



9th ANNUAL GENERAL AND SCIENTIFIC MEETING

**Poverty, Health and Demographic Dynamics:
Evidence from South-South Collaborations**

Pune, India

October 26 to 29, 2009

HOSTS

Vadu and Ballabgarh HDSS Sites

VENUE

International Institute of Information Technology (I²IT)





INAUGURATION

TRADITIONAL pipes and drums echoed in the spacious lobby as the 9th Annual General Meeting of INDEPTH Network got off to a colorful start in Pune, India on October 26, 2009. Colorful *pagdis* (turbans) were deftly tied on as each person entered the venue, while marigold garlands vied with the morning sun to bathe the venue in orange and gold. Different languages and accents filled the air as old friends greeted one another, but the common tone was one of joy and expectation.

The opening



Lighting the lamp to signify the formal inauguration of the AGM. From left: Dr Siddhivinayak Hirve, Dr Osman Sankoh, Prof R K Mutatkar, Prof Samir Brahmachari, Dr Seth Owusu-Agyeyi, Dr Kurus Coyaji and Dr Sanjay Juvekar.

The AGM was formally opened by Prof R K Mutatkar, President of The Maharashtra Association of Anthropological Sciences and Hon. Professor of Anthropology, School of Health Sciences, University of Pune. He underlined the importance of anthropology as a holistic discipline in studying man and his culture in totality and in innovating qualitative research methods. He pointed out that the methodological issues in micro-macro studies and quantitative-qualitative methods were very significant for scientific validity and reliability of community-based research. He advised researchers “to give patient listening to people in order to learn about their concerns and target the programs to their concerns.”

In his keynote address, Prof Samir Brahmachari, Director General, Council of Scientific and Industrial Research, and Secretary, Department of Scientific and Industrial Research, Government of India, urged scientists to leverage scientific knowledge for socioeconomic development. Lauding the work of INDEPTH, he reminded that 3 billion poor people of the world looked up to the Network to make a difference in their lives. He regretted that big pharma was not interested in diseases like TB and malaria, which mainly affected the poor countries.

He cited the Open Source Drug Discovery initiative of CSIR, which used the global platform provided by technology to allow scientists to collaborate, as the way forward. He pointed out that few pharma companies were interested in developing drugs for infectious diseases as the patients did not have the paying capacity. With the need of

confidentiality and IPR protection making new drug development prohibitively expensive, drug discovery had to move out from pharma companies to open sky for the young generation to participate. "The IT infrastructure, connectivity and high throughput analysis makes OSDD possible," he said, thus making it feasible for academicians, students and clinical research organizations to work at much lower cost. With a new chemical entity instantly becoming generic under OSDD, there will be no burden of IPR, making drugs cheaper.



*Prof Samir Brahmachari
delivering the keynote address*

"It is high time to apply high science to improve public health," he said and urged scientists to think holistically as health and community problems were interconnected. In conclusion, he stressed on the need to strike the right balance between "health as a right and health as a business".

Earlier, welcoming all in his address, Dr. Seth Owusu-Agyei, Chair of the Board of Trustees, observed, "all the colors visible here signify great things are ahead of us". He reminded everyone that at the age of 10, INDEPTH was no longer a baby. "It is time to bring our force to bear," he exhorted. He called on all sites to banish guesstimates and to work towards reliable numbers.

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

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

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

Dr Kurus Coyaji, Medical Director of KEM Hospital, informed that the hospital was 94 years old while the KEM Hospital Research Centre, which supports Vadu HDSS, was set up in 1985. Briefing the audience about the activities of the hospital, he reiterated the organization's commitment to delivering quality medical care to all across the economic strata, and especially to those in the rural areas.

Host institutions

The AGM was hosted by Vadu HDSS and Ballbgarh HDSS. Outlining the activities of the Vadu Rural Health Program and its Vadu HDSS, Dr Siddhivinayak Hirve, Director, stated that it provided a wonderful example of successful public-private partnership in rural health care. The 35-bedded Shirdi Saibaba Rural Hospital was rendering yeoman service

to about 84,000 people in 24 villages. On the other hand, the HDSS adopted a womb-to-tomb lifecycle approach in its expanding research activities.

Prof Anand Krishnan, Site Leader, Ballabgarh, informed that Comprehensive Rural Health Services Project (CRHSP), Centre for Community Medicine, All India Institute of Medical Sciences (AIIMS), was set up in 1961 as a collaborative project with Haryana government. It has been making significant contributions to national rural health programs in terms of technical support, training the trainers, implementation and evaluation. He opined that joining the INDEPTH Network has proved to be a great learning experience. The unit is also associated with several national and international bodies and has plans to upgrade its activities both in terms of coverage and facilities.



*Prof Anand Krishnan,
Ballabgarh HDSS*



SCIENTIFIC SESSIONS

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PROGRAM SUMMARY

(after inauguration)

PLENARY 2 INDEPTH Projects – 1		PLENARY 3 INDEPTH Projects – 2	
MCTA	<i>Dr Bernhards Ogutu, Clinical Trialist</i>	Sexual and reproductive health	<i>Aree Jamplay, Kanchanaburi HDSS</i>
INESS	<i>Dr Hassan Mshinda, Principal Investigator</i>	Vaccination and child survival	<i>Peter Aaby, Bandim HDSS</i>
Demographic and health transition: Evidence from HDSS sites	<i>Dr Ayaga Bawah, Secretariat</i>	Cost of illness	<i>Jane Goudge, Agincourt HDSS</i>
Mortality levels, patterns, and trends at INDEPTH sites	<i>Dr Samuel Clark</i>	Social autopsy	<i>Karin Kallander, Iganga/Mayuge</i>
Data sharing on the web	<i>Tathagata Bhattacharjee, I²IT, Pune</i>		
PARALLEL SESSION 1 Poverty and Health Dynamics – 1		PARALLEL SESSION 2 Poverty and Health Dynamics – 2	
Impact of immunization on the association between poverty and child survival: Evidence from Kassena-Nankana district, Northern Ghana	<i>Dr Ayaga Bawah, Secretariat</i>	Are pro-poor interventions reaching the poor? The extent of coverage and utilization of the health insurance scheme in Dodowa HDSS	<i>Manyeh A, Dodowa HDSS</i>
Assets of older households: A panel study from Kanchanaburi HDSS	<i>Malee Sunpuwan, Kanchanaburi HDSS</i>	Poverty, sanitation and health in the Dangme West District of Ghana	<i>Awini E, Dodowa HDSS</i>
Monitoring hunger through HDSS: Experience from Chakaria, Bangladesh	<i>Abbas Bhuiya, Chakaria HDSS</i>	Prevalence, symptomatology and poverty correlates of dementia: A cross-sectional survey in rural Ghana	<i>Bright Akpalu, Kintampo HDSS</i>
Studies of epidemiology of epilepsy in DSS (SEEDS): Background and review	<i>Anthony K Ngugi, SEEDS</i>	Social gradients in self-reported health status in Pune District, India	<i>Dr Pallavi Lele, Vadu HDSS</i>
Efficacy of NaFeEDTA fortified whole wheat flour in reducing anemia and improving iron status in school children (age 5-15 years) in rural Vadu (India)	<i>Agarwal D, Vadu HDSS</i>		

MCTA (Malaria Clinical Trials Alliance)

- Started in 2006 to build African capacity in clinical trials.
- Building and improvement of infrastructure as well as human resources.
- MCTA has built self-sustaining sites in Africa, transforming clinical care units into clinical trial sites, with local ownership.
- Mentors have helped keep the sites focused.
- Several training programs conducted to upgrade capabilities of sites to conduct Phase 3 trials.
- Hopefully these facilities will be able to conduct Phase 1 and Phase 2 trials.
- Also looking into TB surveillance.
- Work on to strengthen linkages with various partners.

INESS

- Phase 4 project, designed to test safety and effectiveness of anti-malarials in Africa.
- Currently three sites from Ghana and two from Tanzania have enrolled.
- Two sites from Mozambique and Burkina Faso likely to join next year.
- Safety of anti-malarials is major focus area.
- Project will provide evidence to policy makers in malaria management by assessing anti-malarials in a real-life situation.
- Governing council as well as a scientific review board overseeing the activities.
- Data has started flowing from sites and plans are in place for analyses.
- Project funded by Bill and Melinda Gates Foundation of the USA.

Demographic and Health Transitions: Evidence from HDSS Sites

- Project studying demographic transitions in four DSS sites—two in Africa, two in Asia.
- Sites chosen on the basis of geographical spread and availability of data spanning a long period of time.
- Focus on dynamics in mortality and burden of disease.
- Seeking evidence to help formulate policy in developing countries.
- Will also assess how health systems cope with anticipated changes and analyze trends in fertility, mortality and diseases patterns.
- Sites have already met and provided initial data for analysis. INDEPTH has provided software.
- Funded by The International Research Development Centre (IDRC), Canada.

Mortality levels, patterns and trends at INDEPTH sites

- Mortality in Africa often measured using indirect techniques that rely on model mortality patterns based on data from other parts of the world
- Objectives: Evaluate quality of individual-level mortality data from individual DSS sites; calculate mortality rates and life tables by site, time, sex and age for all evaluated data; identify commonly-observed age patterns of mortality; build an easy-to-use system of model life tables based on observed patterns.
- Data received from 26 sites, errors communicated to sites, some sites have responded.
- Data used in final analysis: 16 sites, 73 unique site periods, 57,000 deaths, 5.2 million person years.
- Five patterns identified; each pattern will form basis for family of similar age patterns of mortality in a system of model life tables.
- Functioning model already developed.
- Outputs: Two articles in high impact journals; create and publish flexible electronic version of model life tables to produce life tables at arbitrary levels of life expectancy.

Data sharing on the Web

- Project iSHARE designed to meet demands of funders and scientists that INDEPTH sites be able to share data.
- Phase I involved three sites from Asia; Phase II had three more sites from Africa.
- Providing an opportunity to access demographic data within sites through secured access system.
- Will result in more productive use of HDSS data, leading to useful publications and reports.
- Project funded by INDEPTH.

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Vaccination and child survival

- Current focus on prevention of specific diseases and deficiencies. But interventions mediated through immune system; real effects not known.
- High-titer MV – 2-fold increase in mortality among girls.
- Vitamin A – Negative interaction with DTP in Bissau and Ghana.
- RCT of BCG – 45% reduction in neonatal mortality,
- RCT of BCG – 3-fold reduction on revaccination after DTP booster
- RCT of MV at 4+9 months, 50% reduction mortality between 4 months and 3 years of age.
- Huge opportunity for INDEPTH to measure real-life effects of current interventions and vaccines in pipeline.
- Better data needed on vaccination and other childhood interventions and campaigns; very few sites have regular data.
- PhD proposal to Danida: Monitoring impact of childhood interventions on child survival and morbidity.
- Grant application to support data collection and analysis of impact of vaccinations and interventions.

Cost of illness working group

- Study objectives: Measure household burden including loss of income and costs of seeking care; describe interactions with health system leading to the costs; determine how far social protection protects from impoverishment.
- Participating sites have contrasting country contexts: Africa and Asia – low and middle income; Vietnam and Ghana – health insurance covers 50% of population; Bangladesh – nominal fee for tax-funded health care but unofficial fees common; India and Burkina Faso – majority pay out of pocket; Tanzania – community health funds but coverage low.
- Study phase 1: Cross-sectional household survey, random sample in each site, stratified by SES, structured questionnaire.
- Study phase 2: 30 households in each site followed for over 12 months.
- Policy questions to answer: Are exemptions reaching beneficiaries? Is free care sufficient to protect the poor and impact of unofficial fees? How does poor delivery of services drive up costs? Is insurance providing expected protection?
- Focus on translating research into policy and practice.

Social autopsy

- Social autopsy (SA) elucidates care seeking processes up to death. Unlike verbal autopsy (VA), no standardized tool for analyzing SA data.
- Workshop in Kilifi HDSS developed three tools: Maternal death, neonatal death, child death.
- Manuscript on tool development under preparation.
- Pilot testing on in Bandim, Dodowa and Iganga/Mayuge HDSSs.

- Challenges: Integrate SA tool into VA; maternal mortality tool needs to be quantitative, neonatal tool needs maternal care seeking; respondents do not understand symptoms.
- To finalize MOU with Child Health Epidemiology Reference Group (CHERG), complete manuscript, improve tool and deploy in more sites.

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PARALLEL 1

Impact of immunization on association between poverty and child survival: Evidence from Kassena-Nankana, Northern Ghana

- Poverty reduction strategists consider immunization to be a poverty reduction strategy.
- Both child immunization and household living standard are predictors of child survival.
- Negative effect of poverty on child survival disappears after controlling for child immunization.
- Promoting child immunization could be a strategic component of poverty-reduction programs; it reduces the time and resources that parents expend on nursing sick children.
- Study includes neonatal deaths; immunization does not influence neonatal mortality as it starts from 4 weeks.

Assets of older households: a panel study from Kachanaburi DSS

- Data from 5,399 households between 2000 and 2004.
- A dichotomous hierarchical ordered probit technique applied to measure assets at a point in time and changes over time.
- Households headed by elder women more likely to be poor than those headed by men and the young.
- Controlling for marital status, education, occupation and access to credit reduce observed gender poverty gap.

Monitoring hunger through health and HDSS: Experience from Chakaria, Bangladesh

- Data from 2003 to 2008 used to monitor food insecurity in relation to increase in food prices from 2007.
- Analyses show households changed diet habits.
- Proportion of members who skipped meals increased from 2% in 2003 to 11% in 2008.
- Proportion of households with meat not included in menu increased from 5% to 52%.
- Factors other than price increase could affect access to food.
- Study does not clearly establish relationship between number of meals and malnutrition.
- Other diet strategies could compensate for lack of meat protein.

Studies of epidemiology of epilepsy in DSS

- Data collection completed in some sites in the ongoing study of epidemiology of epilepsy in sub-Saharan Africa.
- According to preliminary results, prevalence of epilepsy ranges between 3% and 4%: Agincourt – 3.2%, Kilifi – 3.3% and Iganga – 4%.

Efficacy of NaFeEDTA fortified whole wheat flour in reducing anemia and improving iron status in school children (5-15 years) in rural Vadu (India)

- Followed up 207 anemic children (103 study; 104 control) over 7 months.
- Results indicate NafeEDTA fortified whole wheat flour is efficacious in reducing anemia prevalence and improving iron status.
- However, 11% children receiving the fortified flour still have anemia.

Are pro-poor interventions reaching the poor? Extent of coverage and utilization of health insurance scheme in Dodowa HDSS

- Study area: Dangme West District, Greater Accra Region, Ghana; population of 108,000; poorest district in the region.
- Objectives: Assess coverage of health insurance scheme in terms of registration, determine use of insurance card by registrants, ascertain barriers to registration and provide evidence for removal of barriers as strategy to improve health.
- Data from socioeconomic update between 2006 and 2008.
- Analysis shows female-headed households more likely to enroll.
- Education of head is predictive of household enrolment.
- Least poor households five times more likely to register than the poorest.
- Use of card more among least poor households than the poorest.
- Barriers: Problems related to finance, scheme and access to health care among the poorest; unfriendly attitude of staff and perception of sub-standard drugs among the less and the least poor.
- Removal of barriers will encourage enrolment and bring equitable, quality health care services to the poor.

Poverty, sanitation and health in Dodowa HDSS, Ghana

- Ghana's targets for access to improved drinking water and improved toilet facilities by 2015 are 78.0% and 53.0%, respectively.
- In 2008, coverage for these indicators was 78% and 11%, respectively.
- Diarrhea ranked second among top communicable diseases in district.
- Objectives: Investigate progress made in improved drinking water access and sanitation, determine effect of sanitation and other predictors on diarrhea among children under 5, and assess effect of poverty on prevalence of diarrhea and access to improved water and sanitation.
- Study did not differentiate covered wells and latrines from the uncovered, morbidity data was only for one year, no information on hand washing and only toilet was used as proxy for sanitation.
- 21.5% of mothers with children under 5 reported diarrhea.
- About 15.9% of children from households with improved toilets had diarrhea; it was 23.3% in those without.
- Prevalence of diarrhea in households with access to improved water was 22%; it was 20% in those without.
- 23% children in 20% poorest quintile had diarrhea compared to 17% in the 20% least poor.
- 23.6% of children of uneducated mothers had diarrhea compared to 9.3% of those who had at least secondary education.
- Provision of toilet should be made a condition for constructing new houses.

Prevalence, symptomatology and poverty correlates of dementia: A cross-sectional survey in rural Ghana

- Study conducted about dementia in rural Ghana, a neglected area in mental health.
- Higher-than-global prevalence rates found, with men being more vulnerable.
- Poverty was a significant risk factor, maybe as a result of poor nutrition, lack of access to health care and a stimulating home environment.
- Higher scores on the dementia scale by men cannot be clearly explained, as males scored higher on the socioeconomic status than women.
- Vocabulary loss was insignificant, and this is also a unique finding in this study.
- Need for lessons in rehabilitation, caregiver needs, and training in skills for both patients and caregivers.

Social gradients in self-reported health status in Pune, India

- The Study on Global Aging and Adult Health (SAGE) aims to improve the empirical understanding of the health and well-being of older adults and aging in developing countries.
- SAGE designed as a longitudinal data platform in 6 countries including India, based on methodological advances created by the WHO's World Health Survey program.
- Short version SAGE implemented at 22 villages covered by Vadu HDSS.
- 6000 individuals, 50 years and above, selected at random from a population of about 80,000.
- Despite lower expectations of function and performance in elderly, disability self-ratings significantly increase with age, more so if female, uneducated and living without a spouse.
- Presence or absence of spouse does not significantly alter quality of life self-ratings; possible protective effect provided by traditional joint family structure in India.



Day 1, October 26, ended with a kaleidoscopic cultural show, that showcased some of the vibrant dance forms from different parts of India.

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PROGRAM SUMMARY

PLENARY 4 Methods and measurement		PLENARY 5 Launch of INDEPTH products	
Key note: COHRED's new interactive version of the information system for management of health research in low and middle income countries	<i>David Abreu</i>	Migration and Urbanization Book: The dynamics of migration, health and livelihoods: INDEPTH Network perspectives	<i>Mark Collinson, Agincourt HDSS</i>
PDA technology: Quality information for decision making in the public sector resource constraint setting	<i>A.H.M Golam Mustafa, Matlab HDSS</i>	NCD supplement: Prevalence of physical inactivity in nine HDSSs in Asia	<i>Nawi Ng, Purworejo HDSS</i>
Incorporating fingerprinting system in Western Kenya HDSS in 2009	<i>Ezekiel Khwikha Chiteri, Kisumu HDSS</i>	Scientific productivity of INDEPTH surveillance systems: A bibliometric analysis of trends in INDEPTH HDSS publications	<i>Don de Savigny, Swiss Tropical Institute</i>
Role of GIS in decision making for poverty alleviation programs	<i>Dorean Nabukalu, Iganga/Mayuge HDSS</i>	Adult health supplement	<i>Steve Tollman, Agincourt HDSS</i>
Consistency of physician coding in the Iganga/Mayuge HDSS	<i>Aloysius Mutebi, Iganga/Mayuge HDSS</i>	COPD and BOLD	<i>Sonia Buist, BOLD</i>
International Vaccine Institute (IVI)	<i>Leon Ochiai, IVI, Seoul, South Korea</i>		
PARALLEL SESSION 4 Fertility, Reproductive Behavior and Health		PARALLEL SESSION 5 Infant, Child and Maternal Health	
Teenage pregnancy: Risk and consequences among adolescent women in rural Haryana	<i>Purva Rai Dwivedi, Ballabgarh HDSS</i>	Non-specific beneficial effects of BCG on neonatal mortality: A randomized trial among low-birth-weight children	<i>Peter Aaby, Bandim HDSS</i>
Does religious affiliation moderate adolescent premarital sexual behavior in marginalized slum settlements in Nairobi city?	<i>Jacques Emina, Nairobi HDSS</i>	Flexibly administered low dose sprinkles intervention for prevention of anemia in children – an effectiveness program in rural / urban Maharashtra, India	<i>Hirve S, Vadu HDSS</i>
Factors influencing transition to marriage among females in Kassena-Nankana district, Ghana	<i>Cornelius Debpuur, Navrongo HDSS</i>	Trends and causes of under-five mortality over three decades at Ballabgarh Demographic Surveillance Site (HDSS), India (1972-2004).	<i>Kapil Yadav, Ballabgarh HDSS</i>
Short and prolonged inter-pregnancy interval as risk factors for spontaneous abortion in Purworejo District, Central Java, Indonesia	<i>Siswanto Agus Wilopo, Purworejo HDSS</i>	Non-specific effects of DTP on infant mortality among low-birth-weight children: Increased mortality for girls	<i>Peter Aaby, Bandim HDSS</i>
A community randomized trial of enhanced family planning outreach in Rakai, Uganda	<i>Tom Lutalo, Rakai HDSS</i>	PARALLEL SESSION 4A INESS	

PARALLEL SESSION 6 Infant, Child and Adult Mortality Pattern		PARALLEL SESSION 7 MCTA
Mortality measurement in transition: standardized cause-specific mortality comparisons between Ethiopia, South Africa, Vietnam and Indonesia	<i>Edward Fottrell, Umea University</i>	PARALLEL SESSION 8 Tuberculosis
Mortality patterns in FilaBavi – Vietnam, 1999-2008	<i>Nguyen Phuong Hoa, FilaBavi HDSS</i>	PARALLEL SESSION 9 Migration and urbanization
Exploring the male-female health-survival paradox in rural Ghana	<i>Cornelius Debpuur, Navrongo HDSS</i>	PARALLEL SESSION 10 Sexual and reproductive health
Does self-reported health status predict mortality? The case of older people in Ifakara HDSS, Tanzania	<i>Alexander M, Ifakara HDSS</i>	PARALLEL SESSION 11 Cost of illness

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COHRED's new interact version of the information system for management of health research in low and middle income countries

- Council on Health Research for Development (COHRED) is an NGO based in Geneva, formed in 1993, working to enable low and middle income countries to strengthen national health research systems.
- Health Research Web (HRWeb) is an information system for health research management.
- HRWeb can potentially benefit INDEPTH by: increasing visibility of member sites among critical constituencies, disseminating study and technical aspects to maximize impact on policy and practice, helping the Secretariat keep abreast of site events and progress, and enabling cross-site sharing of tools and data.

PDA technology: Quality information for decision making in the public sector resource-constrained setting

- Personal digital assistant (PDA) is a compact, robust innovation capable of storing, accessing, retrieving and sharing large volumes of data.
- Communicates with server via GPRS; information updated on real-time basis.
- Reduces data collection and management costs; boosts productivity and quality.
- PDA used at field worker level and frontline supervisor level in Matlab, Bangladesh.

Incorporating a fingerprinting system into the Western Kenya HDSS, 2009

- KEMRI/CDC has multiple projects – HDSS, malaria, TB and HIV research.
- Projects operate in same study area, involve same study population. Current linkage among projects through search engine tool.
- Several challenges in identifying and linking individuals across projects.
- Fingerprinting is an efficient identification system that is cost-effective, scalable and adaptable.

Towards typhoid fever vaccine introduction

- In 2004, there were 21.6 million typhoid cases and 216,000 deaths.
- Global recommendation for a typhoid vaccine.
- Much progress through Asian research; gaps in African data availability.

- Urgent need to collect better data on invasive Salmonella infections in sub-Saharan Africa.
- Objectives: Develop network of sentinel enteric fever surveillance sites in sub-Saharan Africa, estimate burden of typhoid and paratyphoid and identify additional typhoid or paratyphoid affected areas.
- Scope to work with INDEPTH—good skill-mix, common goal and financial efficiency.

Potential of GIS in determining provision of basic services

- Objective: Provide a user-friendly tool to help district planners and politicians identify need for provision and allocation of services to the communities of Iganga and Mayuge districts.
- Finding: Distribution of boreholes, health facilities and schools did not match population densities.
- District planners should combine population figures and GIS information to clearly show need of a service within their work plans.
- Politicians should make use of GIS maps for proper allocation of resources.

Consistency of physician verbal autopsy coding in Iganga/Mayuge DSS

- Objectives: To find out how well the physician coders agree when coding the possible cause of death using verbal autopsy (VA) data; to pinpoint areas of disagreement in terms of disease codes and age groups.
- Three physicians coded for most probably immediate and underlying causes of death.
- Where at least two of them had the same code, it was taken as most possible cause.
- Where all three disagreed, form was put aside for a subsequent joint review.
- 78% agreement of at least two physicians.
- Disagreement mainly among adolescents and adults groups.
- Continuous refresher training needed for coders.

Health and quality of life among elderly in rural Purworejo District, Indonesia

- Objectives: Describe patterns of health and quality of life among older people (50+) in Purworejo District, Central Java, Indonesia, identify socio-demographic factors associated with poor health and quality of life and identify any spatial patterns of poor health.
- Study population: all older people (50+) in Purworejo HDSS (n=14,960).
- Response rate of 83% (12,459 individuals).
- Despite modernization, family and local community support for older people is still reliable in rural Java.
- Economic instability for older people, mainly in urban area, is a potential threat to their health and well-being.
- Health promotion and social services for older Indonesians lacking.
- Integrated Health Post (*Posyandu Lansia*)—a community-organized center focuses mainly on diagnostic and therapeutic aspects of elderly care.
- Being a woman, increasing age, losing a marital partner, poor education and poor SES are significant predictors of self-reported poor quality of life and health status.
- Current orientation of *Posyandu Lansia*, “to cure the elderly”, should be changed to “care for the elderly”.

Living arrangements and depression among the elderly population of the KDSS area of Thailand

- To study prevalence of depression in older adults in the KDSS area.
- To investigate relationship between pattern of living arrangements and depression.
- 27.5% of the older adults in KDSS area were suffering from depression.
- Older adults living with grandchildren more likely to be depressed than those who lived alone and older adults living with spouse, children and grandchildren.

- Depression conditions among older adults significantly predicted by sex, age, educational level, occupation, financial status, chronic sickness, and sickness/disabilities of family members.
- Interventions needed to promote improved family relationship between older adults and their grandchildren.

Socioeconomic status and elderly adult mortality in rural Ghana: Evidence from Navrongo DSS

- Objective: Investigate relationship between household socioeconomic status (SES) and elderly adult mortality in rural Ghana, using data from NHDSS, 2005–2006.
- 15,030 elderly adults, residing in 12,475 households were part of the study, contributing 27,803 person years (PY) and 1315 deaths.
- SES does not predict elderly adult mortality.
- Not having a spouse was most significant predictor of elderly adult mortality.
- Increasing age and male sex also significantly associated with elderly mortality.

Determinants of health-related quality of life (HRQoL) among older people in a rural area of Vietnam

- Objectives: Measure current status of HRQoL at old age, identify socioeconomic determinants of HRQoL at old age.
- Study subjects: Older people aged 60+ in Bavi district, Hatay province, in 2007.
- HRQoL at 60-69 and 70-79 higher than recently reported level in a developed country (Sweden: 0.8 and 0.79 in 1998, respectively).
- Effect of aging is greater than other socioeconomic factors.
- Aging mainly contributes to physical rather than mental functions.

Monitoring of chronic diseases: Preliminary results from AMK HDSS sites in Bangladesh

- Objectives: Demonstrate capacity of HDSS in monitoring socio-demographic characteristics of people with hypertension and diabetes and utilization of health services for those diseases by wealth quintile SES.
- Randomly selected people aged 25-64 years from HDSS sampling frame 2005: 1,100 men and 1,100 women from Abhoynagar and 1,628 men and 1,100 women from Mirsarai.
- Some difference in mean household expenditure between two areas; no mean age difference.
- Overall percentage of hypertension varied to some extent while diabetes remained unchanged during two periods in the two areas.
- Utilization of health services for hypertension and diabetes was higher among people in higher assets quintile.
- Health care use was associated with gender and age.
- Hypertension was associated with age and health services; diabetes with age only.
- Recommendations: INDEPTH Network should continue to support multi HDSS initiatives, potential to assess DALY and QALY for each NCD by assets quintile in the long run, promote young scientists, support cross site analysis, support scientific writing for publishing.

Embedding respiratory disease surveillance within the context of demographic surveillance: The IMVAC experience

- Objective: Investigate feasibility and duration of training required for unskilled field workers for the use of spirometry and questionnaire to investigate prevalence of COPD.
- Feasible to conduct respiratory disease surveillance study within the context of demographic surveillance system.

- Interactive and iterative knowledge- and skill-based training program of at least 2 months required to build competency to perform high quality spirometry tests.

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PARALLEL 4

Teenage pregnancy: Risk and consequences among adolescent women in rural Haryana

- Objectives: Study prevalence of teenage pregnancy, trend in teenage pregnancy during 2004-2008, socioeconomic determinants of teenage pregnancy and consequences associated with the teenage pregnancy in Ballabgarh HDSS.
- From 11,942 pregnant women, 342 (2.9%) women were less than 20 years of age at the time of termination of pregnancy.
- Prevalence of teenage pregnancy in Ballabgarh HDSS (2.9%) is much lower than that in Haryana state as per NFHS-3 estimates (7.5%).
- Teenage pregnancy decreased during the period 2004 to 2008.
- Socioeconomic status (education and caste of women) are important determinants.
- Teenage pregnancies had poorer outcomes, mainly higher spontaneous abortion.

Does religious affiliation moderate adolescent premarital sexual behavior in marginalized slum settlements in Nairobi City?

- Objectives: Assess association between religious affiliation and premarital sexual behavior, identify causes of differences, if any.
- Religious affiliation reduces likelihood of premarital sexual activity in NUHDSS.
- Muslims more likely to observe abstinence than other believers.
- Information on social control, religious discourses on premarital sexual behavior as well as longitudinal data will improve knowledge in this area.
- Religious leaders could play important role to improve reproductive health of adolescents and young adults in NUHDSS.

Factors influencing transition to marriage among females in Kassena-Nankana District, Ghana

- Objectives: Examine trends in timing of first marriage among women 15-24 years, identify factors associated with transition to marriage and make suggestions for improvements in data collection.
- Majority of young women marry before age 20; increasing proportions marrying after this age.
- Marriage earlier for those out of school and those residing in the rural parts.
- Young women not attending school face considerable pressure to marry.
- Programs to keep girls in school longer could delay marriage.

Short and prolonged inter-pregnancy interval as risk factors for spontaneous abortion in Purworejo District, Central Java, Indonesia

- Data from longitudinal surveillance at the DSS Purworejo site during 1994-1998.
- Six out of 100 pregnant women experienced spontaneous abortions annually.
- Risk of spontaneous abortion among interval of 1-12 months was 2.6, higher than 34-45 months intervals.
- Risk with prolonged inter-pregnancy interval (85 months or more) was also higher compared to 34-45 months interval.
- History of contraceptives use and spontaneous abortion, risk factors for spontaneous abortion.
- Policy on the optimal birth spacing needs to consider an upper-limit for birth interval (not just over 3 years), as interval more than 4 years increases risk of spontaneous abortion.

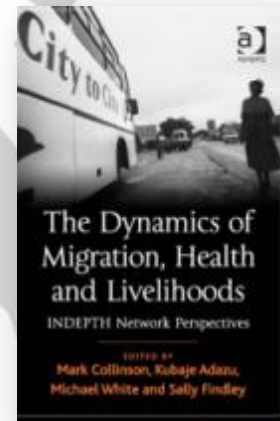
Community-based trial of enhanced family planning outreach in Rakai, Uganda

- Objectives: Establish and maintain community-based outreach programs to improve awareness and utilization of hormonal contraceptives (pill and injections), evaluate impact of intervention using cohort data.
- Education and number of children were strong determinants of hormonal contraceptive use.
- Intervention resulted in modest but statistically significant increased use of hormonal contraceptives and lower pregnancy rates in intervention arm.

OCT 27 2009 PLENARY 5

Migration and urbanization book: The dynamics of migration, health and livelihoods—INDEPTH Network perspectives

- Findings contrast beneficial impact of migration on household livelihoods with potential health burdens.
- Impact of migration can go either way—positive or negative for sending and/or receiving communities depending on issues at hand and type of migration.
- “Building on the richness of the INDEPTH surveillance data network, this volume takes a deep dive into the causes and consequences of geographic movement, identifying systematic regularities, and important differences, across the six research sites. This unique compendium of case studies offers valuable lessons for scholars of migration, students of program evaluation, and field workers. It is a tour de force in a rapidly growing field.” – *Marta Tienda, Princeton University, USA*
- “What makes this volume especially a must read is the application of longitudinal methods at a variety of sites among countries.” – *Aphichat Charatithirong, Mahidol University, Thailand*
- “I believe this book is a must read, for all scholars of population and migration studies.” – *Dr Godwin Ode Ikwuyatum, University of Ibadan, Nigeria*



Risk factors for chronic non-communicable disease: The burden in Asian INDEPTH HDSSs

- Overall aim: To strengthen the capacity of INDEPTH Asia sites for NCD risk factors surveillance.
- Objectives: To collect information on NCD risk factors using WHO STEP approach for risk factors surveillance, compare NCD risk factors across INDEPTH Asia sites and build capacity across sites in NCD risk factors surveillance.
- “The results of this surveillance work come at a critical point. In May 2008, the World Health Assembly endorsed the Action Plan for the Global Strategy for the Prevention and Control of Non-communicable Diseases. This INDEPTH series also demonstrates the feasibility of incorporating the WHO STEPS approach into other surveillance systems.” – *Ala Alwan, Assistant Director-General, Non-Communicable Disease and Mental Health, WHO Geneva*
- “Building the capacity to turn the information into policy and programmes is the next critical step. Failure to do so would be a lost opportunity.... The information from this multi-site study should stimulate the INDEPTH Network to assume a stronger leadership role in using its unique status to promote policies for the prevention of chronic NCD in low- and middle income countries. – *Ruth Bonita (Guest Editor and Mentor for NCD Supplement)*

Scientific productivity of INDEPTH surveillance systems: A bibliometric analysis of trends in INDEPTH HDSS publications

- Objectives: To establish an INDEPTH Web-based searchable database of all publications based on DSS work, conduct a preliminary analysis of content, trends, and relevance, use the database as a basis to identify case studies of DSS contributions, and identify areas to increase contributions and value of the DSS platform.
- Preliminary conclusions: Improving concordance with population health needs, work highly relevant to MDG agenda, strong tradition in efficacy trials has shifted to effectiveness studies, still weak on health systems and policy performance/influence, and publication productivity needs to increase beyond 2.5 papers per year per site.

Status report: INDEPTH adult health and aging

- Goals: Establish INDEPTH's capability to contribute critical insights into adult health, aging and disease transitions evolving in Africa and Asia, and evaluate potentially high impact interventions.
- INDEPTH-WHO collaboration aims to conduct a summary physical and cognitive function module integrated into routine surveillance rounds, and implement the *full version* of SAGE in a few DSS sites.
- Cross-site highlights: Predictors of poor health are being women, older age, living in Matlab, Agincourt and Navrongo, low SES, and reported disability and poor functioning.
- Larger difference of health score between men and women than expected.
- 87% of health score difference attributable to differences in age, education, socioeconomic levels, marital status, living arrangement, disability and functioning, and quality of life between men and women.

OCT 27 2009 PARALLEL 5

Non-specific beneficial effects of BCG on neonatal mortality: A randomized trial among children with low birth weight

- Between November 2004 and January 2008, recruited 2343 LBW children at maternity ward, randomized to BCG-at-birth or later (as normal), visited at 2, 6, and 12 months.
- 23 excluded for wrong weight or wrong treatment, 2320 children left.
- Hypothesized 25% reduction in infant mortality.
- BCG has non-specific beneficial effects.
- LBW should receive BCG.
- New TB vaccines should be tested against BCG; could increase mortality.
- BCG given too late in many areas; could have a major impact on neonatal mortality.

Low-dose sprinkles: An innovative approach to treat IDA in infants and young children

- Double-blinded cluster randomized control trial to establish an iron supplementation strategy to reduce prevalence of IDA in infants and young children in India.
- To test effectiveness of flexible administration of Sprinkles through existing Integrated Child Development Scheme (ICDS) in Maharashtra State on reducing the prevalence of anemia in children aged 6 months to 6 years.
- Sprinkles (12.5mg ferrous fumarate) is as efficacious as higher doses of iron in Sprinkles or iron drops in increasing hemoglobin.
- Has fewer reported side effects and better compliance compared to iron drops.
- Dosage of 60 sachets of Sprinkles given flexibly over 120 days is as effective as daily schedule in reducing anemia.

Trends and causes of under-five mortality over three decades at Ballabgarh HDSS, India (1972-2004)

- Under-five mortality, infant mortality and neonatal mortality rates declined by half from 1972-74 to 1992-94 but plateaued after that for 2002-04 period.
- Maximum reduction achieved in child (1-4 yrs) mortality followed by post-neonatal and neonatal mortality.
- Trends in causes of neonatal deaths: Cause-specific neonatal mortality rates declined significantly for infectious diseases (11.7 to 4.7 per 1000 live births) and for respiratory disorders (5.1 to 2.1 per 1000 live births).
- Decrease less for perinatal disorders (17.2 to 10.0 per 1000 live births).
- Perinatal disorders continue to account for nearly half of neonatal deaths.
- In causes of post-neonatal deaths, respiratory disorders, infectious disorders (mainly diarrhea) and nutritional disorders declined with maximum reduction in nutritional (13.5 to 3.4 per 1000) and respiratory disorders (16.9 to 6.5 per 1000).
- In 1 to 4 years age group, significant decline in three commonest causes: infectious diseases (26.7 to 6.6 per 1000), respiratory disorders (14.9 to 1.4 per 1000) and nutritional disorders (19.6 to 2.6 per 1000).
- Need to adopt more holistic approach with focus on strengthening of health systems and behavioral change to achieve further decline.

OCT 27 2009 PARALLEL 6

Mortality measurement in transition: Standardized cause-specific mortality comparisons

- Data from four HDSS sites in Ethiopia, South Africa, Vietnam and Indonesia.
- Main objective to make standardized comparison of cause-specific mortality factors (CSMF) across four geographically, socioeconomically and culturally diverse settings to demonstrate the viability and value of making systematic comparisons.
- Appropriate tool to study cause of death is the InterVA, which is based on Bayes' theorem. It is faster to use and agreement with physicians' review is good.
- The study concluded that InterVA-derived CSMF provide plausible characterizations of HDSS mortality profiles.
- Validity of VA methods difficult to achieve as absolute gold standard COD assessments of deaths at home unlikely to exist.
- VA better discussed in terms of plausibility, appropriateness and usefulness in filling knowledge gaps for specific needs
- Complete standardization and comparability offered makes model suitable measuring mortality transitions over time and between settings.

Mortality pattern in FilaBavi, Vietnam 1999–2008

- Mortality information helps plan health interventions.
- Data used from Filabavi HDSS from January 1999 to June 2008.
- Objectives: To estimate mortality rates by age and sex in Bavi district, to analyze trends of mortality during 10 years, to determine cause-specific mortality and to examine associations between mortality pattern and socioeconomic status (SES).
- Males had higher mortality than females in all age groups.
- Mortality is higher in lower wealth groups.
- Trend of mortality among females was stable; that among males varied and increased.
- Overall leading causes were cardiovascular diseases, malignant neoplasm, injury and infectious diseases.

Exploring the male-female health-survival paradox in rural Ghana

- There is inconsistency in health and survival profiles of men and women. Females report poorer health, but have less mortality.
- Both quantitative and qualitative methods were employed in the study using data from the Navrongo HDSS, cross-sectional survey data, health facility data and focus group discussions.
- Objectives: Examine male-female health and survival patterns in a rural Ghanaian community, describe health and survival of adult men and women in Navrongo DSS site, explore community perspectives of the health and survival of adult men and women, explore community awareness and perceptions of the health and survival of men and women in Navrongo DSS site and contribute towards a broader understanding of the male-female health-survival paradox in rural Ghana.
- Findings consistent with observations elsewhere— females poorer in health status but better in survival.
- One reason could be that females make better use of health care than males and adhere to therapy closer than males.

Do self-reported health status, physical assessment and quality of life predict mortality? Case of older people at Ifakara HDSS

- Study conducted between January 2007 and May 2009 involving people aged 50 and above, living in Ifakara DSS.
- Objective: To look at association of self-reported health status, functional assessment and quality of life (QoL) in predicting mortality.
- Self-perceived health status and QoL are good predictors of mortality among the elderly in Ifakara HDSS.
- Living with a partner at old age improves QoL and health status.

OCT 27 2009

PARALLEL 8

TB risk factors and social determinants

- TB prevalence in 2009 is about 200 cases per 100,000 against millennium development goal of 148 while mortality is about 26 deaths per 100,000 against MDG goal of 14; decline is not rapid enough.
- Data gaps: Neglected risk factors (crowding, pollution, mental illness, etc.), strength of association for established risk factors (consistency, reliability), dose-response relationships (alcohol, smoking), effects of cumulative exposure and ceased exposure, interaction between different risk factors, overlapping exposure and clustering of risk factors, effect modification by setting or epidemiological situation, and multi-level analyses (relationship between socioeconomic conditions on community level, family level, individual level, and causal pathways of poverty).



When risk factors like company of friends old and new, a great setting, good food and thumping music come together, there is bound to be an outbreak of soaring spirits and dancing feet. On October 27, at the gala dinner, all scientists were too busy to suggest remedies!

OCTOBER 28, 2009 PROGRAM SUMMARY

PLENARY 6 INDEPTH General Assembly 1	PLENARY 7 HIV/AIDS pandemic and its impact	
PARALLEL SESSION A INDEPTH General Assembly 2: Site leaders meeting	Penetration of HIV care and Antiretroviral Therapy (ART) at the population level: Preliminary results from a retrospective study, Nyanza Province, Western Kenya, 2003-2008	<i>Mirabelle Adamu-Zeh, Kisumu HDSS</i>
PARALLEL SESSION 12 INESS	Applying the equity lens to HIV service coverage: Insights from a long-term community cohort in Tanzania	<i>Doris Mbata, Magu HDSS</i>
PARALLEL SESSION 13 Adult Health	Incidence of orphanhood before and after ART program implementation in Rakai, Uganda	<i>Fredrick E Makumbi, Rakai HDSS</i>
PARALLEL SESSION 14 Vaccination and child survival	"You opened our eyes": Narratives on attitudes and perceived utility to caregiving of knowing a child's positive HIV status in rural South Africa	<i>Kimani-Murage EW, Agincourt HDSS</i>
PARALLEL SESSION 15 COPD	Patterns of malnutrition among HIV positive and negative preschoolers in rural South Africa: Findings at baseline and after one year follow-up	<i>Kimani-Murage EW, Agincourt HDSS</i>
ADDITIONAL PARALLEL SESSION Epilepsy working group		

OCT 28 2009 PLENARY 7

Penetration of HIV care and antiretroviral therapy (ART) at the population level: Results from a retrospective study, Nyanza Province, Western Kenya, 2003-2008

- Objectives: Describe penetration of HIV care and ART services in the HDSS study population in Nyanza Province, Western Kenya, assess outcomes of patients enrolling in HIV care and ART services, using a combination of health facility and HDSS data, and demonstrate public health impact (changes in mortality) associated with these services.
- 8,806 patient charts abstracted from 20 facilities; 5,162 (59%) of patient charts linked to HDSS data.
- Since 2003, 29% of adult HIV+ received HIV services; 88% of these knew their HIV+ status.
- Of patients enrolled, 80% assigned a clinic outcome, 47% being active in care.
- Since 2006, adult overall and HIV mortality rates declined, while enrolment into HIV services rose.
- Unique opportunity for use of HDSS and facility data.
- Combining facility and HDSS data allows for clearer assessment of patient outcome status.

Applying the equity lens to HIV service coverage: Insights from Magu HDSS, North-West Tanzania

- Objectives: To describe the uptake of voluntary counseling and testing (VCT) among the HIV+, delays in referral from VCT to care and treatment centre (CTC), assess proportion of HIV+ receiving ART, estimate the unmet need for ART, and explain findings from the qualitative analysis of the services.
- Qualitative findings regarding reasons for slow uptake of HIV services: health systems barriers (distance, time, cost), psychosocial issues (family and community stigma), misconceptions about ART, and alternative health providers (witchcraft).
- To monitor uptake of HIV services, need to strengthen referral systems between VCT and CTC and monitor the progress of people from VCT to CTC.
- No major difference between the sexes in the number referred, use of VCT and registration at ART clinic. ART coverage higher among women.
- Remote rural residents have less access to HIV services and lower ART coverage.
- Biggest problem is 75% of HIV-infected persons do not know their HIV status.

Incidence of orphanhood before and after the HIV care program implementation in Rakai district, Uganda

- To compare the incidence of orphanhood among children aged 0-14 years during pre- and post-HIV care program implementation.
- Paternal-alone was the highest form of orphanhood; double orphanhood was higher than maternal-alone.
- Declines in orphanhood most notable during post-HIV care period.
- Significant reduction of about 43% among children (0-4 years) with at least one HIV+ parent, but not among other parental HIV status types; 40% in (5-9 years); and, 62% in 10-14 age group.

"You opened our eyes": Attitudes and usefulness of knowing a child's positive HIV status in rural South Africa

- Objectives: Describe caregivers' attitudes to knowing HIV status of their children, assess usefulness of knowing a child's HIV status to caregiving and nutritional status and determine barriers to caregiving as perceived by caregivers and support received.
- High level of acceptance of results—out of 21, 12 immediately, 7 with time.
- Favoritism or discrimination of HIV+ children rare.
- Great aspirations for child's health and growth.
- Counseling and spirituality key in coping over time.
- Knowing child's HIV status perceived as useful by 20/21 respondents, enhancing caregiver's own competency in caregiving, associated with advice given by health professionals and also with regards to health care seeking, ART seeking, hygiene, and child feeding.
- Challenges in caregiving: Frequent illnesses in the children, mother's ill health, financial barriers, drug shortage, limited access, attitude of health care professionals and lack of confidentiality.
- Conclusions: High acceptance and positive attitudes towards knowing a child's HIV status; knowing status supports competency in caregiving; improvement in z-scores is related to heightened health care seeking and improved care giving; opportunity for pediatric HIV screening in communities; early appropriate interventions for HIV+ children may improve survival.

Patterns of malnutrition by HIV status and covariates of malnutrition in 1-4 year olds in rural South Africa

- Objectives: Describe HIV prevalence in 1-4 year olds living in Agincourt in 2007, evaluate patterns of malnutrition by HIV status and determine covariates of malnutrition.
- HIV test success rate: 95% (640/671); HIV prevalence: 4.4%.
- HIV status a key determinant of nutritional status (HAZ and WAZ)
- Other significant predictors: Age, birth weight, maternal age, age of household head and area of residence.
- Conclusions: HIV+ children at increased risk of malnutrition; prompt pediatric HIV testing may ensure early appropriate interventions for HIV+ children such as nutritional supplementation and ART.

OCT 28 2009 PARALLEL 15

COPD

- COPD a huge problem globally, especially in developing countries and in women.
- Appreciably under-diagnosed and under-treated.
- Data on prevalence and mortality inadequate.
- Burden of Obstructive Lung Disease Initiative (BOLD) operational objectives: Develop standardized methods for estimating COPD prevalence; develop an economic model to estimate cost of COPD and predict 10 years ahead; carry out surveys in many countries.
- Scientific objectives: Measure prevalence of COPD and its risk factors by age and sex; estimate burden of COPD in terms of quality of life, activity limitation, respiratory symptoms and use of health care services.
- Secondary scientific objectives: Compare different lung function criteria for diagnosis of COPD; determine if variations in risk factors contribute to variations in prevalence; characterize clinical management of COPD in different countries.
- INDEPTH-BOLD partnership rationale: INDEPTH has enumerated and well-studied populations; BOLD has developed carefully standardized and well-tested methods for estimating COPD prevalence; COPD predicted to be the #4 cause of mortality worldwide by 2020 with major burden on low/middle income countries.



There was some in-depth bargaining on the streets and shops of Pune on October 28, as participants devoted the evening of Day 3 for some serious shopping. The wise returned, laden with shopping bags and the realisation that in every part of the world, the shopkeeper always wins, but the real gain is in the thrill of haggling in a strange tongue!

OCTOBER 29, 2009

PROGRAM SUMMARY

PLENARY 8

Malaria morbidity and mortality

Strong gametocytocidal effect of methylene blue-based combination therapy against falciparum malaria: a randomized controlled trial	<i>Boubacar Coulibaly, Nouna HDSS</i>
The use of HDSS in monitoring malaria epidemiology in the middle belt of Ghana	<i>Kwaku Poku Asante, Kintampo HDSS</i>
Reaching the unreached in the event of severe malaria in a rural district in Ghana.	<i>Margaret Gyapong, Dodowa HDSS</i>

PLENARY 9

Working groups feedback and closing ceremony

OCT 29 2009 PLENARY 8

Strong gametocytocidal effect of methylene blue-based combination therapy against falciparum malaria: a randomized controlled trial

- Methylene blue (MB) in combination with a number of partner drugs has been shown to be safe and effective in a West-African population with a high prevalence of glucose-6-phosphate dehydrogenase deficiency.
- Main objective to investigate safety of the combinations MB-AS and MB-AQ.
- Results suggest high efficacy of MB-based CT against *Pf* gametocytes.
- Combination of MB with an artemisinin derivate may maximize latter's gametocytocidal effects.
- Larger studies needed for confirmation and to consider impending artemisinin resistance.

Use of HDSS in monitoring malaria epidemiology in the Middle Belt of Ghana

- Aim of Kintampo Birth Cohort Study to determine incidence of clinical malaria disease in a cohort of very young children in study area from birth to 2 years.
- Study duration 4 years; about 1400 pregnant women recruited and followed up.
- Challenges included labor-intensive nature, high cost of treatment, differentiating between causes of fevers and need for extensive collaboration for specialized analysis.
- Children could be followed up at less frequent intervals after first 2 years. For longer periods, HDSS could observe epidemiological trends.
- Similar studies going on in other sites like Navrongo HDSS, will help establish and monitor trends in key malaria epidemiology.

Reaching the unreached in the event of severe malaria in a rural district in Ghana

- Most malaria deaths in young children occur at home within 1 or 2 days of onset of serious symptoms.
- Young children rapidly become too sick to swallow antimalarials, injections are usually not available at village level, and referral to a health facility can take many hours.
- Study objectives: Document proportion of febrile NPO children who received RA and sought subsequent care, course of action for febrile NPO children who received RA but did not seek care at HF, assess socioeconomic status and health insurance registration status of caretakers who sought care from DD and heeded to referral advice.
- Results indicate 25% reduced mortality when rectal formulation administered as pre-referral treatment at community level.

OCT 29 2009

WORKING GROUP FEEDBACK

Migration and urbanization

- 2010 plan: Using existing data set up a question for each site; run two analytic workshops in June and September; prepare a comparable migration module to run in HDSS sites.
- 2011 plan: Run migration module in participating HDSS sites; produce a multi-site article that draws on pooled data and all prior longitudinal studies.

Health systems

- 25 sites have expressed interest across Asia and Africa.
- Assist sites to produce district health profiles from HDSS data; develop and apply district health system audits.
- Inventory of current and past HSR in HDSS sites; repository of HDSS applicable methods and instruments.
- Workshop on District Health System Analysis in Q2 2010.
- Potential presentation at the First Global Symposium on Health Systems Research Science in November 2010.

Adult health and aging

- Global Health Action journal launch in 2010.
- INDEPTH-Harvard workshop in April 2010.
- Bring together NCD risk factor module, work on demographic/epidemiological transitions and work on health systems R&D.
- Program of intervention/health systems R&D.

Vaccinations and child survival

- PhD proposal to Danida: Monitoring the impact of childhood interventions on child survival and morbidity (Ballabgarh, Navrongo, Nouna, Nairobi, Kintampo, Bandim).
- Helping with data analyses; other sites have expressed interest in collaboration in data collection.
- Looking for additional funding for data collection and trials.

INESS

- Updates: Governance structures and scientific board functional; SOPs and tools for main modules of research developed and training given; Data collection initiated in Ghana and plans for Tanzania in November; stakeholder consultation and sensitization accomplished; plan for data management and preliminary analysis done.
- Plans 2010: Analysis, synthesis and communication of initial data of INESS in Feb 2010; roll in of Mozambique and Burkina Faso sites; development of frameworks to aid drug choices and policy changes for antimalarials; application of data linkage system between DSS and health facilities in all sites; data collection using PDAs and Tablet PCs.

Fertility monograph

- Progress since October 2008: Reviewers comments on preliminary drafts; Nairobi and Accra meetings; HDSS sites participation; monograph structure.
- Preliminary findings: Characterizing fertility levels across sites; differences in fertility trends; fertility-mortality association.
- Way forward: Data quality check and review of revised chapters; draft of general chapters and merging of site chapters within countries.

TB

- Goal: conduct TB cross-site work which will maximize the use of HDSSs.
- Work with existing data: Link HDSS data with TB registry data; look at TB cause of death data from VA; TB incidence among HIV+ adults and with ART use; link prevalence survey with HDSS; risk factors for TB; evaluate long-term outcomes of individuals and households with TB, and of TB suspects who were never diagnosed.
- Work with new resources: New cross-sectional surveys of the burden of TB; evaluation of new TB diagnostic tests; symptom/sputa collection from HDSS population during HDSS rounds; evaluate pressure of infection in different geographic areas.
- Next steps: Merge ideas/persons from "new" MCTA proposal—ensure one working group; meet in Cancun – TB Union Meeting (December); meet in Kisumu, Kenya for 3-day workshop (early 2010).

Cause of death

- Sites working towards VA data entry and/or recoding to fit InterVA data input format.
- Aim to have 20,000-40,000 VAs processed shortly and then make cross-site analysis of cause-specific mortality, with 100% consistency of VA interpretation.
- InterVA model not perfect, but generally works well and is the best for cross-site comparisons.
- Need to get INDEPTH cause-specific mortality data published.

Epidemiology of epilepsy

- For 2010: Complete cross-sectional surveys; verbal autopsy data on epilepsy; cost-effectiveness study; psychiatric co-morbidity; funding for survey in Pune.



It was time to visit Vadu and neighbouring villages in the morning on October 29.

While Sonia Buist lost no time in befriending a calf, first-time visitors to an Indian village couldn't stop clicking photos. For veteran networkers, it was a case of "different village, familiar problems".



CLOSING

Like all good things, the 9th AGM and Scientific Meeting of INDEPTH Network came to a formal end on October 29, 2009. For some, there were a few sessions to complete on the next day. But, for most others, it was time to meet the members of the new Board, applaud the winners in the various competitions and to gather contact details to keep in touch with new friends.

Speaking at the closing, Dr Osman Sankoh thanked all site leaders for their dedication and their spirit of networking. "If you need help, please tell us. We are here to help you," he said. "Tell us how relevant we are to the work you do. Tell us how we can serve you better."

He urged site teams to share their ideas with the Secretariat. "Networking, in the true spirit of our organization, will always be a challenge," he pointed out. "We have had difficulties in the past; we have solved some of them. Let us face the remaining issues and solve them together."

He reminded that each member of every site was an ambassador for INDEPTH. He exhorted sites to extend their reach beyond the immediate confines of the site's activities. "Think of what we can contribute to national health intervention initiatives. The government should think of us when they want help for national health policy and implementation," he said.

Dr Sankoh reiterated that INDEPTH was always open for collaborations. "INDEPTH is not about malaria or about Africa, we are an inclusive organization," he affirmed.

He asked everyone to make better use of the INDEPTH website as a common platform for sharing ideas.

Dr Sanjay Juvekar thanked all for their participation and had a special word of appreciation and gratitude to all those colleagues who worked tirelessly behind the scenes and on stage to make the program a success. "When we gathered three days ago, we needed to look at the name tags to know each other. Now, we shall part as friends and colleagues, keen to draw on each other's strengths for the common good of networking that binds us all," he said.

THE NEW BOARD



From left: Dr Seth Owusu-Agyeyi (Chair), Dr Kayla Laserson, Dr Sanjay Juvekar, Dr Ali Sie, Dr Honorati Masanja, Dr Osman Sankoh, Prof Peter Aaby, Dr Cheikh Mbacke, Dr Andreas Heddini and Dr Kofi Baku.

OCTOBER 30, 2009

PROGRAMME SUMMARY

PARALLEL SESSION 16

Site leaders meeting

PARALLEL SESSION 17

Antibiotic resistance

PARALLEL SESSION 18

Sexual and reproductive health

OCT 30 2009

PARALLEL 17

INDEPTH-ReAct workshop on antibiotic resistance

- ReAct is a network that links a wide range of individuals, organizations and networks around the world taking concerted action to respond to antibiotic resistance.
- Presentations by 14 INDEPTH sites and 5 non-INDEPTH sites including the Indian Initiative for Management of Antibiotic Resistance (IIMAR).
- Experiences from 12 different countries (Kenya, Tanzania, Ghana, Burkina Faso, Uganda, Vietnam, India, Malaysia, Mozambique, Bangladesh, Thailand and Nepal) plus the EU were shared.
- Resistance among bacteria towards common antibiotics has reached unacceptable levels in many low- and middle-income countries and trends show further increases.
- Agents most affected are the inexpensive, older antimicrobials, which in many cases are all that are available or affordable.
- Constraints at African sites: Lack of microbiology facilities particularly in rural areas; financial support and adequately trained personnel; absence of national policies on antibiotic use; no access to effective antibiotics, counterfeit and substandard drugs.
- Constraints at Asian sites: Lack of national coordination; national policies and guidelines for antibiotic use exist but are not implemented; very strong financial incentives in some places for irrational prescription and use of antibiotics; lack of adequate surveillance of drug use and treatment failure data to specify problems, support intervention and policy development and monitor results.
- European Antimicrobial Resistance Surveillance System (EARSS) is a European wide network of national surveillance systems in 33 countries.
- INDEPTH has potential to generate surveillance data at micro level (pathogen), macro level (patient) and meta level (society).
- Potential areas for INDEPTH-ReAct collaboration: Studies of prescription and consumption patterns, costs; behavioral aspects and attitudes of consumers and providers; prevalence of resistance in defined patient groups, burden data; intervention studies with improved diagnostics and rational use; GIS studies mapping risk factors for resistance such as proximity to animal husbandry and other geo and demographic data; efficacy studies (phase I-II) of combination therapy in selected patient groups; studies of access and improved algorithms for presumptive treatment.
- Short questionnaire regarding interests and available resources to be sent out before next meeting in March-April 2010.

OCT 30 2009

PARALLEL 18

Sexual and reproductive health (SRH) workshop

- Funding received from Hewlett Foundation for cross-site intervention-based research on SRH in Africa.
- On review of the background paper and on considering of Hewlett's interest, the group has agreed to replace "Gender-based Violence" with "Family Planning" as a research agenda. Other two proposed research projects are "Maternal and Child Health" and "Sexual and Reproductive Health among Adolescents".

- SRH working group was divided into three sub-groups to consider more specific issues in each area.
- Family planning – Dr. Jean Christopher-Fotso, Nairobi HDSS, Kenya (APHRC); Fred Nalugoda; Rakai HDSS, Uganda.
- Maternal and Child Health – Dr. Sanjay K. Rai, Ballabgarh HDSS, India; Dr. Nurul Alam; Matlab HDSS, Bangladesh.
- Sexual and Reproductive Health among Adolescents – Dr. Cornelius Yayele Debpuur; Navrongo HDSS, Ghana; Dr. Quamrun Nahar; AMK HDSS, Bangladesh.
- Full proposal to be finished by February, 2010.



At last INDEPTH counts me, so do I matter now?

By Osman Sankoh (Mallam O.)

*I saw it happen; many times
My neighbours died at home
Buried immediately!
What killed them?
Why expect me to know?
They are born, they grow up, they fall ill
They die!
Isn't that natural?
Does anyone care about us?
We are far away from the city
No one bothered to come to us
We can't afford hospital services
In fact, too far away!
Can't afford white man drugs
Can't afford mortuary costs
So, we die today, please bury us Immediately!
We don't matter, so let us go.
Good health doesn't seem to be a right
For many of us*

*What? Why are you here?
What do you want to do with us?
To add to our poverty and destitution?
So you wish to tell the world about us?
Tell lies to add to our misery?
He came many years ago and left;
Never back!
And you?
Like him?
Not again!
Please go away, will you?*

*OK, if you insist to stay
Here's a broken chair if you care to sit
There's a shade over there
Tell me what you want
Sorie, give them water
Fatu, give them the rest of that maize food
They say, we should be counted
They say, we will matter
How?
They say they know those in town
They say bit by bit our voice will be heard
Through resach, restach, re...
R-E-S-E-A-R-C-H?
Who needs to know about us?
If they say so, let's hear
How great! At last we will be counted,
So tell me, will we matter?*



*With a bowl of paint,
They numbered our hut
The children surrounded
The children spoke out the number loud
They rolled out papers
And asked us many questions*

*Do I remember when I was born?
Funny people!
My mother remembered the year
Everyone lost their goats to some disease
That's the year I was born.
My three children, I know
My wife, I don't know
My uncle, I don't know
My aunty, I don't know
My nephews, their dad is dead
My nieces, their parents ran away
What I know is this:
Struggle to feed my household
So why count me?*

This poem was written, on request, by Dr Osman Sankoh, Executive Director of INDEPTH, on the occasion of the 9th AGM. His book Hybrid Eyes – Reflections of an African in Europe, is a moving and insightful account of the experiences of a young Sierra Leonean graduate who achieves his dream of going to Europe for further studies, but has to face harsh realities there. Known to his countrymen by the name Mallam O., Dr Sankoh established the Sierra Leonean Writers Series and publishes books by writers of Sierra Leonean origin.



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