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L01 - Prevalence and Correlates of Physical Disability and Functional Limitation among Elderly Rural Population in Nigeria

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BACKGROUND: The number of people surviving into old age is increasing, and it has now become a global phenomenon. Studies on the prevalence and correlates of physical disability and functional limitation among elderly Nigerians are scanty.

OBJECTIVE: To determine the Prevalence and Correlates of Physical Disability and Functional Limitation among Elderly Rural Population in Nigeria

METHODOLOGY: This is a community-based cross-sectional study conducted in 3 local government areas (LGAs) in Nigeria, using a multistage sampling technique. Functional limitations of 1824 elderly persons were tested using Tinetti performance-oriented mobility assessment tool (TPOMAT) and self-reported activities of daily living (ADL). ADL disability of ten, six, and five basic items were compared.

RESULTS: The prevalence ratios (PRs) of physical disability using the ten, six, and five basic ADL items were 28.3 (95% CI 25.2–31.5), 15.7 (95% CI 13.4–19.8), and 12.1 (95% CI 9.8–15.3), respectively, while functional limitation was 22.5 (95% CI 18.1–24.4). Increased risk of disability was independently associated with female gender PR 3.6 (95% CI 1.5–7.4), advanced age ≥ 75 years; PR 22.2 (95% CI 14.5, 36.8), arthritis PR 3.7 (95% CI 2.6–4.6), stroke PR 4.8 (95% CI 3.7–7.9) and diabetes PR 6.1 (95% CI 4.3–7.1).

CONCLUSIONS: The findings from this study are pointers to unmet needs of the elderly disabled Nigerians.

L02 - Prevalence and form of violence against healthcare workers in Osogbo

Abodunrin O.L1, Adeomi A.A2, Akande TM3, Adeoye O2

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2Community Medicine Department, LAUTECH Teaching Hospital, Ogbomoso
3Department of Epidemiology and Community Health, University of Ilorin, Ilorin

INTRODUCTION: Workplace violence in the healthcare setting has been reported in many developed countries but the magnitude of the problem is scanty in low income countries. This study aims to determine the prevalence and forms of violence among health workers in two hospitals in Southwestern Nigeria

METHODOLOGY: The cross-sectional descriptive study was carried out among various cadres of health professionals in two hospitals in Osogbo. Using a semi-structured questionnaire, information was obtained from a sample of 242 respondents. Data were analyzed with SPSS version 16 and the level of significance was set at p < 0.05.

RESULTS: Respondents mean age was 39.2 ± 10.1 years and 160 (66.1%) have ever witnessed a case of assault against a health worker out of which 50% have witnessed in the current employment. The assaulted in the last case witnessed were reported as been mainly doctors (78, 49.0%) while the assaulter were reported as been the patients (74, 46.1). Current prevalence of 59.5% was obtained out of which 84 (58.3%) have experienced at least three episodes of violence. The verbal or psychological type of violence (52, 62%) was more common than physical form (32, 38%) with those requiring medical attention being 18 (21.4%).

CONCLUSION: The higher the age and the longer the duration of service, the more likely they would have experienced violence (p < 0.0001 and p = 0.032 respectively). There is a need for public orientation on decorum and patience in hospital as well as health workers protection policy.
L03 - Effect of gender preference

A. Adebowale, P. Enouck
Population Training and Research Unit, North-West University, Mafikeng

BACKGROUND

Gender preference (GP) remains a problem in sub-Saharan Africa. Women who have GP often continue childbearing until they are satisfied with the children's sex composition. This attitude frequently leads to high fertility which has adverse effect on family health. The link between women's fertility intention, GP and sex composition as found in this study is less explored in Malawi.

METHOD

This study utilized 2010 MDHS dataset and focused on married women aged 15-49 years (n=1739) in stable unions who currently have at least 5 living children. The dependent variable was fertility intention. Data was analyzed at bivariate and multivariate levels (α=0.05).

RESULTS

About 39.7% of the women have GP and higher proportion (23.3%) has preference for females. Living children's sex composition (LCSC) was the same in about 5% of the women. Age, region, wealth quintile, religion, residence and family planning programmes were significantly associated with fertility intention. Women who have GP and same LCSC were 1.35 (C.I=1.038-1.742; p=0.025) and 2.4 (C.I=1.486-4.001; p<0.001) times more likely to have intention to bear more children than those who have no GP and different sex composition respectively. The odds ratios hardly change when other socio-demographic variables were used as control. Also, the odds of preference for more children was higher among not empowered women (OR=2.557; C.I=1.278-5.117; p=0.008) than those who were highly empowered.

CONCLUSION

We find that gender preference and LCSC significantly influence women's intention to bear more children. Women should stop childbearing after attaining their desired number irrespective of the LCSC.

L04 - Political Response to HIV/AIDS Control among Local Government Chairmen in Osun State, Nigeria

A. Adelekan
Public Health Promotion Alliance

BACKGROUND:

HIV/AIDS has become a serious global health problem. In Nigeria, the failure of the government to adequately regulate and fund the health system has been documented to contribute to this problem in a variety of ways. Local government Chairmen have great responsibility to play as the head of administration in Local Government (LG). This study was therefore designed to determine the awareness and response to HIV/AIDS by Local Government Chairmen in Osun State, Nigeria.

METHODS:

The study was a descriptive qualitative study that utilized in-depth interviews. All consenting 27 out of 30 Local Government Chairmen in Osun State were interviewed using In-Depth Interview (IDI) guide. Interviews took place at the participant's office at the times convenient for them after advanced booking. Interviews were carried out in a harmonious, friendly and open atmosphere. Each interview lasted about 30-60 minutes. During the interview, data was recorded with tape recorder. Interview transcripts were coded by question topics, and respondents' spontaneous and prompted comments were analyzed for content concerning subthemes and questions posed during the interviews. Data analysis was performed using N6 qualitative software (QSR International).

RESULTS:

Majority of the respondents were aware that HIV/AIDS is high in Nigeria but did not know the significant of this extent. All the respondents were aware of HIV/AIDS policy in Nigeria but only few had ever read through this policy. Almost all the respondents were not aware of any international policy on HIV/AIDS control. Many of the respondents have a higher knowledge of the disease, some perceived themselves susceptible and only few respondents had ever done HCT. Many of the respondents have HIV/AIDS prevention and control unit in their local government and primary emphasis was placed on HIV prevention. Almost all the respondents reported less attention towards care and support for PLWHA and no specific programme in place for orphan and vulnerable children in some local governments. Many of the respondents did not see sexuality education as one of the means of controlling HIV/AIDS especially among youths. HIV/AIDS control was not a prioritized programme in some local governments and reasons included low prevalence of HIV/AIDS in their LG and inadequate financial resources. To generate political will for HIV/AIDS control, respondents suggested that international agencies should create more awareness for political leaders and also make necessary funds available directly to the local government for implementation of HIV programmes.

CONCLUSION:

Local Government chairman awareness of HIV/AIDS magnitude was low and only few aspects of HIV/AIDS control programmes were given a priority while this disease requires a complex approach. HIV education programme should be intensified for political leaders for governments and decision makers to develop adequate policies and measures on this issue, and also to ensure their implementation by making the necessary funds available.
LO5 - Assessing Knowledge, attitude, and practice of Emergency contraception: A cross-sectional study among Ethiopian undergraduate female students.

**BACKGROUND:** Emergency contraception (EC) is a type of modern contraception which is indicated after unprotected sexual intercourse when regular contraception is not in use. The importance of EC is evident in preventing unintended pregnancies and its ill consequences like unintended child delivery or unsafe abortion, which are the most common causes of maternal mortality. Therefore, EC need to be available and used appropriately as a backup in case regular contraception is not used, misused or failed. Knowing that Ethiopia is one of the countries with highest maternal mortality rate, this study aimed to assess the knowledge, attitude and practice of EC, and to further elucidate the relationship between these factors and some socioeconomic and demographic characteristics among female undergraduate students of Addis Ababa University (AAU). This information will contribute substantially to interventions intended to combat maternal mortality.

**METHODS:** A Cross-sectional quantitative study among 368 AAU undergraduate students was conducted using self-administered questionnaire. Study participants were selected by stratified random sampling. Data was entered and analyzed using SPSS Version 17. Results were presented using descriptive statistics, cross-tabulation and logistic regression.

**RESULTS:** Among the total participants (n = 368), only 23.4% were sexually active. Majority (84.2%) had heard of EC; 32.3% had a positive attitude towards it. The main source of information reported by the respondents was Media (69.3%). Among those who were sexually active, about 42% had unprotected sexual intercourse. Among those who had unprotected sexual intercourse, 75% had ever used EC. Sexually active participants had significantly better attitude towards EC than sexually inactive participants (crude OR 0.33(0.15-0.71)); even after adjusting for possible confounders such as age, region, religion, ethnicity, marital status, department and family education and income (adj. OR 0.36(0.15-0.86)).

**CONCLUSIONS:** The study showed high EC awareness and usage in contrast to other studies in the city, which could be due to the fact that university students are relatively in a better educational level. Therefore, it is highly recommended that interventions intended to combat maternal mortality through contraceptive usage need to be aware of such information specific to the target groups.

**KEYWORDS:** Emergency contraception, Knowledge, Attitude, Practice, Addis Ababa University, Ethiopia

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LO6 - Health-care utilization among the elderly in a rural South African population

**BACKGROUND:** Prevalence of non-communicable diseases (NCDs) is increasing among the elderly in South Africa. However little is known about health-care utilization (HCU) among the elderly.

**AIM:** To describe health-seeking behavior and predictors of HCU among the elderly in rural South Africa. However little is known about health-care utilization (HCU) among the elderly.

**METHODOLOGY:** Annual updates of demographic events in Agincourt HDSS are conducted in a population of 90,000 living in 27 villages. Adult HCU was assessed by use of an adapted WHO Study on Global AGEing. Bivariate analysis compared adults who utilized health services with those who did not. Logistic regression was used to investigate determinants of HCU.

**RESULTS:** Of the eligible 10,246 adults, 58% participated in the survey. Among all adults there were more females (61.5% vs. 38.5%), and average age was 64 years. Responders were older (66 vs. 61), whereas more non-responders had at least secondary education (29% vs. 14%), medical aid to see the doctor (100% vs. 2.5%) and higher asset score (25% vs. 22%). Analysis of 4,777 respondents who needed health-care one year preceding the survey showed that 95.6% utilized health-care, 86.4% of whom visited public health facilities. In multivariate logistic regression, adults with at least secondary education (OR=2.05, 95% CI: 1.18, 3.51), self-report of communicable diseases (OR=6.11, 95% CI: 1.49, 25.06), NCDs (OR=2.69, 95% CI: 1.91, 3.78), and injuries (OR=3.27, 95% CI: 1.02, 10.48) were more likely to utilize care.

**CONCLUSION:** The observed health-care utilization calls for health policy and planning efforts to address increasing health care needs of ageing South Africans.
L07 - Provision of reproductive health services from the lens of hearing impaired girls: How friendly? Policy implications for service delivery

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OBJECTIVE: This study assessed the experiences of girls with hearing impairment (HI) in accessing reproductive health care services. The scope of this study is delimited to communication/interactive experiences between service providers and HI clients and the factors influencing access to services.

METHODS: A descriptive cross sectional design that assessed experiences of girls with hearing impairment in accessing reproductive health services in Ibadan metropolis was adopted. Data was collected using the quantitative method by seven certified interpreters and analysed using descriptive statistics and binary logistic regression.

RESULTS: Mean age of respondents was 17.5±3.4 years and 94.6% had ever visited a health facility for reproductive health issues. Of these 6.2% and 4.6% went for treatment of STIs and pregnancy termination respectively. Pattern of client-provider interaction showed that communication through the interpreter who accompanied the HI girl to the facility (32.9%) was the most common means of communication; 17.1% did not understand anything said by the health provider, 41.8% had missed their turn in waiting room because they did not hear their names being called, 36.7% were embarrassed to ask questions in the presence of an interpreter and 85.6% would use facility if hearing impairment-friendly services are provided. Respondents who were currently working were 20 times more likely to receive services they wanted (OR=20.29, CI=1.05-392.16).

CONCLUSIONS: Availability of certified interpreters and ensuring confidentiality are key to effective service delivery for the hearing impaired.

KEY WORDS: hearing impaired, reproductive health services, health care access, disability, girls

L08 - An examination of inequalities in multimorbidity in South Africa

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BACKGROUND
Very little is known about socioeconomic related inequalities in multimorbidity, especially in developing countries.

OBJECTIVE
To examine socioeconomic inequality in multimorbidity in illness and disability in South Africa between 2005 and 2008

METHODS
Data were drawn from the 2005–2008 rounds of the South African General Household Surveys (GHS). Indirectly standardised concentration indices were used to assess socioeconomic inequality. Multimorbidity in illness and disability were constructed using data on nine illnesses and six disabilities contained in the GHS.

RESULTS
Multimorbidity affects a substantial number of South Africans. Most often multimorbidity is each found to involve only two conditions. In 2008 in South Africa, the multimorbidity that affected the greatest number of individuals (0.6% of the population) combined high blood pressure (BP) with at least one other illness. The combination of sexually transmitted diseases (STDs) and other condition or conditions is the least reported (i.e., 0.02% of the population). Multimorbidity is more prevalent among the poor; in disabilities this is yet more consistent. The concentration index of multiple illnesses in 2005 and 2008 are -0.0009 and -0.0006 respectively. The corresponding values for multiple disabilities are -0.0006 and -0.0006 respectively.

CONCLUSION
While there is a dearth of information on the socioeconomic distribution of multimorbidity in many developing countries, this paper has shown that its distribution in South Africa indicates that the poor bear a greater burden of multimorbidity. There is a need to design policies to address this situation and to design surveys that specifically assess multimorbidity.
L09 - Equitable access to HIV Treatment in Nigeria: The case study of PEPFAR Program

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BACKGROUND
Expanding access to antiretroviral therapy (ART) to treat HIV in low resource settings including Nigeria has demonstrated benefits to health and survival. Implementation of ART through primary and secondary health care facilities has the potential of improving equitable access with minimum health disparities. This study identified the gaps relating to equitably HIV treatment scale-up in Nigeria.

METHOD
A comparative quantitative study that involved secondary data analysis between those in need of treatment and those that received treatment from PEPFAR supported facilities in all the six geopolitical zones of Nigeria was done. The coverage period was from 2004 to 2008.

RESULTS
The result revealed a regional variation in the level of coverage which is proportional to the number of health facilities with 35.8% of the people needing ARV drugs receiving treatment. The north-central zone had the highest number of PLWHA receiving treatment 31.7% with correspondingly more health facilities compared to other zones, while the South East has the lowest coverage of 9.9%. Furthermore, there was a significant difference between treatment coverage in Northern and Southern Nigeria (p-value of <0.0001). Women have access to ART than men and same pattern observed for zones with NC having more coverage among women than men in ratio 2 to 1.

CONCLUSION
There is a need for equity in treatment distribution in Nigeria. Promoting equitability of HIV treatment should be linked with activation of more treatment site to improve HIV treatment coverage, access and quality of life of those living with HIV.

L10 - Household community survey on awareness, willingness and concern about Human Papilloma Virus vaccine among an indigenous African women Population

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BACKGROUND: Globally, HPV vaccine remains an effective primary prevention strategy for cervical cancer. There is limited information on awareness and acceptability in Africa especially among women who are central to its successful implementation.

AIMS: To determine awareness and attitudes towards HPV vaccine use amongst women of reproductive age group.

METHODS: This was a multi-staged random sampling household survey conducted amongst 1002 women aged18-49 years from August to September 2012 in Ibadan. Descriptive, bivariate and multivariable analyses were performed, and statistical significance was set at 95% confidence level.

RESULTS: The mean age was 29.8 ± 8.2 years. Only 4.6% had heard of HPV vaccine and on regression, semiskilled (OR = 0.18, 95% CI = 0.07 - 0.43) and unskilled (OR = 0.21, 95% CI = 0.06 – 0.76) were less likely and those with sexual debut age at 25 years and above were 4.5 times more likely (95% CI = 1.41–14.53) to be aware of HPV vaccine. Women with 3 or more sexual partners (OR= 3.27, 95% CI = 1.81 – 11.37) and those who knew CC is preventable were more likely (OR= 3.27, 95% CI =1.53 – 6.99) to be aware of the vaccine. Majority were willing to allow their children (88.6%) and about two-third wanted it incorporated in routine immunization. Reasons for none acceptance include: cost (19.4%), religion (19.4%), and fear of health hazards/complications (22.4%).

CONCLUSION: Awareness of HPV vaccine is low but willingness to accept it for their children is high. Policies and programs that will improve awareness such as IEC materials utilising culturally sensitive messages is imperative.
**L11 - The effect of smokeless**

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**BACKGROUND:** The influence of smokeless tobacco use on smoking intention of adolescents may be moderated by the level of receptivity to cigarette advertisements. This study therefore sought to determine the independent effect of smokeless tobacco use and exposure to cigarette advertisements on smoking intention among youths in Ghana.

**METHODS:** A cross-sectional analytical study was done using data obtained from Grades 7 – 9 Ghanaian adolescents who participated in the Global Youth Tobacco Surveys (GYTS) conducted during 2006 (n=9101) and 2009 (n=7738). Data analysis was restricted to current non-smokers and included descriptive statistics, chi-square and multi-variable adjusted logistic regression.

**RESULTS:** Overall, 3.4% of the respondents who were non-smokers reported intention to smoke in the next 12 months. After controlling for potential confounders, factors that were independently associated with intention to smoke were: the use of smokeless tobacco, (OR= 3.74: 95% CI= 2.63-5.32), limited exposure to anti-smoking media messages, (OR 1.70: CI =1.09-2.65), being offered cigarettes by tobacco representatives (OR=2.19 95% CI= 1.42-3.37) having both parents (OR=4.42; 95% CI =1.84-10.59) or a lot of friends (OR=3.03: 95% CI=1.87-4.89) who were smokers.

**CONCLUSION:** This study’s findings suggest that smokeless tobacco use and exposure to cigarette promotional activities independently influenced smoking intentions among youths in Ghana. The implementation of complete ban of all forms of tobacco products promotional activities needs to be intensified.

**KEY WORDS:** Smoke intention, smokeless tobacco use, tobacco advertisement and promotion, youths, Ghana

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**L12 - Knowledge and usage of fermented foods for children feeding in a selected community in Gauteng, South Africa**

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A number of studies worldwide have shown that traditional fermented foods and probiotics have nutritional values positive health effects especially on infants and young children if constantly used as part of the feeding schedule. However, lack of knowledge and perception towards fermented foods may limit their usage.

We conducted a qualitative exploratory study carried out in one of the peri-urban/rural communities in Gauteng, to assess the awareness and use of fermented foods by child care-givers attending the local antenatal clinic. The caregivers were recruited into 3 focus group discussions to address the study objectives. The information was transcribed, coded and analysed using Nvivo data analysis software.

Indigenous fermented maize/sorghum meal (ting), commercial yoghurt and mageu were the main fermented foods known to the Care-givers. Information on fermented foods was mainly sourced from parents and grandparents. Although most caregivers knew what fermented foods are, there were misconceptions on how they were made. Generally, caregivers did not know the benefits of fermented foods and also never fed them on their infants/young children as they considered them unsafe.

The Care-givers in the community covered by the study are unaware of food fermentation process and the potential benefits that fermented foods offer to infants and young children. This suggests that there is need to actively promote the knowledge and usage of fermented foods in this community.
L13 - HIV ART Cross Border Patient (CBP) Survey, looking into management systems and access to health care services in the three districts of Malawi in 2012

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BACKGROUND
International traveling and economic activities are getting more convenient and links with the socio-economic within the Southern African Development Community (SADC). Predominately, more than 70% of (PLHIV) are in SADC region. In Malawi, by June 2012, 617,992 patients registered on ART, 83,243 defaulted cases, and 22,475 (27%) defaulters could not be traced consider as cross-border patients (CBP).

OBJECTIVE
We conducted the baseline study for future developing management system for HIV CBP with innovative information technology solution and to create a migrant-friendly environment for CBP to have access to healthcare services in the SADC region

METHODS
A cross-sectional quantitative study design conducted in 2012. Three boarder district and 1 central hospital were recommended by the SADC secretariat to participate. Data was collected during ART clinic days using a structured questionnaire.

RESULTS
3,186 clients participated in the study, 61.9% female and 37.1% male. The mean age (years) and duration for taking ART was 36.9 and 2.8 respectively. 74(2.3%) patients came from other countries. Among these expatriates, 64.9% said traveling is the reason of having ART in Malawi. 1615(5%) ART clients would go aboard; however 91.2% mobile clients are not supplied with ART while they go abroad. Hence 87.5% clients would carry ART abroad. Among these mobile clients, 14.1% of them had poor drug adherence while non-traveler had 8.4% poor drug adherence (p=0.015).

CONCLUSION
The study provided first scientific evidence for the HIV CBP management since they are at higher risk of loss to follow-up or having bad adherence in the HIV/AIDS care system.

L14 - Monitoring of NCDs such as hypertension: challenges for the post-2015 agenda

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1Health Systems Trust, 2Medical Research Council, 3EpiResult

BACKGROUND
Universal Health Coverage (UHC) has been proposed as one of the key goals of the post-2015 agenda. Reducing non-communicable diseases (NCDs) and their risk factors is one of the neglected priorities within this goal. In March 2013 the World Health Assembly adopted the comprehensive global monitoring framework for NCDs and urged member states to develop national targets and indicators.

OBJECTIVES
To review NCD indicators in national data sources.

METHODS
Triangulation of multiple data sources was undertaken to better describe the burden of disease and effective treatment coverage of hypertension.

RESULTS
The District Health Barometer shows that NCDs have become the largest broad cause of years of life lost in South Africa. Extensive routine information systems exist for key infectious diseases as well as maternal and child health but minimal information is available on NCDs. Chronic disease rates collected by the District Health Information System are difficult to interpret in terms of disease burden or service coverage. National household surveys showed a measured hypertension prevalence of over 40% in adults 25+ in 2010. Self-reported prevalence was much lower; indicating that most cases were not diagnosed. Treatment coverage was very low (35.7%) and only 36.4% of those on treatment were controlled.

DISCUSSION
Surveys provide limited geographic disaggregation and trend analysis, yet they address some monitoring gaps and are better suited to understanding the complex interplay of risk factors, demographics, equity, service availability and quality that are components of achieving UHC. More work is needed to refine NCD monitoring in South Africa.
L15 - An outbreak of NDM-1 producing *Enterobacteriaceae* in a South African Hospital

P de Jager, J Thomas

**Background:** NDM-1, first discovered in 2008, is highly transferable between various *Enterobacteriaceae* and confers high-level antimicrobial resistance to multiple classes of commonly used antibiotics. We aim to describe the first NDM-1 outbreak in South Africa and identify risk factors associated with invasive disease and mortality.

**Methods:** All cases detected between 1 June 2011 and 31 October 2012 was included in the study (N=97). A retrospective case record review and telephonic interviews were conducted. Bivariate logistic regression was used to investigate associations between variables for cases with invasive disease and those who were colonized as well as for patients who died and those who survived. For multivariable analysis, a forward stepwise logistic regression model was utilized to identify significant predictors.

**Findings:** The epidemic-curve showed a propagating pattern, with most cases being detected during or subsequent to ICU admission. The mean age of cases was 57 years. Average length of hospital stay was 31.2 days (CI95 25.5 – 37.0 days) and the crude in-hospital mortality of cases with invasive disease was more than 3 times higher than colonized cases (OR 3.3; CI95% 1.38 – 7.91). The final model showed length of stay (AOR 6.49; CI95% 2.49 – 16.21) and hemodialysis (AOR 4.20; CI95% 1.45 – 12.18) to be strongly associated with invasive disease and an ICU stay of more than 14 days to be strongly associated with mortality (AOR 15; CI95% 4.45 – 50.57).

**Conclusion:** NDM-1 is associated with significant mortality. It is propagated in the hospital setting, probably through person-to-person spread with healthcare workers playing a key role.

L16 - Cost and cost-effectiveness of conventional and liquid-based cytology in South Africa: A laboratory service provider perspective

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**Background:** South Africa has a high prevalence of cervical cancer. Early detection can significantly reduce the burden of this disease. New screening technologies to detect cervical pathology have become available in recent years.

**Objectives:** To determine the cost and cost-effectiveness of liquid-based cytology (LBC) versus conventional cervical cytology, from the perspective of the National Health Laboratory Service (NHLS).

**Methods:** The unit of effectiveness was defined as the number of cervical intraepithelial neoplasm (CIN) II or higher lesions detected. Costs were assessed retrospectively for the financial year (2010/11) from a laboratory service provider perspective. A cost-effectiveness analysis was performed by combining secondary data collected from NHLS expenditure records and cytology laboratory data sources with data from the literature.

**Results:** Total average cost per conventional slide was found to be ZAR (South African rands) 64 (95% confidence interval (CI) 59 - 69) compared with ZAR 85 (95% CI 77 - 92) for an LBC slide. Conventional cytology was found to be more cost-effective (ZAR10 786, 95% CI 9 335 - 12 699) than LBC (ZAR18 911, 95% CI 16 180 - 22 435) in detecting CIN II or greater lesions. An improvement in the specificity of LBC and/or a decrease in the cost of consumables utilised in processing LBC specimens could potentially make it a cost-effective alternative to conventional cytology.

**Conclusion:** An estimate of the total average public sector laboratory cost per slide for each modality was calculated. Definitive assessment of cost-effectiveness will require a prospective study that incorporates human papillomavirus testing and is conducted from a societal perspective.
L17 - Environmental Endocrine Disruptors: An Undesirable Exposure

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Exposure to environmental endocrine disrupting chemicals (EDCs) often used in industry, agriculture and domestically has been linked to various outcomes such as altered spermatogenesis, urogenital abnormalities and decreased reproductive health. Complex mixtures of EDCs may differ between developed and developing countries, as some areas are faced with additional challenges for disease control. Negative trends in the male reproductive health raise the possibility of environmental factors as partial etiologic contributors. The objective is to summarise results to date of some studies examining pesticide effects on male reproductive health. Outcomes evaluated include semen parameters and DNA damage. In addition EDC effects on reproductive parameters of sentinel and laboratory animals will be presented. Epidemiological studies were conducted at rural and urban sites in South Africa, including cross-sectional studies in malaria areas. Reproductive toxicology studies (OECD protocols) were done to determine the effects of relevant EDC mixtures at environmental concentrations. Evidence of EDC exposure in South Africa includes high levels of organochlorine pesticides, pyrethroids, nonylphenol, polychlorinated biphenyls, phthalates and veterinary growth stimulants. Water, sediment and tissue samples from urban and rural sites tested positive for estrogenic activity. Effects on reproductive health were observed in aquatic species, wildlife and humans. The effects of complex environmental EDC mixtures on health should receive more attention.

L18 - Self-harm in Urban Africa: Evidence from five impoverished communities in Johannesburg

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BACKGROUND: Risk factors for self-harm are multifactorial. Most research evaluates proximal individual-level risk factors in a developed world setting. We aim to identify environmental, socioeconomic and demographic household-level risk factors for self-harm in five urban communities in Johannesburg, South Africa.

METHODS: Serial cross-sectional surveys from five impoverished urban communities in Johannesburg are collected annually for the Health, Environment and Development (HEAD) study. Multilevel analysis using the HEAD study panel data (2006 – 2011) was undertaken to identify household-level risk factors associated with self-harm within the household during the preceding year. Stepwise multivariate logistic regression analysis was employed to identify factors that best predicted self-harm.

FINDINGS: The average total suicide rate was 33.86 per 100 000 population. There was no significant trend in self-harm over time. Self-harm was significantly associated with households that reported being the victim of a violent crime during the past year (OR 9.0; 95% CI 5.46 – 14.84); has a member suffering from a chronic medical condition (OR 2.58; 95% CI 1.45 – 4.58) and households with four or more household members (OR 2.57; CI 95% 1.23 – 5.39).

CONCLUSION: Most published research on self-harm has an individual risk factor focus and a developed world bias. This study provides evidence on household risk factors for self-harm from an urban African setting. Policies to reduce the incidence of self-harm in these communities should include action on reducing crime and the burden of chronic disease.
L19 - Determinants of Child Diarrhea in two Countries of Sub-Saharan Africa

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BACKGROUND
Every year in the world, 700,000 children under 5 directly die from an episode of diarrhea [1]. However, diarrhea indirectly contributes to a much higher burden of child morbidity and mortality, as every episode of diarrhea increases the odds for a child to be stunted by 4% [2]. Diarrhea episodes may be caused by vaccine-preventable diseases (rotavirus, cholera – around 30%) or by other bacteria, viruses and parasites (around 70%) [3]. Africa is the worst affected by the disease, with more than 350,000 deaths every year [3].

OBJECTIVE
Since evidence says that 95% of diarrhoeal deaths could be avoided by 2025 [1], the present study aims at identifying the determinants of child diarrhea in two Sub-Saharan countries: Malawi and Zimbabwe.

METHOD
28,671 children aged 0-5 were taken from Malawi DHS 2010 and 4,655 children aged 0-5 from Zimbabwe DHS 2011. Multivariate binary regression was run on recent diarrhea, first for Malawi then for Zimbabwe.

RESULTS
In both countries, children under 2 are considerably more at risk of diarrhea (OR=3.3*** (Malawi), OR=1.7*** (Zimbabwe)). Water and sanitation at household level significantly increase the odds of child diarrhea when drinking water is taken from an unprotected source (OR=1.2*** (M), OR=1.9*** (Z)) or when toilet facilities are shared (OR=1.2*** (M), 1.3* (Z)) – which concerns almost 1 child out of 2. In both countries, some regions are considerably more affected by diarrhea than others (OR=1.8*** (M), OR=3.0*** (Z)). In Zimbabwe children from rural areas are more vulnerable to diarrhea (OR=1.5*** (Z)), as are children lacking iodized salt or vitamin A in Malawi (OR=1.1*** (M)).

CONCLUSION
Diarrhea prevention in Zimbabwe and Malawi should particularly focus on children under 2, integrate water and sanitation improvements, and address the causes of disparity between regions.

KEYWORDS: diarrhea, water and sanitation, child mortality, determinants, Africa

L20 - Monitoring and evaluation of a PHC Outreach team using mobile health (mHealth) in the North West Province.

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BACKGROUND
South Africa’s Primary Health Care (PHC) re-engineering strategy includes the establishment of ward-based PHC outreach teams. Community health workers (CHWs) provide home-based health promotive activities to pregnant and postnatal women, children under five and individuals requiring treatment adherence support.

OBJECTIVE
To describe activities of CHWs in one outreach team in the North West collecting data using a mHealth (mobile phone) system.

METHODS
In August 2012 a mHealth system was developed to capture household data in line with the approved DHIS paper-forms using mobile phones. Data is transmitted automatically from the phones to a web-based management console. Data on CHW activities and referrals for the period 1 September 2012 to 30 April 2013 was analysed from the web console.

RESULTS
The average number of daily household visits captured per CHW increased from 1.6 in September 2012 to 3.5 in April 2013. Most household visits were for adherence support (2.6/day), followed by children under 5 (1.7/day). Few household visits were for pregnant or postnatal clients (< 5 visits per month/CHW). For 72% of all referrals the clients attended the clinic and the CHW received a response from the clinic nurse reporting the outcome of the referral via the mobile phone. Very few household visits (1%) were supervised by the team leader.

CONCLUSION
Introduction of an M&E system using mobile technology enables real-time tracking of CHW activities. The reporting of activities increased as the team became familiar with the indicators and hardware. The immediacy of the mHealth system has highlighted several areas which require strengthening.
L21 - Relationship between socio-economic status and cardiovascular disease risk profile among participants of the Prospective Urban Rural Epidemiological (PURE) study

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**BACKGROUND:** Recently, cardiovascular disease (CVD) has emerged as a leading cause of death in developing countries. Studies indicate socio-economic patterning in the distribution and prevalence of risk factors for CVD with developed countries showing negative association between socio-economic status (SES) and CVD risk factors. In developing countries including South Africa however, available data remains inconsistent on the exact nature of this relationship.

**OBJECTIVE:** To examine the association between SES indicators and CVD risk factors among an adult population cohort of Black South Africans living in a rural and urban community.

**METHOD:** A cross-sectional analytical study of baseline data of a population-based cohort of 2000 black South African men and women aged 30-70 years who are part of the Cape Town arm of the Prospective Urban and Rural Epidemiology (PURE) Study

**RESULTS:** All CVD risk factors were significantly higher in urban compared to rural participants, except for hypertension and tobacco use with insignificant higher prevalence in the urban location. Highest income earners had the highest risk of hypertension (AOR= 2.4, 95% CI 1.5-3.9) and diabetes (AOR= 2.2, 95% CI 1.2-4.1). Marital status showed the most consistent association with all CVD risk factors; widowed participants had a higher risk of hypertension (OR=2.1, 95% CI 1.2-3.7) and diabetes (OR=2.0, 95% CI 1.1-3.7) compared to single participants.

**CONCLUSION:** Urban dwelling, high income earning and widowed marital status were significantly associated with higher hypertension and diabetes prevalence, while unemployment was associated with higher tobacco use.

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L22 - Environmental Risk Factors for Acute Respiratory Infections among Hospitalized Children Under-five in Ibadan, Nigeria

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**BACKGROUND**
Acute respiratory infections (ARIs) are the fourth major cause of morbidity and mortality among children under-five (C-U5) globally. However, information on risk factors that could predispose C-U5 to these infections is scanty in Nigeria. Therefore, this study assessed the environmental factors that contribute to the acquisition of ARIs among C-U5 in Ibadan.

**METHODS**
A case-control design was employed for this study. Two hundred and twenty C-U5 each with ARI (cases) and 220 without ARI (controls) were selected consecutively from children visiting Oni memorial Children Hospital and University College Hospital, Ibadan. A pretested six-section questionnaire was administered to mothers to elicit information on factors that contribute to the acquisition of ARIs among C-U5.

**RESULTS**
Mean ages of cases and controls were 20.4±14.7 and 20.3±15.0 months respectively. Mean household size among cases was 6.0±1.5 compared to 4.0±1.7 among controls (p=0.01). Children residing in houses with > 2 persons per room were found to be 14 fold at risk of ARI than children in houses with ≤ 2 persons per room. The use of lantern at night (OR=4.1, 95% CI:2.4-6.9) and firewood for cooking (OR=9.3, 95% CI:3.6-24.1) were found to be independent risk factors for ARIs.

**CONCLUSION**
Environmental risk factors were higher among cases than controls. These may have contributed to an increased vulnerability to respiratory infections among cases. Therefore, increased awareness of the importance of the environment with regards to prevention and control of ARI will be of significant importance.

**KEYWORDS:** Acute Respiratory Infection, Environmental risk factors, Children under-five, Ibadan, Nigeria
L23 - Social determinants of health of under five year children in a rural Agrarian community of North-Western Nigeria.  
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The United States Centers for Disease Control defines social determinants of health as life-enhancing resources, such as food supply, housing, education, and health care, whose distribution across populations effectively determines length and quality of life. In rural communities, social determinants of good health are scarce or absent and this contributes to high morbidity and mortality among rural children. The under five mortality rate for Nigeria, in the year 2008, was 157 deaths per 1000 live births. This cross-sectional descriptive study was conducted to assess social factors that determine the health of children in Gimba village, a rural community of Kaduna State, Nigeria. It was conducted during Community Diagnosis field practical posting of trained final year medical students of Ahmadu Bello University, Nigeria, in July 2012. An interviewer-administered questionnaire was used to collect data from all household heads in the community (total population study). Multivariate logistic regression analysis was done using STATA (Version 11. Stata Corporation, 2009). Children of uneducated mothers were more likely to fall sick compared to those of educated mothers (RR = 1.58; 95% C.I = 1.25 – 2.24). Children who were weaned abruptly and transferred to their aunts or grandmothers (geographic weaning) were more likely to fall sick compared to those weaned normally (RR = 1.71; 95% C. I= 0.97 – 2.03). The result indicated that several factors like maternal education and harmful cultural practices are social determinants of health of children in the study area. Improved maternal education; pro-poor policies and rural development are recommended.

KEY WORDS: Social determinants, health, children, rural, Nigeria.

L24 - PHC Re-engineering and community participation: communities and community health workers

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BACKGROUND
The basis for the introduction of the National Health Insurance is reengineering primary health care and improving the quality of public health services. Introducing outreach teams into districts is a key strategy to reach more people getting them into services early and to prevent illness. A lot of attention has been paid to the health workers in the pilot districts, there has been much training of various cadres, and the setting up of the Office of Standards Compliance. Less attention has been paid to the community and participation in the services. Soul City Institute for Health and Development Communication is focusing on supporting increased demand for quality health services through empowering communities and through the Soul City television and other vehicles.

METHODS
To inform this work a qualitative study was conducted in seven provinces among youth (16 to 19); adults (16 years and older); and health care workers (primarily Community Health Workers). Seventeen focus group interviews were conducted in local languages, in urban and rural areas in Mpumalanga, North West Province, Free State Province, Limpopo, Western Cape, Gauteng and KwaZulu-Natal. A previously tested, open and non-directive discussion guide allowing the social construction of experiences to emerge in the words of the participants themselves, and according to their priorities.

RESULTS
Community members believe that they could be involved in health services in a number of ways:
• The community should help in service delivery
• The community should offer transportation when there is a need
• The church can donate items

Community members also said that they would like the clinic and hospital staff to reach out to them, give them information outside of the clinic, and hold meetings with them. Community health workers, some working for NGO’s and others in a pilot NHI district, felt they are playing an important role in the health care system. There were, however a number of challenges that they had already experienced:
• Lack of resources – such as gloves;
• No job security -they feel misplaced and wanted to be included in the health system. Some have been volunteers for 7 to 10 years with no remuneration
• The stipend that they received (R1 200 - R1 500) was insufficient and inconsistent
• They walked long distances. It is not uncommon for them to walk 30 - 45 minutes to get to the communities they served. (In the NHI pilot district)
• Their own personal safety for example in supporting a rape survivor.
• Tracing clients was difficult in the context of high mobility where clients frequently changed addresses. This made adherence support particularly challenging,
• CHWs frequently deal with difficult social issues such as alcohol abuse and violence.
• They are confronted on a daily basis with the extreme life circumstances of their clients such as poverty, terminal illness, pregnant women or children without food. They do not get emotional or psychological support.

DISCUSSION
The findings support the PHC model that is being implemented but points to a number of areas that need to be thought through. Home-Based Caregivers and Community Health Workers are respected by the communities they serve and are a good link with communities, however they need to be equipped to handle very difficult circumstances. Once the CHW job is formalised and they become part of the system the commitment that these volunteers have shown may not continue unless they are respected and carefully supported. Communities believe that they can play a role in assisting the smooth running of health services and are keen to have more contact with clinic staff outside of the clinic.
L25 - The role of Home and Community Base Care in addressing the rehabilitative health care needs of patients it serves in the Western Cape

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BACKGROUND:
The Western Cape Department of Health (WCDOH) is currently reviewing the Community Base Services (CBS) component as part of the planning for Healthcare 2020. CBS services are to be rendered in the living, learning, working, social and/or play spaces of the people the WCDOH serves. It is geared toward prevention and health promotion with a complementary capacity for curative, rehabilitative and palliative care. The aim of the study was to identify gaps in services for rehabilitative health care needs within Home and Community Base care (HCBC).

METHODS:
This was a qualitative study. One rural and one urban sub-district within the Western Cape were selected to be included in the study. All NPO’s that delivered HCBC within the two sub-districts were included in the study. CCW was randomly selected to be included in the study and key informants were purposefully sampled. Data was constructed through CCW focus group discussions (FGD), CCW observations, patient journeys and key informant interviews.

RESULTS:
5 CCW FGD, 94 key informant interviews, 23 CCW observations and 16 patient journeys were conducted. All data were transcribed, codes and themes were identified. Key themes that emerged were limited skills and training in rehabilitation, presence of missed opportunities for prevention and promotion and poor supervision and support. Poor referral links and follow-up to ensure continuation of care was also identified.

CONCLUSION:
CCW’s requires knowledge and skill in rehabilitation to ensure continuation of care that aimed at health lifestyles and improving health quality of life of patients and optimal reintegration into the community.

L26 - Alcohol Use amongst Students of Njala University, Bo Campus.

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BACKGROUND: Alcohol use amongst university students in Sierra Leone is commonplace. Yet the patterns of use and consequences thereof have not been studied in this critical segment of the nation’s population.

OBJECTIVE: This study was aimed at assessing the use of alcohol amongst students of Njala University, which is the only university in Bo - the second largest city in Sierra Leone, to provide some insight into the current situation.

METHODS: A descriptive cross-sectional study using the snowball method to record demographic details, knowledge, attitude and patterns of use from 250 consenting undergraduate students of Njala University who had drunk alcohol within the previous 12 months.

RESULTS: About 57% of the respondents were males, with a peak use observed in 2nd year. Almost 74% of respondents drank for fun and relaxation. Sixty-nine percent were initiated to drinking by friends and nearly half of the respondents started drinking by the age of 16. Twenty-four percent were daily drinkers and over a quarter were binge drinking. Sixteen percent had involved in fights and 26% had consequently been injured or injured someone else.

CONCLUSION: Alcohol use amongst students of Njala University is associated with many psychosocial and physical problems. A more detailed assessment of the patterns of alcohol use amongst university students nationwide is encouraged for appropriate interventions to be instituted to forestall the potentially deleterious consequences of its use.
L27 - A suspected foodborne illness outbreak at a correctional facility in Tshwane District, Gauteng Province, South Africa, February 2013

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BACKGROUND: Correctional facility (CF) inmates in resource-limited countries may be at increased risk for acute gastroenteritis (AGE) due to factors including overcrowding, suboptimal hygiene and sanitation and underlying diseases. Over seven days, 82 inmates from the female section of a CF in Gauteng presented with AGE prompting an outbreak investigation.

OBJECTIVES: To establish the aetiology, extent and risk factors for the outbreak.

METHODS: A retrospective cohort study was conducted, comparing incidence of AGE among inmates exposed and those not exposed to possible risk factors. Case definition of AGE: Any female inmate presenting with diarrhoea (≥3 loose stool/24 hours), vomiting, or abdominal cramps during the seven-day period. Risk ratios and their 95% confidence intervals (95%CI) were calculated.

RESULTS: Inspection of the cells revealed overcrowding, suboptimal sanitation and hazardous food storage practices. Ill and well inmates cohabitated in the same cells. Questionnaires were completed by 65% of inmates (164/249). The incidence of AGE was 56.3% (92/164). Risk factors for developing AGE included lack of hand-wash soap in the cells (RR=2.2; 95%CI: 1.16-4.08), self-reported HIV infection (RR=6.2; 95%CI: 2.41-15.7) and consuming beef stew during the single meal served on the 24/02/2013 (RR=10.2: 95%CI: 2.21-46.6). No viral/bacterial pathogens were identified from the five stool samples or from food samples submitted for testing.

CONCLUSIONS: Ill inmates should be cohorted to prevent spread of enteric diseases. Promotion of hand-washing and food-safety requires prioritisation, through provision of hand-wash soap, targeted educational activities and safe consumption/storage practices. Upon our recommendation, hand-wash soap was provided in each cell.

L28 - The risk factors for asthma in the indoor home environments of primary school children in Overport, Durban

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BACKGROUND: The increasing prevalence of asthma among children has been attributed to environmental factors.

OBJECTIVES: To describe exposure to indoor air pollutants among a random sample of asthmatic and non-asthmatic school children in Overport, Durban and to determine respiratory symptoms and lung function in these children.

METHOD: A descriptive, cross-sectional study was done among asthmatic (n=50) and non-asthmatic children (n=50) aged 7-11 years. A questionnaire based on the International Study of Asthma and Allergies in Children (ISAAC) instrument, peak expiratory flow (PEF) and forced expiratory volume in one second (FEV1) measurements were done using a handheld digital recording device.

RESULTS: Questionnaire-Diagnosed Asthma (QDA (58%)) included children who were either Doctor-Diagnosed Asthmatics (DDA (45%)) or who reported a cough or wheeze in the absence of flu-like symptoms. Of the children who did not know their asthma status or reported no asthma, 13% were found to have QDA. Cigarette smoke, house dust and pollen triggered asthma-like symptoms in 57%, 49%, 44% of children respectively. Exposures were significantly higher in QDA (p >0.001). Although not statistically significant, mean lung function parameters (PEF and FEV1) was higher among QDA compared to non-asthmatics.

CONCLUSION: Despite our small sample size, indoor air pollutant exposure related differences were found among asthmatics and non-asthmatics. A not insubstantial number could be classified as undiagnosed asthmatics, a cause for concern for the quality of life of these children. The counter-intuitive lung function findings could have been attributed to technical usage, with asthmatics being more familiar with such equipment.
L29 - Quantifying the Validity of Routine Clinical Data

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BACKGROUND

District Health Information Management System – 2 (DHIMS – 2) is the database for health service data in Ghana. Ghana health service utilized a paper based data method for data acquisition similar to what is obtainable in developing countries. However, DHIMS-2 database has not been validated before even though previous studies outside Ghana on similar database revealed a worrisome outcome. This study evaluated the validity of DHIMS-2 data in Ghana.

METHODS

Seven districts in the Greater Accra region were randomly sampled and their district hospitals and polyclinics were recruited for validation. Neonatal health indicators such as stillbirth, low birth weight and neonatal death were considered. Data recorded from January – March 2012 were extracted from the primary data sources and compared to the facilities and DHIM–2 data. Its completeness and accuracy (error rate) were estimated with double verification technique.

RESULTS

This study showed that the estimated error rates were less than 1% in Ablekuma and Ashiedu-Keteke while others were mostly < 4%. The overall error rate in the DHIMS-2 database at the regional level was 0.68 % (95% C. I = 0.612 - 0.748) and the percentage of missing data was 3.1% (95% C. I = 2.96 - 3.24).

CONCLUSION

This study demonstrated that the completeness of the DHIMS-2 database was acceptable while its accuracy was closed to the acceptable range of high-quality data. Thus, with the implementation of appropriate quality improvement measures during data acquisition, DHIMS-2 will be transformed into a high-quality data.

L30 - Costs and Financing of Immunization Programs in Zambia and Uganda – key information to enhance impact of routine and new vaccines in Africa

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BACKGROUND:

Immunization with routine and new vaccines can have huge impact on mortality and morbidity. Lack of up-to-date, quality information on costs has complicated resource mobilization and planning for routine immunization programmes and new vaccine introduction.

OBJECTIVE:

To provide updated cost estimates and map resource flows to reinforce routine immunization and new vaccine programmes, and to inform development of methodologies which can be applied in similar countries.

METHODS:

A stratified random sample of 50 health facilities was costed in each country. Related costs and resource flows at district, provincial and national levels were assessed. Approaches and tools were harmonized where appropriate with standard WHO methodologies, but customized to respond to country priorities, systems and data.

RESULTS:

Planners, managers and service staff have sparse information on which to develop estimates of resource requirements. Costing methodologies required significant customization in each country to address priority information needs of health planners and data limitations. More accurate cost estimates and understanding of the influence of factors such as service models, scale and location are now available to inform planning of routine and new vaccine programmes in Zambia and Uganda. Appropriate estimation of costs of certain resources, particularly human resources, remains challenging.

CONCLUSION:

This study provides valuable information on underlying cost structures and resourcing of routine and new vaccine programmes. Clearer data on costs and funding flows enhances understanding of country contributions to immunization programmes and appropriate planning. The study can contribute to development of robust and efficient costing approaches for other African countries.
L31 - Practice and clinical presentations among pesticide handlers in flower farms in Meru district, Arusha, Tanzania

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INTRODUCTION
Impacts of indiscriminate application of agrochemicals to living organisms including humans is a global challenge. Flower farms like many others are not free from pests, flower growers use a variety of insecticides, herbicides, fungicides molluscicides and others to ensure sustainable health of their plants. However pesticides have been associated with wide range of adverse health problems to their handlers as well as animals. Pesticides exposure can cause health problems such as reproductive problems, cancer, abdominal problems, respiratory problems as well as skin problems. The study based on determining the common practice among employed staff in the farms during pesticide application and to establish common health problems related to pesticide handling prevalent among farm workers in flower plantations.

OBJECTIVES
To determine association between pesticides exposure among pesticides handlers in flower farms and illnesses believed to relate with pesticide exposure but also to explore the practice and common clinical presentations as effects among pesticide users in flower farms in Meru District, Arusha.

METHODS
Thirty (30) individuals purposively selected flower workers responded to a researcher administered semi structured questionnaire on pesticide exposure at workplace. Other techniques for data collection were non participatory observation, and indepth interview to RCH In-charge, Labour ward In-charge an OPD in-charge.

RESULTS
Majority of exposed workers 24 (80%) were symptomatic at time of data collection. The study also revealed that pesticides exposed flower workers had higher prevalence of disease, such complaints included abdominal 3 (12.5%) and reproductive problems 9 (37.5%), and abnormal menses 5 (20.8%), others reported respiratory problems 7 (21.2%) that is coughing and chest pain.

CONCLUSION
Flower farm workers have been experiencing different health problems since being exposed in pesticides environment such as chronic effects like uterine mayma, bronchial asthma, isominia and Heart disease-cardio myopathy, miscarriage and abortions. Despite all protective measure used the problem is still prevailing, this can be due to overexposure in pesticides environment as determined in the study there are workers whom they had more than 10 years working with pesticides in flowers as well as ineffective use of PPE.

L32 - Student stressors: Findings among medical students of a tertiary institution, central Nigeria

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BACKGROUND
The goal of medical education is to graduate knowledgeable, professional and skillful Physicians. The medical school curriculum has as such been developed to accomplish these ambitions. However, some aspects of the training may have unintended negative effects on medical student’s mental and emotional health that can undermine these values depending on the student’s perception and ability to handle the situation. Development of strategies to cope with or alleviate stress among medical students is very important. This is based on the increasing incidence of stress and stress-related illnesses among them which have been proven to be brought on by the rigors of a medical education.

OBJECTIVE
This study was designed to determine the stressors, contributory factors and stress coping strategies among the medical students of the Jos University Teaching Hospital, Plateau State, Nigeria.

METHOD
This was a descriptive, cross-sectional, school-based study involving a total of 422 medical students of Jos University Teaching Hospital from the 300, 400 and 500 level classes. The participants were selected using multi-stage sampling technique. Data on the stressors, contributory factors and coping strategies were collected using structured, self-administered questionnaires and analyzed using Epi info version 3.5.4.

RESULTS
Majority; 404(95.7%) of the respondents considered fatigue after a tight schedule of 8am to 5pm as a stressor, 310(73.5%) of the respondents considered lack of adequate sleep as a contributory factor, while 376(89.1%) of the respondents coped by proper planning of their activities. The relationship between parent’s marital status and low self-esteem was statistically significant with a p value of <0.001.

CONCLUSION
These identified stressors were not different from those obtained from similar studies done in Nigeria and in other parts of the world. Findings from the study also showed that factors like inadequate sleep/sleep problems and depression were not only contributory factors to stress, but were in themselves stressors. Therefore parental guidance and support from the medical school authority is invaluable.
**L33 - An evaluation of a short message service (SMS) hypertension health promotion at a Community Health Centre (CHC) in Cape Town: a cautionary tale**

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With 40 million South Africans estimated to have access to cell phones, they have considerable potential for health promotion. However, evaluations of interventions and solid evidence of effectiveness are still limited. A three-year project (2011-2013) based at a CHC in Cape Town evaluated a trilingual (isiXhosa, Afrikaans and English) hypertension health campaign disseminated by SMS over 22 weeks.

Mixed research methods of a randomised control trial followed by a focus group were used. 227 participants were recruited at baseline and their knowledge of hypertension was surveyed. At the end of the campaign, participants were surveyed again for changes in knowledge and behaviour. This was followed by a focus group of 22 participants to evaluate the campaign experiences.

64% of the participants were successfully followed up. On average, participants knew broadly how to control hypertension, but less about the details; for example, most knew that exercise was beneficial, but did not how much was needed in order to be beneficial. Participants reported behaviour change, which could not be supported by patient folder data due to lack of availability. Focus group members tended to perceive SMSes as representing health providers' efforts in keeping contact with and caring for patients.

Challenges that arose include: translation to ensure the same meaning in 160 characters across three languages, collecting objective data, loss-to-follow-up, and technical problems. It is also not yet clear how people are using their cell phones, which affects how knowledge is disseminated.

The paper concludes with a note of caution. Challenges must be addressed before scaling up similar interventions.

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**L34 - Experiences of using digital platforms to engage the public on health and development issues during “Kwanda Talk Show” broadcast**

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**BACKGROUND AND OBJECTIVES**
Soul City Institute (SCI) enhanced its use of digital media platforms alongside its TV materials with the recent flighting of the Kwanda Talk Show”. A short text message (SMS) line was launched to generate and continue dialogue on various health and development issues discussed on the 13 x 24 minute prime time episodes with its target audience. Topics included HIV, alcohol and livelihoods.

**METHODS:**
Qualitative methods were applied to 16,521 SMS received. Data were cleaned, coded and analysed manually using content analysis on Ms Excel.

**RESULTS**
Kwanda Talk reached an estimated 1.5 million people an episode. An average 1,271 SMS were received per episode. Viewers posted comments and questions about the show as well as for further information and existing services. SMSs ranged from sharing of experiences in relation to the various topics of discussion across episodes (80%), positive feedback of the show and interest in implementing Kwanda in communities (10%), request for help and clarity regarding various health and development issues and services (10%). Conversations were mediated and answered by subject experts identified by SCI. Social media platforms (facebook and twitter) used to support the SMS line also served to generate good dialogue.

**DISCUSSION AND CONCLUSION**
Lessons learned are that digital media are worthwhile platforms to reach and engage audiences and to facilitate multi-directional dialogues. Challenges include capacity to meet audience demand for information and conversation. Programme planning needs to ensure that adequate resources are allocated for digital media given its potential for reach and engagement.
L35 - Public health training in Nigeria: a rural posting experience

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BACKGROUND
Rural posting is an important aspect of medical training in Nigeria. Its purpose is to equip students with competencies in the practice of public health at the community level. It also provides primary health care services to rural residents who have limited access to secondary and tertiary health institutions.

METHODS
The rural posting experience of the University of Port Harcourt medical school took place for six weeks in January and February 2013 at Bua-Yeghe, a rural community in Ogoni land, south-south, Nigeria. It involved 170 final year medical students supervised by 11 lecturers. Teaching methods included didactic lectures and demonstrations in community entry, mapping, household enumeration, trainings in questionnaire administration, data collection and analysis. It also involved provision of primary health care services and interventions.

RESULTS
The students participated in three community entry meetings, mapped the five villages in Bua-Yeghe community and enumerated 2,229 households. They collected and analyzed data for 10,679 persons and disseminated their findings to the lecturers and the community. Findings showed poor child and reproductive health indices and suboptimal environmental health practices. Consequently, students organized a health outreach programme using dramas, demonstrations in appropriate health care practices, and medical services.

CONCLUSION
Rural posting experience trains medical students to put public health principles into practice and serves as a platform to provide interventions to underserved communities. The skills gained are beneficial to students and communities in resource limited settings and should be encouraged.

KEYWORDS: rural posting, public health training, Port Harcourt

L36 - Teaching research skills to undergraduate medical students at the University of KwaZulu-Natal

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BACKGROUND
The role of research and the critical appraisal of evidence in quality clinical practice have been identified as part of one of the core competencies for health professionals by the Teaching and Learning Committee of the Health Professions Council of South Africa.

OBJECTIVE
In Selectives 02, we capacitate students to conduct epidemiological research in their Selectives community.

METHODS
The Selectives programme is based on the Community-oriented Primary Care (COPC) model which responds to the social determinants of health, based on community needs, and using epidemiological principles. Third year medical students have interactive lectures and small group tutorial sessions to develop their knowledge about research methods and evidence-based medicine. Students work in small groups to prepare research protocols based on the community problems they identified in 2nd year. Their research involves surveying 100 participants. Resources are available on the university’s Learning Management System (Moodle). Protocols (including questionnaires, participant information sheet and consent forms) are submitted to the College of Health Sciences Biomedical Research Ethics Committee for expedited review.

RESULTS
During their winter vacation, students conduct their community-based surveys. Results are presented in a scientific research poster for peer and academic assessment. The research findings are used to develop a community-based health promotion intervention in their 4th year to complete the COPC cycle.

CONCLUSION
The Selectives programme capacitates students to engage with local communities, measuring health needs with appropriate research on topics which each of them have identified. They also improve their health systems knowledge and develop their research skills.
L37 - Gender Considerations for Conducting Community Dialogues On Multiple and Concurrent Partnerships in Zimbabwe

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BACKGROUND
Multiple and concurrent partnerships (MCP) is a key driver of HIV infection in Zimbabwe. Action Institute for Environment Health and Development Communication launched an HIV prevention campaign to promote MCP reduction, partnering with five community-based organisations (CBOs). Peer educators facilitated dialogues about MCP and HIV using multimedia.

OBJECTIVES
This study explored community and implementer impressions of the dialogue approach in rural and urban settings. One objective compared men and women’s experiences of the dialogues.

METHOD
A qualitative study design was used. In each setting, one male, female and mixed-sex focus group discussion was held with people exposed to the dialogues. Three in-depth interviews were conducted with implementers. Interviews were transcribed verbatim, translated into English then analysed thematically.

RESULTS
The study found that women in both settings participated in the dialogues less when men were present, as men tended to dominate. Some women described being shy to speak openly in front of their male counterparts, whereas women in single-sex groups felt more free to participate. Despite this, dialogues made them feel empowered; sharing information enabled them to get ideas to address their own circumstances. Men, however, in the urban setting felt motivated to participate in the programme because of the presence of women. Implementers described higher male participation in the mixed-sex dialogues.

CONCLUSION
Gender needs to be considered when organising community dialogues. While dialogues may be an acceptable approach to address MCP, the group composition influences participation. The study highlights how gender and power dynamics within communities influenced dialogues.

L38 - Efficacy of a social cognitive theory-based intervention, to reduce alcohol-related HIV-risk behaviour among young adults in Mamelodi, Pretoria: A randomised controlled trial

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BACKGROUND
HIV prevalence in South Africa among youth aged 15-24 is the world’s highest. A factor associated with the high-risk sexual behaviors that put young people at risk for HIV transmission, is alcohol misuse, and in South Africa this has been identified as one of the highest volumes of per capita. The development of effective HIV prevention programmes remains a top public health and policy priority in developing countries especially in South Africa where the development of an effective programme to reduce alcohol-related high-risk sexual behavior is still in its infancy. This research presents baseline results of the Randomised Controlled Trial.

OBJECTIVES
The study objective was:
- To establish baseline alcohol consumption levels / alcohol-related levels of HIV-risk behaviours in a group of volunteers in Mamelodi young adults who are currently engaging in alcohol-related HIV-risk behaviours.

METHODS
The study design for this community based intervention was a randomised controlled trial with data collected at baseline, at the delivery of CLEAR intervention, at 3 and 6 months follow up. At this stage, we present the results of baseline data.

RESULTS
The baseline results when screening participant’s eligibility indicate all 340 participants reported having had sex in the last 3 months of the study. Meanwhile 31% had sex with two partners and only 7% had sex with 3 partners. Condom use between always and sometimes was similar at 39% whereas those who reported no condom use were 21%. The alcohol use was high at 70% and unprotected sex whilst high on alcohol showed 69%. The results drawn from risk reduction interviews presents high contingency of condom use. However the skills to negotiate condom use, sexual violence, multiple concurrent partnerships, high proportion of alcohol use and risk remained a concern.

CONCLUSION
The findings of baseline data of RCT conclude that two thirds of young adults in Mamelodi consume alcohol. In addition, the results show they have had sex with more than 3 sexual partners and some never used condom when engaged in sexual practices, meanwhile others use sometimes constituting inconsistency of condom use. These risky behaviours pose a likelihood of HIV infection among young adult which could increase a burden to public health.
L39 - Using a Tracking Tool to Improve the Technical Support offered to Health Facilities through a Quality Improvement Programme

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BACKGROUND
The Aurum Institute has been in the process of scaling up their Quality Improvement (QI) Programme. This process revealed that there was no reliable method of keeping track of QI support activities carried out by quality mentors at facility level; while Plan-Do-Study-Act (PDSA) cycles were left to run for long periods without being reviewed. A need was identified to develop a tool that would guide mentors to provide efficient QI support.

OBJECTIVE
To document the effects of using a tracking tool to provide quality improvement support

METHODS
The Aurum QI team conducted root cause analysis of the problems emerging in the rapid scale-up of the programme. The quality of the QI support was assessed through mentors’ monthly reports.

RESULTS
An adaptation of an existing QI tracker was made to include aspects important to trace the QI process. The implementation of the tracker has thus far resulted in improved number of QI support visits from 21.3 % to 72 % of all facilities being visited at least twice in a month within the two sub-districts where it was piloted by May 2013. There is a standardised way of documenting facility QI activities. The mentors have reported that the tool has improved their QI skills due to its prompting nature. The Improvement advisors (IAs) have reported a new avenue for keeping track of mentors support visits and offering highly detailed technical feedback.

CONCLUSION
The tracking tool should be shared with other organisations looking for innovative ways to manage their QI programmes.

L40 - A descriptive review of Operation Sukuma Sakhe in KZN

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INTRODUCTION
KwaZulu-Natal is South Africa’s second most populous province, highly rural and challenged by poverty, crime, unemployment and poor health outcomes including the highest prevalence of HIV and TB. It was against this background that Premier Zweli Mkhize took a resolution to fight the social ills known to be the social determinants of ill health in KZN. The Flagship project was re-launched in 2012 as Operation Sukuma Sakhe (OSS) – meaning “Let us all stand up and build”.

METHODS
This descriptive review relies on field observation by the researcher, conducted at various OSS war rooms. It focuses on the processes of planning and service delivery and highlights successes and lessons learned from implementation.

FINDINGS
Each ward in the district must convene weekly or bi-weekly “War Room” meetings, where all stakeholders (including government departments) meet to discuss social challenges and plan interventions in collaboration and in response to the local needs. Each department uses the information to produce plans to address the challenges identified within a specific time. All reported cases from the community are recorded in an analysis book. All departments report to the municipality and a report is then consolidated and submitted to the Premier’s office.

The programme is built on partnership with the community, and the purpose is to enable government to provide services to better the lives of all KZN people. OSS has strong support and commitment from the Premier’s office and has high level champions in the form of each KZN Head of Department and senior managers. It emphasises sharing of resources, community involvement and decision making at a ward level. The strength of OSS is the approach to utilise champions at all levels, including foot soldiers (CCGs and youth ambassadors), the local councillor; war-room conveners, local task team and civil society.
**L41 - Level of physical activity**

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**BACKGROUND**
South Africa has a well-documented burden of obesity and chronic diseases which have quadrupled over the years and are a result of lifestyle behaviours such as over-nutrition and lack of exercise. The aim of the study was to determine the level of physical activity and eating habits of employees based at the Gauteng department of Health Central office.

**METHODS**
The cross sectional survey was conducted among 340 employees. A self-administered questionnaire was used for data collection, BMI and Physical activity level were measured using an validated IPAQ and food frequency questionnaire was used for eating habits. Cross tabulations were done to determine association between physical activity, eating habits and demographic characteristics. Data was analysed using SPSS version 20.

**RESULTS**
Of the 340 participants, 40% of participants were overweight, 37.6% were obese and 22.4% with normal weight, with females being more obese than males. The majority of participants (52.6%) were inactive, 32.4% were inadequately active and only 14.9% were adequately active. Low level of physical activity and barriers to physical activity were more common among females. There was generally a high intake of oily foods (39%); moderate intake of sugary food (45%); red meat (57.4%).

**CONCLUSION**
Overweight and obesity together with physical inactivity and unhealthy eating are high among GDOH employees irrespective of gender, job category and age. Worksite interventions that promote healthy lifestyle including eating healthy and encouraging physical activity are possible interventions of utmost importance to minimise the risk of obesity and subsequent development of NCDs.

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**L42 - Epidemiological and clinical profile of sexual violence in the region of Kolda**

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**INTRODUCTION**
The objective of this study was to investigate the epidemiological and clinical profile of sexual violence in the Kolda region.

**METHODOLOGY**
A retrospective observational study, descriptive and analytical was conducted from 23 December 1992 to 31 December 2011. The study population consisted of court records of victims of sexual violence during the study period. A comprehensive recruitment records of victims was made. The analysis was performed using Epi Info 3.3.2 software.

**RESULTS**
The study included 203 cases of sexual violence. From 1992 to 2011, 62% of cases have been recorded in the last five years. Rape and attempted rape were at the table in 55% and 36.5% respectively. The average age of victims and offenders were respectively 16.5 ± 10.7 years and 26.7 ± 9.4 years. Almost all perpetrators were male (99.5%). By cons, for the victims, the largely female dominated (99.5%).

Victims of sexual violence were assaulted most often at home the aggressor in 48.3% of cases and in the bush (18.7%). Sexual assault took place at night in 45.8% of cases. Almost all of the attacks was lonely (94.6%). Regarding the consultation period, 34.5% of victims consulted within 24 hours. The genital examination found the old and new of hymen defloration respectively 59.8% and 37.4%.

**CONCLUSION**
The extension of this study at the national level would have allowed authorities to obtain epidemiological data on sexual violence with a view to implement national strategies through multisectoral collaboration.

**KEYWORDS:** reproductive health, sexual violence, Senegal
L43 - The effect of climate change and energy generation on health

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It is now well known that our climate is changing. Some areas are becoming dryer while others are becoming warmer. These changes have started to affect the spread of infectious diseases and chronic diseases. This has a huge effect on disaster management and health planning and affects the poorer communities more. There are also other downstream effects like the labour markets, food security and air quality are affected by climate change. At present research on these effects and associations are lacking in South Africa and we need to encourage especially public health practitioners to do more research in this area.

Energy generation in South Africa is currently contributing to generation of green house gases due to our reliance on coal which in turn is affecting health and also contributes to climate change. Poorer communities in South Africa are using fossil fuels which also contributes to green house gas production and increase in respiratory illnesses. The other major contributors are urban transport, agriculture and food production.

The net result of energy production and climate change is increase in premature deaths, increase in disability adjusted life years lost and poor air quality.

Recently in April 2013 a round table discussion was held in Cape Town at Grootte Schuur hospital which was attended by doctors and civil society. Here we tried to highlight the climate change and energy generations effect on health and also identified the gaps that exist in South Africa. Further round table discussions are planned for the rest of the country so that we can have this topic on our national agenda of public health research.

L44 - WHEN THE CLINIC IS NOT BUILT YET…. The Avian Park Service Learning Centre Story

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BACKGROUND
The development of the Avian Park service learning centre involved a multiphase approach which included the establishment of the Avian Park Community Advisory Board and facilitating the academic program. This development was not without its challenges and part of the presentation will focus on these challenges as well as the solutions found.

CONTENT
The development of the Rural Clinical School has elevated the importance of the Avian Park Learning Centre. It provides an excellent opportunity for community-based education for students from the FMHS. Under supervision of a medical educationalist the medical students and students from the allied health sciences engage with service learning as part of credit-bearing, curriculum-based modules. Students are given the opportunity to integrate theoretical academic work with practical application in a community-based environment, where they also render a service.

Innovative student-based research projects in the community have aided in personal growth, a deeper understanding of development challenges of the country and enhances students’ sense of social responsibility within the context of health care.

CONCLUSION
The aim of this story is to provide an account of what is possible in a community where there is no clinic yet, the partnerships that have been forged and the invaluable lessons learnt since the inception of the service learning centre.
L45 - The Evaluation of the Supervision of Home Based Care Programs

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**BACKGROUND**

Home based care services, which are mostly provided by NGOs, are an important component of essential services to chronically ill patients. The care of the patients is mostly provided by volunteers who have received some training in care provision. Although both the WHO and the National Department of Health identify supervision of home based care services as essential, there are no clear guidelines to direct the process.

**OBJECTIVE**

The purpose of the evaluation was to identify how supervision of home based caregivers is implemented among CDC-funded HBC programs in South Africa.

**METHODS**

In-depth interviews were conducted with managers, supervisors and caregivers of HBC programs in 3 rural sites in Limpopo and 2 urban sites in the Free State. Nvivo9 software was used to analyze the qualitative data.

**RESULTS**

Guidelines on supervision processes do not exist across sites, and no specific training is provided to prepare supervisors for their supervisory duties. Care-giver and supervisor work load varied widely across sites. Barriers for the implementation of supervision include high workload for caregivers and supervisors, inadequate human resources, as well as large geographical areas that both caregivers and supervisors need to service. Facilitators for supervision include availability of resources, and counselling services for staff, and support from management.

**CONCLUSION**

There is a need to develop and standardize the supervision processes of home based care programs, including training of supervisors and written guidelines on supervision implementation.

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L46 - Job satisfaction amongst primary health care clinic nursing managers in two South African provinces.

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**BACKGROUND**

In developing countries, little is known about the predictors of job satisfaction, although they are associated with the sustainability of human resources and health system performance. PHC clinic managers are gatekeepers of the public health system, hence there is need to understand their job satisfaction as it is crucial to patient care.

**OBJECTIVE**

To determine overall job satisfaction of primary health care (PHC) clinic nursing managers and predictors of job satisfaction.

**METHODS**

During 2012, a cross sectional survey was conducted in clinics in two South African provinces. Stratified random sampling was used to select 111 PHC clinic nursing managers who completed a pre-tested Measure of Job Satisfaction questionnaire. Principal Component Analysis was used to measure job satisfaction levels. Predictors of job satisfaction were determined through multinomial logistic regression. Stata v.12 was used for analysis.

**RESULTS**

The majority of clinic nursing managers 99 (92%), were female. Overall mean age of participants was 49 years (SD=7.9) and 82 (76%) had a PHC clinical training qualification. Overall job satisfaction was 33% with no significant differences between Gauteng (34%) and Free State Provinces (33%) (p =0.96). In the multiple multinomial logistic regression, predictors of job satisfaction in both provinces were; working in a clinic of choice (RRR=2.63 [p = 0.083; 95% CI 0.88-7.86]) intention to leave (RRR=6.47 [p =0.009, 95% CI 1.58-26.57]) tiredness (RRR=0.39 [p=0.087 95% CI, 0.14-1.14]) and having been verbally abused (RRR=0.17 [p= 0.004; 95% CI 0.05-0.56]).

**CONCLUSION**

Results suggest that ability to choose a PHC clinic and addressing workplace violence could influence the job satisfaction of clinic nursing managers.
L47 - A Woman business

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This paper examines power and its relations within Uganda's health sector. Specifically, the manifest pieces of radical feminism in the country's malaria communication campaign and how these excesses drive the implementation of the malaria communication campaign are questioned. Information was collected through focus group discussions, key informant interviews with members of the public and health personnel as well as direct observation of malaria communication activities in a Ugandan rural district. Findings reveal that women have dominated the malaria control fight at village level, receding men into critical observers instead of concerned and active partners. In a dramatic reversal of events, men are the weaker group in the malaria fight, an idea that has clashed with the existing male chauvinism on which, several families still thrive in Africa. Therefore, a view that radical feminism should be seen as an organized system of power that needs to be checked if the malaria communication campaign is to succeed is herein proposed.

L48 - Tobacco use and Household Spending Patterns on Health

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BACKGROUND: Tobacco use in Uganda remains highly prevalent in the rural poor and the youth, and the economic burden caused is substantial. Cigarette smoking in men is most prevalent in West Nile region (31%), while Karamoja has the highest proportion of men who use other types of tobacco (42%). Tobacco use continues to aggravate absolute poverty at household level especially in rural areas characterized by high incidence of the disease burden, food insecurity, illiteracy and large families.

METHODS: Secondary analysis of smoking status, information on household income and expenditure, and use of health services of all household members (aged 15 years and above) collected by review of the latest Uganda National Household Survey (UNHS) and Uganda Demographic and Health Survey (UDHS). The fractional logit model will estimate the pattern of household expenditure between tobacco and health care spending.

RESULTS: Tobacco spending as a percentage of household expenditure is significant. Uganda households spent UGX 357 billion on tobacco products in 2010 compared to UGX 561 billion on health. If this money spent on tobacco use was spent on basic needs at household level, it would lift about 708,000 people out of absolute poverty and the related ill-health indicators.

CONCLUSIONS: Spending on tobacco results in high opportunity costs. Medical care expenditure is substantially traded off more among households with smokers than households without tobacco users in rural areas. Smoking impoverishes a substantial number of poorer rural households and has contributed to a viscous circle of absolute poverty, child malnutrition, morbidity and avoidable deaths.
L49 - Respiratory allergy and asthma associated with pesticide exposure amongst women in rural Western Cape in South Africa

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BACKGROUND
Few studies have investigated asthma associated with pesticides among women and farm workers in developing countries.

OBJECTIVE
This study investigated the effect of pesticide exposure on allergy and asthma among women farm workers and residents in the Western Cape, South Africa.

METHODS
A cross-sectional study was conducted on 211 women including those working and living on farms (121 farm dwellers) and those residing in neighbouring areas (90 town dwellers). Outcome measurements included the European Community Respiratory Health questionnaire, Phadiatop, specific IgE to mite allergens (Phadia, ImmunoCAP) and FeNO as per American Thoracic Society /European Respiratory Society criteria (2005). Questionnaire outcomes included doctor diagnosed asthma (DA), current asthma (CA), ocular nasal symptoms (ONS) and an asthma symptom score (ASS).

Exposure variables included self-reported exposure to pesticides and biomarkers as proxy for exposure as measured by whole blood cholinesterase (ChE).

RESULTS
At least 9% had low ChE of whom 78% were farm dwellers. The prevalence of DA, CA and ONS was 11%, 6% and 24% respectively. Adjusted models demonstrated that ONS was associated with immediate re-entry in the pesticide sprayed field (OR = 2.97; CI: 0.93-9.50). ASS was also associated with farm dweller status (IRR = 2.25; CI: 1.45-3.48) and low ChE (IRR = 1.93; CI: 1.09-3.44). Subjects with low ChE had a 5-fold increased odds of high FeNO (> 50ppb) (CI: 0.80-28.00; p=0.08) suggestive of probable allergic asthma.

CONCLUSION
Pesticide exposure among women farm workers is associated with increased risk of ONS and asthma. These associations need further exploration in a larger longitudinal study.

L50 - Developing the next generation of Health Policy and Systems Researchers + Analysts: exploring innovative strategies for capabilities’ development

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BACKGROUND
Increasing health inequity and poor Millennium Development Goal achievements has seen the African continent seeking innovative strategies to address public health challenges. Health Policy and Systems Research + Analysis (HPSR+A) is acknowledged to support health system development, but a small pool of people work in the field. Based on an initial needs assessment in five African countries, the Consortium for Health Policy and Systems Analysis in Africa (CHEPSAA) supports capability development of African HPSR+A educators and researchers through an “Emerging Leaders Programme (ELP)” implemented over 18 months from mid-2013.

OBJECTIVE
To explore capabilities for HPSR+A and outline an innovative strategy for supporting their development among a pool of mid-level researchers and senior PhD students (Emerging Leaders) building a career in the field.

METHODS
Engagement within CHEPSAA produced a list of capabilities to guide thinking on developing future leaders in the field. This ELP is in the process of development. The first phase of participation with 25 ELs from Africa takes place in mid-2013. The full programme involves a variety of strategies including experiential learning and peer mentoring, and will evolve over the programme’s duration in consultation with the ELs and in response to experience.

RESULTS
We will present the HPSR+A capabilities list; outline the process of its development, and the reasoning underlying it. We will discuss the outline of the ELP; the experience of the first element of the programme and reflections from participants.

CONCLUSION
Increasing health disparities and health system weaknesses in Africa call for strengthening of capacity in the field of HPSR+A to address critical public health needs. This paper outlines the capabilities needed and a new programme targeted at developing upcoming leaders in the field.
L51 - Factors contributing to retention and timely ART referral for pre-Art patients in the city of Johannesburg - A pre-ART care program baseline assessment.

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INTRODUCTION: Delays in timely treatment of known HIV positive patients leads to patients presenting sick and increased mortality. How pre-ART care is best set up and managed within the general health system is currently unknown and requires operational research. The study aim is to identify gaps in implementing Pre-ART program in order to develop and test the impact of an appropriate per-ART programme that increases timely ART referral in PHC facilities in the city of Johannesburg.

METHODS: This is a baseline assessment for an intervention study in two primary PHC facilities from the city of Johannesburg. Data was collected through interviews with pre-ART care service providers and patients and document review. STATA version 12.0.1 was used to analyse quantitative data.

FINDINGS: A total of 12 service providers and 73 pre-ART care patients (24 males & 48 females) of whom 9 were youths, were interviewed. Seventy one percent of the pre-ART patients had their CD4 count checked within the past 6 months. Gaps established were: long waiting times, staff shortage and negative staff attitudes, lack of monitoring systems, lack of acceptance of one’s HIV positive status, drug stock outs, lost CD4 count and other blood results, youth and male unfriendliness. In addition, lack of knowledge about HIV/AIDS, CD4 cell count, pre-ART and ART care was also established.

CONCLUSION: There are major gaps in the pre-ART care services leading to poor patient retention and delays in ART initiation. Therefore, to ensure timely ART referral and access to pre-ART care, there is urgent need to design an appropriate pre-ART care program that would address the existing gaps targeting patients, staff and health systems in PHC facilities.

KEY WORDS: Pre-ART care, CD4 count, Timely ART referral, ART initiation

L52 - Awareness and preception

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BACKGROUND
Primary stroke prevention is dependent on public knowledge of stroke warning signs and risk factors and lack of knowledge of stroke warning signs and risk factors have been linked with delay in seeking medical attention. This study was therefore carried out to investigate the level of awareness and perception of stroke among public secondary school teachers in order to plan a primary prevention program for this population.

METHODS
All public secondary school teachers from Ibadan Northwest Local Government Area, Whose consent had been sought and obtained before taking part in the study were involved in the study. Data was collected using a pre-existing survey instrument development developed by Yoon et al and validated for Nigerians by Akande and analyzed using SPSS.

RESULTS
Majority (82.6%) of the respondents indicated that stroke was preventable and 69 (28.5%) were aware of possibility of stroke recurrence. The most common stroke risk factors listed by the respondents were hypertension (80.6%), stress (47.9%) and diabetes (30.2%). High blood pressure (50.4%) and paralysis of any part of the body (36%) were incorrectly identified as stroke warning signs. More than half of the respondents also perceived that stroke is due to stress, germs or infection in the blood and witches or wizards.

CONCLUSION
Baseline knowledge of stroke and awareness of stroke risk factors was good among respondents; however, awareness of stroke warning signs was poor. There is need to develop health educational strategies to enlighten the general public about stroke warning signs and symptoms.
L53 - Associations between attitudes toward violence and intimate partner violence in South Africa and Tanzania

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BACKGROUND: Attitude change approaches are common in the prevention of intimate partner violence (IPV) among adolescents.

METHOD: This study examined associations between perpetration or victimization and attitudes toward IPV with data from a longitudinal randomized controlled trial (RCT) of an HIV prevention intervention among school students in three sites in South Africa and Tanzania.

RESULT: Data analyses were confined to students from the control group only, and to those with experience with romantic relationships. Boys and those more involved with violence reported more violence-supportive attitudes. For Cape Town (and to some extent Mankweng), the results of prospective prediction are consistent with the notion of a bidirectional attitudes–behavior interrelationship. For Dar es Salaam attitudes predicted behavior prospectively; however, prediction in the opposite direction was not confirmed.

CONCLUSION: These results indicate that attitude change strategies may be useful complementary to structural approaches also in global South settings, although their effectiveness may vary.

KEYWORDS: attitudes; behavior; intimate partner violence; adolescents; HIV; prospective study

L54 - Can re-engineering Primary Health Care in South Africa replicate Brazil’s success without socio-economic change?

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BACKGROUND
South Africa’s Re-Engineering Primary Health Care (R-PHC) initiative was significantly informed by Brazil’s successes. In the last twenty years Brazil’s Health Sector Reform has led to impressive improvements in health indicators, but often ignored is that these were accompanied by decreases in its GINI coefficient and poverty index. South Africa’s high levels of inequity directly affect the health system by maintaining high HIV prevalence rates, violence and malnutrition. Learning points from South Africa’s War on Poverty Campaign are important for the R-PHC initiative.

METHODS
This paper builds on a literature review of data on Brazil’s Health Sector Reform successes and grey literature on the War Against Poverty Campaign, as well as data from an interview conducted as part of a research study in 2010.

RESULTS
The War on Poverty Campaign was given no additional resources, has weak intersectoral collaboration, and therefore struggles to address the underlying socio-economic factors driving HIV infection and malnutrition. Its primary success is the collection of household data. Simultaneous to Brazil’s health plan were national level social reform initiatives such as the Bolsa Familia conditional cash transfer programme, increases in the legal minimum wage, improved sanitation and access to electricity. Intersectoral work is clearly directed. Additionally, unlike South Africa, Brazil invested massively in health human resources.

CONCLUSION
Brazil’s improved health indicators are not only due to its Health Sector Reform. We can make a difference with the R-PHC, but without addressing the underlying causes of ill-health and health human resource shortages the problems will persist.
**L55 - Extent of a barrier**

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**BACKGROUND**

TB and HIV drive high maternal morbidity and mortality in South Africa. Integrated TB/HIV service delivery - as part of maternal health services including antenatal care (ANC) - is recommended to reverse current trends. This study assessed the extent of and barriers to integrated TB/HIV service delivery at a hospital-based ANC service provider in Frances Baard District, South Africa.

**METHODS**

Data was collected, firstly, by a retrospective record review of a random sample of 308 pregnant women with/without TB and/or HIV attending the hospital's ANC service between April 2011 and February 2012. Data was extracted from ANC and TB/HIV registers, as well as patient case notes. Outcomes assessed were the proportion of women receiving HIV counselling and testing (HCT), CD4-counting, antiretroviral treatment (ART), co-trimoxazole preventive treatment (CPT), TB screening, and isoniazid preventive treatment (IPT). Descriptive and bivariate analyses were performed to illuminate the variations among patient and health facility characteristics. Secondly, interviews were conducted with senior clinic staff to assess the implementation of TB/HIV collaborative activities.

**RESULTS**

All pregnant women underwent HCT and 80% of those testing HIV-positive were screened for TB. Most (86%) of the eligible women were offered and received a CD4 count. Subsequent service delivery was questionable: only 13% of eligible women received ART-prophylaxis on-site; 36% were referred for initiation of ART; 44% commenced IPT; and none received CPT nor did any TB suspects undergo further investigation. Bivariate analysis revealed a significant relationship between HIV status and whether or not TB screening was performed. The odds of receiving such were more than twice as high for HIV-negative patients. Barriers identified included poor coordination and referral systems, shortage of up-to-date guidelines, lack of joint TB/HIV planning, deficient monitoring and evaluation, insufficient policy dissemination, poor data recording, improperly trained health-care workers, inadequate surveillance of HIV prevalence among TB patients, logistical shortages and a lack of awareness of WHO-recommended collaborative activities.

**CONCLUSIONS**

Identification of HIV-infected women and TB suspects was good, but other collaborative activities were sub-optimal. Further research is needed to uncover the factors preventing efficient HIV-TB care in ANC services and how these can be addressed.

**KEYWORDS**

TB/HIV, collaborative activities, pregnant women, antenatal care, Frances Baard, South Africa, barriers

**L56 - Socioeconomic inequalities in public health care delivery system: A case of Zambia**

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**BACKGROUND**

Effective policy formulation for the health sector requires evidence on the extent of inequalities and inequity in the system. However, little is known about the extent of equity in health care utilisation in sub-Saharan Africa (SSA).

**OBJECTIVE**

To examines the extent of equity/inequality in the utilisation of public health care in Zambia. It focuses specifically on public health care that is subsidized by the Government of Zambia.

**METHODS**

This study uses data from the 2010 Zambia Living Conditions and Monitoring Survey. To investigate inequalities, concentration curves and concentrations indices are used. To investigate inequity we compute a horizontal equity index. Horizontal equity requires that individuals with equal need of health care ought to be treated the same while equality is the absence of differences in utilisation among individuals of different socioeconomic status.

**RESULTS**

There is evidence of pro-poor inequality in public primary health care utilisation but pro-rich inequality in hospital use. After controlling for need, the pro-poor distribution is maintained at primary facilities and similarly a pro-rich distribution at hospitals is revealed. On the other hand, pro-rich inequity is observed when all the public facilities are combined.

**CONCLUSION**

While further research that explores possible reasons for the findings in the study is necessary, the pro-poor distributions of public primary health facilities use, calls for initiatives that focus on primary facilities that serve the poor and where possible, attempts should be made to ensure a pro-poor distribution at the hospital level. This should be in line with need for care.
L57 - Gastroenteritis outbreak in Siyanda district, Northern Cape province, South Africa, April-May 2013 – Preliminary results

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BACKGROUND: Diarrheal illnesses outbreak was notified at Gordonia Hospital, Upington from 30 April 2013, affecting mostly children <5 years. The outbreak investigation was initiated to identify the causative agents, possible source of the outbreak and to determine control interventions to prevent further spread.

METHODS: Descriptive cross-sectional study was conducted. A case definition was the passage of ≥3 more loose or watery stools in a 24-hours period. Gastroenteritis patients were line-listed. Stool samples were collected. Gold standards molecular techniques; polymerase chain reaction, genotyping and sequencing were used. Descriptive statistical analysis was carried-out.

RESULTS: 820 cases were line-listed. Patients presented with diarrhea and vomiting. Age ranged from 25days to 93 years (Median: 1-year); 59.5% of the cases were children <5yrs. Seven (7) death were reported, all ≤18 month old. Off the 69 stools tested, Rotavirus was detected (31/69, 45%), other enteric viruses were detected, with 66% rotavirus co-infection (6/9). In rotavirus positive cases, 16/27 (39%) were 0-9month, 2/27 (7%) were 9-15months, 9/27 (33%) were >15months. The predominant circulating strains were G3P[8] (7/14, 50.%), G9P[8] (6/14, 43%), G2P[6] (1/14, 7%). P[8]-strains detected clustered with the non-vaccine strains in lineage-III.

CONCLUSION: Rotavirus is the predominant pathogen identified. Other enteric viruses were detected, with rotavirus co-infection. The annual rotavirus season for 2013 began in early April. Rotavirus vaccine (Rotarix) was introduced in the South African expanded programme on immunisation in August 2009. Other factors such as vaccination history are being investigated. Control measures including active health promotion, improved case management and surveillance enhancement were implemented.

KEY WORDS: Gastroenteritis, Diarrhoea, Rotavirus, rotavirus vaccine, Siyanda district

L58 - The factors that attract and retain healthcare workers to rural areas in South Africa

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BACKGROUND: Attracting and retaining health care workers (HCWs) in rural areas remains a challenge in South Africa and globally. The disparity between rural and urban areas is increasing the health inequity gap. Current retention strategies focuses on the systemic factors causing people to leave rural areas but these strategies continue to fail at retaining HCWs in rural areas and thus perpetuates lack of quality health services and the type of services that can be offered. There are gaps in understanding the reasons HCWs remain in rural areas.

METHODS: This was a qualitative study using in-depth interviews and focus groups using an appreciative inquiry approach. Participants were asked to reflect on why they continued to work in rural areas despite the challenges faced. Doctors and therapists were purposively selected to participate in the study. Data were coded and themes extracted and critically analysed by two researchers. Ethics clearance was obtained from the University of the Free State.

FINDINGS: Intrinsic themes which emerged included having a calling to work in an area, team work and community affiliation. Extrinsic themes related to geographic location, diversity of work and functional referral networks and strong management and leadership structures.

CONCLUSION: A paradigm shift is required in thinking about attracting and retaining HCWs in rural areas. This research offers a new dimension is facilitating this paradigm shift by looking at the positive factors attracting people to rural areas. The conceptual framework that emerged helps to foster a paradigm shift in re-thinking the paradigm shift required.
L59 - 'Big food' in South Africa: its role in diet-related non-communicable diseases and policy options to mitigate its effects

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BACKGROUND
South Africa faces an increasing burden of diet-related NCDs and their associated risk factors. Among all classes of NCDs, the greatest proportion of deaths were attributed to cardiovascular diseases and diabetes, contributed to significantly by overweight and obesity.

South Africa is undergoing a nutrition 'transition' and has both the problem of 'over'- and undernutrition. Obesity is a rapidly increasing problem amongst adults and children of all social groups, resulting from changes in physical activity and dramatic shifts to a westernised diet (high in refined sugars, fat and low in fibre and micronutrients).

METHODS
Data were gathered and analysed on the presence of Big Food in South Africa and government responses.

RESULTS
Poor dietary intake and household food insecurity are strongly influenced by the food environment which is increasingly dominated by 'Big Food' - large food corporations, large packaged food and soft drink manufacturers, large retailers, and food outlets. These are linked through various pathways and increasingly shape South Africa's food environment. While 'small food' remains significant in the food environment in South Africa, it is both linked with, and threatened by, 'Big Food'. 'Big Food' involves both 'foreign' transnationals and South African companies.

CONCLUSIONS
Urgent action is required to mitigate the adverse health effects of the changing food environment in South Africa. This needs to include public education about unhealthy foods; greater regulation of 'Big Food'; and policies to make healthy foods more available, affordable, and acceptable, and unhealthy products less available, more costly, and less appealing.

L60 - Re-engineering Primary Health Care requires more Community Health Workers who are allowed to do more

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BACKGROUND
Central to the 'Re-engineering Primary Health Care' strategy are ward-based outreach teams with community health workers (CHWs). CHWs can successfully undertake interventions in maternal, newborn and child health (MNCH). However, in South Africa CHWs' activities are restricted to a few actions.

OBJECTIVE
To describe the current roles and functions of CHWs in South Africa and to present evidence on the effectiveness of CHWs in countries with similar burdens of childhood illness.

METHODS
Literature review of current evidence on CHWs in low and middle income countries.

RESULTS
Research and experience show rapid improvements in child health when good household coverage occurs through the use of CHWs equipped with skills to identify, prevent and treat common conditions. The number of tasks a CHW can reasonably perform depends upon the CHW to household ratio, their training and supervision. A high CHW-to-household ratio ensures that households are visited regularly and health problems detected early. Such high ratios have been attained by having both full- and part-time CHWs with ratios of 1:30 to 1:20.

CHWs in about 30 countries now treat childhood pneumonia with antibiotics. In South Africa CHWs have a very limited role in treatment, their scope of practice restricted by professional councils. Supportive national policies are needed to allow CHWs to administer treatments for specific childhood diseases, with strengthened regulatory and quality controls for the distribution and appropriate use of these.

CONCLUSION
This presentation will provide an overview of current evidence on CHWs and of policy options for South Africa.
L61 - A review of home and community based services in the Western Cape province: what lessons for a new policy framework?

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In 2012 the Western Cape Provincial Health Department commissioned a policy review of its home and community based services. Set against the backdrop of the Department’s Healthcare 2020 strategic planning framework, and its emphasis on client-centred, quality care, the review aimed to analyze the current policy and provision of home and community based care (HCBC) in both rural and urban areas of the Western Cape, and on the basis of this, propose a future framework for the re-organisation of HCBC.

Conducted in two study sites: the Eden District and Mitchells Plain Sub-District, over a period of 4 months, the review included 94 key informant interviews, 10 focus group discussions with Community Care Workers (CCW) and community members, 23 observations of CCW practice and the recording of 16 patient journeys.

Some of the key findings of the review, notably those related to the demographics, training and current scope and practice of CCWs, along with the challenges they face in their work environment will be presented. Key issues related to the monitoring, financing and the governance of the current HCBC platform will also be highlighted.

The review’s recommendations of how the current HCBC could be re-organized in the province - in line with the principles of Healthcare 2020 and the country’s primary health care (PHC) re-engineering strategy will be shared. It is anticipated that the findings of the review and the future scenario that it is proposed will have some resonance for colleagues in other provinces in South Africa.

KEY WORDS (5): home and community based services, provincial, policy, review.

L62 - Impact of health

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INTRODUCTION: Ethiopia launched a nationwide Health Extension Program (HEP) in 2003 to address major health problems by targeting households with essential promotion, preventive and high impact curative services. This program depends on 39,000 Health Extension Workers (HEWs). As such, the extent to which the recruitment and training of HEWs supports their ability to provide quality services is of great importance.

METHODS: A qualitative study design was used to interview 12 HEWs from rural, urban and pastoralist districts as well as seven key informants from different levels of government. Transcripts were then analysed using a grounded theory approach. Government and HEW perspectives were compared.

RESULTS: Different educational attainment criteria were applied to recruit HEWs in the different settings. While national guidelines recommend Grade 10 completion, some pastoralist areas recruited school-going HEWs who struggled to balance work and school. In contrast, urban-based HEWs often held higher degrees. The more educated HEWs expressed a desire for more advanced clinically-focused training, particularly to support safe delivery.

Key informants were aware of recruitment issues, particularly in the pastoralist areas, and cited plans to increase the educational requirements. Providing more clinically-focused training was more contended, as they believe HEWs should focus on prevention and health promotion.

CONCLUSION: The selection process has important implications for the motivation and performance of HEWs. Training and work expectations were not aligned, in many cases leading to HEW dissatisfaction. Given HEWs’ pivotal role in Ethiopia’s HEP, recruitment and training require special consideration to support their important work.
L63 - Perception of noise pollution among motor park workers in Sagamu, Ogun State, Nigeria.

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BACKGROUND
Noise pollution and its attendant health consequences have been of considerable public health concern in many countries, including Nigeria. Increased industrialization and social services have also been accompanied with the proliferation of noise generating activities and centers, including motor parks.

OBJECTIVE
This study assessed the perception of motor park workers in Sagamu, on noise pollution.

METHODS
A cross sectional study was carried out among motor park workers in three selected parks in Sagamu, an urban Nigerian town, using multi-stage sampling technique. Data were collected using semi-structured, interviewer-administered questionnaires and analyzed with SPSS Version 15.00.

RESULTS
The study involved 400 motor park workers, mostly (27.3%) aged between 18 and 25 years. Only 8.6% of respondents were aged over 50 years. The male respondents constituted 61%; while females were 39%. Majority (65%) of respondents had heard of noise pollution, but only 28% felt at risk of the adverse effects of noise. The consequences of noise pollution, as perceived by respondents, included: hearing impairment (29.6%); poor concentration (13%); sleep disturbances (19%); headache (10%); hypertension (17%) and emotional instability (8.2%). About 83% of respondents felt noise could be controlled; 35.4 % felt it could be done via public enlightenment; 23.9% through the use of sound dampening devices; 22% through government policies; 17% felt procedural substitution could help, while 16% felt poverty alleviation was pivotal to noise control.

CONCLUSION
The awareness of noise pollution was high, but risk perception was very low, among respondents.

L64 - Re-engineering public health care in Gauteng taking health back to the community

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BACKGROUND: Primary Health Care (PHC) re-engineering has been adopted by the National Department of Health (DoH). The model contains three streams: a ward based PHC outreach team for each electoral ward; strengthening school health services; and district based clinical specialist teams. The main goals of the symposium were to: take inventory of current activities, highlight successes and challenges, and systemise a framework for further expansion for the Gauteng Province.

METHODS: The Gauteng DoH, in partnership with the Anova Health Institute, hosted a one-day PHC re-engineering symposium in Johannesburg. The symposium engaged all stakeholders in the DoH together development partners with a focus on health systems strengthening, in an effort to accelerate the implementation of PHC re-engineering in the province.

RESULTS: The symposium was attended by 104 participants from DoH and development partners. The overall primary challenges facing PHC re-engineering in Gauteng can be summarised into three main categories: 1) Human resources especially around Community Health Workers (CHWs), Ward Based Outreach Team (WBOT) leaders and training; 2) Coordination of leadership, stakeholder buy-in, and monitoring and evaluation systems; and 3) Budgetary constraints leading to shortage of essential equipment and logistical support such as transportation, office space and other administrative needs.

CONCLUSION: The overall sentiment from the symposium was that some progress had been made in all areas of work in all districts of Gauteng, but there is still more work to be done. In terms of lessons learnt the community has been left out of this process and rigorous community awareness drive is essential to improve community buy-in.
L65 - Policy advocacy and Community action for public health:

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**THEME:** Community Health Planning, a Key aspect for Community Advocacy for Health

Effective planning is cardinal to the realisation of the objectives of the National Development Plan as well as the National Health Strategic Plan. This abstract provide planning guidance and information to health centres/health posts and communities for use in the process of developing action plans.

The community representatives should start with a review of the community's priority plans in line with the updates received. They should then review what more is likely to be achieved by the end of the year. It should then lead a discussion on what the five most important (in the community’s view) health problems are that the community is facing. Effective interventions that the community could take to tackle the problems identified and should help the community members reach a decision on what the community would be willing to undertake in the following year. Community representatives should then lead a discussion on what resources are available in the community that could contribute towards solving the identified problems. They should then help the community to identify the actions that the health centre and others (e.g., non-governmental organisations [NGOs]) will need to take to support the community’s action plan. Community should then finish the meeting by informing the community that the action plan may have to be adjusted if there are any changes to the current funding level. Therefore, community representatives should provide feedback to that effect.

L66 - Policy advocacy and Community action for public health

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**BACKGROUND**
The Alma Ata Declaration asserted ‘Health for all by the year 2000’. Challenges in attaining this marked the adoption of eight Millennium Development Goals (MDGs) with time controlled targets to measure progress on global issues, at the 2000 Millennium Summit. MDG 5 targets improving maternal health by reducing the maternal mortality ratio (MMR) by three-quarters between 1990 and 2015, and achieving universal access to reproductive health by 2015. An estimated 287,000 maternal deaths occurred in 2010 worldwide, showing a decline of 47% from 1990. Drawing closer to 2015, South Africa regrettably appears among the 75 priority countries that have not made progress in reducing their MMR since 1990.

**OBJECTIVE**
The aim of this study was to identify key maternal health issues in two rural Eastern Cape villages; Glenmore and Ndwayana.

**METHOD**
Approval to conduct the study was obtained from the Faculty of Pharmacy’s Ethics Committee and Eastern Cape Department of Health. Focus group discussions (FGDs) were conducted with village participants and semi structured interviews with health care professionals.

**RESULTS**
The need to address adolescent pregnancy was emphasised in nine out of ten FGDs conducted. Ineffective service delivery of ambulance services was raised as a concern in all FGDs. Concerns was also raised in all FGDs on the clinic in each village being closed during weekends.

**CONCLUSION**
The health risks associated with adolescent pregnancy were a major concern for village participants. Failure of ambulance services to timely reach expectant mothers in labour often resulted in occurrence of emergency home births.
L67 - A critical analysis of the South African health policies and programmes with regard to eye health promotion

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Eye health promotion is an important aspect of VISION 2020 campaign that aims to eliminate unwarranted cases of avoidable blindness worldwide by the year 2020. Most developing countries, including South Africa, have a serious burden of eye diseases and unwarranted causes of visual impairment and blindness. The purpose of this research therefore was to highlight the lack of an integrated eye health promotion policy in the South African primary health care system which can play a major role in the elimination of this burden of disease and also to make proposals for eye health promotion policy development in South Africa.

A combination of quantitative and qualitative research methods was used in this study. Questionnaires and interviews were conducted with all national and provincial health managers of portfolios relevant to eye care. Also, various health policy documents were requested from the National and Provincial Department of Health to ascertain claims of any existing guidelines on eye care. The policy documents and guidelines obtained had no specific reference to eye health promotion.

Only 11 (23%) of the managers of provincial health directorates reported that they have integrated vision screening in their health promotion programmes as part of eye health promotion strategies. Eye care managers in the provinces reported that school visits accounted for 75% of eye health promotion programmes target areas. Also, apart from the Northern Cape Province which has no eye care manager and consequently no eye health promotion programmes, the Western Cape Province also does not have eye health promotion programmes and relies mostly on private sector for eye care services.

The lack of an integrated eye health promotion policy and most probably the lack of a dedicated directorate that deals with eye health promotion issues may be a contributing factor to the overwhelming lack of integrated eye health promotion activities in South Africa. It is therefore recommended that an integrated eye health promotion model be developed and be part of the South African primary health care system.

KEY CONCEPTS
Visual impairment; avoidable blindness; VISION 2020; health policies and programmes; community participation; primary health care; eye health promotion policy.

L68 - Level of physical activity and eating habits of employees based at the Gauteng Department of Health Central Office, South Africa

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BACKGROUND
South Africa has a well-documented burden of obesity and chronic diseases which have quadrupled over the years and are a result of lifestyle behaviours such as over-nutrition and lack of exercise. The aim of the study was to determine the level of physical activity and eating habits of employees based at the Gauteng department of Health Central office.

METHODS
The cross sectional survey was conducted among 340 employees. A self-administered questionnaire was used for data collection, BMI and physical activity level were measured using an validated IPAQ and food frequency questionnaire was used for eating habits. Cross tabulations were done to determine association between physical activity, eating habits and demographic characteristics. Data was analysed using SPSS version 20.

RESULTS
Of the 340 participants, 40% of participants were overweight, 37.6% were obese and 22.4% with normal weight, with females being more obese than males. The majority of participants (52.6%) were inactive, (32, 4%) were inadequately active and only (14.9%) were adequately active. Low level of physical activity and barriers to physical activity were more common among females. There was generally a high intake of oily foods (39%); moderate intake of sugary food (45%); red meat (57.4%).

CONCLUSION
Overweight and obesity together with physical inactivity and unhealthy eating are high among GDOH employees irrespective of gender, job category and age. Worksite interventions that promote healthy lifestyle including eating healthy and encouraging physical activity are possible interventions of utmost importance to minimise the risk of obesity and subsequent development of NCDs.
L69 - Why patients say they do or do not take their TB medication

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Patients who test positive for TB and do not present for treatment present a serious challenge to the programme to reduce TB infection. Many of these patients are not symptomatic, but are infectious. To better understand why this happens patients were approached to obtain their own explanations.

This qualitative work was nested in a larger study looking at ascertaining the size and seriousness of the problems on this initial defaulting on treatment. Depth interviews were done with 41 adherent and non-adherent patients across five provinces in South Africa, as part of a larger investigation into concern about initial defaulting on TB treatment.

Key issues contributing to patients defaulting from treatment at this initial phase or later appeared to be connected to a lack of or incorrect knowledge or awareness about TB treatment; stigma around TB and its connection to HIV; the immediate problems in the patients live particularly poverty, lack of access to transport and the need to continue working; and problems in the clinic including under resourced clinics, poor clinic systems and negative staff attitudes. In contract the reasons given for complying with treatment related to the level of illness, support received in the home and clinic, a belief in the health system and positive experiences in the health service covering good systems in the clinic and positive attitudes from staff.

L70 - Early exposure to risks to child development:
A South African perspective based on data from the Birth to Twenty cohort study

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The early childhood period, particularly the first two years of life, is considered the most important developmental phase in an individual’s lifespan. Scientific evidence shows that inequalities in physical and mental health, human capital and adaptive behaviours stem from early childhood.

The first 1000 days (pregnancy and the first two years of life) have been identified as a period of unique sensitivity to environmental influences that can affect human development positively or negatively throughout the life course. A significant proportion of South African children are exposed to risks which affect their health, learning capacity, behaviour and productivity into adulthood. For many children, especially those born into poverty, risks often co-occur and persist; with exposure to multiple and cumulative risks leading to particularly adverse impacts on child development. To design and implement effective early childhood interventions that positively influence the lifetime trajectories of vulnerable children, an important first step is to better identify children who are most vulnerable and to understand the risks that they face, particularly during the critical early years.

Retrospective data from the Birth to Twenty cohort study was used to establish the prevalence, distribution and co-occurrence of risk factors to child development during the first two years of life, i.e. during the antenatal period, and at 6, 12 and 24 months respectively through secondary data analysis. This research study forms the basis of a larger doctoral study.
**L71 - Drug abuse in the Western Cape: Documenting oral health and medical history of 300 Methamphetamine users**

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**BACKGROUND:** Methamphetamine (TIK) is a highly addictive drug that acts as a stimulant for the central nervous system.

**AIM:** The aim of the study was to document the oral health status of individuals using TIK.

**METHODS:** A cross-sectional study was conducted at 22 different substance addiction treatment centers in the Western Cape. A questionnaire was administered to elicit demographic details, diet, drug addiction and medical history. A convenient sample of 308 participants was selected that used Methamphetamine as a primary drug of choice. An oral examination was performed to measure dental status (DMFT) and treatment needs. Chi square tests were used for associations and statistical analysis was done by using Microsoft Excel and Epi Info.

**RESULTS:** The majority was male, unemployed between the ages of 25 and 29 years old. The mean duration of drug addiction was 6 years predominantly on a daily basis and 93.51% reported smoking Methamphetamine. The mean DMFT (number of decayed, missing and filled teeth) was 10, and dental extractions were the most common procedure performed during the last dental visit. The majority experienced a bad taste, stiff facial muscles, and a dry mouth when using the drug. Diet preferences included large amounts of liquids (mainly beer and coke) and the majority had a poor appetite. About 10% (32) of the sample reported that they suffer from a mental condition.

**DISCUSSION & CONCLUSIONS:** Recognition of the symptoms of “meth mouth” will enable clinicians to identify drug abuse.

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**L72 - Is there is an association between delayed MDR-TB initiation and distance to the treatment initiation sites in Kwazulu Natal, South Africa?**

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**BACKGROUND**
Multidrug resistant (MDR) tuberculosis (TB) has increased on average by 16% per annum between 2004 and 2010. Local studies have shown a mean treatment initiation time of 12.4 weeks, above the accepted rate of 6–8 weeks at a centralised hospital. The Department of Health established 6 decentralised MDR-TB treatment initiation centres in KZN in an effort to reduce treatment delay.

The aim of this study is to evaluate the association between distance of the diagnostic sites from the treatment initiation sites and MDR-TB treatment delay in KZN.

**METHODS**
A cross-sectional study was undertaken at decentralised MDR-TB initiation centres in KZN. MDR-TB patients were identified from registers and data analysed to determine the distance between the diagnosing facilities and the treatment initiation sites. Treatment delay was measured from the date of the first sputum taken until treatment initiation.

**RESULTS**
Data was collected for 365 MDR-TB patients at four treatment initiation facilities in KZN during a six-month period from October 2011 to March 2012. The median distance that patients travelled to initiate treatment was 50.8 km (IQR 11.2 – 78.5 km). The median treatment delay was 86 days (IQR 58–109 days). There was no association between distance from diagnosing facility to initiation centre and treatment delay (r=0.0334, p-value 0.5344).

**CONCLUSIONS**
Results indicate that there is no significant association between the distance of the diagnostic centres from the initiation centres and treatment delay. The median treatment delay of 86 days is unacceptably high. Other health system factors including facility staffing and the presence of TB tracing teams are being evaluated.
L73 - Health System Strengthening: Roving Team Intervention Mpumalanga and Eastern Cape: Using Specialized Support Teams to Mentor and Capacitate Local Health Facility Staff

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INTRODUCTION
The Health System Strengthening (HSS) Component of the ISS NAID 8421 Italy-South Africa bilateral Program was aimed, inter alia, at supporting scarce human resource skills to strengthen the management of patients on Anti-Retroviral Treatment (ART).

DESCRIPTION OF ACTIVITY AND RESULTS
Specialist auxiliary full-time support staff were employed through the Program and seconded to the respective Provincial Departments of Health. In the Eastern Cape, KSD Sub-district 1 Doctor was employed. In Mpumalanga the Bushbuckridge (BBR) and Mkhondo Sub-districts received 1 Doctor and 1 Social Worker each, whereas in Nkomazi Sub-district 1 Doctor was employed.

The presence of the teams led to the mentoring of clinical skills and the partaking in various HSS activities. Clinical skills capacity building were focused on NIMART trained nurses in the management of complicated patients (Nkomazi and Mkhondo), training on medical equipment (KSD) and implementation of the clinical guidelines as well as adherence to protocol changes. The Social Workers introduced techniques that reduced the number of defaulters (BBR, Mkhondo).

HSS activities led to the establishment of a Pharmacovigilance Surveillance Committee (BBR), assistance with the identification of facility needs (All), supporting the correct use of clinical stationary and adherence to Standard Operating Procedures. Patient flow management and Infection control measures were also implemented (Mkhondo, Nkomazi). The social workers established treatment support groups where needed (Mkhondo) which resulted in better control of defaulters.

CONCLUSION
In addition to the direct support of clinical services, the appointed staff optimized the health service system and capacitated the health facility staff in the process.

L74 - Motor traffic accidents in Tanzania
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BACKGROUND:
Motor Traffic Accidents (MTAs) are recognized as major public health problem globally. The mortality rate in developed countries is about 10.3 per 100,000 populations while it almost doubles in Sub Saharan Africa about 20 per 100,000 populations (World Health Organization (WHO) 2009a). Tanzania had 12,124 traffic accidents in 2011 and 11,223 incidents in 2010, within the first six months. 1,764 victims were killed, which is an 18% increase on fatalities recorded from January to June in 2010. Total injuries during first halves of 2010 and 2011 were 9,059 and 10,120 respectively (The Citizen Newspaper, 2nd September 2011).

OBJECTIVES:
To determine the impact of MTAs in Tanzania and to find the magnitude of morbidity, mortality and risk factors caused by MTAs in Kilimanjaro region as a case study.

METHODOLOGY:
Retrospective case study at Moshi regional traffic police. MTAs annual reports from 2008 to 2009 were reviewed in July 2012, for causes of accidents. Data collected was analyzed by STATA and the magnitude of morbidity and mortality in the region was determined quantitavely. Literature review of MTAs epidemiology in Tanzania.

RESULTS:
A total of 906 and 1,125 traffic accidents were recorded in 2008 and 2009 respectively, 219 (24%) episodes increased. 147 victims died in 2008 and 202 in 2009 with a mortality increase of 55 (37%). Total injuries in 2008 were 622 and 933 in 2009 accounting for 311 (50%) increase morbidity. Two major risk factors were identified; Human factors accounted for 76% of all MTA and concern driver’s excessive alcoholic use above blood alcohol concentration of 0.05g/100ml, reckless driving and excessive speed. External factors like poor road infrastructure and vehicle conditions accounted about 24 per cent (Kilimanjaro traffic reports, 2012).

CONCLUSION:
This appraisal indicates a consistent increase of MTAs 24%, fatality rate 37% and injuries 50%. Documentation of MTAs should include, factors mapping in a prospective study.
L75 - Health System Strengthening in Poor Internet Connectivity Settings: A Comprehensive approach to Supporting Electronic Data Submission. Case Study: KSD Subdistrict, Eastern Cape

INTRODUCTION
The Health System Strengthening (HSS) Component of the ISS NAID 8421 Italy-South Africa bilateral Program was aimed, inter alia, at supporting ART patient management by promoting electronic data submission. The intervention in the KSD Sub-district (EC) used a comprehensive approach to ascertain facility needs and implement appropriate support.

DESCRIPTION OF ACTIVITY:
The ISS and DOH assessed facilities IT infrastructure and Staff Skills requirements. The support was structured to 1) Promote ownership and local management of the intervention, 2) Supplement the provision IT equipment, 3) Organization of Centralized Training Sessions to improve data management skills, 4) Onsite Support visits to identified facilities, and 5) Employment of additional Data Capturers (N=10).

RESULTS:
The outcome of facility submitting electronic data at the end of the 2-year intervention period was measured by types of intervention: 16/51 (31%) receiving training; 10/15 (67%) receiving IT equipment; 8/10 (80%) receiving onsite visit; 7/8 (88%) receiving all three interventions. Local ownership and alignment of intervention with DOH priorities resulted in spin-off of the intervention in neighboring Sub-districts with additional 13/76 (17%) facilities submitting electronic data.

CONCLUSION:
Despite the lack of Internet connection, facilities are able to submit electronic data manually through the provision of external hard drives. Data Capturers were a key human resource and onsite support visits were a major determinant in Electronic Data Submission. Close management and coordination by District/Sub-district officers were essential in expanding impact and ensuring sustainability.

L76 - Key Ingredients for Successful Implementation and Governance of Specialist Teams: Lessons from a Multi-Site intervention South Africa 2012-2013

INTRODUCTION
The Health System Strengthening Component of the ISS NAID 8421 Italy-South Africa bilateral Program was aimed, inter alia, at supporting scarce human resource skills to strengthen the management of patients on Anti-Retroviral Treatment (ART).

DESCRIPTION OF INTERVENTION
Specialist auxiliary full-time support staff were employed through the Program and seconded to the respective Provincial Departments of Health. In the Eastern Cape, KSD Sub-district 1 Doctor was employed. In Mpumalanga the Bushbuckridge and Mkhondo Sub-districts received 1 Doctor and 1 Social Worker each, whereas in Nkomazi Sub-district 1 Doctor was employed.

The degree of integration within the Sub-district management structure varied. Sub-district lead support networks including Health Facility Managers (HFM) such as in the Bushbuckridge and KSD Sub-districts allowed for easier access to facilities, improved workload management and agility to restructure work plans. This also assisted with communication channels for the identification of bottlenecks and implementation of capacity building activities at health facility level.

MONTHLY REPORTING:
Monthly reporting is improved by including data capturers in the orientation to the Roving Teams. The reporting and management of the intervention was time consuming and often resulted in report submission delays.

CONCLUSION
Active Sub-District Manager involvement and orientation to all facility staff including data capturers is critical to ensure local ownership, accountability and efficient reporting and tracking of the intervention. Time should be allocated for administration within the clinical support plan.
L77 - A survey of Hospital admissions in KwaZulu Natal public hospitals, 2011

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Hospital morbidity data can be used for strategic planning, policy making, identification of a gap in health services leading to an expansion of services or the development of new health services. As there was a gap in hospital morbidity data in KwaZulu Natal (KZN) department of health, the epidemiology component was tasked with conducting a survey. Morbidity data was collected from 7000 records from a sample of public hospitals in KZN for 2011. Results showed that Group I, composed of communicable diseases, pathological conditions affecting maternal and peri-natal period, and nutritional conditions, made up the largest group which was 44.7%. Non communicable diseases made up the second largest group with a total of 26.8%, while injuries, made up 12.6%. The largest single group of admissions was for maternal reasons and normal deliveries accounted for the remaining 15.9%, the single largest group of admissions. The study showed that the overwhelming majority of patients were admitted for maternal reasons as well as infectious diseases. Even though non communicable diseases and injuries contributed substantially to hospital admissions, more emphasis and priority in terms of infrastructure, resources, health promotion and prevention activities, needs to be given to conditions in group I.

Why do we care about the problem and the results
What problem are you trying to solve?
How did you go about solving or making progress on the problem?
What’s the answer?
What are the implications of your answer?

L78 - Road traffic fatalities in Gauteng, South Africa during 2007-2011

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BACKGROUND:
In South Africa, road traffic injuries (RTIs) are the second leading cause of injury related fatalities. Understanding the epidemiology of RTIs is critical to informing research and policies to reduce this burden.

OBJECTIVE:
This study is a retrospective descriptive analysis of road traffic fatalities (RTFs) in Gauteng province from 2007-2011.

METHODS:
RTFs data was collected from Gauteng Province through the National Injury Mortality Surveillance System (NIMSS). Data from 7/10 and 9/10 of medico-legal laboratories in Gauteng was analysed for 2007 and 2008-2011, respectively. We calculated rates and proportions, and determined trends.

RESULTS:
Cumulatively, 16644 RTFs were captured during 2007-2011. Annual RTFs decreased by 35.8% from 4378 in 2007 to 2811 in 2011. Median age was 33 years (IQR: 25 to 45 years), and 79.3% were males. Most (42.6%) victims were pedestrians. Of all the RTFs, 707 (42.5%) occurred on major roads and highways of Gauteng. There was a significant increase of RTFs during extended weekends, Easter holidays and the beginning of December holidays. In 2007, Easter period (week 12 (incidence rate-ratios (IRR)=1.97, p<0.001), week 14(IRR=2.08, p<0.001), week 17(IRR=2.17, p<0.001)), extended weekends (week 32 (IRR=1.96, p<0.001, week 38 (IRR=1.92, p<0.001)), December period (week 48(IRR=2.21, p<0.001), week 49(IRR=2.15, p<0.001), week 50(2.29, p<0.001)) compared to the first week of the year which had the lowest number of fatalities, similar with the subsequent years.

CONCLUSION:
Further research is needed to understand the risk factors contributing to this burden. More focused interventions on mostly affected road user groups and specific times of the year are required.

KEY WORDS: road traffic injury fatality violence
L79 - Prevalence of obesity and hypertension among men and women in resource-poor South Africa communities: the PURE study

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BACKGROUND
Obesity and hypertension are increasingly important public health problems in South Africa, determining the extent of these conditions among adult is critical at this time of transition.

OBJECTIVE
To determine the prevalence of obesity and hypertension among men and women living in rural and urban communities of South Africa.

METHODS
A cross-sectional survey of 1974 adults aged 35 to 70 years participating in the Prospective Urban Rural Epidemiology (PURE) study. Anthropometric measurements were obtained using standardized protocols of INTERHEART study. Obesity was defined as BMI (body mass index) >30Kg/m2. Hypertension (HT) was defined in 3 categories, HTI as with self-reported treated hypertension; HTII those with self-reported treated HT or an average BP (blood pressure) ≥140/90; and HTIII, self-reported and treated HT or BP ≥160/100. Data analysis was done with STATA version 12.1 and the prevalence of obesity and HT by age-group, sex, location were summarised. Variables were compared using Chi-squared test. A p-value of <0.05 was considered significant.

RESULTS
The prevalence of obesity was 48.4%; significantly higher in women than men, and peaked in ages 50-59 years. The prevalence of HTI was 19.1%, HTII 76.8%, and HTIII 59.2%. Overall, hypertension increased with aged ≥50 years, and HTIII was significantly associated with age ≥60 years. The prevalence of HT2 was greater among those with high levels of education. However, gender and education had no significant associations with hypertension.

CONCLUSION
Nearly 50% of the participants were obese, and over two-third predominantly women had hypertension, indicating increased cardiovascular risk in the population.

L80 - Assessing the impact of indoor residual spraying (IRS) on malaria morbidity in northern Uganda

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BACKGROUND
Appropriate use of IRS is known to reduce malaria transmission. In northern Uganda IRS has been implemented since 2006; limited data however exists on the impact of IRS on malaria morbidity in this area.

OBJECTIVE
This study sought to assess the impact of IRS on malaria morbidity in northern Uganda.

METHODS
Retrospective routine malaria morbidity data from ten health facilities from three districts which had received at least five rounds of IRS in northern Uganda was analysed. The primary outcome of interest was malaria morbidity, measured by the slide positivity rate (SPR). The fixed effects linear regression model which included polynomials of time and controlled for malaria seasonality and variations in districts and hospitals was used to assess the average change in the malaria morbidity after IRS.

RESULTS
The percentage point changes in SPR according to time measured as calendar months following IRS, revealed a decreasing trend in malaria morbidity in the first three months following each round of IRS. The highest percentage point (p.p.) decrease in the SPR was observed in the second month following IRS (9.5 p.p., CI -17.85 to -1.16, p=0.026), among patients >5 years. The SPR decline however waned by the fourth month following IRS, with a notable increase in the SPR of 8.4 p.p. at district level by the sixth month, p=0.510.

CONCLUSIONS
The study results show that IRS was associated with a significant reduction in malaria morbidity in northern Uganda. The reduction however waned by the fourth month following IRS.
L81 - Impacting nosocomial transmission of MDR /XDR-TB through infection control

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BACKGROUND:
South Africa faces a growing number of MDR/XDR-TB cases with more than 5000 patients diagnosed every year. To improve outcomes and accommodate the increasing number of cases, the National Department of Health has endorsed the Multi-Drug Resistant Tuberculosis: A Policy Framework on Decentralisation and Deinstitutionalisation for South Africa. The USAID TB Program funded Philanjalo to support 8 provinces in preparing for decentralisation.

INTERVENTION:
We conducted rapid situational analyses of 19 facilities spread through 8 provinces to determine readiness for the decentralisation of care. Part of the analysis centred on facility Infection Control practice. Our assessments were carried out by a multidisciplinary team alongside facility and district health teams and all facilities were aware of the visits prior to engagement. Data were collected using tools from the national policy guidelines.

FINDINGS:
In looking only at indicators within the control of the 19 facilities we found that 5 had a TB focal person and 7 had an Infection Control Committee. Masks were observed in use in 11 facilities and are a motivational item within budgets. Windows were found to be closed in 8 facilities where patients are admitted or awaiting treatment. Fans and UV lighting were functional and maintained in 7 and 4 sites respectively.

CONCLUSION:
With MDR-TB patients receiving care in decentralised facilities, district and facility managers must strengthen TB infection control practice to reduce nosocomial transmission of MDR-TB. This can be achieved through simple, low cost interventions and should be resolved prior to any scale up of decentralisation.

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L82 - Prevalence and predictors of mental disorders in an injured emergency centre population

C van der Westhuizen, K Sorsdahl, D Stein, G Wyatt, J Williams

Patients presenting with an injury to emergency centres (EC) represent an at-risk group for mental disorders. Although high levels of substance use have been documented in South African ECs, the prevalence of mental disorder in this group is unknown. Injured patients from two ECs in Cape Town (n=200) were recruited and information pertaining to their psychiatric diagnosis, traumatic experiences and injuries were obtained. A current mental disorder was diagnosed in 59.5% of the total sample; 48.8% of those with an unintentional and 66.9% with an intentional injury. Predictors of mental disorder included a high frequency of previous intentional injuries and exposure to high levels of community violence and traumatic experiences. Injured EC patients, particularly those with intentional injuries, are a high-risk group for mental disorders. Targeted psychosocial interventions for this high-risk group could play a role in reducing the burden of injuries and mental disorders in South Africa.
L83 - Her diaries- Women’s experiences of domestic violence in Ghelkhadi slum, Navsari, Gujarat

Waghela

The main aim of the paper is to understand how women victims of domestic violence construct the term ‘domestic violence’ and cope up with it. The paper also explores the relationship between domestic violence and women’s health. Qualitative research method including in-depth interviews and critical incident narratives were used as means to achieve these objectives. The participants of the study were women victims of domestic violence living in Ghelkhadi slum in Navsari, Gujarat. Women in the sample area constructed the term domestic violence with factors like alcoholism in men and marriage based upon their experiences in marital and natal family. The coping mechanism of the victim for domestic violence fell within a spectrum of active resistance at one end to passive acquisition at the other end. Women in the sample area suffered from physical, mental and reproductive health problems as a consequence of domestic violence.

L84 - Workplace barriers impeaching on voluntary counseling and testing a multicounty study.

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BACKGROUND
In the world of work, the outreach nature of work predisposes some employees to HIV/AIDS. Real and Perceived consequences at workplace hinders voluntary counselling and testing. This study was designed to explore the severity and impact of HIV/AIDS in three companies across countries.

METHODS
In this cross sectional study, water utility employees were tested in three countries Kenya, Malawi and Zambia. Ethical approval was obtained from relevant ethics bodies prior to data collection. Participation was voluntary and anonymity was maintained throughout the study. A standardized questionnaire was used to collect information on respondent’s sociodemographics. Country National VCT protocol was used in HIV testing. Randomized and consenting employees were eligible for study.

RESULTS
A total of 936 were recruited for study. Majority were young with a mean age of 36 for Malawi and Zambia while Kenya reported an older workforce of 42 years. There were more men than women in a ratio of 1:3, more than three quarters were in the unionizable job categories. Knowledge on HIV prevention was high but uptake of voluntary counseling and testing was low. In addition, fear and perceived job loss hindered employees from testing.

Conclusion
HIV continues to spread at workplaces unabated. Stigmatization and discrimination against people living with HIV/AIDS at workplace inhibit VCT uptake.
L85 - Making media meaningful: the role of the PhuzaWize communication campaign in tackling unsafe drinking in South Africa

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BACKGROUND
To address the problem of unsafe alcohol use, Soul City Institute launched a multi-media campaign, PhuzaWize: Drink Safe, Live Safe in 2010, which has media, community engagement and advocacy components. Key messages were developed through formative research including qualitative target audience research, literature reviews and stakeholder consultations. The brand was developed and pre-tested with community members. The media elements included safe drinking messages conveyed via TV drama (Soul City and Soul Buddyz), Public Service Announcements and booklets (‘Alcohol and you’, ‘PhuzaWize’ and ‘Parenting and Alcohol’). All TV scripts and booklets were pre-tested to ensure relevance and clarity of the messaging. In 2012, the media elements of the campaign were evaluated.

METHODS
A quantitative, national, population based household survey was conducted with 10 034 adults. A multi-stage, cluster sampling approach was used and a structured questionnaire was administered at selected households. Data were analysed using multivariate analysis and propensity score matching.

RESULTS
Preliminary findings indicate that the campaign reached about 12.7 million people (45.2%) nationally, with 67% of the urban population reached. A third of the population could complete the PhuzaWize slogan correctly, and 28% recognised the logo. The campaign led to a 5.2% increase in intention to cut down drinking in the coming month, with women more likely to cut down than men.

CONCLUSIONS
Multi-media public health communication campaigns such as PhuzaWize reach very large numbers of the population and can have a positive impact on public health, particularly when combined with community engagement and advocacy.

L86 - Dietary intake and risk of overweight among 17-year old adolescents in Soweto Johannesburg, South Africa in 2007/2008

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BACKGROUND: Overweight/obesity (OW) continues to be a major likely indicator of adulthood non-communicable diseases (NCD) risk and can be linked to early childhood and adolescent dietary lifestyles. Research shows that the burden of childhood and adolescents OW in Sub-Saharan Africa, and especially in South Africa, is rising. There is therefore an urgent need to address this burden in the context of nutrition transition related NCDs. The current study used the Birth to Twenty (BT20) data to examine the association between dietary intake (carbohydrate, protein and fat) and OW status of 17-year old adolescents residing in Soweto, South Africa in 2007/2008.

METHOD: A cross sectional survey was conducted on 227, 17-year old adolescents (43.6% boys) from the BT20 cohort study. A modified quantitative Food Frequency Questionnaire was used to estimate the dietary intake. Height and weight were measured by trained nurses and OW was assessed using International Obesity Task Force (IOTF) cut-offs. A multinomial logistic regression model was used to examine the association between the dietary intake, socioeconomic status and other covariates with BMI, the base reference being normal weight.

RESULTS: The overall OW prevalence was 14.5% (33/227) and underweight 23.3% (53/227) among the 17-year old Soweto adolescents. Boys OW prevalence was 8.1% as compared to 33.3% underweight while OW girls was estimated at 19.3% as compared to 15.6% underweight (P = 0.002). The following macronutrients: fat, protein or carbohydrate was associated with BMI of boys (P < 0.001) as well as the BMI of girls (P < 0.001). The median macronutrients intake for boys was fat 189.4 (IQR=119.9-239.8), proteins 154.6 (IQR = 98.7-198.2) and carbohydrate 35.8 (IQR = 461-794.2) versus girls respectively. The median energy intake for boys was 22474 kJ (IQR= 14822-26744 KJ) versus 18204 KJ (IQR 640.9) for girls respectively. The median energy intake for boys was 22474 kJ (IQR= 14822-26744 KJ) versus 18204 KJ (IQR=11226-21516KJ) for girls. The bivariate analysis also indicated that boys OW was positively associated with socio-demographic factors (P<0.05) such as washing machine ownership, and parents owning a car while girls OW was associated with (P<0.05) ethnicity and maternal education. The multinomial logistic showed no significant differences in the dietary intake when OW boys were compared to normal weight boys: fat intake (RRR=0.99, 95% CI=0.95-1.01) and carbohydrate (RRR=0.99, 95% CI=0.95-1.01). A similar likelihood was observed for the girls: fat intake (RRR=1.0, 95% CI=0.96-1.01) and carbohydrate (RRR=1.0, 95% CI=0.99-1.01). However, boys who had no washing machine in their home were less likely to develop OW (RRR = 0.1, 95% CI = 0.01-0.78, p= 0.032) when compared to normal weight boys.

CONCLUSION: The survey indicated high prevalence of both underweight and overweight among 17 year old adolescents residing in Soweto. This underscores the urgent need for both underweight and overweight prevention interventions. The study also highlights the need for an integrated surveillance system for both underweight and overweight among South African adolescents. Further similar investigations in other settings are needed to augment the scarce data and information between adolescent’s dietary behaviour and OW to support the epidemiologic utility in sub-Saharan Africa.

KEYWORDS: Adolescent, Dietary intake, Overweight, Soweto.
L87 - Malaria prevention measures expenditures in Burkina Faso: How much do they cost to households?

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BACKGROUND: The provision of insecticide-treated nets (ITNs) is widely accepted in Burkina Faso. However, other methods of prevention are used by the households. It is important to obtain new information about the levels of utilization and expenditures on malaria preventive tools and to explore any inequities.

METHODS: A cross sectional survey was conducted during the high transmission season in 2010. Simple random sampling was used to select villages and households. Data collection was carried out among 500 households in Nanoro district in Burkina Faso. Households were asked about expenditures on other forms of malaria prevention over the previous month including expenditure on coils, indoor spraying, aerosols, repellents, herbs, cleaning environment and clearing vegetation; and any other forms of prevention.

FINDINGS: More than 50% of households used at least one malaria prevention measure. Around 98% of households owned at least one bed net. Bed nets were used by 94% of household head, 88% of under five children, and 83% of children up to 5 years. 33% of households use smoke, 21% clean outside environment, and 16% cultivate specific plants. The majority of households did not spend money on malaria prevention measures. There was a significant association between the cost of other malaria preventive tools and the socio economic status of household (p<0.05).

CONCLUSION: Most of households received bed nets with the implementation of the new program of distribution of bed nets. They used more than one prevention measure.

L88 - Perception of noise induced hazards and auditory status of generator users in Agbowo and Ajibode commercial areas of Ibadan, Nigeria.

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BACKGROUND
Power supplies in Nigeria and in other rapidly urbanizing less developed countries are erratic and inadequate, forcing small scale businesses to opt for electric generators as alternative power sources.

OBJECTIVE
To assess the perception and auditory status of generator users in Agbowo and Ajibode commercial communities in Ibadan.

METHODS
Agbowo and Ajibode were purposively selected for this comparative cross sectional study based on the observed frequency of generator use and level of commercial activity, especially among smaller businesses. All 515 generator users in both communities (Agbowo: 304, Ajibode: 211) were surveyed. Information on socio-demographic characteristics and perception were obtained with a pretested interviewer-administered questionnaire. Audiometric measurements were conducted on 40% of the respondents. Data were analyzed using descriptive statistics and Chi-square test at 5% level of significance.

RESULTS
The mean age of respondents in Agbowo and Ajibode were 25.4±5.4 and 24.8±5.8 years respectively. The mean perception score was 3.3 ± 2.1 in Agbowo as compared to 4.1 ± 2.2 in Ajibode (p<0.05). None of the respondents were aware of sound levels detrimental to health. Few respondents (Agbowo: 7.7%; Ajibode: 5.0%) perceived noise induced hearing impairment as a serious health problem as compared to other health conditions such as cancer, chemical burn and accidents. Working and living in Agbowo was significantly associated with current evidence of hearing impairment (OR: 6.8, 95% CI: 3.4-13.7).

CONCLUSION
Education on noise attenuation for electric power supply generators serving urban small businesses and homes are warranted, while access to steady power supply is being advocated.

KEY WORDS: commercial communities, electric power supply generators, perception, audiometry, generator users
L89 - Policy BUDDIES: baseline assessment of capacity for evidence informed decisions in Provincial Health Departments in South Africa

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BACKGROUND
Robust evidence helps policymakers shape effective and efficient health services. Helping policymakers understand what research can help with, and helping researchers understand what might be useful to policymakers, is central to effective research-user dialogue. We report on the initial analysis from Policy BUDDIES – Building Demand for evidence in Decision making through Interaction and Enhancing Skills of policymakers funded by World Health Organization.

OBJECTIVE
To understand policymakers’ capacity, as well as enablers and constraints to demanding evidence during policy formulation and implementation, and map existing communication between policymakers, research intermediaries and researchers.

METHODS
We conducted key informant interviews with managers of health programmes related to delivery of Millennium Development Goals 4, 5 and 6. We recorded, transcribed and analysed the interviews formally, using framework analysis.

RESULTS
We will present the provincial policymakers’ priorities, and their knowledge and attitude to evidence informed decision-making. This will include an assessment of the contexts in which policies are formulated, enabling and constraining factors related to demanding evidence; roles, skills, and resources that provincial policymakers have towards evidence-informed decision-making; and priority areas for research and policy-making in provincial health departments; existing links between decision-makers, research intermediaries and researchers for obtaining research evidence; and policymakers’ opinions on existing knowledge translation tools.

CONCLUSION
A thorough understanding of how policy process operates and policymaker priorities is essential to effective evidence to policy and practice, and these data will help effective dialogue between researchers, people engaged in systematic reviews and those responsible for making decisions in the health services.

L90 - Assessing the relationship between the Child Support Grant and child growth in South Africa

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BACKGROUND
In South Africa, a key policy instrument for reducing childhood poverty is the Child Support Grant (CSG). While early research showed that the grant is associated with improved child height-for-age (HAZ), no new research has compared such growth measurements amongst CSG recipients versus non-recipients.

OBJECTIVE
We assessed growth measurements of CSG recipients versus non-recipients from three diverse settings in South Africa.

METHODS
This study utilised data from a cluster-randomised intervention trial (PROMISE EBF) conducted in the Western Cape and Kwazulu-Natal. Weight and height measurements were taken from 746 children at 22 months median age. Z-scores for HAZ, weight-for-age (WAZ), and weight-for-height (WHZ) were calculated using the 2006 WHO standards. Predictors of stunting were determined using logistic regression analysis.

RESULTS
The results show that there are high rates of stunting in children across the 3 sites, with Umlazi being the most affected (39%) compared to Paarl (20%) and Rietvlei (24%). In the unadjusted model CSG receipt was associated with a greater likelihood of being stunted (OR 1.81; 95% CI: 1.07-3.06) compared to non-recipients. In the adjusted model HIV positive status was associated with a five-fold greater likelihood of stunting (AOR 5.27; 95% CI: 2.36-11.72), while completing high school (OR 0.35, 95% CI: 0.17-0.70) or having a tertiary education (OR 0.35, 95% CI: 0.06-0.78) were associated with a 65% reduction in the odds of stunting.

CONCLUSION
The results show that receipt of the CSG does not by itself improve linear growth of children. To improve physical growth multi-faceted interventions are needed.
INTRODUCTION:
HIV is a major public health problem in South Africa affecting everyone including workers who are the backbone of the economy. The South African national estimate of HIV prevalence is 16.8%, while the estimated HIV prevalence for laboratory healthcare workers is 11%. The aim of this study was to determine the prevalence of HIV and its effects among laboratory healthcare workers in South Africa, in order to assist with the planning of an HIV and TB workplace programme.

METHODS:
A cross-sectional study was carried out. A multi-staged sampling technique was used to select participants. Employees were stratified by region of employment. Within each region, clusters were randomly selected to participate. All employees within selected clusters were invited to participate. Participants were interviewed utilising self-administered structured questionnaires. Dried blood spot HIV screening method was used to test blood samples.

RESULTS:
The overall response rate was 68.8%. HIV prevalence among NHLS employees of age 19 and older was estimated to be 10.4%. There was statistically significant relationship between HIV infection and race group, job category, marital status, being treated for sexually transmitted infection in the past year, frequency of using a condom with spouse or regular partner in the past three months.

CONCLUSION:
This study shows a high HIV prevalence among an educated health workforce. The laboratory service should expedite the development of the comprehensive HIV and TB workplace programmes.

KEYWORDS: HIV PREVALENCE IN HEALTHCARE WORKERS
Africa’s Public Health Legacy - Beyond the MDGs
Book of Abstracts
Human Health Effects of Climate Change: Challenges for Public Health

Climate change, associated water and air pollution are all exacerbating diseases the world over. These environmental health problems are increasing the pressure on, and eroding the capacity of, already thinly-stretched health care systems. The health sector itself is paradoxically contributing to these very environmental health problems, even as it attempts to address their downstream impacts.

Through the products and technologies it deploys, the resources it consumes, the waste it generates and the buildings it constructs and operates, the health sector is a significant source of pollution around the world, and therefore an unintentional contributor to trends that undermine public health. Its reliance on coal energy generation particularly aggravates these problems with the extraordinary release of CO₂, particulates, hydrocarbons, and mercury.

There is a growing convergence of solutions that foster both public health and environmental sustainability, pointing the way toward a sustainable, healthier future. Nurses, doctors, hospitals, health systems and ministries of health are increasingly at the center of these potential solutions—playing leadership roles in transforming their own institutions and becoming advocates for policies and practices that promote public environmental health, while often saving scarce financial resources.

Enhancing the leadership, management and governance of Public Health Associations in Africa

In recent years, the WHO and other international organisations have highlighted the importance of leadership and governance for improved health and well-functioning health systems. National public health associations (PHAs) play an important role as non-governmental, civil society organisations in advocating and lobbying for public health and healthy public policy by representing the views of public health professionals in academia, the public or private health sectors, or the community at large. Globally, many PHAs are underdeveloped or lack the infrastructure to advocate effectively for population health improvements and/or the improved functioning of health systems.

This satellite session will have as its focus, an interactive debate and discussion on strategies and actions to enhance the leadership, management and governance of PHAs, with a focus on those PHAs in Africa. Presentations will focus on public health leadership and management that aim to reduce health inequities, encourage innovation and improve the effectiveness of health systems. The session will also explore the role of the private sector as a collaborator that can help PHAs to engage more broadly with the public as well as an ally that can provide support around public health issues.

The primary target audience is PHAs, but the session will also appeal to policy makers, public health academics and students, health professionals, health service managers and individuals from non-governmental and community-based health organisations.
Collaborative learning for district health system development – experiences of the DIALHS project

Districts and sub-districts are crucial to the functioning of the district health system and the successful implementation of health sector reforms, which have been at the centre of public debate in the past few years. But while policy intentions and service challenges are much debated, there is little systematic discussion about the internal operations and functioning of sub districts and districts, and the role health leadership and governance in implementing the reforms proposed.

The DIAHLS project in Mitchell’s Plein has over the past four years worked in a partnership between academic institutions and health services in seeking to strengthen sub-district planning and management to support PHC improvement. Adopting an action learning approach the project has worked through cycles of action and reflection to negotiate and agree specific areas of activity. These are then implemented either by health managers, with support from the research team, or by researchers through engagement with managers. Review and documentation of activities, their evolution and rationale is part of this process, together with collaborative reflection on lessons learnt.

At the last PHASA conference the approach and methodology of the project as well as initial activities were presented by researchers and local health managers.

This session will provide a continuation on these presentations and discussion, sharing the scope of activities in the past year and emerging lessons for sub-district functioning and development.

We will showcase lessons learnt by a set of actors within the sub district:

- facility managers who have explored how they use information in key decision-processes as they manage absenteeism, work allocation and priority setting within programmes;
- programme managers grappling with multiple lines of accountability;
- health providers and community representatives seeking to collaborate and establish relationships of trust;
- health providers and researchers learning together about participatory ethics and research-in-practice.

Session structure

The session will begin with a brief overview and update of the DIALHS collaboration and the processes of learning, which have unfolded in the project.

Drawing in six posters, which will also be presented at the conference, we will then summarize this inter-related set of activities, and discuss lessons learnt and gains made, with a view to wider relevance to district health systems strengthening in the country. In particular we will showcase activities to support facility managers, and building relationships to improve governance and accountability among programmes and with communities.

Lastly, key role players in the project from facilities, sub-district and the district will reflect on the substance, processes and approach of the project, about spin-offs and gains for other processes and engagements in the sub-district, and about lessons for district health systems strengthening in the country, and for research-services partnerships.
Strengthening Leadership and Management: 
From knowledge to practice

The introduction of the primary health care (PHC) re-engineering strategy in South Africa is aimed at strengthening the PHC service delivery platform through the introduction of ward-based PHC outreach, district clinical specialist and school health teams. Analysis of published policies and guidelines emphasise the central role of the nurse in all the aforementioned teams, and also highlight the central role of the PHC facility as the referral and reporting point. These policies also highlight the role of the district health management team emphasising that these managers and staff are key to the functioning of the district. Careful review of the literature however reveals the paucity of explicit information on what the expectation of PHC facility managers will be given the obvious expansion of their roles and responsibilities in the context of PHC re-engineering.

Furthermore, it leads to the question of whether health managers are sufficiently informed of the policy changes, and are skilled and competent enough to take on the additional responsibilities of looking after increased numbers and new cadres of staff, and whether they are competent enough to meet the requirements brought on by the PHC re-engineering strategy. Existing published and ad hoc evidence shows that district health and public health management (epidemiological, health information and basic statistical and numerical skills required to perform daily managerial functions) require strengthening. The aim of this proposed session will be to present the findings of the various studies focused on the competencies of district and facility managers and approaches to strengthening management competencies, and to engage in a discussion on how key stakeholders and role players can start to address identified competency gaps. Ultimately, the work produced should inform capacity building programmes.
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