 2** funded by an earmarked amount to INDEPTH but contained within an NIA-WHO Interagency Agreement

- a. At long last, this collaboration with WHO (Somnath Chatterji) will enter a second phase
  - i. Will include (potentially) 5 of the original 8 sites: Agincourt, Ifakara, Nairobi, Navrongo and Vadu (Purworejo is a possibility and similar work is underway in Matlab)
  - ii. Agincourt-INDEPTH Accra will serve as secretariat, anchored by Xavier Gómez-Olivé and Siddhi Hirve

**Migration and Health**

We have two streams of analytic activity underway, one to examine determinants of migration (MADIMAH 1) and another looking at mortality outcomes associated with migration (MADIMAH 2).

**MADIMAH 1**

The first phase of the MADIMAH (Multi-local Dynamics of Internal Migration and Health) Project was a study on migration, urbanisation and human

capital using datasets from eight HDSS centres.

1. Publication: We received a “revise and resubmit” decision at Demographic Research and will submit the revised draft by the end of October 2015;
2. Uploading datasets for INDEPTH iSHARE data repository: We have prepared the multi-centre database for upload onto the iSHARE website with standardised data from eight HDSS centres. The next step is to get the Data Use Agreements signed by participating Centre leaders.

## **MADIMAH 2**

1. Publication 1: The first MADIMAH 2 multi-centre paper “Migration and Mortality: Identifying Selection and Exposure Effects in Local Populations using African Rural and Urban Health and Demographic Surveillance Systems of the INDEPTH Network” has been drafted and the analysis completed. We aim to have this paper submitted before the year end.
2. Publication 2: The second MADIMAH 2 multi-centre paper will examine the migration effect on mortality by cause of death. The paper will be submitted in late 2015/early 2016.
3. Conference presentations: We will be presenting the MADIMAH 2 findings at the ISC 2015 in Addis Ababa, Ethiopia and the 7th African Population Conference in Johannesburg, South Africa. The work was presented at the University of the

Witwatersrand School of Public Health Research Day, August 2015.

4. New grant: Prof. Philippe Bocquier and Dr. Mark Collinson were awarded the South African National Research Foundation/Wallonia-Brussels Federation Science and Technology Research Collaboration to fund travel around the MADIMAH Project.

## **Training Manual on the MADIMAH Methods**

The Project is in the process of compiling a comprehensive training manual, which we plan to publish as an INDEPTH product. The manual will focus on the methods and programming details needed to conduct event history analyses with HDSS data.

## **Links between HDSS and National data**

Modelling links between HDSS and a national statistical agency: we have been involved in collaboration with Statistics South Africa to calibrate the national census with Agincourt HDSS migration data. Statistics South Africa will publish this in a national monograph; and the study has been written up as a journal article for the Southern African Journal of Demography (to be revised and resubmitted soon).

## **Paper on Older Adult Migration and Loss-to-follow-up**

1. The three HDSS centres in the HAALSI study (Older Adults and Aging Working Group) will write a multi-centre paper based on a pilot we conducted, following up older adults that

leave HDSS centres, to minimize loss-to-follow-up in a cohort study.

### **PhD Students/Post-docs**

1. Dr. Mark Collinson supervises one PhD student (Sulaimon Afolabi) who has nearly completed his dissertation. Mark has also finalised a post-doctoral supervision (Dr. Carren Ginsburg) who now holds a position with the MRC/Wits-Agincourt Unit position to continue her MADIMAH-related work.
2. Prof. Philippe Bocquier is supervising four PhD students (Maiga, Pongi, Derra, Lankoande), all of whom are nested within the MADIMAH programme of work.



# INDEPTH Scientific Conference



*ISC 2015 delegates in a group picture after the opening ceremony.*

The 13<sup>th</sup> INDEPTH Scientific Conference (ISC 2015) was held at Ghion Hotel in Addis Ababa from 11-13 November 2015. The three-day conference was on the theme "Health and Demographic Research to inform the Post 2015 Development Agenda".

The conference had more than 15 sessions, which covered various topics including Vaccination,

Population and Health Policies, Socio-economic Disparities, Antibiotic Resistance, Maternal and Child Health, Clinical Trials, Community Health, Health Systems, Family Planning, Population Dynamics, Policy Engagement, Innovation in HDSS and Data Methods.

About 200 abstracts were submitted online in

response to the call for abstracts: 145 oral submissions, 41 Young Scientist (YS) presentations, and 7 poster submissions. The number of submissions varied significantly by centre with some submitting more than 6 abstracts, some submitting only 1, and others making no submission. The abstracts were sent to members of the INDEPTH Scientific Advisory Committee (SAC) for review. Less than half of the abstracts were accepted for presentation at the conference: 69 out of 145 abstracts for oral submissions and 14 out of 41 submissions for YS. Among the abstracts accepted for presentation, 42 received funding for oral presentations and 10 YS were funded. Over 100 oral presentations were delivered during the 2015 ISC among which were 92 scientific.



*Prof. Oche Oche makes a contribution during one of the ISC sessions.*

ISC 2015 was co-hosted by the universities of Addis Ababa, Gondar, Jimma, Haramaya and Mekelle which run the HDSSs Butajira, Dabat, Gilgel Gibe, Kersa and Kilite Awlaelo respectively. INDEPTH received support from WHO-Ethiopia, the Federal

Ethiopian Ministry of Health, Sida, Wellcome Trust and Hewlett Foundation.

The conference had 279 participants from 25 countries in four continents. It was preceded by the following activities:

### SAC Meeting

The meeting of the INDEPTH Scientific Advisory Committee (SAC) was held on Monday 9 November 2015. Nine SAC members attended: Prof. Peter Byass (SAC Chair), Dr. Jocalyn Clark, Dr. Halima Mwenesi, Prof. Anna Mia Ekstrom, Prof. Anastasia Gage, Prof. Harry Campbell, Dr. Cheryl Moyer, Prof. Don de Savigny and Prof. Philippe Bocquier. The INDEPTH Executive Director Prof. Osman Sankoh also attended. The SAC met again on 10 November 2015, with a focus on the Comprehensive Health & Epidemiologic Surveillance Systems Initiative (CHESS).

### Key Issues Discussed

- o Secretariat responses to SAC recommendations of last SAC meeting: How Secretariat engages with Science; Funding issues; Role of the SAC; INDEPTH membership and Authorship
- o Working and Strategic Groups
- o New INDEPTH Strategic Plan 2017-2021
- o INDEPTH Enhancement Grant Proposal
- o New issues: Neonatal mortality, NCDs, CRVS, INDEPTH role in SDGs and climate change

- o Venue for next ISC in 2017
- o CHES: SAC agreed a way forward for its implementation should the Sida funding go through

### SAC Member's Participation at ISC

Members of the SAC also chaired, made presentations or were discussants in various sessions during the ISC. They included:

- i. Prof. Peter Byass: Chaired a session - Profiling INDEPTH Critical Projects<sup>1</sup> and Presented - *Generating cause of death data in LMICs. The INDEPTH cause of death study*
- ii. Prof. Anna Mia Ekstrom: Chaired sessions - Clinical Trials, Transition/Population and Environment/Household Poverty and Family Planning. She was a Discussant in a session - Profiling INDEPTH Critical Projects<sup>2</sup>
- iii. Dr. Jocalyn Clark: Chaired a session - Vaccination, was a Discussant in another - Transition and its implications post 2015
- iv. Dr. Halima Mwenesi was a Discussant in a session - Population Health Policies 1
- v. Anastasia Gage: Chaired a session - Community Health/Health Systems, was a Discussant in Fertility Planning and Sexual Behaviour session
- vi. Dr. Moyer: Chaired a session - Population Dynamics and was a Discussant in a session - Community Health/Health Systems
- vii. Prof. Don de Savigny: Chaired a session - Innovation in HDSS Data, and was a Panelist in a discussion - HDSS and CRVS in LMICs – Potential for Policy

- viii. Prof. Philippe Bocquier: Chaired a session - Population and Health Policies 2, and was a Discussant in another - Transition/Population and Environment/Household Poverty and Family Planning. He also Presented - *Building Evidence on aging in LMICs- the INDEPTH study* on behalf of Prof. Steve Tollman
- ix. Prof. Barbara McPacker: Chaired a session - Global Health and Development Agenda
- x. Prof. Harry Campbell: Discussant in a session - Global Health and Development Agenda

The SAC Chair also presented to the Board of Trustees on 10 November 2015.

### Young Scientists

INDEPTH over the years has been organising pre-ISC training for upcoming and young scientists of member HDSSs. This training is to build scientists capacity to be able to publish papers in high impact journals. This year the training was held on 10 November 2015. The ultimate aim of this workshop was to assist nine young scientists to transform their draft papers to publishable papers. The training was facilitated by Justine Davies and Zöe Mullan, journal editors from *The Lancet Diabetes and Endocrinology* and *The Lancet Global Health* respectively.



*Young scientists pose for a photograph with workshop facilitators at the 2015 ISC in Addis Ababa, Ethiopia. From left, front row: Mohammad Abubakar Siddik (Chakaria HDSS), Dr. Martin Bangha (INDEPTH Secretariat), Editor In Chief of the Lancet Diabetes & Endocrinology journal Dr Justine Davies, Editor of The Lancet Global Health Zoë Mullan, Isaiah Agorinya (Navrongo HDSS), Irene Tampuri Azindow (Kintampo HDSS), Alfred Kwesi Manyeh (Dodowa HDSS), and Samuelina Arthur (INDEPTH Secretariat). From left back row: Ivan Kasamba (Kyamulibwa HDSS) Noah Kasunumba (Iganga/Mayuge HDSS), Abere Shiferaw Alemu (Kersa HDSS), Peter Sifuna (Kombewa HDSS) and Mark Otiende (Kilifi HDSS).*

### ISC Opening Ceremony

The meeting was opened on Tuesday 11 November 2015 at Ghion Hotel in Addis Ababa by Dr. Amir Aman, State Minister of Health of the Federal Democratic Republic of Ethiopia. Proceedings started with a show from a cultural group from the University of Addis Ababa.

Prof. Wakgari Deressa, Dean of the Faculty of Public Health at Addis Ababa University (AAU), was also the

Master of Ceremony, welcomed foreign delegates to Ethiopia. The Vice President for Research and Technology Transfer Dr. Tassew Woldehanna, made welcoming remarks on behalf of the President of AAU. He gave a brief background of AAU, from its humble beginnings in 1950 when it was established as the University College of Addis Ababa (UCAA).

The Board Chair of INDEPTH Network, Prof. Marcel Tanner, thanked all delegates. Among other things, he said that for many years the Network insisted on the quality of data but now was determined to promote and synthesize what it was doing and contribute its expertise to meet local, national and global health challenges.

### State of the Network Address

Delivering his State of the Network address, the INDEPTH Executive Director Prof. Osman Sankoh said the conference was an opportunity to show “what we have done and what we want to do and for you to contribute.”

He talked about three strategic objectives of INDEPTH and the Network's expanding footprint, informing the conference that the Board had approved the 6<sup>th</sup> HDSS in Ethiopia, Arba Minch, making Ethiopia the country with the largest number of HDSSs.

Prof. Sankoh gave a summary of INDEPTH activities, explaining the Working Groups strategy, and thanked core funders of INDEPTH Sida, Hewlett Foundation and Wellcome Trust for their support. He said he was happy the investment approach has worked, where

the Secretariat invests core funds to generate more funding from grants.

The ED urged member HDSSs to contribute data (those who are yet to do so) to the INDEPTH online data archives to make it accessible to other researchers and policymakers. He also talked about the Network's future direction where INDEPTH will also capture information from health centres in addition to data currently generated through HDSSs, through the CHES innovation.

On the Network's sustainability, he said an organisation that was almost 20 years old should not be planning for 1 or 2 years. He said one of the strategies to get out of the situation was to establish INDEPTH Endowment Fund.

### Keynote Address

In his opening address, the Guest of Honour, State Minister of Health, Dr. Amir Aman, urged researchers to make quality data available to policymakers to use in making decisions that would improve the lives of people. He asked researchers to employ more innovative ways of collecting and sharing data by taking advantage of advances in science and technology.

"Policymakers would like to make important decisions based on quality data that are provided in a timely manner to improve the lives of people," he said, adding that HDSSs in Ethiopia had contributed a lot of evidence to policy which is aiding planning at various sectors in the country.

The opening ceremony was followed by a presentation on the new Ethiopian Health Sector Transformation Plan (HSTP) made by a representative of the Federal Ministry of Health. Next was a highlights on HDSS work in Ethiopia: *Ethiopian Universities Research Centers Network Experiences, Challenges and Future Directions*, a presentation made by Mr Fasil Tessema representing the Network of HDSSs in Ethiopia.

### Federal Health Minister at Dinner

On Thursday evening 12 November 2015 the Ethiopian Federal Ministry of Health hosted dinner for ISC 2015 delegates at Ghion Hotel. In his speech, the Ethiopian Federal Minister of Health, Dr. Kesetebirhan Admasu (left), reiterated his Government's resolve to use research evidence for decision making.



*Ethiopian Federal Ministry of Health, Dr. Kesetebirhan Admasu*

He said Ethiopia was implementing an ambitious five-year Health Sector Transformation Plan (HSTP) which puts a lot of emphasis on information

revolution, which he said, did not only target IT, but changing the mindsets people including health workers and the policy making community to value information.

The INDEPTH Board Chair, Prof. Marcel Tanner, thanked the ministry for its support to the ISC 2015. He said INDEPTH was positioning itself to become a big player in national and international health policy dialogue. He said the Network was getting ready to develop the new strategic plan as the current one 2013-2016 ends next year. Prof. Tanner said the process will involve all important stakeholders.

Speaking at the function, the INDEPTH Network Executive Director, Prof. Osman Sankoh, commended Ethiopia for being a leader among INDEPTH member countries, by having the highest number of HDSSs.

### Key Outcomes

- o 279 delegates including:
  - o 2 ministers
  - o 53 INDEPTH-funded participants
  - o 70 self-funded participants
  - o 9 Board members
  - o 9 SAC members
  - o 33 centre leaders
  - o 20 Ethiopian Universities with 14 University Presidents and 6 University Vice presidents
  - o New partners: Stanford University
  - o Editors of reputable journals: The Lancet, Lancet Endocrinology
- o Funders: Sida, Hewlett Foundation, Packard Foundation

- o Over 50 presentations made (this includes only those that we have copies in our records, Link:

[http://indepth-network.org/index.php?option=com\\_content&task=view&id=2051](http://indepth-network.org/index.php?option=com_content&task=view&id=2051)).

### Funders Session

This meeting was held on Thursday 12 November 2015, convened by Hewlett Foundation, attended by representatives of Sida, Packard Foundation, INDEPTH Board Chair and members, SAC Chair, INDEPTH Executive Director, one centre leader and managers from INDEPTH Secretariat. The meeting focused mainly on:

- o Reflections on State of the Network
- o CHES
- o Development of the Strategic Plan 2017-2021; and
- o Harmonization of INDEPTH-Network reports for Funders

The session was very fruitful as the Board Chair and ED took the opportunity to clarify some issues particularly those related to the CHES initiative and the new strategic plan 2017-2021 for the Network.

Hewlett Foundation's Kristen Stelljes said she was very pleased that policy engagement was so much on the agenda this time as compared to the last ISC in Johannesburg. Dr. Maria-Teresa Bejarano of Sida expressed her appreciation on what she had experienced during the ISC 2015 saying there have

been a lot of developments at INDEPTH. There was also an agreement on the harmonization of INDEPTH-Network reports for Funders.

### **Independent Assessment of ISC 2015**

Prof. Carel IJsselmuiden, the Executive Director of the Council on Health Research for Development (COHRED) presented an assessment of the conference during the closing session on 12 November 2015.

He talked about how much more INDEPTH could get out of a gathering like the ISC. He suggested that the Network look further into who else they can involve in future meetings, and not the same people all the time. He also proposed a number of activities that could take place at an ISC and make it more attractive, including Multi-sectoral, short, intense 'so-what' sessions; 'Off programme' sessions like CEO lunches, Skills trainings and Market place for software and tools.

## **ISC in Pictures**



*A section of ISC delegates.*

# ISC in Pictures



*Ethiopian Federal Minister of Health  
Dr. Kesetebirhan Admasu speaking.*



*Prof. Don de Savigny, Swiss TPH.*



*Prof. Stephen Luby, Stanford University.*



*INDEPTH SAC Chair Prof. Peter Byass in one of the sessions.*



# ISC in Pictures



*INDEPTH Executive Director Prof. Osman Sankoh.*



*Lancet Editors, Zoe Mullan and Justine Davies.*



*Ethiopian Minister of Health Dr. Kesetebirhan Admasu with INDEPTH Board Chair Prof. Marcel Tanner.*



*INDEPTH Board Chair Prof. Marcel Tanner speaking.*

# ISC in Pictures



*Participants follow a presentation.*



*One of the parallel sessions.*

# ISC in Pictures



*Plenary session in progress.*

# Policy Engagement and Communications

## External Engagements

### Ministers hear INDEPTH's work and potentials for strengthening CRVS

The Third Conference of African Ministers responsible for Civil Registration was held in Yamoussoukro, Cote d'Ivoire from 12 to 13 February, 2015. The Executive Director of the INDEPTH Network, Prof Osman Sankoh, represented the Network at the conference where he presented the organisation's work and potentials for strengthening civil registration of vital statistics to more than 30 Ministers of the Interior and Health responsible for civil registration in their countries.

INDEPTH was a co-organiser of the event whose theme was "Promoting the use of Civil Registration and Vital Statistics in Support of Good Governance in Africa". The conference was held under the auspices of African Union Commission (AUC) with the support of the African Development Bank (AfDB) and the United Nations Economic Commission for Africa (ECA), which functions as the Secretariat of the African Programme on Accelerated Improvement of Civil Registration and Vital Statistics (APAI-CRVS). The other member-organisations of the CRVS Regional Core Group namely, United Nations Children's Fund (UNICEF), World Health Organization (WHO), United Nations Population Fund (UNFPA), United Nations High Commissioner for Refugees (UNHCR), Plan International, the Secretariat of the African

Symposium on Statistical Development represented by Statistics South Africa also supported the Conference.

The overall objective of the conference was to mobilise member states to generate authentic civil registration records in realisation of human and civil rights, identity management and efficient service delivery, and production of vital statistics for planning and monitoring development in the context of good governance.

The conference also reviewed the progress made by the APAI-CRVS in the implementation of the regional Medium Term Plan and the resolutions of the previous two Conferences of Ministers Responsible for Civil Registration.

### Prof. Sankoh Meets New Swiss TPH Director

INDEPTH Executive Director Prof. Osman Sankoh held brief discussions in Basel with Prof. Juerg Utzinger, the new Director of the Swiss Tropical and Public Health Institute (Swiss TPH) in Basel, Switzerland, during a short visit to the Institute on 22 June 2015.



*Prof. Osman Sankoh (left) with Prof. Juerg Utzinger in Basel.*

Osman also met with Prof. Don de Savigny (an INDEPTH SAC member) who anchors the Innovations Component of the recently announced Bloomberg Foundation grant, a Data-for-Health initiative that will support the strengthening of civil registration and vital statistics (CRVS) systems in Africa and Asia. INDEPTH Network is a partner in this.



*INDEPTH ED Prof. Osman Sankoh (right) with Prof. Hans Rosling (Professor of Int. Health at Karolinska Institute, Sweden) at the MA4Health global summit in Washington, June 2015.*

### Global Health Leaders at MA4Health Summit

The INDEPTH Executive Director participated in the MA4Health global summit which was convened by USAID, the World Health Organisation, and the World Bank Group. The meeting which was held from 9 – 11 June 2015, brought together decision-makers, thought leaders, and implementers in Washington DC to advance a common agenda for post-2015

Health measurement and to endorse Health Measurement and Accountability in the Post-2015 Era: A Common Roadmap. This document will set forth priorities and recommendations for measurement and enable countries to effectively measure and achieve their sustainable development goals. INDEPTH looks forward to playing a critical role in delivering on the measurement agenda in the years to come.

### Nouna Health Research Centre (CRSN) Organises Scientific Forum



*INDEPTH Capacity Strengthening and Training Manager, Dr. Martin Bangha (left), INDEPTH Board member, Dr Abdramane Soura (centre) and INDEPTH Policy Engagement and Communication Manager, David Mbulumi, at Nouna, 30 July 2015.*

INDEPTH Capacity Strengthening and Training Manager, Dr. Martin Bangha, and Policy Engagement and Communications Manager David Mbulumi, attended the 3rd Scientific Days of Nouna Health Research Centre (CRSN) in Nouna, Burkina Faso, which started on July 30 and ended on 1 August 2015. A total of 103 oral presentations were made and 60 posters displayed during the three-day meeting attended by 170 participants from 15 countries, including the Minister of Health of Burkina Faso, Dr. Amede Prosper Guiguemde and other high-level officers from the Ministry of Health. CRSN is an INDEPTH member centre. (Also see under In-Country meetings below).

### African Union Commissioner Receives INDEPTH Executive Director

INDEPTH Network Executive Director, Prof. Osman Sankoh paid a courtesy call on His Excellency, Dr.

Mustapha Sidiki Kalakos, Africa Union's Commissioner for Social Affairs at AU Headquarters in Addis Ababa, Ethiopia on 12 August 2015. Dr. Kaloko's Department at the AU is responsible for handling and addressing issues of health, children, drug control, population, migration, labour and employment, sports and culture in the continent. During the meeting Prof. Sankoh presented the work of the Network of health and demographic surveillance systems in low- and middle-income countries

## Key Meeting on Civil Registration Held in Addis

A two-day meeting to deliberate on how Health and Demographic Surveillance Systems (HDSSs) can contribute to strengthen civil registration and vital statistics (CRVS) systems in low- and middle-income countries (LMICs) was held in Ethiopia, Addis Ababa. During the 11-12 August 2015 meeting, key regional partners finalised a five-year strategy for improving mortality registration and statistics in Africa; and details for a workshop on the training of mortality experts planned for September 2015, to initiate capacity development in Africa. INDEPTH Network was represented by the Executive Director, Prof. Osman Sankoh. Besides INDEPTH, other participants come from WHO, UNICEF, CRVS Centre of Excellence, IDRC, Global Fund and World Bank.

## INDEPTH Member Centre Organises Science Communication Training



*INDEPTH Network Executive Director, Prof. Osman Sankoh (left) meets H.E. Dr. Mustapha Sidiki Kalakos, AU's Commissioner for Social Affairs at AU Headquarters in Addis Ababa, Ethiopia, 12 August 2015.*



*Swiss Centre for Scientific Research (CSRS) Director and organiser of the Summer School in Science Communication Prof. Bassirou Bonfoh makes a presentation during the training in Grand Bassam, Cote d'Ivoire, August 2015.*

In August 2015, 20 researchers from West Africa attended the Summer School in Science Communication organised by the Swiss Centre for Scientific Research (CSRS), a member of INDEPTH in Côte d'Ivoire. The training aimed at increasing the impact of science and technology in West Africa. Trainers included David Mbulumi (from INDEPTH Network), Prof. Bossirou Bonffoh (CSRS); Prof. Kouassi Dongo (CSRS and Felix Houphoet Boigny University), Dr. Gilbert Fokou (CSRS), Dr. Karim Ouattara and Borris Kacou (CSRS).

Before the Summer School, trainers attended a Training of Trainers session facilitated by Juan Casasbuenas from SciDev.Net, a London-based international organisation that produces news, views and analysis on information about science and technology for sustainable development and poverty reduction and engages with development professionals, policymakers, researchers, the media and the public.

Speaking during the opening ceremony, the Director General of the Swiss Centre for Scientific Research (CSRS) in Côte d'Ivoire, Prof. Bassirou Bonfoh, stressed the need for researchers to involve other stakeholders in research planning for their work to be relevant to communities, their respective countries and beyond. The programme was funded by the Wellcome Trust.



*Summer School in Science Communication trainees follow a presentation.*

### **INDEPTH at ECTMIH 2015 in Basel, Switzerland**

The INDEPTH Network was well represented at the European Congress on Tropical Medicine and International Health (ECTMIH) held in Basel, Switzerland from 6-10 September 2015. The Executive Director of the INDEPTH Network, Prof Osman Sankoh; INESS Project Principal Investigator and former INDEPTH Executive Director, Prof Fred Binka and INDEPTH's Capacity Strengthening and Training Manager, Dr Martin Bangha; and several INDEPTH member Centre Leaders including Ifakara, Dodowa, Navrongo, Kintampo, Agincourt, Africa Centre, as well as INDEPTH representatives from its projects, Working Groups, Scientific Advisory Committee (SAC), Bernhards Ogutu, Peter Waiswa, Peter Byass, attended and made presentations at the conference.

Prof Sankoh was the Chair of the Session Titled: Population health - the use of health and demographic surveillance systems with a keynote address by Dr. Kobus Herbst. Dr. Bangha made an oral

presentation titled: "Adult mortality in sub-Sahara Africa: Evidence from INDEPTH member Health and Demographic Surveillance Systems". The INDEPTH session was well attended.

### **INDEPTH Team at Cairo Meeting**

Over 50 experts were in Cairo, Egypt, from September 28 for a four- day meeting on Mortality Statistics in Africa jointly convened by the WHO, South Africa-based Africa Symposium on Statistical Development (ASSD) and United Nations Economic Commission for Africa (UNECA) in Addis Ababa, Ethiopia.



*The INDEPTH team at the Cairo meeting.*

In addition to delegates from WHO, ASSD and UNECA, others came from the Global Fund, World Bank, CDC – US, Ministries of Health and Statistical Offices (Sierra Leone and South Africa). There are seven representatives from Nanoro HDSS, Burkina Faso; Dabat HDSS, Ethiopia; Kersa HDSS, Ethiopia; Kisumu HDSS, Kenya; Kombewa HDSS, Kenya; Ifakara HDSS, Tanzania and a representative from the INDEPTH Secretariat, Dr. Martin Bangha.

Dr. Bangha gave the INDEPTH presentation "Improving Mortality Statistics in Africa by Moving Surveillance forward with CRVS: the INDEPTH view", which was well received by the delegates.

The purpose of the meeting was to gather African experts in mortality statistics collections together to collaborate on new technical guidance to be provided to countries for designing better mortality statistics systems; and develop a pool of available experts to deploy to countries to support technical improvement and results in mortality data collections, especially for death registration, hospital deaths and integrating systems for community deaths.

This was a follow up to the meeting of African Ministers responsible for Civil Registration, including many African Ministers of Health that was held in Yamoussoukro in February 2015 and the regional reference group meeting in Addis Ababa in August 2015, which the INDEPTH Executive Director Prof. Osman Sankoh attended.

### **Ghana Health Service Holds Stakeholders Meeting on Implementation Research**

INDEPTH Executive Director, Prof Osman Sankoh, and Policy Engagement and Communications Manager, David Mbulumi, were among stakeholders who attended a High Level National Stakeholders' meeting on Implementation Research and the National Health Research Agenda organised by Research and Development Division (RDD) of Ghana Health Service. The meeting was held in Accra on 13 October 2015





*Stakeholders Meeting on Implementation Research in Accra, Ghana.*

As part of its mandate to build research capacity at all levels of the health sector and to set health priorities in Ghana, the RDD in the past year conducted some key activities that included training of regional teams to interrogate their routine data; training of programme teams in Implementation research and engaging programme managers and Ghana Health Service divisional heads on setting a research agenda to guide the conduct of research in the country.

RDD through the stakeholder consultation, showcased some of the outputs of these activities and used the forum to consult with other Research Institutions outside the GHS, Development Partners, Schools of Public Health, Ministry of Health, Divisional Directors, Deputy Directors and Regional Directors of GHS in the finalisation of the proposed

Research Agenda for the health sector.

### **African Population Conference held in Pretoria**

INDEPTH was represented at the 7th African Population Conference which was held in Pretoria, South Africa from 30 November – 4 December 2015 by Dr. Martin Bangha and Dr. Mamusu Kamanda from the Secretariat. The picture shows some of the delegates of the conference (from left) Sally Findley (Columbia University), Jacques Emina (University of Kinshasa), Mamusu Kamanda (INDEPTH Secretariat), Mark Collinson (Agincourt HDSS), Natalie Mondain (Niakhar HDSS) and Martin Bangha (INDEPTH Secretariat). Prof. Jacques Emina was the chair, Mark was the discussant, Sally, Natalie, and Mamusu were presenters in the session: Health and Demographic Surveillance Systems and Policy-Making.



## Policy Engagement Strategic Group

In its Strategic Plan for the period 2013-16, the Network has committed itself to “tailoring, packaging and directing research outputs, as appropriate, for different audiences and stakeholders so as to bridge the gap between research findings and policy-making.” And “To facilitate the translation of INDEPTH findings to maximize impact on policy and practice is the 3<sup>rd</sup> Strategic Objective of INDEPTH.

In order to ensure that we are effectively pursuing this objective and reaching out to all members, the INDEPTH Secretariat in 2015 changed the Policy Engagement Working Group into a Strategic Group.

## Activities

### Work on the Policy Impact Case Studies

Editing/Rewriting/Layout/Design of 6 case studies was completed, drafts sent to 4 Centre Leaders for their review and approval before finalising and uploading on the website. These will be used as samples to encourage other centres to also develop write-ups to demonstrate how their work has contributed to policies or practice in respective countries or internationally (Also see more under promotional materials).

### Interactions

Interactions among group members and communication focal persons in INDEPTH member centres was good through the list serve [indepth-research-to-policy@googlegroups.com](mailto:indepth-research-to-policy@googlegroups.com) and [commsfocalpersons@indepth-network.org](mailto:commsfocalpersons@indepth-network.org)

## Follow-up on In-Country Meetings

Continued to send information to all participants who attended the Research to Policy meetings held in Ghana, India and Tanzania through the INDEPTH 6000+ stakeholder mailing list, website and social media to constantly engage them in the Network's activities. The Strategic Group has also circulated a questionnaire (Monkey Survey) to all participants of the three meetings for feedback.

## Planned In-Country Meetings

Initial preparations have started for two In-Country meetings in early 2016 in Ethiopia and Mozambique.

## Review Paper

In 2014, the group collated health policy-relevant publications from INDEPTH member centres. In 2015, a member of the group, Rutuja Patil (Vadu HDSS) started to develop a paper on the studies. An abstract for this has been accepted for presentation at ISC 2015: "Overview of INDEPTH's role in policy process".

## Sharing Information and Materials

Many stories from member centres appeared in Friday and Quarterly newsletters, Facebook and website during the period sent by communication focal persons in member centres and some captured by Google Alert account. Examples:

**ISSP helps reduce expertise gap in population studies in Africa**

[http://indepth-network.org/friday\\_newsletters/2015/friday\\_Newsletter\\_Sept\\_4\\_th\\_2015.html](http://indepth-network.org/friday_newsletters/2015/friday_Newsletter_Sept_4_th_2015.html)

Ifakara opens training centre  
[http://indepth-network.org/friday\\_newsletters/2015/friday\\_newsletter\\_Aug%2028th\\_2015.html](http://indepth-network.org/friday_newsletters/2015/friday_newsletter_Aug%2028th_2015.html)

Centre organises science communication training for researchers  
[http://indepth-network.org/friday\\_newsletters/2015/friday\\_newsletter\\_Aug%2028th\\_2015.html](http://indepth-network.org/friday_newsletters/2015/friday_newsletter_Aug%2028th_2015.html)

Music concert marks end of Nouna scientific meeting  
[http://indepth-network.org/friday\\_newsletters/2015/friday\\_Newsletter\\_Aug%207th\\_2015.html](http://indepth-network.org/friday_newsletters/2015/friday_Newsletter_Aug%207th_2015.html)

Nouna hosts big scientific meeting  
[http://indepth-network.org/friday\\_newsletters/2015/friday\\_Newsletter\\_31\\_July\\_2015.html](http://indepth-network.org/friday_newsletters/2015/friday_Newsletter_31_July_2015.html)

These were also published on website and Facebook.

### In-Country Meetings

INDEPTH organised two meetings of stakeholders to begin the dialogue on bridging the gap between research and policy and identify ways by which research could easily be made visible to policy makers for informed decision making. One of the desired outcomes of these meetings was to find practical strategies to bridge the gap between research and policy and to promote the use of health research for policy decisions making by governments.

### India Meeting: Health and Demographic Surveillance Systems Meeting on Policy Relevant Public-Health Research Initiatives



*A session at KEM auditorium in Pune during the India In-Country meeting.*

The first meeting was held on 6 January 2015, hosted by INDEPTH member centre, Vadu HDSS, at KEM Hospital Research Centre in Pune, India. This followed a similar event in Navrongo, Ghana, in December 2014. The meeting was attended by 32 participants and chaired by Former Director General of the Indian Council of Medical Research, Prof. Nirmal Ganguly. Prof. Ganguly also chairs the Policy Centre for Biomedical Research (PCBR); the Translational Health Science & Technology Institute (THSTI) and the Department of Biotechnology in the Government of India. Delegates included heads of the country's leading research institutions, government officials, representatives of State statistics offices, NGOs, researchers from three HDSSs and the media.

### Meeting Objectives

1. To identify gaps between research by HDSS and policy and propose strategies to bridge them;
2. To Inform Indian policy makers about the INDEPTH Network and INDEPTH Research to Policy Working Group;
3. To inform the policy makers on the importance of HDSS and how HDSS in India could partner to work towards policy relevant research.

### Tanzania Meeting: From Research Evidence to Policy Influence in Tanzania

The INDEPTH Network organised a meeting on 10 April 2015 that brought together researchers and policy makers in Tanzania. The meeting hosted by the Ifakara Health Institute (IHI), a member of INDEPTH

in Tanzania was held at Giraffe Hotel in Dar es Salaam. Thirty seven (37) participants attended that included health researchers, members of the academia, representatives of social and economic research institutions, senior government officials from Ministries of Health, other ministries and government agencies and journalists.



*Communication consultant Farai Samhungu from CommsConsult in Harare, Zimbabwe, contributing to a discussion during the meeting.*

Two representatives from the CommsConsult, the firm that was contracted by INDEPTH to develop the policy engagement and communication strategy also attended. Director of Public, Private Health Facilities in the Ministry of Health and Social Services, Dr Dorothy Gwajima, represented the Permanent Secretary.

### Meeting Objectives:

1. To identify gaps between research by HDSS and policy and propose strategies to bridge them;

2. To inform Tanzanian policy makers and other stakeholders about the INDEPTH Network and its 'Research to Policy' initiative;
3. To inform policy makers on the importance of HDSS and how HDSS in Tanzania could partner to work towards policy relevant research;
4. To develop a framework that would facilitate the coordination of outputs from all the HDSS sites and synthesize them into key policy recommendations for uptake by policy makers



*Participants of the Tanzania In-Country meeting at Giraffe Hotel in Dar es Salaam.*

### **Outcomes of the Meetings**

1. Enhanced visibility of INDEPTH brand and the work it does
2. Kick-started interaction between HDSS member sites, researchers, media, academia, local government officials and policy makers
3. Stakeholders informed about the existence of HDSS and its immense potential to
  - support health policy development
  - Capacity to fill the data gap in developing nations
  - Longitudinal data of global comparable quality
  - HDSS operate in real life situations - not assumptions
  - HDSS are already there and need to be heard and utilized in full

4. HDSS identified new areas where they can support national health policies (India).
  5. Initiated a thought process which would result in formation of network of HDSS sites (India)
  6. Identified practical strategies to bridge gap between research and policy
    - Need for researchers to understand the policy process to effectively communicate research findings
    - Need for researchers to network among themselves and promote complementarity of work- Research centres/HDSS in same countries not aware what others are doing
    - Interaction with policy makers to know priority areas – Some research questions not in areas which affect many people or are topics for merely for academic purposes
    - Address ethical issues during research design and obtain clearance
    - Effectively involve opinion leaders, other researchers, media, academia, private sector, policy makers, implementers throughout the process
    - Include translation of research to policy and practice in project design.
    - Participate in forums to disseminate findings both national and international
- Need for training/guidelines on research translation for researchers
  - Active involvement of the media - Policy makers pay attention when something is picked up by the media
  - Innovative use of social media, take advantage of massive audience to promote research work
  - Don't wait for national and international level impact - can start implementation of some best practices with local communities. Some findings show impact within researched areas
  - Culture of apathy for change among policy makers - "this is how we do things here". This needs to change
  - Researchers should make more noise for governments to allocate funds for research otherwise foreign funders will dictate priorities
  - Work with ministries to organise national health research forums annually
  - Health ministries establish directorates to coordinate research in various health research centres to prevent duplication of effort



*INDEPTH also organised an In-Country meeting on research and policy in Ghana in December 2014.*

### Strategic Relevance

1. Activity falls within one of INDEPTH strategic objectives: ***To facilitate the translation of INDEPTH findings to maximise impact on policy and practice: Increase the number of stakeholder interactions (national, regional, international) - And therefore: increase the use of INDEPTH's evidence-based recommendations by governments and other stakeholders in their decision making.***
2. Meetings promote the INDEPTH brand
  - To various stakeholders, and to public through media coverage of the meetings
  - Ensures INDEPTH work is known, understood and used by those who develop policies and programs
3. Meetings help researchers get basic understanding of policy making process
4. INDEPTH regional/international policy Influence comes from results generalised across sites and countries:
  - The meetings are conducted in countries where the actual research happens. The meetings initiate/strengthen interaction among sites and centres, and multi-stakeholder collaborations. This will help researchers be more strategic in developing research questions that

- influence policy from local level, regionally and internationally.
  - By developing networks with end users of research it becomes more likely that researchers will be successful in translating research into policy
5. Meetings will foster sharing of information and building partnerships
  6. Meetings will help INDEPTH establish database of important stakeholders (from registered participants: researchers, journalists, policy makers) in all these countries
  7. Promote visibility of centres located mostly in rural areas, and important work of HDSS
  8. During the meetings HDSS share their profiles and the work they do, where and how they succeeded in influencing policy – This provides lessons for others who have not been very successful
  9. Location of meetings has a fair regional representation (West Africa, East Africa, Southern Africa, India) – cannot go to all countries.

### Plans for 2016

The Nouna meeting in July- August 2015 (Refer **Nouna Health Research Centre (CRSN) Organises Scientific Forum** - above) also addressed issues related to research uptake challenges. The theme of the three-day meeting was “Research for health: Strategies for better implication of policy makers in the financing of research and utilisation of research results.”



*Minister of Health of Burkina Faso, Dr Amede Prosper Guiguemde (gray suit centre), Minister for Research and Innovation, Prof. Jean Noel Poda (white traditional robe centre) with participants of the Nouna meeting.*

### The meeting agenda included:

Strategies for better appropriation and utilisation of research results towards improving community health care provision; health research financing for equitable health care access in Africa and research for development. The meeting featured a panel discussion which included the Minister of Health of Burkina Faso, Dr Amede Prosper Guiguemde, the Minister for Research and Innovation, Prof. Jean Noel Poda, heads of research institutions in Burkina Faso, a community member and researcher on the disconnection between researchers and policymakers. The discussion followed a presentation: “Investing in Health: Translation Of Research to Policies and Practices for Strengthening Health Systems and Institutions to the Prevention and Control of Transmitted and Non Communicable Diseases” by Prof Léodégal Bazira.

Two In-Country meetings are planned for early next 2016 in Ethiopia and Lusophone Mozambique.



## Media and Press Releases

We continued to have good relations with the media, with the manager visiting some leading media houses in Ghana for meetings with editors. We also compiled a list of key national and international journalists based in Ghana and included the list in our mailing databank, all these in efforts to increase the visibility of INDEPTH's work and the number of policy recommendations linked to INDEPTH studies. We prepared press releases and newspaper articles to coincide with major UN calendar days relevant to INDEPTH work including World Malaria Day in April and World Environment Day and also 1<sup>st</sup> July data repository updates. In these we involved Centre Leaders and Project Leaders whose work is relevant to the calendar days.

On Malaria Day, INDEPTH called for more investment, commitment to defeat malaria: "As we join the world community in marking the World Malaria Day we call for sustained and increased funding of malaria-related efforts by donor governments and endemic countries to support this noble mission of 'Accelerate to Zero'," said the press release.

## Website and Social Media

Ensured that the website had fresh news items every week and similarly for Facebook page. INDEPTH Twitter account and that of the ED were very active during the year.

We vigorously promoted the INDEPTH Facebook page, with encouraging results. Visitor statistics improved with number of 'Likes' doubling in the last

half of 2015 while total 'Reach' grew very significantly. The website had a monthly average of 5,100 unique visitors, 9,000 visits, and 147,000 hits.

## Publications from the Secretariat

### Peer Reviewed Publications and Systematic Reviews

As in previous years, an impressive number of peer reviewed publications appeared in international journals from INDEPTH member centres. We are currently updating the lists. Meanwhile, we continued to develop systematic reviews. By the end of the period under consideration, five papers had been published, and others were in various stages of development.

1. Kamanda, M, and Sankoh, O.A. (accepted September 2015) **Children's school access between 1998 and 2013 in low- and middle-income countries: exploring how the INDEPTH Network can contribute to research**, *Global Health Action*.
2. Arthur SS, Nyide B, Soura AB, Kahn K, Weston W and Sankoh O. **Tackling Malnutrition: A Systematic Review of Fifteen Years Research Evidence from INDEPTH Health and Demographic Surveillance Systems**. *Global Health Action* (Accepted September 2015).
3. Lawn JE, Kerber K, Sankoh O and Claeson M (2015). **Uganda Newborn Study (UNEST): learning from a decade of research in Uganda to accelerate change for newborns especially in Africa**. *Global Health Action* 2015, 8: 27363

[-http://dx.doi.org/10.3402/gha.v8.27363](http://dx.doi.org/10.3402/gha.v8.27363)

- 4 Byass P, Herbst K, Fottrell E, Ali MM, Odhiambo F, Amek N, Hamel MJ, Laserson KF, Kahn K, Kabudula C, Mee P, Bird J, Jakob R, Sankoh O, Tollman SM (2015). **Comparing verbal autopsy cause of death findings as determined by physician coding and probabilistic modelling: a public health analysis of 54 000 deaths in Africa and Asia.** *Journal of Global Health* 5 (1); doi: 10.7189/jogh.05.010402.
- 5 [Jia P](#), [Sankoh O](#), [Tatem AJ](#). (2015). **Mapping the environmental and socioeconomic coverage of the INDEPTH international health and demographic surveillance system network.** *Health Place* 36:88-96. doi: 10.1016/j.healthplace.2015.09.009

### Three articles on INDEPTH also appeared in top global journals

- *The Lancet Diabetes Endocrinol* 2015, “An INDEPTH look at global data collection.” and
- *The Lancet Global Health*: “Comprehensive Health and Epidemiological Surveillance System (CHESS) - an innovative concept for a new generation of population surveillance from the INDEPTH Network.”
- An Editorial on AWI-Gen featured in the *International Journal of Epidemiology*, the article titled “African partnerships through the H3Africa Consortium bring a genomic dimension to longitudinal population studies on the continent”

### INDEPTH work in UNICEF's Best Practices Report

In its report titled "STRENGTH IN NUMBERS, How longitudinal research can support child development", UNICEF refers to INDEPTH longitudinal research as Best Practice.

The report says Vitamin A supplements, insecticide-treated bed nets, cholera vaccinations - the effectiveness of these tools – now part of standard health practice – was first demonstrated through longitudinal tracking at health and demographic surveillance system (HDSS) sites in the global South. These HDSS research centres have formed the INDEPTH Network to leverage their valuable information and build their scientific capacity. The network, which started 15 years ago, now encompasses 45 local research centres operating 52 HDSS field sites.

### Promotional Materials

#### Value of the Network

“The Value of the Network and its Secretariat” -- Full document and Summary were finalised. The full document was published on the website while the summary was printed. The talks about the relevance/usefulness of the INDEPTH Network and the Secretariat to various stakeholders including its member centres.

#### PEC Strategy

One of the main activities of 2015 was development of a Strategy for Policy Engagement and Communication in order to strategically streamline the Network's approach to policy influencing

activities. The Secretariat worked very closely with CommsConsult, the firm that was contracted to develop the strategy. CommsConsult largely worked on proposals that were put forward by a team of consultants recruited by Hewlett Foundation in 2014 to review PEC work at INDEPTH. Strategy aims to achieve the following:

- Enhance the profile of INDEPTH as a leader and provider of health and demographic data in low and middle income countries;
- Facilitate the translation of INDEPTH findings to maximise impact on policy decisions and practice;
- Strengthen linkages between researchers and policy makers;
- Reach new audiences in ways that are more impactful;
- Document learning and share lessons on research use in policy.

In 2015, we started to implement some of the activities proposed by Hewlett Foundation consultants that also appear in the new PEC strategy. The strategy was reviewed by the Board and adopted by the AGM in Addis Ababa in November 2015.

### **2014 Annual Report**

The 2014 Annual report was developed, printed and distributed during the ISC in Addis Ababa, Ethiopia, and to various stakeholders.

### **Impact Case Studies**

Completed case studies developed by four member centres and the Secretariat to provide examples of specific impact on policies and practice within the past five years were published on the website. The case studies described the research study and the nature of the impact. They also mention sources that could confirm the impact, explain the kind of support that centres received from the Secretariat, and sources of funding. Four impact case studies were developed showcasing how research studies at individual INDEPTH members (Nairobi HDSS, Manhica HDSS, Kombewa HDSS and Dodowa HDSS) have impacted on policy or practice. The Secretariat also prepared two impact case studies to demonstrate its role in enabling the Network to translate research into policy and practice.

### **The Past, The Present & The Future brochure summary**

Summary of *The Past, The Present & The Future* brochure was produced both in English and French. The brochure presents a vibrant global organisation of member health research centres in 20 countries in Africa, Asia and Oceania - its achievements and its goals for the future.

# Secretariat and Administrative Activities

## Visitors to the Secretariat

### Former Deputy DG of GHS meets INDEPTH ED



In January 2015 the former Deputy Director General of the Ghana Health Service, Dr. Sam Adjei (centre), paid a courtesy call on the Executive Director of the INDEPTH Network, Prof Osman Sankoh (right). The visit was to discuss avenues of collaboration with the Centre for Health and Social Service (CHeSS), a private not for profit organisation of which Dr Adjei is the President and Chief Executive Officer. INDEPTH Network, which has upped the gear towards policy engagement, is looking at involving several organisations that may assist the Network in reaching out to policy makers. According to Dr. Adjei, CHeSS undertakes health policy, systems and service delivery research and surveys that assess the

functioning of the health sector both at facility and organisational levels. Dr. Adjei was accompanied by Kwame K. Adjei (left) of the Kintampo Health Research Centre.

## ICF International Team Visits INDEPTH



*(Left to Right) Dr. Seth Owusu-Agyei, Dr. Yazoume Ye, Dr. Samantha Herrera, Prof. Osman Sankoh.*

A two-member team from ICF International visited INDEPTH Network Secretariat in Accra, Ghana on 19 June 2015, to discuss avenues of collaboration in the area of malaria-attributable mortality. They included Dr. Yazoume Yé Senior, an Infectious

Diseases Specialist and a Senior Associate, Samantha Herrera. INDEPTH Network Executive Director Prof. Osman Sankoh briefed the visitors on the work of the Network. This included INDEPTH activities, governance structure, publications, core objectives, research framework and the future of the Network. This was followed by a presentation by Dr. Seth Owusu-Agyei, the Director of Kintampo Health Research Institute, an INDEPTH member centre. His presentation was entitled 'Malaria Attributable Mortality Estimation. What contribution can INDEPTH Network make to global estimates'?

ICF International is a management, technology, and policy consulting firm based in Fairfax, Virginia in the US. It partners with government, commercial, and not-for-profit clients to deliver professional services and technology in many areas including health.

### MRC Head at the Secretariat on Ebola Collaboration



*Mr. Abdul Jalloh (4th right with glasses) in a group photo with Prof. Osman Sankoh (3rd left), other INDEPTH Secretariat staff Peter Asiedu (left), Samuelina Arthur (2nd left), Dr. Mamusu Kamanda (4th left), Titus Tei (6th left) and Dr. Martin Bangha.*

The Director of Medical Research Council (MRC), an organization that played a very important role during the Ebola outbreak in Sierra Leone visited INDEPTH Network Secretariat in Accra, Ghana, on 29 June 2014. Mr. Abdul Jalloh and the INDEPTH Executive Director Prof. Osman Sankoh, discussed various avenues of collaboration including the use the INDEPTH platform to establish a new surveillance system in the Ebola hit areas in Sierra Leone.

Primarily MRC is involved in community health and primary health care, operational research and human resources for health, with a focus on pregnant and lactating women and children, but that was until May 2014 when a new threat to healthy communities in Sierra Leone emerged: Ebola Virus Disease. MRC has supported the national Ebola Virus Disease outbreak response with several inputs including the provision of ambulance services and the purchase and distribution of disinfection and protection supplies and community education.

INDEPTH Network is engaged in a partnership to research the Ebola Virus Disease in Sierra Leone. The partnership comprises INDEPTH, MRC, Centre for Health Research and Training (CHaRT) Sierra Leone, and Umea, Sweden. This new partnership includes a diverse group of experts to undertake research on the response to the Ebola epidemic at individual, community and organizational level.

## INDEPTH Hosts Visitors from Bloomberg Data Initiative



The INDEPTH Executive Director Prof. Osman Sankoh (left) on 28 September 2015 held discussions with Prof. Don de Savigny from Swiss TPH in Switzerland (right), the anchor of the Innovations Component of the recently announced Bloomberg Foundation grant, a \$100 million Data-for-Health initiative that will support the strengthening of civil registration and vital statistics (CRVS) systems in Africa and Asia. INDEPTH Network is a key partner in this.

Through this initiative, it is expected that 1 billion people on at least 20 low-and middle-income countries and cities will have the benefit of more and better health data for policymaking. Select countries will also have the opportunity to participate in the NCD surveys and surveillance component, providing them with current data to evaluate and improve their existing NCD strategies and implement new programmes where required. Others in the picture are Dr Magdalena Paczkowski (second right) from

the Union North America, Titus Tei (centre) from INDEPTH Secretariat and Dr Gay Bronson (second left), also from the Union North America.

## INDEPTH Staff Interact with Statistics Guru Hans Rosling



*Prof. Hans Rosling (seated second left), a Swedish statistics guru, an international public speaker and Founder of the reputable Gapminder Foundation, visited the INDEPTH Secretariat in Accra on Friday 11 December 2015.*

Rosling then made a presentation to INDEPTH staff and media representatives at Miklin Hotel in Accra where he said that data which is needed in the health sector was also important for investment. He also cautioned: Do not simply display data—present the data so that its story is revealed to all. He said policymakers, politicians and businesspeople were interested in data at a very aggregated level. “It is not the numbers that excite them but the story behind the numbers,” he said.

## INDEPTH Secretariat holds staff retreat

The INDEPTH Secretariat held its annual staff retreat from 8 – 9 December 2015 at the Miklin Hotel in

Accra. The retreat was to review the activities of all the sections of the Network for 2015 as well as finalise the work plans for 2016. All Managers: General Administration, Finance, General Projects and ICT, Grants Management, Capacity Strengthening and Training, Science and Policy Engagement and Communications made presentations on behalf of their sections.

Additionally, staff used the opportunity to review the

Network's new website and discuss the health insurance and welfare policies. The 2010 administration manual which was reviewed during the 2014 staff retreat was also adopted and will be effective from January 2016.

The Executive Director of INDEPTH Network, Prof Osman Sankoh, thanked staff for their commitment and encouraged them to work hard as the Network prepares to move on to the next stage with its CHES initiative.



*Group photo during staff retreat at Miklin Hotel in Accra in December 2015.*

# Institutional Collaborations

## Stanford University

The Executive Director of the INDEPTH Network, Prof Osman Sankoh, led a four-member delegation to Stanford University in Palo Alto, California, USA, from January 20 – 21, 2015. The visit was to familiarise interested Stanford Faculty with the capacities of the INDEPTH Network and the interests of its affiliated scientists and also to inform INDEPTH scientists of the capacities and research interests of select Stanford University faculty.

Additionally, the deliberation was to identify specific research areas of interest to both INDEPTH network scientists and Stanford faculty that would form the basis of a fund-raising effort to initiate substantial research collaboration between the INDEPTH network and Stanford University.

The INDEPTH delegation included Dr. Abraham (Kobus) Herbst (Africa Centre, South Africa), Dr. Ime Asangansi (INDEPTH SAC representative, Nigeria) and Dr. Sanjay Juvekar (Vadu HDSS, Pune, India). During the two-day meeting, the following Standard faculty attended the INDEPTH meeting:

1. Michele Barry, Sr. Associate Dean for GLOBAL HEALTH; Dir. Centre for Innovation in Global Health (CIGH)
2. Jason Andrews, Asst Professor Medicine (Infectious Diseases)
3. Ami Bhatt, Asst Prof Medicine (Hematology, Genetics)

4. Steve Luby, Prof Medicine (Infectious Diseases, Geographic Medicine); Dir. Research, CIGH
5. John P. A. Ioannidis, Prof Medicine (Disease Prevention), Stanford Prevention Research Center
6. Steve Goodman, Prof Medicine (General Internal); Prof Health Research and Policy (Epidemiology)
7. Mark Cullen, Prof Medicine (General Internal Medicine)
8. Carlos Bustamante, Prof Genetics
9. Catherine Blish, Asst. Prof Medicine (Infectious Disease)
10. Harry Greenberg, Prof Medicine (Gastroenterology and Hepatology)
11. Stephen Krasner, Prof Political Science (International Relations)
12. Eran Bendavid, Asst Prof Medicine (General Internal Medicine)
13. Lloyd Minor, Dean of the School of Medicine
14. Euan Ashley, Prof Medicine (Cardiovascular), Genetics, Pathology
15. Latha Palaniappan, Adjunct Clinical Asst Prof, Prevention Research Center
16. Sanjay Basu, Asst Prof Medicine, Stanford Prevention Research Center
17. Karen Eggleston, Centre Fellow, Freeman Spogli Institute for International Studies
18. Paul Blumenthal, Prof Obstetrics and



Gynecology (General Gynecology – Family Planning)

19. Marshall Burke, Asst Prof Environmental Earth System Science; Center Fellow, FSI - Shripad Tuljapurkar, Prof Population Studies (Biology)
20. Yvonne B. Maldonado, Prof Pediatrics (Infectious Diseases); Prof Health Research and Policy
21. Marcella Alsn, Asst Prof Medicine, Center for Health Policy/PCOR
22. Norman Grant Miller, Assoc Prof Medicine, Primary Care & Outcomes Research (PCOR)

During the year, the INDEPTH Board reviewed and unanimously approved collaboration between INDEPTH and Stanford University. Antimicrobial resistance was identified as one of the areas that interest several Stanford Faculty and INDEPTH member centres. Another area of interest is cervical cancer. The third area of interest is Secondary Data Analysis in the following fields:

- Healthcare policy and cost-effectiveness analysis
- Environmental stressors and social outcomes
- Political structures governance capacity and health opportunities

A team of 6 senior faculty members from Stanford also attended the ISC 2015 in Addis Ababa, Ethiopia in November 2015. They included Prof. Mark Cullen, Prof. Michele Barry, Prof. Stephen Luby, Prof. Ami Bhatt, Prof. Eran Bendavid and Prof. Marcella Alsn.

## **Oxford, Umea Universities**

A proposal on Community-level antibiotic access and use in low- and middle-income countries funded by the Wellcome Trust/VW Foundation. Oxford University UK, Umea University, Sweden and INDEPTH (six HDSSs) are partners in this. (Details under Antibiotic Resistance in the Working Groups/Projects section).

## **Governance**

### **Board Meeting, Dubai**

The Board met on 3-4 February 2015 at Raviz Centre Hotel in Dubai under the Chairmanship of Prof. Marcel Tanner and elected Dr. Catherine Kyobutungi (Nairobi HDSS, Kenya) as its vice chair. Prof. Nguyen Chuc Nguyen (Filabavi HDSS, Vietnam) and Dr. Walter Otieno (Kombewa HDSS, Kenya) were elected to the membership of the Board for 2 years until the AGM of 2016; while Prof. Abhjit Chowdhury (Birbhum HDSS, India) was elected to the membership of the Board for 1 year until the AGM in 2015. The Board appointed Mr. Pali Lehohla (Statistics South Africa) and Dr. Josephine Odera (UN Women) to membership of the Board to take effect after the retirement of Prof. Hans Olav Adami (Harvard School of Public Health, USA) and Dr. Timothy Evans (World Bank, USA) from the Board at the AGM in 2015.

### **Board Meeting, Addis Ababa**

The meeting of the INDEPTH Board of Trustees took place at Ghion Hotel in Addis Ababa on Tuesday 10 November 2015 in which the INDEPTH Executive Director gave his report on the State of the Network.

Nine members attended: Prof. Marcel Tanner (INDEPTH Board Chair; Director Emeritus -Swiss TPH, Basel, Switzerland); Dr. Catherine Kyobutungi (INDEPTH Board Vice-Chair; Nairobi HDSS, Kenya); Dr. Abdramane Soura (Ouagadougou HDSS, Burkina Faso); Dr. Walter Otieno (Kombewa HDSS, Kenya); Prof. Peter Byass (SAC Chair; UCGHR, Sweden); Mr. Pali Lehohla (Statistics South Africa); Dr. Josephine Odera (UN Women, Senegal); Prof. Osman Sankoh (INDEPTH Executive Director, Ghana) and Dr. Kofi Baku (INDEPTH Board Secretary, University of Ghana).

### Key Outcomes

- o Review and endorsement of the State of the Network address for the ISC and AGM
- o Briefing on deliberations of the SAC meeting from the Chair, prior to sending written report to the Board
- o Discussion of the status of members of the Network
- o Provisional approval of Secretariat's, Activity Plan, Work Plan and accompanying budget
- o Briefing by Mr. Pali Lehohla, Statistician General, Statistics South Africa, on opportunities for possible in-country collaborations for Centres of the Network
- o The Board confirmed its extension by electronic vote of the term of Prof. Marcel Tanner as its chair until the 2016 AGM
- o Discussion on venue for 2016 AGM and ISC 2017
- o Discussion on INDEPTH Authorship policy
- o Approval of INDEPTH Endowment policy

### Annual General Meeting

The INDEPTH Annual General Meeting was held on 14 November 2015. Members received and approved the Executive Director's State of the Network address 2015 and the audited accounts of the financial years ended December 2013 and 2014. Highlights of the AGM included the elections in which two new members of the board were elected: Prof. Oche Mansur Oche (Nigeria) and Prof. Alemayehu Worku (Ethiopia), with Dr Abdramane Soura and Prof. Abhijit Chowdhury re-elected. Other issues on the agenda included review and confirmation of minutes of the 13th AGM held at the ISC 2013 in Johannesburg, South Africa; INDEPTHStats and Data Repository; CHES; the new Policy Engagement and Communications Strategy and venue of the AGM 2016 and ISC 2017.

### Key Outcomes

- o 37 centre leaders represented
- o Board election successfully conducted with new members elected
- o Key resolutions taken especially regarding SAC membership
- o Approved the authorship policy of the Network for multi-centre publications
- o Approved the INDEPTH Endowment Fund for implementation
- o Adopted the strategy for policy engagement and communications
- o Agreed to hold the 2016 AGM of the Network in Uganda
- o Agreed to hold the 2017 AGM and ISC of the Network in Thailand.

# Board of Trustees

The Board of Trustees now consists of a total of 11 members: 6 Elected Members representing the member centres of the Network; 3 Members appointed by the Elected Members; the Executive Director as an Ex-Officio Member; and the Chair of the Scientific Advisory Committee as a Co-Opted Member.

The Chair and Vice Chair of the Board are elected from among the members. The Board Secretariat is the legal adviser to the Network. The Board's primary role is to provide oversight and accountability for the activities of the Secretariat and the Network as a whole. The Board appoints the INDEPTH Executive Director and is responsible for appraising his/her performance.



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Chair  
Swiss Tropical & Public Health  
Switzerland



**Mr. Pali Lehohla**  
Vice Chair  
Statistician-General  
South Africa



**Prof Alemayehu Worku**  
Member  
Butajira HDSS, Ethiopia



**Dr. Walter Otieno**  
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**Prof. Abhijit Chowdhury**  
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**Prof. Nguyen Thi Kim Chuc**  
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Filabavi HDSS, Vietnam



**Prof. Abdramane Soura**  
Member  
Ouagadougou HDSS, Burkina Faso



**Prof. Peter Byass**  
Member  
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**Prof. Osman Sankoh**  
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**Dr. Josephine Odera**  
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**Dr. Kofi Baku**  
Board Secretary  
University of Ghana, Ghana

# Scientific Advisory Committee

The Scientific Advisory Committee (SAC) assists in maintaining the focus of INDEPTH on health, population and social issues and areas of greatest potential impact; encourages linkages between INDEPTH and related agencies, research bodies and networks; and helps maintain the highest scientific standard for INDEPTH studies.

In addition, the SAC facilitates ongoing communication between INDEPTH and donors and key scientific stakeholders. Members of the SAC are selected on their personal merits. They represent diverse constituencies including NGOs, academic institutions pharmaceutical and clinical research organizations, etc.



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# Site Leaders

INDEPTH membership is given to institutions that run health and demographic surveillance systems (HDSSs). These are the parent institutions which we refer to as member centres of INDEPTH. A director of such a centre or his/her designee is referred to by INDEPTH as a centre leader. However, some centres

have two or more HDSS field sites. Each of these HDSSs may have heads (field station managers, for example). INDEPTH considers these heads as Site Leaders. ALL centre/site leaders receive communications from the Secretariat



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# The INDEPTH Effectiveness and Safety Studies of Anti-malarial Drugs in Africa (INESS)



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**REPORT OF THE TRUSTEES  
TO THE MEMBERS OF  
INDEPTH NETWORK**

The Trustees present their report and financial statements of INDEPTH Network for the year ended December 2015.

**TRUSTEES' RESPONSIBILITY FOR THE FINANCIAL STATEMENTS**

The company's Board of Trustees is responsible for the preparation and fair presentation of these financial statements comprising the statement of financial position at 31 December 2015, the statement of financial performance, the statement of changes in net asset and the statement of cash flow for the year then ended, at the note to the financial statements, which include a summary of significant accounting policies and other explanatory notes in accordance with International Public Sector Accounting Standards (IPSAS) and in the manner required by the Companies Act 1963, (Act 179) and for such internal control as the board determines necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

The Trustees have made an assessment of the ability of the Network secretariat to continue as a going concern and have no reason to believe the organisation will not be a going concern in the year ahead.

**INCORPORATION AND PRINCIPAL ACTIVITIES**

INDEPTH Network is an international organisation for the demographic evaluation of populations and their health in developing countries. It is a not-for-profit organisation that currently consists of 46 member centres running 53 Health and Demographic Surveillance System (HDSS) in Africa, Asia and Oceania. It was established in 1998 and incorporated in Ghana as a company limited by guarantee in 2002 under the Companies Act, 1963 (Act 179).

The main activities of the organisation are to conduct longitudinal health and demographic evaluation of populations in low and middle income countries, strengthen global capacity for Health and Demographic Surveillance System (HDSS), co-ordinate and mount cross-national research, and disseminate health information based on up-to-date scientific evidence from different health research centres across the developing world.

**FINANCIAL STATEMENTS**

The results for the year are as set out in the attached financial statements.

**APPROVAL OF THE FINANCIAL STATEMENTS**

The financial statements of the Network as indicated above were approved by the Board of Trustees on

14 July, 2016 and are signed on their behalf by:

  
.....  
TRUSTEE

  
.....  
TRUSTEE



**INDEPENDENT AUDITOR'S REPORT  
TO THE MEMBERS OF  
INDEPTH NETWORK**

**Report on the Financial Statements**

We have audited the financial statements of INDEPTH Network which comprise the statements of financial position at 31 December 2015, the statement of financial performance, statement of changes in net assets and cash flow for the year then ended, and the notes to the financial statements which include a summary of significant accounting policies and other explanatory notes as set out on pages 6 to 22.

*Trustees' Responsibilities for the Financial Statements*

The Trustees are responsible for the preparation of financial statements that give a true and fair view in accordance with International Public Sector Accounting Standards, and in the manner required by the Companies Act 1963, (Act 179) and for such internal control as the Trustees determine is necessary to enable the preparation of financial statements that are free from material misstatements, whether due to fraud or error.

*Auditor's Responsibility*

Our responsibility is to express an 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 the audit to obtain reasonable assurance whether 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 of financial statements that give a true and fair view 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 entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, 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 audit opinion.

*Opinion*

In our opinion, these financial statements give a true and fair view of the statement of financial position of INDEPTH Network Secretariat at 31 December 2015, statement of financial performance, statements of changes in net assets and cash flows for the year ended in accordance with International Public Sector Accounting Standards and the Companies Act 1963, (Act 179).

KPMG, a partnership established under Ghanaian law, is a member of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

R.A. Odoob  
R.X. Sedong  
R.A. Aducci  
J. Coleman

E.D. Anaku  
D.E. Achyire  
K. Frenyongkore  
M. O. Odoob  
A.O. Aducci  
P. Dennis





**INDEPENDENT AUDITOR'S REPORT  
TO THE MEMBERS OF  
INDEPTH NETWORK (CONT'D)**

**Report on Other Legal and Regulatory Requirements**

*Compliance with the requirements of Section 133 and fifth Schedule of the Companies Act 1963, (Act 179)*

We have obtained all the information and explanations which, to the best of our knowledge and belief, were necessary for the purpose of our audit.

In our opinion, proper books of account have been kept and the statement of financial position and statement of financial performance are in agreement with the books of accounts.

**Signed by: Nathaniel D. Hartley (ICAG/P/1056)**

**For and on behalf of:**

**KPMG: (ICAG/F/2016/038)**

**CHARTERED ACCOUNTANTS**

**13 YIYIWA DRIVE, ABELENKPE**

**P O BOX GP 242**

**ACCRA**

*14 July* ..... 2016

KPMG, a partnership established under Ghanaian law, is a member of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

N.A. Dodoo  
A.K. Sarpong  
N.A. Asivor  
J. Coleman

E.O. Aseidu  
D.S. Adoteye  
K. Frenpong-Kare

N.D. Hartley  
A.D. Akoto  
F. Denna

INDEPTH NETWORK

(A Company Limited by Guarantee)

STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 2015

	Note	2015 US\$	2014 US\$
<b>ASSETS</b>			
<b>Non-current assets</b>			
Property, plant and equipment	16	54,943	47,118
<b>Current assets</b>			
Cash and cash equivalents	17	2,281,374	4,659,456
Short term investment	18	1,389,523	1,386,942
Recoverable from non-exchange transactions	19	238,582	845,171
Receivables from exchange transactions	20	31,529	20,633
Prepayment	21	59,650	103,168
<b>Total current assets</b>		<b>4,000,658</b>	<b>7,015,370</b>
<b>TOTAL ASSETS</b>		<b>4,055,601</b>	<b>7,062,488</b>
<b>LIABILITIES</b>			
<b>Current liabilities</b>			
Accrued expenses and payables	22	420,731	98,234
Committed grants deferred	30	1,636,439	4,378,634
<b>TOTAL LIABILITIES</b>		<b>2,057,170</b>	<b>4,476,868</b>
<b>Net assets</b>		<b>1,998,431</b>	<b>2,585,620</b>
<b>Financed by:</b>			
Endowment fund	23	1,389,825	1,386,942
Accumulated Surplus		608,606	1,198,678
		<b>1,998,431</b>	<b>2,585,620</b>

  
TRUSTEE

  
TRUSTEE

The financial statements were signed on 14 July, 2016.

The notes on pages 11 to 22 are an integral part of these financial statements.

**INDEPTH NETWORK**  
*(A Company Limited by Guarantee)*  
**STATEMENT OF FINANCIAL PERFORMANCE**  
**AT 31 DECEMBER 2015**

	Note	2015 US\$	2014 US\$
<b>Revenue</b>			
<b>Funds received from donors</b>			
Secretariat-core activities	5	1,738,482	1,982,385
Programmes	6	3,567,693	7,215,719
		<u>5,306,175</u>	<u>9,198,104</u>
<b>Sub-total</b>			
Other revenue	7	47,017	46,635
		<u>5,353,192</u>	<u>9,244,739</u>
<b>Total revenue</b>			
Governance meeting expenses	8	175,412	183,849
Scientific workshop and coordination expense	9	2,164,922	3,324,355
Capacity strengthening workshop expenses	10	708,861	581,703
Annual general and scientific meetings	11	257,393	78,713
Sub grants to member centres	12	1,327,728	3,993,272
General secretariat running costs	13	1,253,116	842,524
		<u>5,887,432</u>	<u>9,004,416</u>
<b>Total expenditure</b>			
<b>(Deficit)/Surplus before financial income and expense</b>		<u>(534,240)</u>	<u>240,323</u>
Finance income	14	2,883	11,898
Finance expense	15	(55,832)	(53,206)
		<u>(52,949)</u>	<u>(41,308)</u>
<b>Net financial expense</b>			
<b>(Deficit) /Surplus after financial income and expense</b>		<u><u>(587,189)</u></u>	<u><u>199,015</u></u>

The notes on pages 11 to 22 are an integral part of these financial statements.



## INDEPTH NETWORK

*(A Company Limited by Guarantee)*

### STATEMENT OF CHANGES IN NET ASSETS FOR THE YEAR ENDED 31 DECEMBER 2015

	Note	Accumulated fund US\$	Endowment fund US\$	Total US\$
<b>2015</b>				
Balance at 1 January		1,198,678	1,386,942	2,585,620
Change in net assets during the year		(587,189)	-	(587,189)
Transfer		(2,883)	2,883	-
Balance at 31 December		<u>608,606</u>	<u>1,389,825</u>	<u>1,998,431</u>
<b>2014</b>				
Balance at 1 January		1,011,038	1,375,567	2,386,605
Change in net assets during the year		199,015	-	199,015
Transfer		(11,375)	11,375	-
Balance at 31 December		<u>1,198,678</u>	<u>1,386,942</u>	<u>2,585,620</u>

The notes on pages 11 to 22 are an integral part of these financial statements.



**INDEPTH NETWORK**  
*(A Company Limited by Guarantee)*  
**STATEMENT OF CASH FLOWS**  
**FOR THE YEAR ENDED 31 DECEMBER 2015**

	Note	2015 US\$	2014 US\$
(Deficit) / Surplus for the year		(587,189)	199,015
Depreciation for the year		23,424	48,475
Interest income		(2,883)	(11,898)
Decrease in receivables from non-exchange transactions		606,589	725,874
(Increase) in receivables from exchange transactions		(10,896)	(3,161)
Decrease/ (Increase) in prepayments		43,518	(86,232)
Increase/(decrease) in payables		322,497	(2,566)
Change in net deferred grants		(2,742,195)	(3,399,273)
Loss on disposal of plant and equipment		2,470	-
		-----	-----
Net cash used in operating activities		(2,344,665)	(2,529,766)
		-----	-----
<b>Cash flows used in investing activities</b>			
Acquisition of property, plant and equipment	16	(38,219)	(9,215)
Proceeds from disposal of plant and equipment		4,500	-
Interest received		2,883	11,898
		-----	-----
Net cash (used in)/generated from investing activities		(30,836)	2,683
		-----	-----
<b>Net decrease in cash and cash equivalents</b>		<b>(2,375,501)</b>	<b>(2,527,083)</b>
		-----	-----
<b>Movement in cash and cash equivalents</b>			
Cash and cash equivalents at beginning of the year		6,046,398	8,573,481
Net cash outflow		(2,375,501)	(2,527,083)
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<b>Cash and cash equivalents at end of the year</b>		<b>3,670,897</b>	<b>6,046,398</b>
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<b>Analysis of Cash and Cash Equivalent</b>			
Cash at Bank		2,281,374	4,659,456
Short term investment (T-Bills)		1,389,523	1,386,942
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		3,670,897	6,046,398
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The notes on pages 11 to 22 are an integral part of these financial statements.

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