P001 - Health Knowledge and Attitudes Among Youth in Selected Arab Countries, with a Specific Focus on Sexual and Reproductive Health

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BACKGROUND
Low levels of formal information about health, especially sexual and reproductive health (SRH) among Arab youth, results in misconceptions and behaviours posing significant public health concerns. Youth health knowledge indicators and attitudes in five Arab countries; Algeria, Djibouti, Lebanon, Syria and Tunisia, were explored in an attempt to fill the literature gap about youth SRH, where official data is scant and insufficiently analysed.

OBJECTIVE
To describe factors affecting Arab youth health knowledge and attitudes, and suggest appropriate interventions to promote youth health in the Region.

METHODS
Using Pan Arab Project for Family Health data, a retrospective descriptive and analytical approach was adopted using Chi-square and Logistic Regression tests to detect correlations between socioeconomic variables.

RESULTS
There are knowledge gaps affecting youth attitudes in the selected countries. Parents’ role in disseminating timely and appropriate health information to youth was not emphasized. Additionally, there was a significant relationship between most socioeconomic factors and indicators testing knowledge and attitudes.

CONCLUSION
Arab youth lack adequate health knowledge, especially regarding SRH. The main socioeconomic factors affecting health knowledge and attitudes were identified to be gender, age, level of education, employment, place of residence, and family life. Arab countries need to establish and strengthen youth research components according to evidence-based elements. Also, regional surveys should be repeated at appropriate time intervals to predict trends and determine adequate measures for improving youth health.

P002 - Health needs assessment and determinants of health-Seeking behaviour among elderly Nigerians: A House-Hold Survey

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BACKGROUND:
In the last decade the number of elderly citizens in Nigeria has increased and their health needs are becoming popularly recognized. A number of factors have also been recognized to determine health care seeking behaviour in these elderly.

METHODS
The study sample was 756 households that had at least one resident who was aged 60 years and above (35% of 2160 households). Multistage and proportionate sampling techniques were employed in selecting the subjects (elderly). Structured interview were conducted to elicit information on health needs and determinants of health care seeking behaviour of the elderly

RESULTS
Receiving treatment when sick was the health need mentioned by the majority (89.4%) of the elderly. The most frequently reported illnesses were body pain (89.5%), joint pain (86.4%), generalized body weakness and fatigue (81.5%), poor sight (78.2%), and decreased mobility (65.8%). Less than one third (28.7%) of the subjects were aware of their health needs. Poverty (50.3%), nature of illness (28.5%) and disease severity were the main determinants of health care seeking behavior among the elderly. Self treatment had odds ratio of 1.7 (95% CI= 0.38-0.67). After controlling the household’s poverty status, there was still a significance difference (P<0.05) in age group and gender in terms of health care seeking behaviour.

CONCLUSION
Socio-economic indicators and nature of illness were the most pervasive determinants of health care seeking behaviour among the elderly, overriding age and sex, and in terms of health-care expenditure, the nature of illness and quality of service provided ranked the major determinants.

Keywords: Elderly, health needs, determinants, health care seeking behaviour
P003 - Health Problems and Reasons for Traditional Medicine Utilization in Nigeria: A case study of Ilorin Metropolis

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BACKGROUND
Use of traditional medicine for various ailments is well known in Nigeria but poorly reported.

OBJECTIVES
The study aimed to determine the health problems necessitating the use of traditional medicine and reasons for their use.

METHODS
The study design was a descriptive cross-sectional survey. A multistage random cluster sampling technique was used to select 1560 study subjects from 678 households in 30 clusters. The subjects were distributed proportionally according to the size of population in the catchment area. Study period was March to December 2012. Both quantitative and qualitative data were collected through administered-questionnaire and in-depth interviews using a well-structured questionnaire.

RESULT
Half (50.4%) of the subjects have used traditional medicine in the past and 18.6% in the last one year. The common health problems for using traditional medicine were malaria, typhoid fever, arthritis, impotency, infertility, stroke, broken bones, low back pain and mental illness. Traditional practices (healing methods) used were therapeutic occultism, (38.4%), herbs (28.6%), assisted home delivery (8.5%), traditional surgery (12.5%), bone setting (9.5%) and traditional psychiatry (2.5%). Reasons for using traditional medicine were availability (25.7%), accessibility (22.8%), cheap (18.5%), belief of success (14.6%), preference of natural materials (10.4%), and non-response to orthodox medical treatment (4.2%).

CONCLUSION
Traditional Medicine is used by many Nigerians to manage many health conditions. It was found to be easily available, accessible, cheap and effective. It plays a significant role by reducing life-threatening ailments. This study adds to the scant but growing documented research works about the potentials of Traditional Medicine

P004 - Perceptions, attitudes and practices of growth monitoring by caregivers of under-five children in Ibadan South-West local government area, Oyo State

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There are different methods of monitoring growth by Caregivers of Under-five Children (CGOU-5). Scientific approach to monitor observable indicators of malnutrition, taking corrective measures has been poorly understood, limiting opportunities for planning appropriate interventions. This study was designed to explore perceptions, attitudes and practices of CGOU-5 Growth Monitoring (GM) in Ibadan South-West Local Government Area, Oyo State.

Descriptive cross-sectional design was used. This involved four-stage sampling techniques. Questionnaire elicited socio-demographic characteristics, GM perceptions, knowledge, practices and future intentions. Knowledge on GM methods was measured on 21-point scale; “high” (>15), “average” (8-15) and “poor” (<8). Perceptions were measured on 16-point scale; “negative” (<8) and “positive” (>8). Attitude was measured on 11-point scale; “negative” (<6) and “positive” (>6), with Focus Group Discussion (FGDs).

Mean age of the CGOU-5 (31.6±6.5 years), 46.8% had secondary education, 88.3% had received information on GM, (90.0%) had positive perception towards GM (10.8±2.9). Most (76.1%) respondents' knowledge on GM was average (9.3±2.7). Respondents with secondary education and above (78.8%) had average knowledge of GM, compared with those who had primary (16.7%) and non-formal education (4.5%) (p<0.05). 98.3% had positive attitude to GM that it should be compulsory for U-5. Traditional GM methods comprising observation of children’s physical size, comparison of clothing sizes, bead use and wall marking were mentioned for integration with conventional methods.

Caregivers were willing to practice growth monitoring for their children, knowledge and skills to do so were low. This emphasizes need to develop community-based training programmes for caregivers to interpret traditional and modern methods.
P005 - Practices, Scope and Determinants of School Health Services in Osun state, Nigeria

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INTRODUCTION
A healthful school environment is that which embraces the health and safety of learners and other members of the school community. Undergoing pre-school medical examination is not only necessary to screen for previously undiagnosed health conditions and subsequent recognition of those with special care but it is also imperative to have baseline health information about the pupils. This study seeks to elucidate the practices and determinants of pre-school medical examination in primary and secondary schools in Osogbo.

METHODOLOGY
In the cross-sectional descriptive study, a total of 225 heads of schools or their representatives (102 primary and 127 secondary schools) from seven local government areas were interviewed using a self-administered questionnaire. Data were analyzed with SPSS 16.

RESULTS
All the respondents were aware of school health services (SHS) with 114 (50.7%) having good knowledge. Although up to 209 (91.3%) are aware of pre-school medical examination (PSME) and 188 (83.6) agreed that it was necessary, only 46 (20.1%) have their pupils undergo PSME. Most schools (76.8%) provide toilet facilities mainly of the pit type. Overall knowledge of SHS was good in 114 (50.7%) of the respondents. Medical services are provided through First Aid box 221 (96.5%) and School clinic 43 (19.5%) most. 92.7% of which are free. Overall practice of SHS was good in 42 (18.7%) of the respondents. Respondents from secondary and private schools had better knowledge and practice of SHS.

CONCLUSION
The practice of SHS is below expectation. There is a need to improve knowledge of heads of schools concerning SHS emphasizing the importance of pre-school medical examination.

P006 - Prescription errors in two hospitals in Osogbo, Nigeria

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INTRODUCTION
It has been reported that patients are harmed by medication errors, the majority of which are errors in prescribing. When these errors are not discovered by the dispensers especially when drugs are to be purchased from untrained patent medicine vendors; the results can be fatal. This pilot study sought to investigate prescription errors as discovered by pharmacists in two hospitals in Osogbo, Nigeria.

METHODOLOGY
It is a descriptive cross-sectional study where questionnaire were administered to all the pharmacists in the 2 public hospitals in Osogbo. Also, a review of 1000 prescriptions selected by systematic sampling over a year was examined to ascertain various prescription errors.

RESULTS
A total of 23 male and 6 female pharmacists with a mean age of 30.7 ± 7.8 years responded. Only 6 (20.7%) of them can ascertain the prescribers’ identity through hand writing and signature but all of them have experienced doubts about genuineness of prescribers. None of them reported ever seen a doctors’ prescription code on prescription sheet. They all have encountered different types of prescription errors. Errors discovered included dosage errors, incorrect prescription, and incorrect segment incompatibility. Others included omission of signature/name and patient age on prescription sheet. When errors are discovered, the pharmacists sometimes dispense correctly based on own judgment if errors are considered minor (22, 75.9%) or return prescription to doctor for correction.

CONCLUSION
Hospitals ought to have and enforce the use of personal codes without which prescriptions will be honoured.
Key words: Prescription errors, doctor, pharmacist, hospital
P007 - An Assessment of Socioeconomic Determinants of Under-five Mortality Differentials in Nigeria: The Case of Northeast and Southwest

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A high rate of mortality among children constitutes a great impediment to development. Estimates show that about 22,000 under-five children die daily in the world. About half of these deaths takes place in five countries: Democratic Republic of Congo, Pakistan, India, China and Nigeria. Nigeria, however, occupies the second position out of these countries with 1 million children dying annually. There are under-five mortality differentials among the regions in the country. In 2008, Northeast recorded the highest rate of 222 deaths per 1000 live births while Southwest had the lowest rate of 89. These differentials have a serious implication for the efforts at ensuring reduction in under-five mortality. This study examines the socioeconomic factors that are responsible for the differentials in under-five mortality in the regions. The study made use of Nigeria Demographic and Health Survey data sets of 2008. Chi-square test and logistic regression were employed for the analysis. Results show that level of education is lower among women in Northeast compared to Southwest. While more than 74% of women in Northeast have no education, less than 16% of women in Southwest belong to this category. Poverty is more prominent in Northeast than Southwest as 44% of women in the former are found in the poorest quintile. Women in Southwest are more economically active than their counterparts in Northeast. The study concludes that mass literacy policy for girls and women should be embarked upon in Northeast and efforts on poverty alleviation and eradication should be intensified.

P008 - To What Extent Can Antenatal Care Attendance and Place of Delivery Explain Under-five Mortality Differentials in Nigeria?

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Under-five mortality has become a major health challenge in sub-Saharan Africa. Reports show that only 3 out of 29 countries studied in sub-Saharan Africa have under-five mortality rates below 100 per 1000 live births. Nigeria is one of the countries that are not found among the three. It is reported that 1 in every 6 children in Nigeria dies before his or her fifth birthday. There are differentials in under-five mortality among the geo-political zones in the country. These differentials contribute to the high under-five mortality in the country as a whole. Although many factors are responsible for under-five mortality, this study examines the contribution of antenatal care attendance and place of delivery to the differentials in under-five mortality between two geo-political zones in Nigeria- Northeast and Southwest. This study made use of the 2008 Demographic and Health Survey data sets and in-depth interviews conducted with mothers of reproductive age. Results show that while 85% of women in Southwest attended antenatal clinic during pregnancy, less than 50% of women in Northeast attended antenatal clinic. The Chi-square test shows that antenatal care contributes significantly to the differences in under-five mortality. The percentage of women who delivered in health facility in northeast is very low (13%) compared to that of Southwest (71%). Results from Chi-square test reveal that place of delivery is responsible for under-five mortality differentials in both zones. The study concludes that more resources should be committed to the provision of health facilities in Northeast.
P009 - Political Response to HIV/AIDS Control among Local Government Chairmen in Osun State, Nigeria

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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 reported knowing at least one person in their community with HIV, and few respondents stated that at least a member of their staff has been diagnosed with HIV. All 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 chairmen 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 and also make necessary funds available directly to the local government for implementation of HIV programmes.

P010 - What Work for What? Commercial Sex Workers and HIV Prevention

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Public Health Promotion Alliance

Commercial sex workers are among those who are most vulnerable to HIV infection in the world today. In situations where sex workers do not have access to condoms, HIV prevention information and sexual health services, or are prevented from protecting their health and using condoms for any reason, they are at increased risk of contracting HIV. Violence has a direct and indirect bearing on sex workers ability to protect themselves from HIV and maintain good sexual health. This intervention therefore designed to determine the effectiveness of peer education approach towards reducing HIV among commercial sex workers in Ogbomoso Metropolis, Nigeria.

A total of 20 gatekeepers who are also sex workers in all the 5 brothels in the two local government areas in Ogbomoso metropolis were selected and trained as peer educators for 2 days on HIV prevention among sex workers. The selected gatekeepers were equipped with skills on safe sex negotiation and how to avoid dangerous clients who are unwilling to put on a condom, importance of regular medical check up and treatment, and how to prevent, reduce and respond to violence and discrimination. Educational materials and resources were also developed for sex workers. The trainees in turn trained other sex workers in their brothel through micro teaching and IEC materials.

Compulsory medical check up, prompt STIs treatment and consistent condom use have become policies displayed to read by all clients and visitors in all the brothels in the study area and disciplinary committee has also been put in place to sanction sex workers who violate these policies. Clients who are unwilling to put on a condom and sexually coerced sex workers were reported to disciplinary committee and such client were bound from coming to their brothel. Photograph of such client will be taken and send to all other brothels to avoid such client. This intervention also encouraged joint meeting with stakeholders of all the brothels in the study area where HIV prevention and right of sex workers were monthly discussed.

The intervention showed an increased in medical check up, prompt STIs treatment, regular HCT and consistent condom use among sex workers but sex workers reported decreased in clients when compulsory condom use policy was introduced but clients began to adapt after 2-3 months.
P011 - High prevalence and poor control of hypertension: a cross-sectional study of a population attending the out-patient department of a rural hospital in Malawi

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BACKGROUND
Hypertension represents a significant health burden to Malawi. Hypertension control is essential to reduce cardiovascular disease. A rural Malawian population faces numerous challenges to achieve hypertension control; despite this, no studies have characterised hypertension in readily accessible patients attending out-patient departments (OPD) of a rural hospital in Malawi.

OBJECTIVE
To investigate the prevalence, control and risk factors of hypertension in a rural hospital in Malawi.

METHODS
Cross-sectional study with 547 adults in Ekwendeni hospital, with a catchment of approximately 140,000 patients. Sitting blood pressure (BP) was measured twice at five minute intervals. Hypertension was defined in accordance with the JNC 7 report. Patient demographic data collected using questionnaires.

RESULTS
Of the 547 patients, 327 were female (59.9%) and 219 were male (40.1%). Mean age was 36 years with a standard deviation of 16.3. Overall prevalence of hypertension was 27.5%. Prevalence was higher in males (31.5%) relative to females (24.8%). 91 patients had a known hypertension diagnosis, of which 45 (49.5%) had high BP and thus had uncontrolled hypertension. 70 (12.8%) patients reported smoking, with 24 (34.3%) of these having hypertension. 96 (17.6%) patients reported alcohol consumption of whom 33 (34.4%) had hypertension. 159 (29.1%) patients had a BMI >25, of which 63 (39.6%) were found to be hypertensive.

CONCLUSION
Hypertension poses a large public health concern to developing nations. This study outlines the extensive poor hypertension control in the study population. We recommend a structured approach addressing primary and secondary prevention with particular focus on patient education and follow-up.

P012 - Combating the burdens of non communicable diseases in Africa: Implication for Africa physiotherapists

Akinfeleye, Am Obi, Felix Abraham

The Africa region has been challenged with poverty, malnutrition, high infant and maternal mortality. The scourge of HIV/AIDS, malaria, tuberculosis and other infectious diseases have posed a huge burden not only on the health of the people but also on the socioeconomic situation of the region. Whereas, attempts are made by these developing nations to put these diseases under control, there arise the emerging epidemics of chronic non communicable diseases, which are fast becoming the dominant public health issues so much so that the UN met in September, 2011 to discuss strategies to combat the rising epidemics.

Ecological and lifestyle changes resulting from industrialisation and urbanisation have increased the risk and prevalence of heart diseases, stroke, cancers, chronic respiratory diseases, occupational diseases, mental health, and musculoskeletal diseases. The attempts to improve quality of life and life expectancy have also brought to the fore diseases associated with aging.

This transition in health poses a double burden on the region which is already challenged with scarce resources. In previous epidemics, Africa countries have been caught unawares. Now opportunities arise to strategise in controlling this emerging epidemics of NCDs, unfortunately, most of the nations are yet to adopt evidence informed policy to stem the emerging pandemic.

Physiotherapy as a profession offers enormous benefits which are evidence-based and cost effective in combating these diseases of civilisation; whereas the role of physiotherapy has been misconceived in some quarters as restricted to tertiary prevention, it role in primary and secondary prevention of NCDs cannot be overemphasized.

This paper highlights the role of physiotherapy at the primary, secondary and tertiary prevention level draws the differences between health education and promotion as strategies in the control of the disease and relieving attendant health and economic burdens. It also prevents measures that will challenge Africa physiotherapists to take proactive measures in policy making that will pave ways to demonstrate their roles in the control of these diseases.
P013 - Polio Eradication Initiative in Lagos State, Nigeria

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BACKGROUND
Polio is a crippling disease that affects mostly children targeted for eradication globally. Lagos State commenced its Polio Eradication efforts in 2001. The last human case detected was in 2009. We reviewed the activities of Polio Eradication Initiative (PEI) in Lagos State.

METHODOLOGY
We interviewed relevant stakeholders to highlight strategies undertaken by the State to control Poliomylitis.

RESULTS
PEI strategies include Surveillance and active case search for Acute Flaccid Paralysis (AFP) cases in Children <15 years.), Routine Immunization (RI) whereby Oral Polio Vaccine (OPV) is given in 4 doses (birth, 6, 10 & 14 weeks). RI Outreaches are undertaken to hard-to-reach areas. Supplemental Immunization Activities like National Immunization Days (NIDs) provide opportunity to reach missed children with OPV, Immunization Plus Days (IPDs), in addition entail distribution of Insecticide Treated Nets (ITNs), Vitamin A supplementation, antihelmintics, and other “Plus” commodities. Local Immunization days & Maternal, neonatal and child health (MNCH) week celebrations aim to rapidly increase immunization coverage in areas with very low performance and/or poor access to regular immunization services. Mop-up immunization campaigns are undertaken in affected communities during outbreaks.

Social Mobilization and Communication is a key aspect of the PEI including TV appearances, radio talk shows, Jingles (including those by Governor and wife), Banners, community dialogue, motorized rallies, advocacy visits, Social Mobilization Committee meetings.

CONCLUSION
The poliomyelitis eradication efforts in Lagos State have yielded positive results and high RI coverage and no recent polio case. The PEI efforts need to be consolidated to avoid any new cases in future.

P014 - The Impact of Legislation Banning Commercial Motorcycles (Okadas) In Port Harcourt, Nigeria

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BACKGROUND
Road Traffic accidents (RTAs) cause 91% of global road traffic deaths in low income countries and Africa is most affected (WHO, 2013). RTAs are the eighth leading cause of death globally and leading cause of death in 15 to 29 year olds (WHO, 2013). They are projected to be the 5th leading cause of death by 2030 (WHO, 2013) Despite this only 7% of the world’s population have adequate laws addressing risk factors (WHO, 2013) and there is a lack of research and attention in this area. This study investigated the impact of legislation banning commercial motorcycles known as Okadas in Port Harcourt, Nigeria.

METHOD
Incidence of RTA admissions at Teme Hospital, Port Harcourt, was calculated a year before and a year after the ban. Relative risk (RR) was computed and statistically significant differences were investigated by calculating RR, 95% confidence intervals (CI) and Chi².

RESULTS
There was a statistically significant reduction in RTAs from 1485 in the year prior to the ban to 893 the year after. There was a 42% risk reduction in RTA admissions rates (RR 0.58; 95% CI 0.54-0.64), a 46% risk reduction of road traffic injuries (RR 0.54; 95% CI 0.51-0.56). During the same period general outpatient admissions increased significantly.

CONCLUSION
The legislation was associated with a reduction in RTAs and RTIs at the Teme Hospital. Preventive interventions may have a significant impact on reducing RTAs. Further research should investigate the impact of legislation on commercial motorcycles; in order to build evidenced based practices.
P015 - Perception on the severity of unwanted pregnancy among university students

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BACKGROUND
Unwanted pregnancy is a known outcome associated with unprotected sex and has consequences for the mother, child and the society. The purpose of this study was to examine the perception of University students regarding the severity of unwanted pregnancy.

METHOD
This cross sectional study involved 408 (206 females and 202 males) students.

RESULT
Majority (87.70%) of participants perceived unwanted pregnancy as leading to impaired mental health; 86.30% perceived it as a cause of many other health problems; 86.60% believed it could result to shame and withdrawal from society or even suicidal attempts; and child neglected and abandonment (84.80%). However, using the cut-off points of 75% of the total scores as a criteria for assessing perception, fewer (60.30%) participants perceived unwanted pregnancy as preventing a girl from continuing with her education; insufficient money to provide for both mother and child (74.50%) and leading to substance abuse and problem behaviour (51.20%). Females students agreed strongly that unwanted pregnancy could lead to shame and withdrawal from the society compared to males (Chi-square = 10.788, p = 0.013).

CONCLUSION
Fewer students at the University of Venda perceived unwanted pregnancy as being severe enough to prevent a girl from continuing her education. Thus, intervention strategies should be instituted to prevent unwanted pregnancies among university students.

P016 - Underlying and proximate determinants of HIV infection in Zimbabwe men and women, evidence from ZDHS 2010/2011

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BACKGROUND
HIV/AIDS have had significant devastating effects in Zimbabwe. Understanding the underlying and proximate determinants of infections in the population is important for knowing who needs intervention, where interventions are needed and for designing specific and relevant interventions.

OBJECTIVE
This study aimed to identify significant underlying and proximate determinants of HIV infection among Zimbabwean men and women in 2011.

METHODS
This study used the Zimbabwe demographic and health survey of 2010/2011 which included a representative sample of 9171 women and 7104 men aged 15 to 49. Following the proximate determinant framework, binary logistic regression models were fitted to determine risk factors of HIV infection separately for men and women. Survey analytical techniques were applied to the data in order to ensure accuracy of estimates. Unadjusted and adjusted odds ratios were reported alongside p-values and 95% confidence intervals.

RESULTS
Significant underlying determinants of HIV infection in both gender populations were age group, marital status and region (AOR: 2.95; p-value: <0.001). Proximate determinants of HIV infection in both populations include condom use at last sex and STI symptoms. Dose response associations exist with total lifetime partners and age of recent partner (AOR: 7.67; p-value: <0.001). Men who practiced intergenerational sex had 66% higher odds of infection.

CONCLUSION
The results showed excess risk of infections in certain demographic sub-groups, reinforcing the need for programmatic interventions to be directed at these locations and populations in order to maximize impact.

KEY WORDS: HIV, Underlying, Proximate, risk factors, interventions
**P017 - Factors associated with uptake of rotavirus and pneumococcal conjugate vaccines among infants in rural South Africa. 2008-2011**

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**INTRODUCTION**
Despite advances at prevention and treatment, rotavirus and Streptococcus pneumonia remain a major source of morbidity and mortality among children worldwide. South Africa was the first country in Africa to introduce rotavirus vaccine (RV) and pneumococcal conjugate vaccine (PCV) in 2008 as part of pivotal studies and the national immunisation programme. We therefore assessed uptake and factors associated with RV and PCV among infants in a rural South Africa setting.

**METHODS**
Trained interviewers visited households and administered a standardised questionnaire. Women were asked to show interviewers the South African Road-To-Health (RTH) card for all children aged 12-23 months at the time of visit. RV is given on the 6 and 14 weeks while PCV is given on 6, 14 weeks, and 9 months. An open cohort of children resident in the Africa Centre Demographic Surveillance Area aged 1 year and below were prospectively followed from January 2008 and December 2011. Logistic regression was used to assess factors associated with uptake of RV and PCV separately.

**RESULTS**
A total of 6,263 children were included in the analysis, of whom 3,082 (49%) were females. The uptake of RV and PCV vaccines were 50% and 37% respectively. Holding other factors equal, children who ever migrated outside the DSA were 48% less likely to have PCV vaccine (p=0.01). Children whose mothers were resident at their birth were 45% more likely to receive PCV vaccines (p<0.01). Similarly, children whose mothers had higher education level were 70% (secondary=0.01) and 80% (tertiary=0.02) more likely to receive RV vaccine. Children whose mothers were resident were 97% more likely to receive RV vaccines than those who were not resident.

**CONCLUSION AND RECOMMENDATION**
There was low uptake of RV and PCV among infants in rural South Africa. To have adequate diarrheal and pneumococcal disease protection, the need for continued interventions to improve RV and PCV uptake.

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**P018 - The effect of physical activity on health related fitness and quality of life amongst call centre agents**

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**BACKGROUND**
Call center agents mainly work in a seated position, and this nature of work promotes a sedentary lifestyle. Research show that programs aimed at increasing level of physical activity at work complements and enhance the effects of policy and environmental interventions. The overall aim of this study thus was to determine the effect of physical activity on health related fitness and quality of life amongst call centre agents.

**METHODS**
A quasi-experimental design was used. A total of 178 subjects were randomly selected from a call centre: Demographic data; BMI; activity levels (PARQ), emotional state; knowledge and attitude towards exercise and barriers to physical were assessed. Phase II: Experimental group subjects participated in a six week program of sub-maximal physical activity. Results were analyzed using SPSS 20.0. Chi square test was used to calculate the p-value scores. Paired Sample t-test was used to compare means and to determine covariance.

**RESULTS**
The majority of those >30 years were overweight and obese. The majority of participants did not exercise, irrespective of age and gender. Majority of participants reported barriers to pursuing physical activity (p = 0.011). Of those participants who reported that they exercise, majority exercised less than the recommended daily allowance.

**CONCLUSION**
The results in this study showed that the PA intervention was effective in reducing discomfort; though participants found it difficult to find time to exercise. The results signal the increased risk of call centre agents to having exposure to serious risk factors such as musculoskeletal problems and obesity associated diseases.
P019 - Knowledge, Attitude and Practice of Oral Health amongst Non Medical Students of the University of Lagos

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INTRODUCTION
The Oral health of every individual is important to the overall well being of the body. Undergraduate students come from different communities and can be of relevant use in proper oral health orientation. The study was to determine the knowledge, attitude, and practices of oral health amongst the non medical undergraduate students of the University of Lagos.

METHOD
A descriptive cross sectional study was carried out amongst 427 non medical students using a self administered questionnaire. Participants were chosen using multi stage sampling. Data collected was analyzed using Microsoft Excel 8.0, Epi info statistical software version 3.5.1 and SPSS.

RESULT
This study shows that the mean age of the respondents was 22.9±3.45 years. Proportion of respondents with good knowledge of oral health was 42.1%. Most of the respondents had positive attitude towards oral health as 94.8% of the respondents felt that oral health is important to the general well being. 47% of respondents brushed their teeth at least twice a day and 84.8% of the students use fluoridated tooth paste. 55.8% consumes refined and sugary diets at any time of the day.

The study revealed a statistically significant relationship between age group (p=0.027) and knowledge of respondents. There was also a statistically significant relationship between Mothers' educational level and practice of respondents.

CONCLUSION
Even though the attitude towards oral health was very good, Knowledge of the students was not impressive and practice of oral health was below standard hence the need for improvement through effective oral health enlightening programs.

P020 - Evaluation of water usage, household treatment processes and hygiene in two rural communities in Rwanda

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The aim of this study was to determine the microbiological quality of river water versus treated water at point of use, and women’s knowledge on water usage and waterborne diseases among rural communities of Rusheshe and Ayabaraya of Masaka in Rwanda. Fifteen river water samples were analysed for coliform and faecal coliform indicators and were compared with treated water from 20 households that used two treatment processes: slow sand filtration (SSF) (12 samples) and a chlorine based treatment or Sûr’Eau (8 samples). A KAP questionnaires tudy on water handling and hygiene practices was administered to 328 women.

Although indicator organisms were significantly lower in treated water as compared to river water, the two treatment processes did not produce water quality within the recommended guidelines of WHO and Rwanda. SSF was found to be slightly more efficient (284 cfu/100ml coliforms and 75cfu/100ml faecal) as opposed to the Sûr’Eau (329cfu/100ml coliforms and 122cfu/100ml faecal) which may be related to a reduction in turbidity. The KAP study indicated a significant difference between those with no schooling compared with those who had some schooling in terms of knowledge of general hygiene practices, safe water handling and water borne diseases. However, in terms of actual maintenance of household containers there was found to be minimal difference between the two groups.

A concerted education strategy coupled with combination of household treatment methods is advocated as an interim measure in these rural communities.
P021 - A descriptive cross-sectional study of the knowledge and attitudes of the general population of Trinidad and Tobago towards Alzheimer’s disease

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BACKGROUND
The prevalence of Alzheimer’s disease is underestimated in the Caribbean and studies have shown that knowledge and attitude levels have not been measured.

Research Question
What are the knowledge and attitudes of the general population of Trinidad and Tobago and is there need for improvement?

Aim
To provide data on the level of knowledge and attitudes of the general population of Trinidad and Tobago to Alzheimer’s disease using the Alzheimer disease Knowledge Scale in order to provide information that can guide the development of public education policies/programs

OBJECTIVE
To review the literature regarding Alzheimer’s disease knowledge and attitudes Globally; to measure the knowledge and attitudes of the general population of Trinidad and Tobago regarding Alzheimer’s disease; to identify differences in educational needs amongst those in the general population of Trinidad and Tobago; to suggest relevant education programs for Alzheimer’s disease.

METHODS
Questionnaire used comprising 56 questions in total including 30 knowledge questions from a validated questionnaire and 22 questions from a pilot tested attitude, using a structured self-administered questionnaire, in transport hubs and shopping centers of Trinidad and Tobago, to 391 participants aged 20 to 64 years.

RESULTS
Significant relationships were found between age and total knowledge, knowing someone with Alzheimer’s disease and knowledge of assessment and diagnosis of Alzheimer’s disease and between ethnicity and attitude.

CONCLUSION
Recommendations made regarding Alzheimer’s disease would need to be shaped according to age, considering the role, exposure to Alzheimer’s disease persons has in changing knowledge and attitude levels.

P022 - Study of the determinants of maternal and neonatal mortality following obstetric complications in Health Center Reference Kéniéba (Kayes)

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Maternal mortality is estimated at half a million women a result of layers of which 99% in developing countries, 40% in Africa [30,32]. In 2011, neonatal deaths accounted for 41% of deaths before the age of five years, against 37% in 1990. [50] The main objective was to study the determinants of maternal and neonatal mortality among women with obstetric complications CSRéf (Health Reference Center) Kéniéba.

It was a cross-sectional descriptive and analytical study from 1 January 2008 to 31 December 2011 from 213 womens. The SPSS software was used, measurements were compared by cross-analysis and logistic regression. X2 tests, reports of side and p were used to interpret the results.

The frequency of maternal and neonatal mortality rates were equal to 6.6% and 41.5%. Neonatal and maternal deaths were associated with age, the characteristics of the second period and those of the third period.

In multivariate analysis the following determinants formed risks or protective factors of maternal and neonatal deaths. The age of 18 had a protective effect of 0.19, the 95% CI (0.065 to 0.57) compared to age> 30.5 years class. The referred or evacuated had a risk of 4.42 of dying as they come to the same, 95% CI (1.6 to 8.75). The bleeding had a 3.55 times higher risk of neonatal death than other complications, 95% CI (1.09 to 12.7). A response time ≤ 55 minutes had a protective effect in relation to times> 55 min [OR = 0.13, 95% CI (0.023 to 0.78)].

CONCLUSION: a prospective study is needed to measure other equally important determinants as the first delay.

KEYWORDS: determinants, maternal and neonatal mortality, obstetric complications, Health Centre Reference Kéniéba.
P023 - Descriptive epidemiology of Diabetic Retinopathy in Botswana

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BACKGROUND
Diabetic retinopathy (DR) is a cause of preventable blindness globally. Prevalence of DR in Sub-Saharan Africa varies between 15 and 52%. The Botswana National Screening Programme for DR was launched in October 2009. The study explored the descriptive epidemiology of DR in Botswana.

METHODS
The study population comprised patients with diabetes on the National DR Screening register at Princess Marina Hospital, Gaborone. Prevalence of DR, maculopathy and visual impairment were estimated and associations of DR and explanatory variables were explored using logistic regression.

RESULTS
A total of 1,307 patients attended screening between October 2009 and August 2011. The mean age (standard deviation) was 55.0 (14.1) years. The majority of patients were female (67.9%). Some patients were excluded from analysis due to missing data: 101 (7.7%) DR ungraded; 39 (3.4%) maculopathy not recorded; and 301 (23.0%) visual acuity not recorded. The prevalence of DR and maculopathy was 17.7% (95% CI=15.6–19.9) and 14.7% (95% CI=12.7–16.7), respectively. The prevalence of low vision (presenting visual acuity (VA) ≥3/60 but <6/18 in the better eye) and blindness (presenting VA of <3/60 in the better eye) was 15.0% (95% CI=13.3–18.9) and 1.5% (95% CI=0.83–2.9), respectively. Increasing odds of DR were associated with increasing age (Ptrend=0.004), low vision (odds ratio [OR]=2.2; 95% CI=1.6–3.0), blindness (OR=4.6; 95% CI=2.6–8.1) and maculopathy (OR=15.2; 95% CI=10.9–21.3).

CONCLUSION
DR is a common complication of diabetes amongst Batswana patients. Our findings are consistent with prevalence rates in other developing countries and underscore the importance of screening for DR in developing nations.

P024 - Impact of risk management practices on service quality in public health

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The paper examined the impact of risk management practices on service quality in healthcare provision in the Accra metropolis and made comparative analysis between private and public hospitals. The study also identified the major challenges associated with the implementation of risk management practices in public health. Data was collected from randomly selected hospital staff and patients through questionnaires. Twenty-five items relating to risk management practices for hospital staff were presented in a format with responses based on a five point Likert Scale ranging from strongly agree, agree, uncertain, disagree and strongly disagree. Questions tapping respondents’ feedback on expectations and experience of service provided were asked to patients in health facilities. The target populations were all private and public hospitals in Accra and the focus was on patients and hospital staff involved in the delivery of service and the outpatient departments. Results of the study reveal that, private hospitals implemented more risk management practices and this positively impacted on their service quality from both the staff and patients’ perspectives. Public hospitals did not effectively practice risk management which showed up negatively on service quality performance from patients’ perspectives. The study shows that, management support and commitment is very key to all risk management strategies and managers in public health should commit more organizational resources toward the effective implementation of quality improvement initiatives.
P025 - The role of effective HSEQ management system in promoting health, safety, environment and quality culture in Ghana's oil retail industry

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This study examined ten Ghanaian indigenous and multinational oil marketing companies to understand the extent to which implementation of the HSEQ Management System helps in promoting health, safety, environment and quality culture in Ghana's oil retail industry. A semi-structured interview targeting key top management staff, managers, dealers as well as forecourt attendants of retail sites was used. The study reveals that, all the multinational oil marketing company sampled had in place and implementing HSEQ management systems in their quest to strengthen the safety culture of their companies whereas the indigenous oil companies in Ghana saw putting in place and implementing an HSEQ management system as an additional overhead cost. The study also found that, with the oil marketing companies indigenous to Ghana, their current approaches to achieving safety culture are deficient because they fail to embrace a holistic approach and often opt for narrow interventions that lack effective communication between major partners and stakeholders. In conclusion, the study points to the promulgation of an Occupational Health and Safety Act and the establishment of a prime regulatory institution I Ghana. All oil marketing companies must be provided with the required capacity building through HSEQ management system education, teaching and training. Such system of education, including proper resourcing and policy reviews, the need for global support infrastructures and a means of fostering communication networks among existing regulatory institutions.

P026 - ‘I was thinking we would be spoon fed’- participatory learning and empowerment in a rural Swazi CBPR for health project

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BACKGROUND
Community empowerment is essential for public health in Africa to go beyond the MDGs. Anecdotal evidence suggests participation in all stages of community-based participatory action research (CBPR) is empowering. However systematic research on the process of participation and empowerment is lacking.

OBJECTIVE
To describe community research trainees’ experiences of public health education through participatory learning and methods design workshops, in CBPR for health in rural Swaziland.

METHODS
12 focus group discussions and participant observation were conducted during 17 participatory workshops involving eight community research trainees. Interpretive analysis was used to: deconstruct one typical research trainee’s epiphany; reveal its features and elements; and reconstruct a group account of the learning experience.

RESULTS
Deconstruction of the epiphany, ‘I was thinking we would be spoon-fed’, revealed four empowerment-related features: contradictions between expectations based on past didactic learning and current experience of participatory learning in which ‘I have to think’; learning what ‘research is all about’; expecting to be able ‘to use [knowledge/skills acquired] in the future’; and participating meaningfully for example by ‘creating my own questions’. Each of these features included elements which reflected psychological empowerment (self-perceptions of increased agency).

CONCLUSION
Participatory learning was psychologically empowering. Ongoing research will investigate if and how psychological empowerment translates into actual empowerment (personal experiences of agency).
**P027 - Community-based chemotherapy for the control of schistosomiasis and soil-transmitted helminthiasis in children in rural Angola**

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**BACKGROUND**
Schistosomiasis and Soil-transmitted helminthiasis (STHs) are major public health issues in Angola.

**OBJECTIVE**
This study aimed to present the effect of massive chemotherapy in reducing Schistosom and STH infestation and anaemia in school-aged children using a community-based intervention.

**METHODS**
All 112 school-aged children (6 -15 years) and their household members, from Cabungo community of Dande-Bengo, were invited to participate in the study. A single course of praziquantel and albendazole treatment was given to every participant regardless of infection status, and insecticide-treated bed net offered. Social, demographic and behavioral information was obtained using an interviewer administered questionnaire. Urine, stool and blood samples were obtained at baseline and one month after the intervention.

**RESULTS**
The prevalence at baseline of Schistosoma hematobium was 82.1% and only 1.8% of S.mansony. The STH overall prevalence was 40.2%, Trichuris trichurias: 19%, Ascaris lumbricoides:10.5%, Hymenolepis nana:8.6%, hookworm: 4.8% and Strongyloides:1%.

In the 70 (62.5%) children followed up, the prevalence of S.hematobium decreased to 27%, particularly concerning heavy infection, about 91.6% (from 42.9% to 3.2%) and the cure rate fell significantly from 54% (p=0.000, MacNemar). The stools of these children showed a reduction to 38.7%, 34.4%, 25.4%, 100%, 34.4% and 100% corresponding to a cure rate of 64.4%, 60%, 54.5%, 100%, 60% and 100% for all STHs infestation, Trichuris trichurias, Ascaris lumbricoides, Hymenolepis nana, hookworm and Strongyloides respectively.

**CONCLUSION**
The sole community-base administration of chemotherapy has limited impact in the control of Schistosomiasis and STHs in endemic communities such as observed in this Angolan study.

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**P028 - An assessment of the health impact of the HIV/AIDS workplace policy in Kenya**

B. Barbara Maseno University

**INTRODUCTION**
In 2007, the labor force in Kenya was comprised of 87.3 % of the adult male population and 74.4% of the adult female population. 7.9 % of adults were HIV infected but only 20 % knew their HIV status. The HIV/AIDS workplace policy (HIV WPP) was introduced by International Labor Organization (ILO) in 2000 (and in Kenya in 2009) to raise awareness on the effects of HIV on labor and employment and assist in their fight against HIV/AIDS.

**OBJECTIVE**
We assessed the impact of implementing the HIV WPP in Kenya in 2009.

**METHODS**
We interviewed key informants, reviewed source documents and profiled communities to determine the effects of 10 key principles of the ILO code of practice on HIV/AIDS on the social determinants of health. An ILO principle was considered to positively impact human health if positively affected any of the social determinants of health.

**RESULTS**
Continuity of the employment relationship, non-discrimination and gender equality are the main positive impacts that could lead to improvements in health in the Kenyan population. The main negative impacts are from economic costs borne by employers who, are prohibited from pre-employment screening employees, are expected to shoulder the burden of decreased employee productivity and employment benefits.

**CONCLUSION**
The will be a positive balance of effects to the Kenyan workforce because employers are not obliged to provide HIV health services and or retain unproductive employees. Knowledge of HIV/AIDS will decrease HIV transmission through behavior change for the uninfected and ART initiation for those infected.
P029 - Climate Change and the District Health System  

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Climate change is increasingly recognised as affecting the planet we live on, fundamentally changing weather patterns, with an accompanying increase in ‘natural’ disasters such as tropical storms, floods, wild fires and droughts. Climate change will threaten water and food supplies, disrupt physical infrastructure and increase mortality. The challenge of responding effectively to climate change at community level is daunting. However seriously rethinking our energy use and the strategies for adaptation and strengthening resilience especially in communities living in vulnerable areas, will be more helpful than crisis management. While we continue to treat people who are ill and injured with care and competence, we need to include community-oriented prevention and building community resilience in a far greater measure than in the past. The common crisis of climate change is an opportunity to strengthen the partnerships needed – not just to deal with the challenges of climate change - but also to strengthen partnerships needed to better manage other complex health problems and to live and work in a fairer and more interdependent manner. The participatory action research cycle is used to illustrate how a district based primary health care approach could be used to develop and strengthen such partnerships.

P030 - An Apathy review on behavioral and psychological treatment in the older population with dementia  

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BACKGROUND  
Sleep disturbance and apathy represent part of the clinical picture of Alzheimer’s disease (AD) and increase the risk of psychological and physical morbidity as well as more rapid institutionalization of persons with dementia. Sleep disturbance in AD is associated with cognitive and functional decline and impaired synaptic function. Although difficult to treat, various treatments show only minimal results in terms of increasing total wake time during the day and minimizing sleep disturbance at night.

METHODS  
We identified thirty-six reviews in order to investigate the prevalence or course of symptoms, with fewer reviews on the effects of NPI on outcomes and care. All participants were assessed for apathy using the Neuropsychiatric Inventory (NPI) and wore a wrist actograph continuously for duration of seven consecutive 24-h periods. Patients were exposed to bright light therapy plus given increased daytime activity such as walking. Sleep/wake and other circadian rhythm disturbances are associated with decreased levels of brain melatonin levels. Since sleep disturbance exacerbates memory and cognitive impairment, managing it is of paramount importance in treating AD patients.

RESULTS  
Those with apathy have a lower mean motor activity during the day; while at night have a longer time in bed and greater period of wake after onset of sleep. As evaluated by the NPI, sleep disturbance did not differ between participants with or without apathy. Walking and light exposure are only potentially effective treatments for improving sleep. Melatonin can be of significant therapeutic value, but acts at different levels relevant to the development and progression of AD.

CONCLUSION  
Participants with AD and apathy are less active during the day and have poorer sleep quality than those without apathy. Light therapy and exercise resulted in no significant group differences. Sleep disturbance is difficult to treat, and the widely prescribed sedative medications and antidepressants have questionable efficacy.

KEYWORDS: Actigraphy, Alzheimer’s disease, sleep disorder, apathy, melatonin
**P031 - Cholera, Haiti, Mathematic Model, Prevention**

**P Cazeau**
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**BACKGROUND**
An unwelcome guest after the devastating 2010 earthquake in Haiti was the shocking emergence of cholera. Four months after the earthquake, 215936 cases had been reported and of these 4131 patients had been infected and died. Mathematical models have been developed to predict the spread of cholera across the entire country and to explore the effects of disease-control interventions.

**OBJECTIVE**
to predict the timing and spread of regional cholera epidemics in Haiti using a mathematical model and to examine the efficacy of disease-controlled interventions.

**DESIGN**
A mathematical model was employed showing person-to-person within and between the 10 geographic regions of the country. Data was obtained from Haitian hospitalization sources plus the 2009 census data. The model involves both waterborne and person-to-person transmission of cholera in order to predict its spread across the country. The model also attempts to assess the effects of 2 distinct interventions, namely vaccination on a limited scale and the provision of clean water.

**RESULTS**:
The model predicted a rate of transmission between 2.06 to 2.78 and this closely matched empirical observations. The model also suggested an intervention would reduce the risk of cholera spreading by 3 %, and this was estimated to be twice the reduction that would result from simply implementing clean water to the same number of individuals. Although the model purports to project the spread of cholera and offer an intervention, it also acknowledges cholera continuing to take a toll on the population for the near future.

**CONCLUSION**
Despite limited surveillance data, the model comes close to reported disease patterns. The model is a tool that planners can use to manage the epidemic, gain insights into the behavior of this infectious disease, and provide a useful tool for decision making. The possibility of eradicating cholera is yet to be determined. Should cholera become epidemic in Haiti, it will represent a threat to other countries in the region.

**KEYWORDS:** Cholera, Haiti, Mathematic Model, Prevention

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**P032 - Earthquake in Haiti Creates Cholera Epidemic Disease and Potential Economic Disaster: Why it is not curable?**

**P Cazeau**
Palm Beach State College

**BACKGROUND**
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**OBJECTIVE**
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**KEYWORDS:** Cholera, Haiti, Mathematic Model, Prevention
**P033 - Combating childhood morbidity and mortality through PMTCT programme at Mogwase Health Centre**

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**INTRODUCTION**

Although the number of new HIV-infection in children in South Africa has been dropping compared with 2009, HIV/AIDS-related conditions still remain the major cause of childhood morbidity and mortality. The PMTCT Unit programme of the Antenatal Clinic at Mogwase Health Centre, aims at reducing the number of HIV-infected babies born to HIV-positive mothers.

**MATERIALS AND METHOD**

The abstract assesses the effectiveness of the PMTCT programme by analysing 3-year data between January 2010 and December 2012. 228 of 1976 pregnant women booked-in within this period were HIV tested three months before booking-in. 154 of the 228 were HIV-positive. The remaining 1748 were HIV tested with pre- and post-testing counselling at 1ST ANC visit, and 455 tested positive. 728 of the HIV negative pregnant women were re-tested at 32 weeks and 10 tested positive.

Of the 619 HIV-positive pregnant, 107 (17.3%) were on HAART at their 1st visit; 174 (28.1%) were initiated on HAART, with the remaining 338 (54.6%) receiving dual therapy.

**RESULTS**

Among 481 HIV-exposed babies born during this period, 478 (99.4%) received nevirapine prophylaxis. 483 babies (including other clinics) were PCR tested within 6 weeks, and 10 (2.1%) tested positive. 242 (50.1%) children were re-tested with antibody rapid test at 18 month, and 1 (0.4%) tested positive.

**CONCLUSION**

Effective implementation management of PMTCT programme can considerably reduces the burden of paediatric HIV-infection by reducing the number of HIV-infected babies born to HIV-positive mothers – an important step to attain the MDG 4 and 6.

**P034 - Factors influencing HIV-positive mothers in choosing to use flash-heat feeding method in South Africa**

**A Chaponda**

Strategic Evaluation, Advisory and Development Consulting

The objective of this cross-sectional study was to find factors influencing HIV-positive mothers in choosing to use flash-heat (FH) feeding method in South Africa. A total of 70 HIV positive mothers were selected using purposive sampling methods. Backward stepwise binary logistic regression analysis was carried out to find their willingness to adopt the flash heat feeding method. More than half (54.3%) of the mothers were not breastfeeding their infant and about a third of them (31.6%) mentioned that breastfeeding is difficult as the reason for not breastfeeding. Most of the mothers (74.3%) reported that they were willing to use the flash-heat method at home as a feeding method for their infants. Following a demonstration of the flash-heat technique and manual expression, the majority (83%) of the mothers reported that they were willing to heat treat their expressed breast milk in a pot on a Primus stove until the water boils as required by the flash-heat guideline. The results showed that mothers who reported that they were willing to heat expressed breast milk (EBM) at home were 24 times more likely to adopt FH compared to those who were not willing to heat EBM at home (OR=24.23, p=0.001). Also those mothers who report that they were willing to express milk for 4 months had 22 times more chances of adopting FH than mothers who reported that they were not willing to express for 4 months (OR=21.60, p=0.016). Therefore the findings of this study indicated that HIV-positive mothers in a public health facility would adopt flash-heat as alternative infant feeding method at home.
P035 - Barriers in scaling up community-based MDR-TB management in 14 districts and possible strategies to strengthen community-based management of MDR-TB patients in South Africa

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1,2,4Philanjalo, 5University Research, 6Church of Scotland Hospital, Tugela Ferry

BACKGROUND: South Africa faces a growing burden of multi-drug resistant tuberculosis (MDR-TB). To address this challenge, the National Department of Health has endorsed a policy framework on decentralisation and deinstitutionalisation of MDR-TB services. We conducted situational analyses and facility assessments in 14 districts.

OBJECTIVES: The purpose of the situational analyses and facility assessments was to determine where existing health services and community resources can be enhanced and strengthened for successful and sustainable community-based management of MDR-TB patients.

METHODOLOGY: The methods and samples include the following: (1) Interviews with provincial, district and sub-district managers and TB Coordinators; healthcare workers providing services in the facilities visited; (2) site visits and assessments, including review of documents and reports at facility and district levels; (3) stakeholder meetings of health facility and district management.

FINDINGS: The following major recurring systems barriers were identified: poor communication between levels of care, poor knowledge of DR-TB programmatic management (PMDT) at district level and clinical management at decentralised levels, DR-TB recording and reporting challenges, lack of financial and other resources (e.g. availability of vehicles for outreach teams; inadequate infrastructure and equipment for infection control).

CONCLUSIONS: Collaborative situational analysis allows for the identification of major recurring problems and aids in ensuring appropriate collection of evidence enabling a more effective, wider scale up. Potential solutions range from district management capacitation on PMDT (including communication systems and referral links between levels of care), MDR-TB clinical training for decentralised and primary health care (PHC) staff and integration of TB services into PHC teams.

P036 - Health Systems Strengthening for community MDR-TB care in South Africa: the approach of the Philanjalo national rollout project

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1,2,4Philanjalo, 5University Research, 6Church of Scotland Hospital, Tugela Ferry

BACKGROUND: We identified a need to support districts to operationalize the national policy framework on decentralisation of Multi-Drug Resistant TB (MDR-TB) services. Specific areas of activity are negotiated and agreed with local health managers.

METHODOLOGY: The approach focused on four main interventions: (1) multidisciplinary provincial workshops to discuss and develop plans for decentralising MDR-TB services in 38 districts in eight provinces; (2) conducting situational analyses in 19 facilities in 14 districts; (3) 633 healthcare workers (medical officers, nurses, pharmacists, TB assistant officers, and lay counsellors) were trained; (4) Support and monitoring visits to provide on-going technical assistance.

RESULTS: Between April 2011 and March 2013, more than 2000 MDR-TB patients have received care in the community in supported districts. Systems barriers include poor communication between levels of care, poor knowledge of DR-TB programmatic management (PMDT) at district level and clinical management at decentralised levels, DR-TB recording and reporting challenges, lack of financial and other resources (e.g. availability of vehicles for outreach teams; inadequate infrastructure for infection control). Solutions include capacitation on PMDT (including communication systems and referral links between levels of care), MDR-TB clinical training for health care workers (including infection control, side effects monitoring, contact tracing), and regular reviews of TB and DR-TB programmes, and integration of TB services into primary health care teams.

CONCLUSIONS: Addressing the scale up of community-based DR-TB management in South Africa is complex, but is evident that with political and stakeholders’ will districts can work with partners to develop interventions that can make community MDR-TB care a reality.
**P037 - Spatial distribution and analysis of factors associated with HIV infection among young people in East Africa: Uganda**

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**BACKGROUND**
HIV epidemic in East Africa is generalized with alarmingly new infections occurring in young people. The prevalence varies with different regions revealing different determinants and disease clusters.

**OBJECTIVE**
This study was set to identify the factors associated with HIV infection in young people while adjusting for geographical differences and displaying these variations.

**METHODS**
A secondary analysis utilizing data obtained from the 2011 Uganda Demographic and Health Survey was conducted. Maximum likelihood-based and Bayesian-based logistic regression models were used to explore the non-spatial and spatial factors associated with HIV. Adjusted Odds Ratios (AOR) and Posterior Odds Ratios (POR) were reported. Spatial analysis was introduced to account for variations in spatial patterns of HIV. Maps depicting posterior odds ratios and clusters of high/low HIV areas were drawn.

**RESULTS**
In this study, 309/533 (58%) female participants aged 15-24 years were selected; 7% being HIV positive. Being previously married (AOR=5.44(1.65-17.92), POR=3.07(1.14-10.24)), exhibiting an STI or symptom in the past one year (AOR=2.45(1.69-3.54), POR=6.83(4.14-16.34)), Transactional sex (AOR=2.51(1.20-5.25)) and using alcohol during sexual intercourse (AOR=1.96(1.17-2.45)) were associated with HIV. Being currently married (AOR=0.40(0.19-0.86), POR=0.14(0.19-0.89)) and Circumcision (POR=0.30(0.12-0.80)) had a protective effect on HIV. Cluster analysis revealed that areas located in the primary cluster had an OR of 2.14.

**CONCLUSIONS**
Spatial analysis is important in identifying hot and cold spots of diseases in heterogeneous environments. High-risk sexual behaviour propagated HIV infection among Ugandan youth and behavioural change interventions should be reinforced to prevent further transmission of HIV/AIDS.

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**P038 - Intermittent missing measurements in physical growth of children: is it necessary to impute?**

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**OBJECTIVE**
To assess the added value of multiple imputation (MI) and interpolation in dealing with intermittent missing physical child growth data.

**STUDY DESIGN AND SETTING**
Data on weight and height measurements from 2 child growth cohorts, with different number of data points, were used. The reference child growth estimates were derived from complete case data sets from the 2 cohorts. Missing data patterns in the cohorts were replicated in the complete data to create missing data. The Berkey-Reed 1st order growth model was fitted using Linear Mixed Effects (LME) models. Relative bias of the parameter estimates of the child growth model and mean square errors were used to assess the added value of using MI or Interpolation in dealing with missing data.

**RESULTS**
There were no significant differences in parameter estimates between complete case analysis (CCA) and Interpolation or Available Case Analysis (ACA) in both cohorts. MI produced parameter estimates that were significantly different from CCA analysis when data points were a year of more apart. There were no significant biases in estimates between CCA and MI analysis in a cohort with more data points. Parameter estimates from Interpolation had smaller standard errors than those from ACA and MI analysis.

**CONCLUSIONS**
The study shows little added value in imputing for missing data in physical growth measurements, especially for data points that are close together. Interpolation produces better predictions of missing values than MI, and can be used to populate for missing values in order to increase the number of observations.
P039 - Factors affecting the use of malaria prevention methods among pregnant women in Kenya

BACKGROUND
Millennium Development Goal (MDG) six is aimed at combating HIV/AIDS, malaria and other diseases (Haslegrave & Bernstein, 2005). In Africa, malaria infections during pregnancy are responsible for 10 000 maternal deaths and 200 000 infant deaths annually (Okpere et al., 2010). Malaria in pregnancy is considered to be the foremost public health concern in Kenya (Kenya National Bureau of Statistics & Macro., 2011).

OBJECTIVE
This study was aimed to examine association between socioeconomic factors and the combined usage of two malaria prevention methods (Insecticide Treated Nets and Intermittent Preventative Therapy) during pregnancy.

METHODS
This study made use of secondary data from the 2008-09 Kenya Demographic and Health Survey (KDHS). A total of 8098 women of reproductive ages (15-49) were included. Univariate, bivariate and multivariate analysis was carried out.

RESULTS
Thirty-six percent of women made use of both Insecticide Treated Nets (ITNs) and Intermittent Preventative Therapy (IPTp) during pregnancy. Multivariate results indicate that urban women (1.22) displayed slightly higher odds of the usage of both measures during pregnancy in comparison to rural women. Women with higher levels of education and women from middle income and rich households displayed higher usage of these two key malaria prevention methods during pregnancy.

CONCLUSION
This study has shown that socioeconomic indicators influence the usage of malaria prevention methods during pregnancy. It is therefore imperative that these factors be considered when designing and implementing policies aimed at improving the combined uptake of these measures during pregnancy.

P040 - Management and leadership training for public health managers: Preliminary evaluation results from a capacity building initiative to support health systems strengthening in Zambia

BACKGROUND
For health systems to function effectively, WHO argues that effective governance and leadership is essential. However, curricula on building practical management and leadership skills are scarce in the Zambian health education system, particularly for medical doctors who often hold key leadership positions in the ministry of health.

OBJECTIVE
To build leadership and management capacity of middle management in the Zambian health sector.

METHODS
Between October 2011 and June 2013, we developed and implemented a three pronged strategy of lectures, case studies and mentorship to train 468 managers in the Zambian health sector. Course content targeted behaviours on problem solving, leadership and project management, strategic information management and human resource and financial management. Each participant completed a self-administered survey at the start and end of the programme to measure changes in self-rated management and leadership skills. Knowledge retention tests were completed by each participant pre and post each workshop.

RESULTS
Preliminary results from 262 trainees who completed the program indicate a significant average increase in their management and leadership capacity self-perception index from 7.3 to 8.8 (CI=1.505 - 1.512; p=0.05) and understanding of key management concepts – 20% (CI=19.98% - 20.54%; p=0.05). Post training, trainees felt more prepared to meet management and leadership challenges in their current and future positions and felt more committed to their career under their organization (to 41% and 26% respectively).

CONCLUSION
These findings support our hypothesis that management and leadership training for adults can be effective in changing self-perceptions of management capability and leadership efficacy.
P041 - Moving from evidence to implementation for childhood vaccination communication strategies: synthesising programme experience from low income countries

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**BACKGROUND**
A key challenge for policy makers in low income countries (LICs) is how best to integrate evidence-based communication strategies into vaccination programme delivery at scale. The ‘Communicate to vaccinate 2’ (COMMVAC 2) project will develop guidance for them on how to strengthen vaccine delivery and increase vaccination uptake through the integration of evidence-based communication strategies that are adapted for local conditions.

**AIM**
To describe how the COMMVAC 2 project will improve knowledge translation for childhood vaccination communication efforts in LICs.

**METHODS**
COMMVAC 2 will extend earlier work on mapping the evidence on communication (see: www.commvac.com/publications.html) to include mass vaccination campaigns; and then to develop a taxonomy and a framework for outcomes. We will carry out a systematic review of factors affecting the successful implementation of communication interventions at scale, complemented by field work in three LICs. This evidence will be integrated with that from systematic reviews of the effectiveness of vaccination communication interventions. The synthesized product will be the starting point for developing a range of best practice options with local applicability issues factored in, for both routine and supplementary immunization activities.

**CONCLUSIONS**
This project will contribute to improving childhood vaccination coverage in LICs by building the evidence needed to implement effective vaccination communication interventions. The fieldwork and systematic reviews will provide a deeper understanding of the range of vaccination communication interventions being delivered in LICs and the factors associated with their implementation at scale. The project will also translate this evidence into guidance for policymakers.

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P042 - Prevalence of respiratory symptoms among informal waste pickers in a landfill site in Kwazulu Natal

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**INTRODUCTION**
Informal waste picking has both economic and environmental benefits, however there are many health risks associated with this activity. The landfill site is usually a dusty environment which is exacerbated by continual garbage offloading. This cross sectional descriptive study assessed the respiratory health risks associated with dust exposure among informal waste pickers operating at the New England landfill site in the Msunduzi Municipality.

Data was collected from 103 informal waste pickers using a validated questionnaire adapted from the BMRC and ATS. Information collected included demographics, socioeconomic status, respiratory symptoms and occupational history. Pickers are at the landfill site 5 days a week, and sometimes, even overnight, when garbage trucks are expected. The sample comprised of 67 (66.3%) women with a mean age of 36.6yrs. Results showed that 31 (36.9) % of the total population were smokers and 72 (71.2)% of them reported living in formal housing (RDP houses). Almost all the pickers did not use dust masks, while 58% used “gloves” and 60.6% used “safety shoes”. Most of the participants reported a high prevalence of cough (57%), cough in the morning (48%), cough with phlegm (29%) and wheeze (51%).

The relatively high prevalence of cough and wheeze symptoms among these informal waste pickers may be linked to dust exposure at the landfill site. Further analysis includes comparing personal and environmental sampling of particulate matter with respiratory health.
P043 - Incentives for lay health workers to improve recruitment, performance and retention in service: A systematic review

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BACKGROUND

Low and middle income countries (LMICs) face difficulties both with health worker shortages and their inequitable distribution. In response, many countries have turned to lay or community health worker (LHW) programmes. But LHW programmes face the same problems as other cadres, including demotivation, poor performance and attrition. Thus it is important to gather evidence on the effectiveness of incentives for motivating LHWs.

OBJECTIVES

To review systematically the effectiveness of financial and non-financial incentives for LHWs in improving performance, increasing retention, and attracting appropriate LHW candidates.

METHODS

We searched multiple electronic databases from 1946 to the present. We included randomised controlled trials (RCTs); non-randomised controlled trials (NRCTs); controlled before-after studies (CBAs); and interrupted time series (ITS) and repeated measures studies, evaluating financial (e.g. salaries) and non-financial (e.g. supervision, leave, recognition certificates, etc.) incentives for LHWs. Primary outcomes were defined as LHW recruitment, retention and performance. The analysis will compare LHW incentives with no intervention, with another type of incentive and different intensities of the same intervention.

RESULTS

Fourteen eligible studies (8 NRCTs and 6 RCTs) were found. Four were conducted in high income countries (USA & UK), with the majority (10) conducted in LMICs (7 in Asia, two in South America and one in Africa). The incentives evaluated were limited to supervision, training, a combination of the later, and the impact of spousal support. No studies tested the impact of financial or other material support.

CONCLUSIONS

Preliminary results suggest a need for studies on the impact of financial and other material incentives.

P044 - Knowledge and Attitude of Tuberculosis amongstSecondary School Students in the Urban Western Area, Sierra Leone

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OBJECTIVE

To assess the level of awareness of tuberculosis infection, and attitude towards Tuberculosis patients, amongst senior secondary school pupils in the urban Western Area.

METHODS

A cross sectional study of 240 male and female pupils. Pupils were selected from first 3 years of senior secondary education in six schools in the Western Urban Area. A self-administered questionnaire was used.

RESULT

48.3% were males and 51.6% were females, with an age range of 15-21 years. Pupil knowledge was good with notable gaps with respect to diagnosis and prevention. The attitude of the pupils to patients was negatively alarming.

CONCLUSIONS

There is need for renewed efforts in health education for the public, clarifying areas of misconception about an important and common illness like Tuberculosis.
P045 - Pushing the boundaries of Data Availability and Quality for Public Health

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BACKGROUND
Complaints about data availability and quality for monitoring public health are ubiquitous. Over the years the District Health Barometer (DHB) has sought to leverage a variety of sources to improve the quality and availability of health indicators and to expose remaining challenges.

OBJECTIVES
To review the improvements and gaps in health indicators.

METHODS
The quality and availability of a wide range of indicators across multiple sources of routine data was assessed while compiling the DHB.

RESULTS
The District Health Information System (DHIS) is the single most comprehensive source of routine data in SA. Data quality and extent have improved considerably over time after multi-pronged initiatives. Significant challenges monitoring PMTCT have been addressed through incorporation of NHLS data on infant HIV PCR testing. Additional contextual factors to explore diarrhoea have been sought through the Department of Water Affairs Blue Drop results for Drinking Water Quality Management. Mortality data provide some insight into specific disease areas with limited information, and overall effectiveness of health and social systems. The lack of integration between DHIS and the ETR.net system for TB have been addressed by linking the patient-level TB data. The utility and integration of health expenditure data has been improved by coding, cleaning and feedback to Treasury. Sharing of mapping between disparate systems contributes to better data linkages and integration in future. Some of the remaining challenges include the time lag of mortality sources, limited utility of routine non-communicable disease indicators, inaccessibility and poor quality of human resource information systems, exclusion of most private sector information and outdated information access to medical scheme insurance and public-private use of services.

DISCUSSION
Analysis, visualisation and feedback on health indicators have contributed to ongoing improvements, although significant challenges remain.

P046 - An Effective Approach to the Rollout of Cryptococcal Screening Training

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BACKGROUND
Cryptococcal meningitis (CM) is a serious fungal infection that affects people with a weakened immune system. It is now the leading cause of meningitis in HIV-infected patients with low CD4 counts. A screening test is now available to detect cryptococcal infection before it causes clinical symptoms. Screening for CM was included in the National Strategic Plan of the Department of Health (DoH). Training of all doctors, nurses, pharmacists and lay counsellors is needed to introduce the new screening policy and treatment guidelines before testing can commence.

OBJECTIVE
To determine an effective training strategy that enables quick access to a large number of health care workers, in a short space of time, using limited resources, with minor impact on service delivery.

METHODS
Compare two distinct training approaches adopted by two different non-profit organisations to determine which approach was more effective. The analysis scrutinises the approaches used versus the outcomes obtained.

RESULTS
The approach utilised by Aurum Institute proved to be a more effective in that more participants were trained in a shorter space of time, requiring less resources with almost no direct impact on service delivery. The strategy appeared to be far more enabling for the department of health and allowed partner organisations to do what they should, support.

CONCLUSION
An effective methodology that can be considered by districts in South Africa in the eminent national rollout of CM screening training. It also verifies that effective and coordinated collaboration between DOH and PEPFAR funded partner’s results in a more effective outcome.
P047 - The Risks of Getting Stuck in a Single Quality Improvement Idea

**BACKGROUND**
The Aurum Institute has been working on various Quality Improvement (QI) projects since February 2012. During this early phase the primary strategy with regards to improvement was based on data validation techniques.

**OBJECTIVE**
To understand the implications of the initial, relentless focus on data validation as the primary strategy underlying the project.

**METHODS**
Analyze the number of Plan-Do-Study-Act (PDSA) cycles and active QI teams in facilities during this period and compare them against the number of PDSAs and QI teams that should be in place in a well-functioning QI collaborative.

**RESULTS**
The guidelines for running an effective Learning Collaborative from the IHI suggest the need for a minimum of 3 PDSA cycles during an activity period over three months as well QI teams being formed in all facilities and meeting on a minimum two weekly basis.

The study found the statistical mean of 3.25 completed PDSA cycles per facility over a nine month period (1.08 cycles every 3 months). QI teams existed in 15/28 facilities and were active (meeting once every 2 weeks) in 9/28 facilities.

**CONCLUSIONS**
The study shows that there is danger in getting stuck in one QI idea. Data validation as a QI strategy remains an important part of any QI approach however an obsession with this aspect can compromise other crucial aspects of a QI programme.

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P048 - A diagnostic evaluation of data quality in diarrhoeal disease in children under five in the Western Cape 2007-2012

**BACKGROUND**
According to the Western Cape Mortality Profile 2009, diarrhoea is the second leading cause of death in children under five in the province, accounting for 16% of all deaths within this age group. Since 2007, a seasonal diarrhoeal plan to address the summer peak of acute enteritis in children under has been put in place.

**METHODS**
Routine health care facility data were analysed to identify trends. A self-assessment of data quality was conducted using the SASQAF tool. Annual diarrhoea plans and reports were reviewed. Focus group interviews were held with health care programme managers and clinical staff.

**RESULTS**
Diarrhoeal disease incidence peaked in 2009 and thereafter showed a general downward trend. Generally, data were found to be of a high standard; however three SASQAF domains, the pre-requisites of quality, accuracy, and comparability and coherence were below the acceptable standard. A lack of agreement between annual reports and routine data was found. In addition, a parallel data information system exists. Focus group discussions revealed the challenges and successes experienced by health care workers.

**CONCLUSION**
The diarrhoeal seasonal plans have achieved rapid institutionalisation and expansion in all districts in the Western Cape. There is room for improvement and strengthening of routine information systems, including human resources, hardware and software. The standardized data tool was not able to detect local level data inadequacies.
P049 - An assessment of evaluations conducted in the Western Cape Department of Health 2006-2013

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Background
The National Evaluation Policy framework was adopted by cabinet in 2011 and aims to improve the impact of government programmes through evaluation. Since 2006 the Western Cape Department of Health has maintained data of all research conducted in health facilities within the province.

Methods
The health research database was analysed to identify all evaluations conducted in the above period. Health Programme Managers were additionally requested to submit evaluations. The evaluations were analysed and grouped per theme and by type of evaluation conducted, based on an a priori classification developed from the literature.

Results
A total of 48 evaluations were found. Fifty eight per cent of evaluations found were conducted in the HIV/Aids area (27) followed by child health 19% (9) and Women’s Health 6% (3). Fifty six percent of all evaluation reports were not recorded in the Provincial research database.

Conclusion
A high proportion of evaluations focused on HIV/AIDs. Greater emphasis should be placed on including other programmes aimed at addressing the local burden of disease. In order to strengthen evaluation utility and allow for the sharing of knowledge it is recommended that all public sector evaluations be stored in a national evaluation repository.

P050 - The hard and soft science of managing client flow and work allocation within a primary care facility

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Introduction
Long waiting times, having a profoundly negative impact on how clients perceive the quality of the quality of care they receive, have been measured at many primary care services in Cape Town. Further data suggests that the cause of the problem is not high workload. This raises questions about the efficiency of client flow and work allocation within facilities.

Objectives
Identify the key decisions that facility managers make in managing client flow and work allocation within their facilities and what information is used in these decisions

Methods
A case study design was used within a Participatory Action Learning Research approach.

Results
This paper will present the findings from the perspective of the facility managers. Key decisions in managing the client flow and work allocation are described. These include the optimal organisation and management of hardware (such as the physical layout of facility and staff posts and scope of practice) as well as the software of the system (such as staff work practices and attitudes). Facility managers use both formal information sourced from waiting time surveys and informal information from their own observation of bottlenecks to identify problems. The management of these problems then requires rich local information on how the facility system functions and its capacity under a range of different variable configurations, the particularities and fluctuations of service needs and the individual and collective strengths.
P051 - Improving effectiveness of a health system through implementing a framework for monitoring pharmaceutical services in KwaZulu-Natal

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BACKGROUND
Pharmaceutical Services in KwaZulu-Natal identified the need to develop and implement an integrated results-based M&E system to provide accurate, up-to-date information to inform planning and decision-making at all levels.

OBJECTIVES
To improve health system effectiveness by monitoring the performance of Pharmaceutical Services

METHODS
A series of workshops attended by Provincial, District and Facility Pharmacy Managers as well as representatives of the M&E and Data Management Directorates were held. Technical assistance was provided by the USAID-funded Strengthening Pharmaceutical Systems program. A situation analysis was done, a results framework developed and indicators identified. Data collection tools were developed and integrated into the Departmental M&E Framework. Some data is collected and collated via the DHIS.

Reporting on indicators commenced in the first quarter of 2010/11. The Provincial Office prepares a consolidated Pharmaceutical Services Performance Report that is distributed to stakeholders and reviewed during provincial management meetings.

RESULTS
Over time, the quality of reporting, particularly on performance of PHC facilities, has improved. Trends have been established and performance of districts and facilities can be compared. Results from the 2012/13 annual report showed the average patient waiting time at pharmacy was 30 minutes, the tracer medicine stock-out rate was 3.96% (hospitals and CHCs) and 1.35% (PHC facilities) with 40% of facilities reported that they experienced a stock-out during the period.

CONCLUSION
Implementing an M&E Framework for monitoring services has helped to improve systems and processes thus contributing to effectiveness of the health system. Pharmaceutical Services is also more visible in Departmental planning and reporting.

P052 - Tracking Master of Public Health Graduates: Linking Higher Education and the Labour Market

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BACKGROUND
Master of Public Health graduates comprise a wide range of health professional backgrounds. They are equipped with knowledge and skills to integrate research, analytical and a practical approach to current public health issues. In South Africa, the public health problems have changed over the years and there is a growing demand for health professionals with a population perspective who can contribute meaningfully to transforming the health sector.

The role and relevance of public health graduates in the South African health system have not been documented. Tracking of graduates from a multi-disciplinary background is important for universities in order to assess the effectiveness of study programmes, their worth for the labour market the health system, and contribution to the health system.

OBJECTIVE
To provide a ten year review of University of KwaZulu Natal Master of Public Health graduates and their role in the health systems.

METHOD
An observational descriptive cross-sectional study design was implemented. Graduates were followed up by e-mail and data was collected using self-administered questionnaires.

RESULTS
Most of the 70 graduates responded to the call for information and the majority of them are still working within the in South African health system where they are integrating the skills acquired in the program to improve their workplace.

CONCLUSION:
The Master of Public Health programme equips health care professionals with an appropriate population perspective and skills to contribute to improvements in the health system in South Africa.
P053 - Preference of male traditional circumcision supersedes male medical circumcision at Libode rural communities in the Eastern Cape Province of South Africa

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INTRODUCTION
Male circumcision is the oldest and most prevalent surgical procedure in boys and it is performed throughout the world for ritual, traditional, cosmetic and medical reasons. It is estimated that 33.3% of men worldwide have undergone circumcision performed for different reasons in different cultures. In South Africa, male circumcisions are performed by various cultural groups on young adults as a rite of passage from childhood to manhood. At the end of 2010, around the Eastern Cape Province statistics showed that there was a total of 3438 hospital admissions of initiates, 147 of initiates with penile amputations and 277 of deaths, 244250 legal initiates, 12226 illegal initiates and 132 police arrests related to traditional circumcision illegal offences.

AIM
The aim of this study is to explore information regarding preference of circumcision method related to boys aged 12-18 years at Libode rural communities in Eastern Cape Province of South Africa.

METHODS
The study is a mixed method study that composes both quantitative and qualitative approaches. Cross-sectional survey was conducted in the form of a self-administered questionnaire and key informant interviews conducted using semi structured interview guide. Qualitative methods allow for greater exploration of issues and concerns. These methods also offer the opportunity to develop rapport with rural communities, to generate networks, and to encourage community involvement in the process. Qualitative data collection methods used included key informant interviews.

RESULTS
A total of 1036 respondents answered the question on personal preference of circumcision (n=1036). Out of 1036 of respondents, 92.3% personally preferred traditional circumcision to male medical circumcision; 4% of the respondents preferred male medical circumcision to traditional circumcision and 3.8% were not sure of what to prefer.

KEY WORDS: male traditional circumcision, preference, male medical circumcision, rural communities

P054 - Tuberculosis treatment outcomes in patients undergoing Directly Observed Treatment Short Course (DOTS) in large urban Centres in Lagos Nigeria

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INTRODUCTION
Nigeria is ranked 10th among 22 countries with high burden of Tuberculosis (TB) globally. The country’s large population coupled with high prevalence of HIV has continued to make TB control difficult. Lagos state with a population of 17 million contributes 9% of Nigeria’s annual new TB cases. As variation in health outcome including TB treatment outcome could be influenced by health determinants, this study aimed at investigating association between health determinants, HIV status and TB treatment outcome.

OBJECTIVE
To determine association between health determinants, HIV infection and Tuberculosis treatment outcome in patients undergoing directly observed treatment in Lagos State.

METHODS
A cross-sectional prospective study involving analysis of primary and secondary data on health determinants, HIV status and TB treatment outcome from a treatment cohort was conducted. Chi Square and logistic regression methods were used for data analysis. P<0.05 was taken as statistically significant.

RESULTS
N=187, 78.1% had successful TB treatment outcome, which is below WHO recommended 88%. Use of treatment supporter (p=0.002), high adherence to treatment (p=0.001), being educated (p=0.001), employed (p=0.028) or self employed (p=0.001) were independently associated with successful treatment outcome. Age (p=0.002), HIV+ (p=0.0001), TB co-morbidity (p=0.0001), income level (p=0.0001), marital status and alcohol consumption during treatment (p=0.003) were univariately associated with unsuccessful treatment outcome.

CONCLUSION
Successful TB treatment outcome can be increased by use of treatment supporter and high adherence to treatment. Improved educational status, income level and reduction in HIV incidence are likely to improve successful TB treatment outcome.
P055 - Improving ICD coding in public hospitals in the Western Cape: The Electronic Continuity of Care Record

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The WHO International Classification of Disease (ICD) codes are used for morbidity and mortality surveillance, health care finance, health care policy and research. Since 2005 clinicians have been required to provide ICD codes for both insured and uninsured patients discharged from public hospitals in the Western Cape. However, the implementation of this policy has remained a challenge due to the costs, time and sustainability of training the clinicians to code. Clinicians have previously perceived the ICD coding system as being complicated and time consuming.

Public Health registrars and specialists coordinated the development of a standardised discharge summary for all clinical disciplines using action participative methods. The discharge summary was enhanced through digitization and the integration of ICD code browsers, the discharge prescription, a health facility directory and health programme data fields. The final computer application, the Electronic Continuity of Care Record (eCCR) was piloted at district, regional and central hospitals.

Early results showed an improvement in primary discharge ICD code coverage from 10% to 100% and secondary ICD code coverage from 7.5% to 92%. Clinicians ascribed their willingness to use the tool to the reduction in steps during the discharge process, predictive text functions and the ease with which ICD codes, medication and patient destinations could be accessed through integrated browsers. These results indicate that the eCCR has the potential to markedly improve ICD code coverage for all public health hospital inpatients. A formal evaluation is underway to assess the quality of the captured ICD codes against the original patient record.

P056 - 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.
**P057 - Implementing programmes at facility level: how facility managers use information in prioritising within and between programmes**

1 A Emmett, 2 N Dinginto, 3 P James, 4 Z Xapile, 5 V Scott

**BACKGROUND**

In South Africa the organisation of primary level health services in programmatic interventions allows high burden diseases such as HIV and TB to be prioritized and given intensified technical programme support. However this can present a challenge for facility managers tasked with ensuring delivery of a set of programmes and programme components from one service platform, particularly in the context of scarce resources (in particular skilled staff).

**OBJECTIVES**

Identify the key decisions that facility managers make in managing programmes within their facilities and what information is used in these decisions.

**METHODS**

A case study design was used within a Participatory Action Learning Research approach. Four facility managers participated as co-researchers.

**RESULTS**

This paper will present the findings from the perspective of the facility managers. Monitoring and intervening to improve programme coverage and quality of care is identified as key management activities to strengthen programme delivery at facility level. In particular the role of routine programme information systems, target setting practices, and quality improvement audits will be described with attention to the impact that this has on what the facility manager identifies and actively manages within and between programmes. The use of outreaches and campaigns as strategies to improve programme coverage will be described, as well as the unique information challenges that these strategies present for formal information.

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**P058 - An assessment of basic health information competencies amongst primary health care managers: a practical exercise**

René English, Rhulane Madale, Sizulu Moyo, Annibale Cois

**BACKGROUND**

The introduction of the three streams of the primary health care (PHC) re-engineering strategy in South Africa aimed at strengthening the PHC service delivery platform focuses on strengthening health promotion, prevention and community involvement. A key activity of managers and teams will be to conduct community assessments and compile a profile and diagnose the health needs of the community. All nurses are expected to collect, collate, report and use data and information for planning and patients management.

**AIM**

To assess the numeracy skills and ability of nurse managers working at sub-district level in South Africa to analyse health indicators and information presented in the form of graphs.

**METHODOLOGY**

Based on review of literature on measuring competencies of health managers, and key local policies and publications as well as formative qualitative research a practical exercise tool was developed along with a range of other tools to assess competencies.

**RESULTS**

A seven-point practical exercise tool was developed which contained questions which assessed nurse managers’ abilities to calculate basic indicators, calculate proportions and interpret graphs containing information commonly displayed in health facilities. Preliminary results for five provinces, in which 468 participants were interviewed, shows relatively good performance for calculating common health indicators (82.3%), but poor ability to calculate proportions (40.2%) and poor interpretation of graphs.

**DISCUSSION**

There is a need to improve the health information management and numeracy skills of nurse managers working within the PHC sector in South Africa, particularly within the context of PHC re-engineering.
P059 - Assessing the public health and general management competencies of primary health care managers (PHC) in the context of PHC re-engineering: interrogating the evidence, developing the tools

René English, Sizulu Moyo, Rhulane Madale
Health Systems Trust

BACKGROUND
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. According to policies and guidelines, within each team nurses play a central role and so does the PHC facility in terms of being a reporting and referral point. As a result it is postulated that the roles and responsibilities of nurse managers working at health facility and sub-district level will undoubtedly increase.

AIM
To describe the methodology for the development of, and present, tools to measure competencies among nurse managers working at sub-district level in South Africa.

METHODOLOGY
Key international and local literature on measuring health manager competencies and local policies and publications describing the roles and responsibilities of nurse managers especially within the context of PHC re-engineering were reviewed. Formative qualitative research to inform the development of tools was conducted.

RESULTS
Three tools were developed. The first was a quantitative Likert-scale based competencies assessment tool containing questions covering a range of broad competencies. The second was a seven-questioned practical exercise to assess nurse managers’ numeracy and health information skills. Finally, a focus group discussion guide was developed that covered key competencies categories as presented in the Likert-scale questionnaire.

DISCUSSION
The development of locally-applicable tools to ensure that nurse managers are competent to perform their varied roles and responsibilities is possible through the use of formative research and through drawing on published literature.

P060 - Assessing the public health and managerial competencies of primary health care (PHC) nurse managers in the context of PHC re-engineering

René English
Health Systems Trust

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. The analysis however also 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 these managers are sufficiently informed of the policy changes, and are skilled and competent 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 nurse management and public health (epidemiological), health information and basic statistical and numerical skills required to perform daily managerial functions) require strengthening. Furthermore, no studies assessing the competencies of these nurse managers have been done to determine current levels and to inform capacity building programmes. Given the central role that nurses play in achieving the PHC re-engineering strategy goals, and the absence of a locally-specific competencies assessment frameworks, tools and processes, a team of researchers set about to develop a competencies assessment tool that will specifically focus on assessing the current managerial and public health competencies of nurse managers working at PHC facility and sub-district levels. The participants in this session have all worked on the study and will present on the work conducted since 2012. The aim of this proposed session will be to present the findings of the various phases and objectives of the study, to get opinions, feedback and critique on various aspects of the study, but most importantly, to start a discussion on how key stakeholders and roleplayers can start to address identified competency gaps. Ultimately, the work produced should inform capacity building programmes. Because this study was conducted in five provinces in South Africa, we hope that tailored programmes can be delivered and that the tools will be used on a regular basis to assess progress in improving nurse manager competencies.
P061 - Measuring health system performance through the lens of the District Health Barometer

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BACKGROUND
The District Health Barometer provides a summary of key health indicators at national, provincial and health district levels in South Africa. The indicators reflect those presented in key strategic planning documents such as the Annual Performance Plan (at both national and provincial levels).

AIM
To present key findings from the DHB and to analyse these findings, in terms of reasons for good or poor performance, through interrogating information provided by district staff attending district DHB workshops in 17 provinces.

METHODOLOGY
As part of the workshop, staff were asked to provide key reasons for the observed performance of the health system as presented in the DHB. These were recorded on standardised templates.

RESULTS
A range of reasons for poor and good performance were provided by staff in the districts and relate to a range of clinical, structural and cultural beliefs.

DISCUSSION
Collectively interrogating the reasons for performance within districts are useful for informing planning and for understanding the performance of the health system.

P062 - Comparative assessment of knowledge and sources of information on HIV/AIDS among secondary school students with and without hearing impairment in Ibadan, Nigeria

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Possession of accurate knowledge about HIV/AIDS is critical in limiting the spread of HIV infection. This study was carried out to assess the knowledge and sources of information on HIV/AIDS among secondary school students with and without hearing impairment in Ibadan.

To assess the knowledge of secondary school students with and without hearing impairment about HIV, determine their attitude towards voluntary counselling and testing, to assess their risk behaviours for HIV, to compare their common sources of information on HIV.

This comparative cross-sectional study involved 520 students: 260 students with and 260 students without hearing impairment. The Mean Knowledge Score (MKS) for HIV/AIDS was higher among the students without hearing impairment (33.1 ± 4.3 versus 30.1 ± 4.8). More of the students without hearing impairment felt it was important to know one’s HIV status (71.6%). More of the students with hearing impairment (57.8%) considered themselves to be at risk of contracting HIV infection. 49.2% of the students with hearing impairment were sexually active compared with 25.8% of their peers without hearing impairment. Both student categories, the MKS was significantly higher among students who had never had sex compared with those who were sexually active. Higher percentage of the non-hearing impaired students (55.0%) reported being exposed to HIV awareness programmes in their schools.

Students with hearing impairment compared with their non-hearing impaired peers had less access to information and knowledge about HIV/AIDS. Knowledge about HIV/AIDS among students with hearing impairment may be enhanced by HIV awareness programmes and printed materials.

KEYWORD: Hearing impaired students, HIV/AIDS, knowledge.
P063 - Advocacy for a healthy energy policy: the experience of a national roundtable process

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The routine release of pollutants from energy extraction, distribution and consumption has significant implications for human health, directly as environmental health impacts, and indirectly through impacts on ecosystems and global climate change. These implications are currently insufficiently considered in national energy policy.

We describe a national consultation on healthy energy policy with role players in the health and energy sectors (www.groundwork.org.za/ClimateHealthRoundtables.html). A series of provincial roundtables were held to identify the health impacts of current energy policy and systems; to develop a position for a healthy energy policy; and to develop a strategy for mobilizing the health sector on energy and health.

Key recommendations of the roundtables include:
1. Involve the health sector in the national energy planning process
2. Promote research into the health and environmental costs in South Africa of energy generation from coal
3. Raise politicians' awareness through the environmental portfolio committees on health and the environment
4. Get health institutions to adopt the internationally-recognised Global Green and Healthy Hospitals (GGHH) agenda
5. Implement energy efficiency measures at the primary care level
6. Create more training positions for occupations/medical specialists
7. Include energy and health in health sciences curricula and training programmes
8. Raise public awareness about energy and health through the popular media and health facilities

A broad-based collaboration of health organizations should use the opportunities presented by current health system restructuring and the national energy planning process to advocate for more healthy national energy policy and local practice in our health institutions.

P064 - Local level cause-of-death surveillance provides district and sub-district information in the Western Cape Province

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BACKGROUND
The Western Cape Province has extended a local-level mortality surveillance system, developed by the City of Cape Town, across the province. For the first time cause of death statistics are available by sub-district.

METHODS
A web-based data capture system has been set up in all the health districts. Death notifications forms were obtained routinely from the regional Home Affairs offices and cause of death information captured into a customised web-based database. Cause of death coding was upgraded from a shortlist to full ICD-10 coding for natural causes of death using IRIS software. Data from Forensic Pathology Services were linked and provide details about the manner of death and external causes of injuries. Causes of injury deaths were coded manually to ICD-10. Population estimates based on a population projection for each health district using the ASSA model were used to calculate age standardised mortality rates. The WHO world population was used as the standard. Premature mortality was calculated as years of life lost (YLLs) using the WHO assumptions. Analysis has been done by broad causes, major burden groupings as well as single causes.

RESULTS
A total of 42 607 deaths were captured and coded for 2010 with 8.2% due to ill-defined causes. Compared with the number of deaths reported by Stats SA for 2010, the completeness was 92.2%. HIV/AIDS, interpersonal violence and TB were the leading causes of premature mortality across all districts. Ischaemic heart disease, road traffic injuries, stroke, diabetes and COPD feature in the top 10 causes but ranked differently across districts. Considerable variations in the age standardised mortality rates were observed between sub-districts.

CONCLUSION
The local mortality surveillance system has provided cause of death statistics at a local level in the Western Cape, providing opportunities for improving the quality and use of mortality data for planning and monitoring progress.
P065 - 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,

P066 - To lead or not to lead

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**BACKGROUND:**
SURMEPI project aims to strengthen health systems in rural and underserved areas through capacity building.

**AIM:**
To describe the health care skills development needs of health care providers and managers for health system and services strengthening in a rural district.

**OBJECTIVES:**
1. To describe the skills development need into:
2. ... public health and health systems research and strengthening;
3. ... evidence based health care;
4. ... infection prevention and control;
5. ... clinical research;
6. ... leadership and management;
7. To develop continuous professional educational activities and training plan.

**METHOD:**
This was a descriptive cross sectional study. A convenience sample of Health care professionals was selected to complete the questionnaires. Results from the questionnaires were discussed at a focus area meeting and at a district management meeting to identify and select CPE activities to be developed.

Descriptive statistics and frequencies was analysed. Qualitative data were analysed and themes were identified.

**RESULTS:**
31 managers completed the leadership and management- and 91 health care workers completed the skills questionnaire. The managers indicated a need for training in leadership and communication and knowledge management. Infection prevention and control; evidenced based health care and public skills was rated the most important skills to have for the district and self.

Data highlighted the need for on the job support and training with focus on people management, leadership and implementation of learned knowledge.

**CONCLUSION:**
Health care managers are requesting more on site support than need for new knowledge. The next step of the study is to develop and implement a capacity building program.
P067 - The effects of work pressure and its contribution to occupation stress in nurses

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Occupational stress among nurses is a worldwide public health concern. The intensity of the problem increases in response to health changes. The reasons include: growth in population size, migration of nurses, the burden of the HIV/AIDS epidemic, increasing workload, increase job demands and unsatisfactory remuneration. The aim of the study was to establish the factors contributing to occupational stress and its impact on work productivity. A quantitative, cross sectional, descriptive study design was used. Data from 223 participants was collected using structured questionnaires. The results show that 56.9% of the nurses reported high work pressure. In order to retain nurses in health systems and promote healthy working environments for nurses, occupational stress levels must be reduced. Hospital management, training institutions and government policy makers must take cognisance of the adverse effects of occupational stress on nurses and understand how this ultimately affects the health delivery of the country.

P068 - Correlates of childhood anemia in Ethiopia

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BACKGROUND
Data from the Ethiopian Demographic and Health survey was analyzed to identify the factors associated with childhood anemia.

METHODS
A total of 8260 children observations between the ages of 6-59 months were analyzed. Bivariate and multivariate analyses were performed to identify factors associated with iron deficiency.

RESULTS
The overall mean (standard deviation) hemoglobin level among the under-five children was 10.7 (2.2) g/dl and 50.3% of them were anemic. Childhood anemia demonstrated an increasing trend with maternal anemia levels of mild, moderate and severe anemia: odds ratio of 1.82, 2.16 and 3.73 respectively (p < 0.01). Children whose mothers had no formal education were 1.38 times more likely to be associated with childhood anemia (p <0.01). The poorest and poorer wealth index group had 1.52 and 1.25 increased odds of childhood anemia respectively (p < 0.01). The odds of childhood anemia demonstrated progressively decreasing trend with increasing child age (p < 0.01). The likelihood of anemia among children with wasting increased by 13% (p=0.03) while the risk in those with no history of Vitamin-A intake in the previous six months increased by 27% (p< 0.01).

CONCLUSION
Childhood anemia in Ethiopia is a severe public health problem. Identifying the root cause of anemia, iron supplementation to children and holistic approach of addressing mothers and children are of paramount importance. In settings with high burden of anemia, family level anemia screening is advised on vulnerable groups if there is an index case of adult anemia in the household.
P069 - Pharmacy Service Delivery Optimisation through improved Processes

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BACKGROUND
Long queues and extended waiting times at the central pharmacy in a large tertiary hospital prompted research into operational improvement to improve the speed and the accuracy of dispensing conscious of human resource constraints.

METHODS
Elements that were investigated include the pharmacy layout, the physical location of medication, the control systems and the level of training of staff. Further elements included the level of automation and patient load in the pharmacy.

RESULTS
It was found that the rate at which medication was picked decreased with increasing patient volumes which led to accumulation of patients and increased queue lengths. Inefficient labour intensive processes in labelling and dispensing led to errors and significant delays. Oversight of pharmacy operations was poor due to the lack of a holistic control system leaving stock levels largely unmanaged.

CONCLUSIONS
An improved layout, the implementation of a stock management system and value engineering the process saw a conservative reduction in patient queue time exceeding 60% thus serving more patients per day, using fewer (and less burdened pharmacists) walking as little as a quarter the distance per script as compared to initial conditions.

P070 - Assessment of current competencies, decision making authority and mentoring needs of district health management teams in South Africa

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The Minister of Health in the 2009 Budget Speech acknowledged that some of the factors contributing to the problems in the health system include lack of managerial skills within sector. The country’s plan for PHC re-engineering and introduction of the National Health Insurance strategies was announced. PHC re-engineering is in alignment with Priority 4.1 of the Ten Point Plan and will improve competences and confidence of leadership through better training of staff at District Levels within Provinces. The NHI recommends a District Health System with decentralised authority according to guiding legislation and delegation principles. The need to assess the competencies, capacity of the District Managers to carry out the mandate of PHC re-engineering, NHI piloting and meet the new Role of District Health Authorities was evident.

The Aim of this study was to assess the current competencies, decision making authority and mentoring needs of the District Health Management Teams in South Africa.

The Objectives of the study were to; Assess the competencies and decision making authorities of District Health managers; Assess performance contracts of district managers and teams in line with their annual performance report from the past three years; Determine the current delegation of decision making for health services by District managers in Finance and Human Resource Management; Identify mentoring needs of District Health Teams and to conduct training needs analysis of district managers and teams per district.

The research design for the study was a combination of quantitative, qualitative, cross sectional and descriptive in nature. The study population consisted of national, provincial, district level leadership and management teams in quality assurance, communications, infrastructure, information management and hospital services. A multi-stage stratified cluster sampling method was used. Data was collected using desktop reviews, structured questionnaires and interviews. Quantitative data was analysed using SPSS and qualitative data using Tech’s content analysis method. Reliability, validity and trustworthiness were ensured. Permission to conduct the study was sought from the ethics committees of the universities involved in the study. Ethical principles of consent, anonymity, confidentiality, privacy, justice and self-determination were ensured. The preliminary results of the study, conclusions and recommendations will be presented at the conference.
P071 - High risk behaviour findings from a survey of high schools in Capricorn and Vhembe districts in Limpopo Province: Implications for Integrated School Health Programs

B Hlabano
African Medical & Research Foundation - AMREF

BACKGROUND
The Integrated School Health Program (ISHP) seeks to provide preventive, promotive and curative health services for learners. This includes reducing risky behaviours like alcohol, drug abuse, and unprotected/early sex. The Limpopo School Health Project seeks to contribute to the success of the ISHP by building the capacity of key stakeholders to provide services.

METHODS
A baseline survey using mixed methods was conducted to establish the status of school health services in Vhembe and Capricorn districts. Survey participants included the following: learners, educators, parents, representatives from school health teams, SGBs and CBOs

RESULTS
12.4% of learners (12% males/7.5% females) smoke or have smoked at one point. 9% (13.8% males/5.7% females) drink alcohol. 2.3% (2.2% males/2.3% females) have used drugs. 38.5% (21.4% males/11.8% females) are sexually active or have had sex. 21.6% of the sexually active learners (23.4% males/20.1% females) report using condoms during their last sexual encounter. 42% of learners receive information on condoms and sexuality from teachers, 11% from parents, 4% from peers, 2% from nurses, 1% from care workers. 40% of learners obtained their information from no one.

CONCLUSION
A significant number of learners are sexually active and involved in anti-social behaviours that put them at risk of HIV/STIs and early/unwanted pregnancies. Policies and programs must be responsive to school health needs. There are missed opportunities to deliver crucial information and messages to learners by peers, parents, school health nurses and community care workers. It is crucial that local capacity is developed and strengthened to deliver appropriate school health services.

P072 - The use and misuse of alcohol among female learners in the Western Cape

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UKZN

The increasing levels and more frequent use of alcohol among females especially those in younger age groups has been noted with concern worldwide. However qualitative data on this problem is limited. This study therefore aimed to explore qualitatively factors contributing to female adolescents’ alcohol use and abuse, their knowledge regarding risks associated with alcohol use and abuse and to understand the contextual and environmental factors that render female adolescents vulnerable to engage in drinking behaviours. This study was guided by the Prototype/Willingness model. The data was collected using two (2) focus groups and five (5) individual semi-structured interviews with Grade 9 female high school learners. Data analysis was done using thematic analysis. The findings of the study indicated that there are various individual, social as well as contextual factors contributing to alcohol use among female learners. These factors include age onset, low self-esteem, influence of significant others e.g. parents, peers, celebrities, media alcohol adverts especially through Television, easy availability and accessibility of alcohol as well as lack of law enforcement on selling of alcohol to minors. Protective factors emerged from the findings and these include parental monitoring, high self-esteem and good mother-daughter attachment. The study also indicated various positive perceptions why female adolescents use alcohol. These included perceiving alcohol use as fun, “cool” and glamorous, as a coping mechanism as well as a symbol of adult status and being “Western”. Although female adolescents have knowledge of most of the health and social consequences of alcohol most of them believe that they cannot be affected and they still continue to plan to use alcohol.
P073 - 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 56.1% (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: 2.21-46.65). 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.

P074 - Assessment of Water, Sanitation, and Hygiene Practices in Selected Primary Schools in Freetown Urban Area.

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BACKGROUND
Water Sanitation and Hygiene in Schools is an investment in schoolchildren, the nation’s health, especially women’s health, and a nation’s economy.

Among children under 14, more than 20% of deaths and years lived with disabilities are attributable to unsafe water, inadequate sanitation or insufficient hygiene (Prüss-Üstün 2008).

OBJECTIVE
The aim was to assess the availability of Improved Source of Drinking Water, Sanitation facilities and Hygiene Practices in Selected Primary schools in Western Area.

METHODS
From a total of 668 registered primary schools in Freetown Urban Area: a Cross-sectional study was done among 40 Primary Schools and 400 pupils in the selected schools.

RESULTS
This study revealed that over half (57.5%) of the primary schools visited have Improved Source of Drinking Water. Few (10%) of schools visited had no sanitary facilities and majority (90%) of schools have inadequate sanitary facilities.

More than half (65%) of schools inspected have no hand-washing facilities. With over half (54.4%) of the pupils having adequate knowledge about hand washing, a greater number (68%) of pupils admitting that they cannot wash hands when in school, hence only a handful (10.5%) of pupils were assessed as having adequate hand hygiene.

CONCLUSIONS
Improves source of drinking water, sanitation and hand washing facilities are lacking in primary schools in the Freetown Urban Area, resulting in poor hygiene practices among pupils.
P075 - Indigenous child care practices in Niger delta region of Nigeria

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BACKGROUND
Nigeria is one of the top 15 countries in the world for under-five mortality. Traditional practices affecting children's health exist in most countries (Mehra 2003). The most commonly reported harmful traditional child care practice is female genital mutilation; yet there are other subtle indigenous practices which are inimical to children's health that are rarely reported.

PURPOSE
To describe the indigenous practices of child care in some Niger Delta communities of Nigeria and highlight their health implications.

METHODS
307 mothers/guardians of children 0 to 5 years were purposively selected from 10 rural communities in Cross River and Bayelsa states. Mixed method design was used to collect data.

RESULTS
Qualitative data on practice were grouped into the following categories; immediate care of the newborn, cord care, circumcision, breastfeeding/weaning, prevention and treatment of illnesses & delayed milestones. Indigenous childcare practices were similar across cultures in this region. Some have negative effects on child health and development; for example, the use of unsterilized instruments to cut the umbilical cord and applying cow dung or ash to the stump increase the risk of infection.

CONCLUSION
Some beliefs and customs valued for child care by indigenous communities were harmful to health while other practices yielded positive outcomes, for example exclusive breastfeeding for 6 months and skin-to-skin contact of mother and child.

Implications for practice: Results call for community health action with incorporation of findings into health education and health action for improved child care and prevention of morbidity/mortality in children under 5 in Nigeria.

P076 - Social determinants of child health: capturing and addressing community perspectives

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BACKGROUND
It is well known that socioeconomic factors affect child health outcomes. There is little data on community perspectives of poverty and its effect on child health which includes the views of children.

METHODS
The study was performed in a geographically isolated area of rural Western Cape. Data collection included child and adult focus group discussions, child drawings, and semi-structured in-depth interviews with female heads of household and community leaders. The findings were triangulated with transect drives and documentary analysis. Marginalised households were purposively sampled, and recurring themes, especially those introduced by children, were explored with adult participants. The data was subjected to framework analysis. The findings of the study were validated by the participating communities. During the validation process, community members identified and prioritised contextually appropriate responses to address the locally-identified social determinants of child health.

FINDINGS
The main health problems identified were depression, tuberculosis, HIV, asthma, respiratory tract infections and diarrhoea. Social predictors of child health included neglect, hunger, substance abuse, social isolation, and inadequate housing. Children associated neglect with hunger and depression, while adults associated it with all child health outcomes. Alcohol and methamphetamine abuse were described as strong predictors of neglect and poor child health. Several community-driven responses were identified.

CONCLUSION
The views and priorities of communities, and particularly that of children, give deep insight into the social causes of and required responses to poor child health outcomes. As such, public health research and interventions to improve child health should be developed and implemented in partnership with communities and include the views of children.
P077 - Public health implications of policy and service delivery gaps in Maternal health services; findings from a national health facility survey, Kenya

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BACKGROUND
Maternal mortality and morbidity rates continue to afflict the black continent with minimal signs that the situation will change soon. Most of the deaths are preventable, public health policies and programmes are well formulated across countries. This study was designed to document existing gaps in maternal health services.

METHODS
A cross sectional study where mixed methods were employed. Standard questionnaires and checklists were used to collect desired information. Health Care workers were interviewed and observed during antenatal consultations.

RESULTS
A total of 234 health care providers were recruited for study. Fifty-seven percent of the facilities had all of the essential supplies for delivery, but only 20% had all elements to support a high quality of care during delivery. Overall score for provider-client communication was 61%, but during the knowledge tests, less than 30% of the providers selected “reassure client” as part of management of complications. Overall, infection prevention practices were observed in 72% of the births.

CONCLUSION
For resource constrained countries to record tangible successes in reducing MMR, effective interventions should focus on interpretation, implementation of policy and preventive programmes. This study further recommends scaling up training of skilled birth attendants.

P078 - Bringing community voices into the alcohol policy development process – Stories from Galeshewe

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Soul City

BACKGROUND
There have been several alcohol policy changes suggested by various government departments with support from civil society, which have sparked debate from the alcohol and the advertising industries and other key stakeholders. Community voices on policy changes have been limited. Soul City’s PhuzaWize campaign collected the views of young people in Galeshewe.

METHODS
Out-of-school young people were invited to participate in a PhuzaWize community advocacy campaign in Galeshewe in the Northern Cape to support safer drinking policies including anational ban on alcohol advertising and marketing. They were supported in a 6-week process of community mapping focusing on alcohol. They conducted interviews and collected stories about the impact of alcohol on the community.

RESULTS
Personal stories showed the profound impact of alcohol on the individuals and the community. These ranged from stories of violence, road traffic accidents, physical and emotional neglect of children, violence against women, sexual risk behaviour, and negative impacts on sustaining livelihoods and personal relationships.

CONCLUSION
Community mapping of community experiences of the impact of alcohol has shown that there are multiple impacts of alcohol consumption. Communities are a key stakeholder in any discussion or process related to alcohol and both the media and policy makers need to develop processes that deliberately and consistently include the voices of ordinary people.
P079 - Material Deprivation and Youth Sexual Behaviour in Urban Informal Settlements, Malawi

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INTRODUCTION
Studies in sub-Saharan Africa have stressed that urban informal settlements are associated with HIV risk factors. Few studies have examined multiple sexual partnerships and transactional sex in urban informal settlements with material deprivation, an alternative economic indicator. None of the studies focused specifically on out-of-school youth, a category typically eluding school-based HIV interventions. To fill this gap, this study used the concept of material deprivation to assess with qualitative approaches how consumption of designer goods, unmet food, housing and medical needs influence transactional sex and multiple sexual partnerships among out-of-school youth in two urban informal settlements (Mtopwa and Mbayani) in Malawi.

METHODS
We used data collected through 12 in-depth interviews and 5 focus group discussions with youth aged 18 – 23 years in an on-going Malawi study.

RESULTS
The preponderance of comments in the preliminary analysis suggests material deprivation as the root causes of youth vulnerability to HIV through having multiple sexual relationships and transactional sex in the two urban informal settlements.

DISCUSSION
HIV prevention programs designed for out-of-school youth in urban informal settlements should take material deprivation influences into account to reduce youth vulnerability to HIV.

CONCLUSIONS
While we found indication of material deprivation influence on having multiple sexual relationships and transactional sex, further analysis is needed to confirm our findings.

P080 - Knowledge, attitude and adherence pattern of art amongst hiv/aids patients attending Apin clinic, Luth, Idiaraba, Lagos, Nigeria

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INTRODUCTION
HIV/AIDS is a major health problem in many parts of the world, and is considered a pandemic, a disease outbreak that is not only present over a large area but is actively spreading. Strict adherence to highly active antiretroviral therapy remains a challenge that has important implications for treatment success. Although resistance profiles are regimen dependent, non-adherence is associated with increased risk of treatment failure and viral resistance. Therefore, assessing the knowledge, attitude and adherence pattern of ART and modifiable factors associated with treatment non-adherence and developing appropriate interventions to improve adherence and health outcomes in patients with HIV/AIDS remains an important goal of behavioural science research.

METHOD
A cross sectional descriptive study was carried out amongst HIV/AIDS patients attending APIN clinic, LUTH, using an interviewer-administered questionnaire, which was administered to a sample size of 361, using systematic sampling methodology for sample selection. The data collection was analysed using Epi-info statistical software 2002 Version.

RESULT
A total of 143(39.6%) were males while the majority 218(60.4%) were females, the mean age was 35.25 years±7.9 SD, and modal age of the respondents being 26–35 years was 49.3%. Many of them 235(65.1%) were married, while most 159(43.8%) of them were Yoruba. Most 316(87.6%) of the respondents were employed, and majority worked for 8 or > 8 hours in a day. In this study, the overall level of knowledge was 83.1%, the general attitude of patients towards ART was 98.1% while the overall adherence level of respondents was 78.4%. Factors affecting the both the knowledge and adherence pattern in this study included; socio-demographic characteristics (age, ethnicity, and education).

CONCLUSION
This study showed some associated variables that influenced the knowledge, and adherence pattern, although there was no association between attitude and the socio-demographic characteristics of the respondents. A generally good knowledge, attitude and adherence level were shown in the study.

RECOMMENDATION
Political will and support should be made available to ensure mass enlightenment and adequate availability of ARV drugs, in order to enhance strict adherence to ART. Hence, provision of adequate trained healthcare provider should be of great priority, in order to enhance consistent delivery of quality health services, which would in turn boost up ART adherence to an optimal level.
P081 - Quantifying the Validity of Routine Clinical Data

**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 close 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.

P082 - Changing lives through community engagement in Fistula care; lessons learnt, Kenya.

**BACKGROUND**
The incidence of obstetric fistula is an indication of poor maternal health services and lack of advocacy for public health programmes. Key indicators for individuals developing obstetric fistulas are common place in communities where education and economic empowerment for the girl child are low. This study presents lessons learnt in mainstreaming community participation in prevention and care of the fistula patient.

**METHODS**
A compilation of cases managed by the author was done for the period 2007 to 2012. A standardized tool was used to collect sociodemographics data and distribution of cases across sites. An inventory of community involvement activities was also undertaken to correlate patient turnout. Also documented was capacity building activities and availability of supplies for the same period.

**RESULTS**
The number of fistula patients receiving care at Kenyatta National Hospital increased 5 times from less than 100 in 2006 to 500 in 2012. Community activities commenced in 2007, these included information dissemination through advocacy walks, electronic and print media. Education level was low with corresponding low income. 34% had lived with the fistula for more than 3 years. Majority 70%, of the patients were young with a mean age of 22.

**CONCLUSION**
Community participations significantly contribute to destigmatization of obstetric fistulas in the country.
P083 - What factors contribute to obstetric fistulae formation in rural Kenya?

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Obstetric fistula, a devastating maternal health complication associated with social stigma and isolation, is often found in resource-poor settings where access to specialized care is constrained. In this study, the authors examine the perspectives of the healthcare providers on the factors that contribute to obstetric fistulae formation in West Pokot, Kenya. Key informant interviews with healthcare providers, social workers and traditional birth attendants were held to generate information on factors contributing to formation of obstetric fistulae. Thematic analysis based on grounded theory approach was used. Factors that contribute to the occurrence of obstetric fistulae include: female genital mutilation and early forced marriage; unskilled birth attendants and associated birth rituals; infrastructural constraints; and lack of women’s empowerment. There is interplay between sociocultural, structural and economic forces in the region that culminate in maternal morbidity and possible mortality. Healthcare providers’ perspectives are vital in understanding maternal health problems in rural Kenya. Community level initiatives aimed at improving the health of women in rural resource-poor areas should be encouraged.

P084 - Predictors of multiple sexual partners amongst alcohol drinking patrons in the North West Province

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BACKGROUND
Multiple sexual partnerships facilitate the spread of HIV and potentially magnify generalised HIV epidemics (Aral et al., 2010; UNAIDS, 2012). Alcohol use has been associated with sexual risk behaviours such as having multiple sexual partners (Cain et al., 2012; Kalichman et al., 2013), which is of concern given South Africa’s high per capita alcohol consumption (Roerecke et al., 2008; Shield et al., 2013) and HIV burden (UNAIDS, 2012).

OBJECTIVES
To determine factors associated with having multiple sexual partners among bar patrons in drinking establishments in North West Province.

METHODS
Survey data were collected between January and March 2012 by fieldworkers who interviewed 406 bar patrons in four drinking establishments. A questionnaire assessed patrons’ demographic characteristics, alcohol use, number of visits to drinking venues in the past 6 months, and number of sexual partners in the past 6 months. The key eligibility criteria were: age 18+ years, not intoxicated, and being a regular patron. We used bivariate and multivariate logistic regression to analyse the data.

RESULTS
The independent predictors of having more than 2 sexual partners were: age 35 and above (adjusted odds ratio [AOR] = 0.21; 95% CI: 0.09-0.48) as opposed to age 18-24; an income exceeding R6400 (AOR= 3.49, 95% CI: 1.34-9.10) as opposed to R0-R400; hazardous drinking (AOR = 3.27, 95% CI 1.42-7.52) and probable alcohol dependence (AOR = 4.90: 95% CI 2.06-11.64) as opposed to no/low risk drinking. Being female (AOR= 0.43, 95% CI 0.18-1.03) and having an income of between R1601-R6400 (AOR=2.23, 95% CI: 0.90-5.61) were marginally significant predictors.

CONCLUSION
In this sample, the highest risk groups for multiple partnerships were those: over the age of 35, with an income more than R6400/month and with probable alcohol dependence. Sexual risk reduction interventions in drinking establishments should focus on decreasing problem drinking.
P085 - Identifying the location and predictors of road traffic injuries in Moshi-Tanzania, 2013.

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BACKGROUND
Road traffic crashes are an important public health problem, especially in LMIC (Low and Middle income countries). They account for more than 40% of all death related to traumatic injuries in Moshi. VRU (Vulnerable Road Users) are the most affected group, contributing half of the burden.

OBJECTIVE:
The study was taken to identify the location and predictors of Road Traffic Crashes (RTC’s) in Moshi. Also an attempt was made to identify how deficient is the traffic control dataset and how can it be improved.

METHODOLOGY:
Retrospective, descriptive cross-sectional study conducted at Moshi, whereby regional traffic logbook was used to obtain data of 127 participants involved in Road traffic crashes. The data was analyzed using Statistical Package for Social Science (SPSS) version 14, and ethical clearance granted by the college ethical committee.

RESULTS:
A total of 127 participants were studied (male: female ratio 1:0). The mean age of participants was 34 and half were between 30-44years. Majority of crashes were recorded along highways and road intersection which accounted for 57% of all crash sites. The commonest predictors were found to be the type of vehicle i.e. car (79) 62.2%, night driving (68) 53.5% and drivers aged 30-44years (65) 51.2%. Apparently none of the drivers was recorded intoxicated and 99.2% (126) had drivers license.

CONCLUSION:
Driving a car at night is associated with increased risk of RTC’s especially along the highways in adult males. The police record keeping should be re-evaluated and strengthened.

P086 - Development of patient referral policy aligned with the PHC Re-engineering strategy for Thabo Mofutsanyana district in the Free State province

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BACKGROUND
The existence and effective implementation of a comprehensive patient referral policy is a potential indicator of the functioning of a healthcare system; however, such policies are often not fully developed in many districts in South Africa. The Primary Healthcare (PHC) Re-engineering policy provides a valuable opportunity for referral policies to be reviewed and streamlined within the framework of the district health system.

OBJECTIVE
To develop a patient referral policy and implementation plan that is aligned to the PHC re-engineering policy for the Thabo Mofutsanyana district municipality.

METHODOLOGY
Focus group discussions (FGDs) were conducted with groups of key staff from the various levels within Thabo Mofutsanyana district. A semi-structured interview schedule was used to understand the current patient referral policy and its alignment to the PHC re-engineering implementation plan in the district. A SWOT analysis was conducted and findings were further analysed in terms of equity, access, efficiency, quality, and sustainability.

FINDINGS
Committed healthcare management and staff and positive efforts to address human resource and infrastructure challenges are facilitating factors for the implementation of the current referral policy. Weaknesses and threats include a linear referral pattern that excludes important referral partners and a lack of adequate communication, monitoring and evaluation and institutionalised quality assurance mechanisms.

CONCLUSION
A detailed review of district patient referral policies is necessary to that it is well aligned to the PHC Re-engineering policy. Such studies are important to strengthen the referral networks between facilities and the communities and may help to improve PHC service delivery.
P087 - Exploring the impact of Community-based medical education programmes on rural communities

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BACKGROUND
The scarcity of healthcare professionals in rural communities is an obstacle in healthcare delivery and improving the wellness of these communities in South Africa. Long-term rural community-based education (CBE) programmes are increasingly being considered to address the shortages of healthcare professionals. The host community is the key focus in CBE programmes and community-wide impacts of these programmes are expected.

OBJECTIVE
To obtain evidence of the impact of long-term rural CBE on the host communities a literature review was undertaken of international peer-reviewed publications.

METHODS
PubMed and SCOPUS databases and the Google Scholar search engine were used to search for articles published since 1990 that contained the following key terms: community-based education, rural medical education, CBE programme impact, benefits of CBE programmes, influences of CBE programmes on community.

RESULTS
A small number of published studies evaluated the impact of CBE programmes on the host communities and suggest that healthcare service delivery is an immediate benefit to the community. Further, CBE programmes increase social capital in the community, contribute to economic development and can lead to improved health status over time.

CONCLUSION
Nevertheless, the impact of CBE programmes on communities remains relatively under-researched particularly in the SA context. More work is needed to explore the impact of different programmes as perceived by the host communities. The use of community-based participatory research approaches could provide insight into prevailing trends and current perspectives of rural communities in this regard.

P088 - Child rights education - a tool for transformation

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Professionals. Power. Participation. Children’s rights have the potential to transform professional practice and improve the quality of care across a range of services. This presentation draws on lessons learned from a short course in child rights and child law for health and allied professionals offered by the Children’s Institute, University of Cape Town. The course aims to equip professionals with the knowledge and skills to realise children’s rights both within and beyond the health care system. Bringing together nurses, doctors and allied professionals, the course uses a participatory approach to draw on their diverse experience and encourage a rich exchange of ideas. The course serves as a catalyst for change - in knowledge, attitudes and behaviour. It encourages professionals to critically reflect on their current practice and to take action: Starting small and seeking out opportunities to improve their professional practice, then moving outwards to advocate for change in the workplace and wider society. This presentation will consider how best to build on this foundation by integrating child rights across the curriculum at undergraduate and postgraduate level and incorporating children’s rights into professional codes of conduct and standards of care.
P089 - Needle stick injuries

Ledibane

THE AIMS AND OBJECTIVES
To describe the profile and management of needle stick injuries among health care workers in Primary Health care setting.

Materials and methods: This was a descriptive study that involved reviewing the occupational health records of health care personnel who sustained needle stick injuries from 2008 to 2011.

RESULTS
The Median age of the participants was 28.9 years with the age range being 19 to 60 years. The median period of experience was 5 years and the range was 0.03 to 33.5 years. The study also revealed that the younger least experienced healthcare workers and professional nurses sustained more needle stick injuries compared to other groups.

DISCUSSION
Healthcare workers with the fewer years of experience and professional nurses bear the brunt of needle stick injuries. However, there is poor compliance with the post exposure prophylaxis policy with even fewer needles stick injury victims coming for follow up, with may have a bearing on compensation claim should they sero-convert.

P090 - Getting the diagnosis right: capacity constraints versus uncontrolled medicines registration in South Africa and public access to essential and affordable drugs

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OBJECTIVE
To determine if the backlog in registration applications at the Medicines Control Council impedes access to affordable medicines.

METHODS
Annual trends in registration applications and licences issued were followed to determine if significant changes in their numbers could be linked to the implementation of new policies. The number of registered generic, innovator and biologic medicines were compared to determine which class contributed most to the backlog. The market for a group of tracer medicines was segmented by volume and/or value per brand to determine the number of leading brands versus the total number available. Price and market share for several brands of tracer medicines were compared to determine the extent to which price influence access.

FINDINGS
The backlog is the result of the implementation of pro-generics policies without strengthening the MCC. Only 54% of registered medicines are marketed and a maximum of only five brands account for 80% or more of the market for a particular medicine. Price appears not to be an important determinant of market share of generics since the lowest priced generic does not have the highest market share.

CONCLUSION
The backlog in registration applications at the MCC is not a barrier to access to affordable medicines. If the primary purpose for the establishment of a better resourced new regulatory authority in South Africa is to speed up the registration process, then it would serve the interests of the pharmaceutical industry more than that of the public.
P091 - A comparison of linkage to HIV care

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BACKGROUND
We examined access to follow-up care for patients with sexually transmitted infection who were diagnosed HIV-positive via the provider-initiated HIV testing and counselling (PITC) approach, as compared to the voluntary counselling and testing (VCT) approach, as little is known about the impact of expanded testing strategies on linkage to care.

METHODS
We cross-referenced CD4 and viral load testing records for a nested cohort of 930 HIV-positive patients identified in a controlled trial on PITC in Cape Town in 2007. Secondary indicators were HIV disease progression and time taken to access care. Univariate and multivariate logistic regression was performed to analyse the difference between arms.

FINDINGS
Proportions of HIV-positive patients with CD4 test records were similar between arms (69.9% in the intervention, 65.2% in control sites, RD = -4.7%, 95% CI: -18.6% to 9.2%; p = 0.507). The proportion with viral load test records in the intervention arm showed a weak trend towards being higher (14.9% intervention versus 10.9% in control arm; RD = -4%, 95% CI: -8.3% to 0.3%; p = 0.071). ART-eligible patients in the intervention arm accessed viral load testing sooner than those in the control arm (214 days vs. 288 days, HR: 0.417, 95% CI: 0.221 to 0.784; p = 0.007).

CONCLUSION
While the PITC intervention did not improve the level of access to follow-on HIV CD4 and viral count testing, patients eligible for ART accessed ART sooner following PITC as opposed to VCT - results that should be confirmed by larger studies.

P092 - How evidence was used to plan and publish the Family Planning Tender

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BACKGROUND
The right to make choices about safe and effective contraception empowers women. Equitable access and availability of these commodities is critical to manage unwanted pregnancies, teenage pregnancies and unsafe abortions.

OBJECTIVE
To illustrate the evidence-based processes used in the planning and preparation of the family planning tender to up-scale availability of contraceptive options.

METHODS
Evidence-based medicine principles were used to review therapeutic options and the changing needs in contraception. The Primary Health Care Level EML Committee reviewed current evidence of safety, efficacy and comparative costs to inform selection. The available products and sources of API were identified by analysing local and global markets. Forecasting used historic consumption data, verified by depot orders, depot issues, supplier data and local DHIS data. Two year estimates for family planning commodities were modelled using projected coverage for subdermal implants and unmet needs. Collaboration with the programme occurred at each step, prior to publication of the tender.

RESULTS
Unsafe high-dose estrogen-containing products were deleted from the EML. Copper IUCDs and long-acting subdermal implants were identified as cost-effective compared to injectable progestogens. The disparities between STGs and programme contraceptive policy were noted. The quality of baseline estimate data was poor: provincial data was inconsistent with deficient methodologies and local DHIS data was incomplete. Supplier data was considered to be more reliable. Modelling used assumptions supported by evidence. Programmatic collaboration provided relevant information for context-specific planning.

CONCLUSION
The development of systematic evidence-based methodologies with improved collaboration between stakeholders is required for sound planning of pharmaceutical tenders.
P093 - Risk management in hospital revitalisation –
An implementation framework

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The National Department of Health of South Africa has implemented a Hospital Revitalisation Grant to modernise and transform the infrastructure and health technology of hospitals and improve the access to health care as well as quality of care. Paarl Hospital, a secondary level public semi-rural regional hospital, was entered into the Hospital Revitalisation Programme and reached practical completion on 23 March 2012.

The study critically evaluated the HRP implementation at Paarl Hospital and triangulated with four other rural hospitals. The rationale for the study is based on the South African National Health's focus on the weaknesses of quality in Health Care and the status of the hospital revitalisation programme as a “…better Health system management accomplishment…”. Building health care facilities is complex and the incorrect planning and implementation thereof can give rise to expensive mistakes. Research on quality of care in health fulfils a social and practical mandate to create information for use by Public Managers to improve services or by decision makers to inform policy.

A case study design, with a qualitative approach was utilized for this study and included focus group discussions, individual and pair interviews as well as photographic and document review. Action research methodology, which is concerned with improving and sharing knowledge, was applied by means of an intervention in the Psychiatry planning phase.

This study’s findings indicate that hospital revitalisation has huge benefits to the communities the relevant hospital serves, but that client, staff and technical quality are at risk during implementation.

An implementation framework for HRP to safeguard quality of care to clients and carers as developed, will be presented towards advocacy in this regard. Health facilities management should benefit from the framework to enhance quality of care during revitalisation implementation, towards economic effectiveness, efficiency and risk management.

P094 - Valuing volunteers and their impact on semi rural hospital health care delivery

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Paarl Hospital, a secondary level public semi-rural regional hospital, implemented a volunteer programme in 2007 as a response to the rapid changes brought about by hospital revitalisation and the resultant expanded services.

Innovation in service delivery and organisation is defined as novel ways of working that are directed at improving health outcomes, administrative efficiency, cost effectiveness or users experience and that are implemented by planned and co-ordinated action.

The study aims by its exploration of the innovative strategies in a public sector semi-rural hospital, in terms of volunteerism, to produce information towards this economically viable programme implementation.

The value of volunteers is viewed through the lens of impact on efficacy and quality of care, which stands to benefit public health management.

A case study design, applying qualitative methodology to individual interviews with purposively sampled key informants with content analysis and thematic coding was utilized.

The study’s findings indicate that a volunteer programme requires co-ordination and some secure funding to remain sustainable, but that it has huge benefits in terms of human resource supplementation, organisational development, as well as gainful employment and development of previously unemployed volunteer programme participants.

Practical implementation recommendations, based on the success and challenges which emerged from the data of the Paarl Hospital volunteer programme will be presented for use by health facility managers.
P095 - Improving patient waiting times at Kraaifontein Community Health Centre

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BACKGROUND
Kraaifontein Community Health Centre (KCHC) is a 24-hour facility providing a comprehensive healthcare service to a population of approximately 350,000 people. The change to a new Chronic Dispensing Unit contractor impacted negatively on patient waiting times resulting in decreased quality of service delivery and patient experience.

OBJECTIVE
To reduce the average waiting time for patients collecting their chronic patient medication packets (PMPs) at KCHC.

METHOD
As part of the USAID funded Systems for Improved Access to Pharmaceuticals and Services Leadership Development Program, a project to decrease the waiting time for a PMP at KCHC from > 60 minutes to less than 30 minutes was undertaken. A baseline assessment of the average waiting time for PMPs was conducted in October 2012. Interventions introduced to improve the efficiency of the chronic medication system included:

- Ensuring that clients on chronic medication receive a copy of their prescription, eliminating the need to collect their file;
- Opening a second window for dispensing PMPs over peak times;
- Staggering appointments for patients collecting PMPs between 08h00 and 14h00.

Waiting times were monitored over six months.

RESULTS
The average waiting time improved from 41 minutes in October 2012 to 19 minutes in April 2013 resulting in shorter queues. Patients are collecting their medication between 08h00 and 14h00 with peak periods noted between 10h00 and 13h00. Patients have responded well to accepting responsibility for carrying a copy of their prescription.

CONCLUSION
Reduced queues have resulted in improved patient experience. The model will be adopted across the sub-structure.

P096 - Economic support to improve TB tuberculosis treatment outcomes in South Africa: a pragmatic cluster randomized controlled trial

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BACKGROUND
The close relationship between TB and poverty has long been acknowledged. In South Africa, where default from treatment remains an important contributor to poor treatment outcomes, economic incentives may assist poor patients with TB to adhere to treatment.

AIM
To evaluate the feasibility and effectiveness of economic incentives in improving outcomes in patients with TB in South Africa

METHODS
This was a pragmatic, un-blinded two-arm cluster randomized controlled trial, using primary health care clinics in KwaZulu-Natal as clusters. Nested within the controlled trial were smaller studies: a qualitative process evaluation (comprising interviews with patients, health workers, managers and shopkeepers) and two surveys (one of patients' household economies, and one of patients' purchases with the voucher).

The intervention was a voucher, valued at R120, given to patients by nurses every month on collection of their treatment, to a maximum of eight months. The vouchers were redeemable at specific general stores close to participating clinics.

RESULTS
A total of 4091 patients were included in this study.

Intention to treat analysis showed a small and non-significant improvement in treatment success rates in intervention compared to control clinics (risk difference 0.056 [-0.012; 0.123]). Per protocol analysis however showed a significant improvement in treatment success rates in the intervention arm (risk difference 0.106 [0.036; 0.175]). There was a strong dose-response effect (p<0.001). The treatment success rate of patients who did not receive any vouchers was 68.3%, compared to a rate of more than 90% in patients who received a voucher for five months or more.
P098 - Knowledge, attitudes and practices regarding disposal of sharp household medical waste among patients who are on insulin treatment at Steve Biko Academic Hospital

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BACKGROUND
Diabetes mellitus poses a major public health and socioeconomic challenge globally. It is estimated that about 4 million South Africans suffer from Diabetes Mellitus. All patients who have type 1diabetes and up to 40% of type 2, diabetic patients require insulin therapy. Thus, there is a large quantity of household sharp medical waste currently generated daily by diabetic patients. The aim of the study was to evaluate the knowledge, attitudes and practices regarding disposal of household sharp medical waste among patients who are on insulin treatment at Steve Biko Academic Hospital (SBAH).

METHODS
A cross sectional facility-based study was conducted. A sample of 130 patients seeking diabetic care at SBAH were administered a questionnaire. Convenience sampling was employed and to minimize bias consecutive subjects were approached and recruited to participate in the study. Data on socio-demographic factors; knowledge; attitudes and practices of patients regarding household medical waste disposal; and factors influencing these practices was obtained from respondents.

RESULTS:
Of the 130 participants 62.5% of respondents had high level knowledge while 37.5% of respondents had low level knowledge; about half 64 (49.23%) of the respondents had an unfavourable attitude and the other half 66 (50.77%) had favourable attitude towards household sharp waste disposal. A large number of respondents dispose of their sharps incorrectly; the majority 76 (58.46) of respondents throw their needles in the general waste. Regarding influencing factors a significantly higher proportion 122(93.85%) of respondents had received diabetes education on and counselling regarding insulin use; however, only 39(30%) of the respondents recalled ever receiving education or information regarding household sharp medical waste disposal. About seventy one percent 92 (70.77) of the respondents reported that they would participate in a program where they could drop off their household sharp medical waste and of these 51(55.43%) indicated that they would participate only if the program was free.

CONCLUSION
Results show that there is inadequate knowledge, unfavourable attitude and poor practices among diabetic patients at SBAH. Education and counselling regarding disposal of household sharp medical waste does not form an integral part of diabetic education at SBAH. It is important therefore, that the Diabetic management team at SBAH emphasis household sharp medical waste disposal during education and counselling on diabetes mellitus management. It is also important to implement a sharp household medical waste management program which will focus on disposal options for diabetic patients.
**P099 - PHC Managers’ public health and general management competencies within the PHC Reengineering Framework in SA**

A qualitative assessment

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**BACKGROUND**

The Primary Health Care (PHC) re-engineering strategy in South Africa requires competent managers to drive the implementation of PHC towards achievement of health outcomes. Therefore an assessment of the competencies of managers is needed in order to develop targeted strategies to strengthen management capacity.

**OBJECTIVE**

To assess the general management and public health competencies of PHC managers in order to identify competency gaps

**METHODOLOGY**

Focus group discussions (FGDs) were conducted with PHC clinic/CHC managers and clinic supervisors in selected sub-districts in five provinces between December 2012 and April 2013. Content analysis was conducted in N-Vivo software to develop common themes.

**FINDINGS**

Twenty three FGDs, ranging from nine to fifteen participants were held. The findings were uniform across the provinces. There was poor understanding of the vision and mission of the DoH, and how to use these to drive operations at facility level. The discussions revealed the need for training in the management of clinic operations including time management, staff absenteeism, drugs, and patient records. The public health competency gaps that were identified include lack of skills to conduct community assessments, analysis and interpretation of health data. The gaps were compounded by systems challenges such as staff shortages and poor infrastructure which hindered the effective application of skills where they existed.

**CONCLUSION**

There is a need for training in the competency gaps that were identified. These gaps need to be addressed in conjunction with broader challenges that affect the health system to support the effective implementation of PHC re-engineering.

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**P100 - Ensuring equitable access to essential medicines in the Eastern Cape: What the NHI needs to address**

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**BACKGROUND**

Health providers are well placed at the interface of medicine distribution and the patient to understand and respond to barriers to medicine access. This study examines perceptions and interventions employed by health providers to deal with barriers to medicine access and recommended future strategies.

**METHODS**

Thirty-nine key informant interviews were held with health providers at six public-sector CHCs in two districts and sub-district and provincial managers in Eastern Cape.

**RESULTS**

Informants indicated that medicine stock outs are precipitated by ineffective logistical management practices at various levels of the supply chain and insufficient capacity to meet increased treatment demand. Also, the organization of vertical disease programmes undermines the needs of patients with co-morbidities and inferior services at peripheral clinics threaten the down-referral programme. On the demand side, the major inhibiting factors to accessing medicines are poverty and unreliable public transport. For patients on long-term care, proximity to other services such as grant distribution points and shopping centres was an important influence on the choice of where to obtain medicines. Providers mitigate these constraints by adopting flexible prescribing and dispensing patterns based on perceived patient need and aligning clinic appointments with social grant collection appointments to limit costs associated with care.

**CONCLUSION**

Suggested possible mechanisms for consideration under the NHI to address the aforementioned challenges include strengthening the supply chain through public-private partnerships, involving ward based PHC outreach teams in medicine distribution coupled with other alternative models, improved coordination between facilities, intersectoral action.
P101 - Risk factors for loss to follow-up after positive visual inspection with acetic acid cervical cancer screening results among women in Zambia

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BACKGROUND
Loss To Follow-Up (LTFU) is a threat to the success of cervical cancer screening programmes.

OBJECTIVE
To investigate socio-demographic and economic factors that influence LTFU after positive Visual Inspection with Acetic Acid (VIA) screening results among women in Zambia.

METHODS
Data of women enrolled in the Cervical Cancer Prevention Programme in Zambia from January 2006 to December 2011 who tested positive for cervical cancer after VIA screening were retrospectively collected during February 2013 and investigated for socio-demographic and economic factors influencing LTFU. LTFU was defined as an interval of 30 or more days late for missed recommended follow-up visit. Odds Ratios (OR) for LTFU at first visit and the 95% Confidence Intervals (CI) according to socio-demographic and economic factors were estimated through multivariate logistic regression.

RESULTS
Among the 2,778 women included in the study, 2,480 (89%) were lost to follow-up at first visit. Women lost to follow-up had lower odds of coming from a middle income household (OR 0.4; 95 CI 0.22 - 0.75), had higher odds of having three or four lifetime sexual partners (OR 2.1; 95 CI 1.29 – 3.33) and lower odds of being HIV negative (OR 0.2; 95 CI 0.12 - 0.39) or having ‘unknown’ HIV status (OR 0.3; 95% CI 0.15 - 0.51).

CONCLUSION
Socio-demographic and economic factors are risk factors for LTFU after positive VIA screening results among women in Zambia. Health providers need to be aware of different patient needs in order to mitigate LTFU and maximize programme effectiveness.

KEYWORDS: Loss to follow-up; visual inspection with acetic acid; cervical cancer; Zambia

P102 - An integrated chronic disease management model using a health system building block approach

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South Africa is experiencing a quadruple burden of diseases that is characterised by communicable, non-communicable (NCD), perinatal, maternal and injury-related disorders. The successful widespread roll-out of antiretroviral therapy (ART) has transformed HIV & AIDS into a chronic disease. The high prevalence of chronic communicable diseases (HIV & TB), coupled with the huge burden of NCDs places an increased demand on health services due to more frequent visits being required over a protracted period of time. The provision of affordable and effective Primary Health Care to the increasing numbers of people with NCDs will be an immense challenge.

This requires a new way of thinking and acting in order to utilise health system gains (service delivery and infrastructural) achieved as result of the investment into a vertical HIV &AIDS programme. The ICDM adopts a diagonal approach to health system strengthening i.e. technical interventions that improve the quality of care for chronic patients coupled with the strengthening of the support systems and structures to enhance the health system.

Integrated Chronic Disease Management (ICDM) is a management of care model that provides for integrated prevention, treatment and care of chronic patients at primary healthcare level (PHC) to ensure a seamless transition to “assisted” self-management within the community. The aim of the ICDM is to achieve optimal clinical outcomes for patients with chronic communicable and non-communicable diseases using the health system building blocks approach.

The paper discusses the policy and health care delivery successes and challenges of the new approach within the paradigm of a highly successful vertical programme.
P103 - Health education and supplies provided to diabetic patients, KwaZulu-Natal

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BACKGROUND
The appropriateness of health education and injection paraphernalia issued to ambulant insulin dependent diabetic patients influences their disposal practice of used sharps. Insulin syringes and needles are sterile and recommended for single use only.

OBJECTIVE
To determine whether diabetic patients are provided information on safe disposal of sharps, and receive sufficient injection supplies in accordance with infection prevention and control guidelines.

METHODS
This health systems research was conducted at two district hospitals in KwaZulu-Natal. Open-ended key-informant staff interviews were conducted to assess the type of health education provided to diabetic patients. A retrospective chart review was conducted to assess whether sufficient injection supplies were issued.

Data was entered in MS Excel for descriptive analysis.

RESULTS
Seventy healthcare workers were interviewed. Only 12 (17%) staff members reported that they provided health education on storage of used needles and syringes. Twenty-nine (41%) reported informing patients about the importance of hand hygiene, and 22 (31%) about the safe disposal of needles and syringes. Neither of the hospitals had a procedure in place for the collection of used sharps from patients.

None of the 300 patient charts reviewed had evidence of sharps containers being issued to patients. Patients requiring insulin once daily were provided with 5 needles per month. Patients requiring insulin twice or thrice daily were provided with 9 or 10 needles per month.

CONCLUSION
Diabetic patients do not receive adequate health education on storing and safe disposal of used sharps. They are not provided with sufficient needles to administer insulin using a sterile needle for every dose, thus posing a risk of skin infections.

P104 - Prevalence of modifiable risk factors for chronic diseases among adults in Dikgale HDSS centre, Limpopo Province of South Africa.

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BACKGROUND
The spread on non-communicable diseases (NCDs) presents a global crisis and the most common chronic diseases share risk factors, which are often classified as behavioural or biological. The main modifiable behavioural risk factors are tobacco use, alcohol use, an unhealthy diet, and physical inactivity while the main biological risk factors are overweight, obesity, high blood pressure, elevated blood glucose, and abnormal blood lipids and its subset, raised total cholesterol.

METHODS
A community-based survey was conducted to estimate the prevalence modifiable risk factors for hypertension using the WHO STEPwise approach to chronic disease risk factor surveillance, in Dikgale HDSS centre, Limpopo Province of South Africa.

RESULTS
A total of 1407 adults (62.5% women) were surveyed and the mean age was 44 years with standard deviation of 20.84. Majority of the participants were in second income quintile 16.7% and forth income quintile. The two major risk factors observed among males were smoking and alcohol consumption. In the total study population, approximately 13.7% were current smokers and about 29.2% of these were males. Smoking was inversely associated with high blood pressure in both sexes (p<0.0001). Alcohol consumption was associated with raised blood pressure which was statistically significant with OR: 0.203 (p=0.001). Multivariate-adjusted (age, smoking, alcohol consumption, and physical activity) odds ratios for hypertension based on different levels of BMI of <25 (underweight), 25 to 29.9 (overweight), and 30 (obese) were 0.305 (p=0.067), 1.073 (p=0.651) and 1.392 (p=0.855) respectively for both sexes. Overweight, obesity and raised Blood Pressure were more common in females than males.

CONCLUSIONS
Substantial high levels of the various behavioural risk factors among adults in Dikgale area suggests an urgent need for adopting healthy life style modifications among the population in general. The increased risk observed among the younger generation for behavioural risk factors such as smoking and alcohol consumption calls for urgent corrective steps and measures for long-term monitoring of all major risk factors as well as the major chronic disease conditions. This highlights the needs for targeted community health promotion initiatives focusing on increasing awareness on the importance of healthy diet, reduction in smoking and increasing opportunities for leisure time physical activity.
P105 - Substance abuse paper Introduction

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Substance abuse is a public health problem worldwide. The aim of this study was to investigate factors associated with the abuse of the particular substances in patients that are in a rehabilitation program at Weskoppies Psychiatric hospital.

METHODS
This was a cross-sectional study based on a review of records from January 2011 until June 2012. The review was conducted using a predesigned and pretested form to collect data from these records. After coding and capturing the data, the analysis involved descriptive and inferential statistics.

RESULTS
A total of 102 patients’ records were reviewed. Their mean age was 34.4 (±10.5) years. About 36.0% of the patients were diagnosed with psychotic disorders, while 26% suffered from mood disorders; 16% had substance abuse related disorders, 15% with anxiety disorders, and 9% had depressive disorders. The three substances abused by more than half of patients were cannabis (69.6%), cigarettes (65.7%) and alcohol (51%). Males abused more significantly cannabis and glue; while the abuse of medicines such as benzodiazepines, analgesics and opioids was more significantly prevalent in females particularly in those aged over 41 years old, married and in those with tertiary level of education. Black Africans significantly abused cannabis and Nyaope; while Caucasians abused significantly more mandrax, opioids, benzodiazepines and alcohol. People of mixed race abused cigarettes more significantly than all other races. Those who resided in townships abused significantly cannabis and cigarettes; while those from rural areas abused significantly cannabis, alcohol and Nyaope.

CONCLUSION
The study has shown that patients attending the Weskoppies Hospital Rehabilitation Centre abused a wide variety of substances. Further qualitative studies are needed to explore the reasons and circumstances that led the abusers to start abusing specific substances and/or to seek rehabilitation services.

P106 - Second-hand smoke and smoking intentions among a population of non-smoking adolescents in Kafue, Zambia.

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OBJECTIVE
This study examines the association between exposure to second-hand smoke and smoking intentions among a population of non-smoking Zambian adolescents.

DESIGN
The study investigated a sample of 4,515 students in grade 7, 8 and 9 with age ranging from 11 to 17 years who participated in the Global Youth Tobacco Survey for Kafue, Zambia conducted in 2002 and 2007. An overall response rate of 78.3% was achieved from the students. Data on participants’ exposure to smoke, media and advertising were obtained from this survey. Data analysis included χ² statistics and multiple logistic regression analysis.

OUTCOME MEASURE
Smoking intention SI, was defined as thinking about smoking a cigarette at any time during a period of 12 months.

RESULTS
The prevalence of adolescents with smoking intentions was 7.0% (n = 288). Significant determinants of SI included exposure to smoke at home of 5 to 7 days (odds ratio(OR) 2.74 (1.86 - 4.06), both parents who smoke (OR 3.24, 95% CI 1.37 - 7.63), having most or all friends who smoke, (OR 2.84, 95% CI 1.49 - 5.42), religious organisations and anti-smoking messages (OR 0.58, 95% CI 0.39 - 0.88), as for media and advertising, cigarette representatives offering free cigarettes (OR 5.29, 95% CI 3.20 – 8.76).

CONCLUSIONS
These data suggest that exposure to second hand smoke at home, increases the smoking intentions of non-smoking adolescents in Kafue, Zambia. Smoking intentions were also influenced greatly by having parents and friends who smoke and advertising. Increased awareness of hazards of smoking through education in schools and public health policy is required.

KEY WORDS: Second-hand smoke, smoking intentions, non-smoking Zambian adolescents.
P107 - Activity Patterns Of Black Township Adolescents

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PURPOSE
Inactivity in children is a public health concern as it predisposes them to early childhood obesity. The study assessed activity patterns of adolescents from a township, generally having poor or lack resources to encourage physical activity.

METHODS
A group of 318 adolescents aged 12-18 years was enrolled into the study to assess their daily activities. The Previous Day Physical Activity Recall questionnaire was administered to record children’s activities during weekdays and over weekends. The children’s household conditions were recorded and the time spent in physical activities.

RESULTS
Most children had access to facilities that promote sedentary lifestyle: television (87%); cell phones (65%) and washing machines (30%). The findings revealed that during weekdays the children walked long distances to and from school, this decreased to 69% during weekends for both boys and girls. Boys were more active in sports activities spending 118.28 ± 49.56 and 195.00 ± 102.93 minutes on weekdays and weekends as opposed to the girls’ 93.24 ± 74.25 and 141.00 ± 74.93 minutes respectively. However, only 60% and 40% of the boys and girls participated on both occasions. Alarming is the number of children who spent part of their days sleeping especially on weekends (31% in boys and 28% in girls).

CONCLUSIONS
The findings show that contrary to previous reports about high activity levels in black children, the situation is deteriorating but can still be salvaged. This can be done by creating environments that promote physical activity such as establishments of sports and recreation facilities.

P108 - Missing opportunity though prevention

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AIM
The purpose of the study was to evaluate the implementation of PMTCT interventions during pregnancy and at post-delivery at Mafikeng sub-district clinics.

METHODS
The study employs quantitative, cross sectional descriptive Study design conducted between November 2011 and March 2012.

RESULTS
There were miss-opportunities on PMTCT interventions on antenatal re-testing of at 32 week (43%) and baby antibody testing at 18 month (21%), Baby PCR positivity rate at 6 weeks was performing at 2%. There is lack of standardised PMTCT register to track babies until they are out of the programme at least up to 18 month. NVP given to ANC was at 85%, the NVP issued to babies was 103%, the figure shows that baby PCR at six weeks PCR testing was 81% and baby PCR positivity rate at six weeks was at 1% from Jul to Dec 2011. Show drop in Baby PCR positivity rate to 1%.

FINDINGS
The sub-district was able to meet the National Strategic plan target of 2007/2011 of <5% PCR positivity rate. However, there were missed opportunities observed due to lack of standardised monitoring systems for the implementation of PMTCT programme. HIV exposed babies are not getting tested early for HIV, however clinics are doing well to give HIV expose babies with Navirapine (NVP).

RECOMMENDATIONS
National Department of Health must provide standardised PMTCT register which can track PMTCT interventions during pregnancy and at post-deliver up to 18 month. Ongoing training on PMTCT data elements is required to clarify the inclusion of elements, time and frequency of collection.
P109 - Near-misses in maternal health

**BACKGROUND**
South Africa has a high Maternal Mortality Ratio and is not on track to meet Millennium Development Goal (MDG) 5, target 5A.

**AIM**
Overall aim of the study was to explore experiences and perspectives of maternal near-misses and their opinions of how these could have been prevented.

**METHODS**
Using case study design, where case was women who had experienced severe acute maternal morbidity (near-miss event), in-depth interviews were conducted with near-misses until point of saturation was reached. Each woman was interviewed twice on two occasions about their experiences and opinions of near-miss event, access to reproductive health services.

**RESULTS**
Bureaucracy in accessing reproductive health services, lengthy referral processes, lack of transport and resources in clinics were seen as major health system barriers that contributed in women being near-misses. Inadequate knowledge about reproductive health and warning signs of serious morbidity; although can be seen as patient factors, were also attributed to health system factors. The desire not to fail pregnant was not only factor that influenced contraceptive use. Power relations affected most women who were in lower positions of power than their partners. Patients are at risk of abuse in health facilities although this is not norm. Little attention was given to postnatal care of women.

**CONCLUSION**
Women’s limited knowledge on reproductive health issues which might be as result of inadequate information offered at clinic affected use of reproductive health services. Educating women may result in early recognition of warning signs of obstetric emergencies and prevention of near-misses.

P110 - Maternal depressive symptoms as predictor of poor expressive language in infants in Dzimauli community, South Africa

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Language is one of the most important acquisitions made during childhood. Maternal depression can negatively affect the first interactions with the child and consequently the emotional, social and cognitive development of the infant. Research shows that depressed mothers are disengaged, unresponsive and affectively flat and do not support the infant’s activity. The objective of the study was to determine the impact of maternal depressive symptoms, reasoning abilities and hygiene on infant expressive language development in a rural community of South Africa. The Self Reporting Questionnaire-20 (SRQ-20) developed to screen for depressive symptoms was administered at 6 months, Raven’s Combined Matrices and Raven’s Progressive and Coloured Matrices (RCM) were administered at month 6-8 to assess reasoning abilities of mothers, baseline demographic and socio-economic data was collected at month 0 using a standardized questionnaire and language sub-scale was used to assess child development using Bayley Scales of Infant Development III (BSID-III) at 6 months of age. Maternal depressive symptoms showed a strong negative relationship with BSD Expressive Language (r=-0.27, p<0.001). Mothers with higher Raven’s scores had infants with somewhat higher BSD Receptive Language scores (r=0.18, p=0.012). Only maternal depressive symptoms emerged as a significant predictor of poorer expressive language (p<0.001).

**KEYWORDS:** maternal depression, depressive symptoms, language, infants
P111 - Pilot studies of feeding practices and socio-economic status on infant vocabulary in Dzimauli community, South Africa

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Poverty and associated health, nutrition, and social factors prevent at least 200 million infants in developing countries from attaining their developmental potential. Poor socio-economic status is one of the risk factors for sub-optimal language stimulation. Previous studies have shown that infants breastfed for more than 3 months are protected from developmental delays, and children breastfed over a longer duration had higher verbal IQ scores than children who were not breastfed for as long. Very few studies have examined the interaction among infant feeding practices and socio-economic status on language development in South Africa. The objective of this study was to determine the impact of infant feeding practices and socio-economic status on infant verbal expression and understanding in a rural community in South Africa. Assessment was done on 225 healthy term infants, recruited between November 2009 and February 2012 in Dzimauli, South Africa who met study recruitment criteria. Data on breastfeeding status such as exclusive and mixed feeding, types of introductory foods and age of consumption of liquids were collected twice weekly from birth until 6 months. MacArthur-Bates Communicative Development Inventories (MWG) was administered at month 8 to capture infants’ verbal fluency. At month 6, data on household socio-economic and home environment were collected. Infants were categorised as exclusively breastfed, predominantly breastfed, mixed fed and formula fed. The impact of feeding practices, home environment and socioeconomic status on language development was assessed. The age range of mothers at assessment of socio-economic status was 17-46 years (mean 28.3 years). Age at first pregnancy of mothers ranged from 12-29 years, with an average of 2.6 pregnancies. Mean live birth was 2.3 (range 1-7). The mean number of years of formal education was 10.8 years (range 1-17 years). Mothers who delayed childbirth were more likely to feed colostrum to the infant (r=0.17, p=0.012), delay introduction of solid foods (r=0.21, p=0.001), baby formula (r=0.25, p=0.007), tea (r=0.18, p=0.005), grain (r=0.17, p=0.007), and tended to exclusively breast feed for longer durations (r=0.15, p=0.02). Older (r=0.26, p<0.001) and less educated (r=0.17, p=0.014) mothers included fruit juice in their child’s diet at an earlier age. Introduction of water within the first days of life was correlated with verbal expression and understanding (r=0.19, p=0.003), in these pilot analyses. Further psychometric and multivariable analyses are underway.

P112 - Food safety regulations: An overview of the compliance process

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The growing interest in Food Safety Regulations is not only in the nature of the regulations but also in the process by which the regulations are enforced to ensure compliance. This is because non-compliance to food safety regulations poses a threat to the health of the consumer and should be recognised by authorities as early as possible for intervention. The local authority system has however raised a number of criticisms. With a quantitative method, this research aims to determine the steps in the compliance process that Environmental Health Practitioners (EHPs) follow in cases when food premises within City of Johannesburg (CoJ) do not comply with food safety regulations. Purposeful sampling of EHPs and simple random sampling of document record of food premises will be used. Data will be collected using face-to-face interviews of EHPs with a semi-structured questionnaire and the researcher will also review document records of food premises to allow for a detailed investigation into the compliance process. The data will be coded and captured on Stata Statistical Package and analysed and interpreted to draw conclusion. The anticipated outcome of the research is to outline the compliance process followed by EHPs in cases of non-compliant food premises. The research will also depict, if necessary the need for general guidelines on compliance process for food premises within CoJ.
P113 - Community Stakeholders

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Community home-based care was developed as a solution to the increasing demand on health care services, and in South Africa it was found to be of benefit to the community by responding to their needs. The paper seeks to explore the views of the community members who are the beneficiaries of services provided by community home-based caregivers.

The aim of this paper is to explore and describe the views of community stakeholders on the role played by community home-based caregivers in the provision of home-based care in Mutale local Municipality of South Africa.

A qualitative design was used to explore and describe the views of community stakeholders on the role played by community home-based caregivers in the provision of home-based care. Non-probability purposive sampling method was used to select community stakeholders who were involved in home-based care. Data was collected through focus groups and in-depth individual interviews. Data was analysed using Tesch’s method of open-coding.

The study revealed that community stakeholders value the role played by community home-based caregivers in their communities and they further expressed the need for support of community home-based caregivers.

The study recommended that community participation should be actively involved on the promotion of health through home-based care. Home-based care programmes should serve as one of the tools of community development.

KEY WORDS: home-based care, community home-based caregivers, community stakeholders.

P114 - Assessing the value add of the District Heath Barometer

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Health Systems Trust

SATELLITE SESSION

BACKGROUND
The District Health Barometer (DHB) is a publication that provides a summary of socioeconomic, health and health-related data for each health district in South Africa. It is the only publication of its kind in South Africa and is used by the departments of health at national, provincial and district levels. Data feeding into the report are drawn from a range of sources including the National Department of Health’s DHIS, Statistics SA, the Electronic TB register and the National Treasury. The publication provides an overall view of district health performance at the primary health level, including district hospitals; presents comparative data of different district health services at implementation level; and monitors trends and quality of health services.

OBJECTIVES
To determine if the DHB meet the needs of the end-users

METHODOLOGY
An assessment of the DHB was conducted through the administration of a standardised questionnaire after the 2010/11 DHB publication and again after the release of the 2012/13 DHB book. The questionnaire was administered after DHB workshops were conducted within 17 districts.

RESULTS
The DHB was found to be a useful publication for health managers and staff. The results of both publications evaluations were presented at DHB advisory group meetings and formed the basis for planning of the next publication.

DISCUSSION
The DHB assessments have been useful and have contributed to the constant tailoring of the DHB to produce a publication that meets the need of the users.
P115 - Vulnerability to hot weather in South Africa

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Hot weather is associated with morbidity and mortality, particularly in sub-population groups who are more vulnerable to hot weather, such as the elderly and people with pre-existing diseases. Among others, vulnerability to hot weather may also stem from the social environment that may reduce or enhance a population’s adaptive capacity. The social factors that may affect the vulnerability of the South African population to hot weather are not clearly understood.

This study therefore aims to elucidate the types of social factors that may affect the South African population’s vulnerability to hot weather and to identify the spatial distribution of these factors. The information generated will be important for informed decision making regarding risk management of health impacts from hot weather.

Principal component analysis was applied to the South African Census 2001 data, to determine the social factors that are most likely contributing to vulnerability to hot weather of the South African population.

Preliminary results indicate that vulnerability to hot weather is characterised by high poverty rates marked by high unemployment levels, low income levels, and poor living conditions, conditions that are often heightened for communities located in marginal lands or in poor urban environments in South Africa.

The study highlights the importance of improving the social environment in which people live in order to improve the adaptive capacity of the South African population potentially vulnerable to hot weather.

**KEYWORDS:** Hot weather, Vulnerability to hot weather, Social environment, South Africa

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P116 - Study of determinants of contraceptive use in modern health district Mbacke (Senegal)

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**INTRODUCTION**
The objective of this work is to study the determinants of the use of modern contraception in this district.

**METHODOLOGY**
A mixed design was conducted at the health district Mbacke. The period of data collection took place from July 1 to July 31, 2011. A two-stage sampling was made. For the qualitative survey, two focus groups were made to collect the perceptions of women of reproductive age (WRA) for modern contraception. Multivariate analysis with a simple and multinomial logistic regression was performed using the R 2.2.9 software for the quantitative survey. As the qualitative survey, content analysis was performed.

**RESULTS**
The quantitative study involved 384 WRA. WRA who were under modern contraception at the time of the survey was 19%. People who use modern contraception and who lived in urban areas (adjusted OR = 3.56, 95% CI = 1.04 to 12.23) or had at least one child (adjusted OR = 3.99, 95% = 1.81 to 8.53) were more likely to use the implant. WRA using modern contraception and had the secondary or higher levels employed fewer pills (adjusted OR = 0.11, 95% CI =0.03 to 0.44). Regarding the choice of contraceptives, some women said that the choice focused on injecting reflects their safety and that is taken every three months in health care.

**CONCLUSION**
Given the low use of modern contraceptives by women of reproductive age, it is important to the local health authorities to conduct outreach activities with the involvement of all stakeholders.

**KEYWORDS:** Modern Contraception, woman, Senegal
**P118 - HIV and AIDS awareness and perceptions of support staff at a tertiary institution**

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**BACKGROUND**
The strength of any organisation relies on a well-equipped work force - academically and socially. The HIV and AIDS pandemic has a major impact within institutions, as HIV infection in the working class (aged 15-49) represents almost 20% of the working population.

**OBJECTIVE**
To assess the level of awareness and perceptions of HIV and AIDS among support staff at the University of Limpopo, Medunsa Campus.

**METHODS**
Quantitative, self-administered questionnaire was distributed to a sample of 132 non-academic support staff in June 2012. The sample included 37 secretaries and 95 other support staff (clerks, administrative officers, human resource personnel, financial officers, personal assistants and librarians). Data were analysed descriptively.

**RESULTS**
The majority of respondents (n=132) were female (70%) and aged 31-50 years (66%). Responses indicated: 77% knew their HIV status; 15% said HIV status can be concluded from partner's status; majority knew in general how HIV can be contracted, 25% did not know from mother to child transmission, 18% indicated HIV can be transmitted by sharing utensils; 86% said HIV is not curable and 5% did not know; use of antiretroviral treatment was not clear as 52% responded that it can cure HIV; 56% indicated they would refuse sexual intercourse without a condom.

**CONCLUSION**
Although general awareness of HIV and AIDS was fairly good, results indicated a need for targeted educational programmes on pertinent aspects of HIV and AIDS. All staff should know their HIV status and an annual HIV and AIDS awareness campaign remains a necessity.

**P119 - Caught between a rock and a hard place: Health Care Workers in the Public sector.**

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**BACKGROUND**
Human resources are critical in the effective delivery of health services in high disease-burdened countries like South Africa. Health Care practitioners find themselves in a quandary as a result of health system failures that affect patients' access to care e.g. drug shortages, moratorium on staff posts, poor infrastructure and unresponsive EMRS services.

**METHODS**
A situation analysis of seven Primary Health Care Centres within a rural surveillance site in northern KwaZulu-Natal was carried out between 15 and 31 January 2013 during which a Clinical Research Manager interviewed 7 PHC Managers. Data from the interviews was stored and analysed using Atlas ti version 7.

**RESULTS**
Human resources- "There are staff resignations every month and now we have just received a memo stating a moratorium on all posts. How can we deliver? (PHC Manager 50); Medical Supplies - "We have no Efavirenz, metformin, atenolol, ...." (PHC Manager 60); Information system- "Look at the table, look at these papers. The data capturer and clinic clerk have both been sick for a week. I cannot breathe or take lunch breaks" (PHC Manager 51); Service delivery- "Patients start queuing at 5 am and some just get up and ..." (PHC Manager 50); Leadership and Management- "-- little could be done from here, ... you motivate and motivate.. (PHC Manager 57) and Finances- minus 40 fridge is still broken.

**CONCLUSION**
Health workers' problems are compounded when their professional conduct is constrained by powerful actors in the state, face pressures from patients and state, and threats of professional and personal consequences.
P120 - Building sustainable capacity & improving the quality of pharmaceutical services through leadership development in South Africa

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Systems for Improved Access to Pharmaceuticals and Services (SIAPS)/ Management Sciences for Health (MSH)

BACKGROUND
The Pharmaceutical Leadership Development Program (PLDP) is a USAID funded program managed by SIAPS. The PLDP presents a novel approach of integrating leading and managing principles with technical pharmaceutical knowledge to better equip managers to address their workplace challenges.

OBJECTIVE
To strengthen leadership and management capacity thus improving service delivery and health outcomes.

METHOD
Participants work in district or sub-district teams, and tackle one workplace challenge using the leadership and management principles and the Challenge Model. Working through the model, participants create a shared vision and define one measurable result. An action plan is developed and implemented, and its progress monitored and evaluated. The program culminates in the presentation of results to Senior Managers and other stakeholders.

RESULTS
The PLDP has been rolled out in seven provinces. 113 pharmacists and 12 facility managers have completed the program. Thirty six quality improvement projects have been successfully implemented. Areas where improvements in service delivery have been achieved have included:

- Strengthening the down referral system from district hospitals to primary health care clinics in Eastern Cape and KwaZulu-Natal;
- Improving compliance with National Core Standards measures relating to pharmaceutical services in Eastern Cape, North West and KwaZulu-Natal;
- Reducing patient waiting times at facilities in the Western Cape;
- Improving medicine supply management in Tshwane Metro and Northern Cape.

CONCLUSION
Inspired by a shared vision participants gain confidence in their ability to lead and manage teams to face challenges and achieve results. Results achieved can be sustained and replicated.

P121 - Concept Note: Bringing African perspective to global health diplomacy discourse

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Global health diplomacy (GHD) has grown as a topic of interest in global health and international relations. During the 132nd session of the Executive Board of the WHO, held in January of this year, the DG of the WHO indicated that “Health diplomacy works”. However, this concept is understood and used differently by different actors. At the same time, given the political and socio-cultural nature of the concept, the conceptual and theoretical frames that inform health diplomacy differ between regions of the world. This then bring to the fore, the following question: what is the lens that Africa uses in understanding of global health diplomacy, and how do African approaches to foreign policy apply to health?

Several factors have been instrumental in bringing health in the domain of foreign policy and in broadening the health governance agenda, including the assertion of health as a right, the rising profile of human and environmental security in global discourse, and rising influence of emergent economies facing health challenges. Governments or national states are no longer the only voice on issues of global health governance. Civil society networks, academia, media, transnational corporations, philanthropic foundations, communities and individuals have found new voice and are influencing all decisions making that affect health. For example, the Protocol to Eliminate Illicit Trade in Tobacco Products was adopted by the parties to the WHO Framework Convention on Tobacco Control in 2012, with participation of non-state actors.

Despite Africa’s increasing participation in global health discourse, it is facing several constraints in implementing its health agenda at global level. One of the challenges faced is the weak institutional capacity of African negotiators to deliver a robust global health policy. Global health is not mainstreamed in the current training programme for many of Africa’s diplomats. At the recent session of WHO’s Executive Board, Member States underlined the importance of good preparation for global health negotiations, and the need to proactively shaping the global health agenda at the national, and increasingly, at the regional level.

While African countries have played a key role in negotiations on medicines access, technology transfer, health worker migration and other issues, the limitations of documented evidence on African approaches or analysis of health diplomacy from an African lens make it difficult to draw conclusions regarding the African perspective being brought to global health diplomacy.
P122 - Motivation, strategies, policy issues and domestic factors affecting South African engagements in global health

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BACKGROUND
South Africa, as an emerging middle-income country, is becoming increasingly influential in global diplomacy. However, there are currently debates about why South Africa incorporates global health into its foreign policy agendas. This study aimed at exploring motivation and interests South African policy actors pursue to advance global health. Furthermore, the study is aimed at investigating strategies, policy issues, domestic factors and diplomatic practices that could shape South Africa’s involvement in global health.

METHODS
The study utilized a mixed-method design from a sample of state policy actors at the National Department of Health of South Africa. Participants were selected purposively and had experience of more than three years participating in various international health activities. All participants completed semi-structured questionnaires. Data was analysed to determine frequencies and transcribed text was analyzed using qualitative content analysis.

FINDINGS
A total of 40 people were invited to participate, of whom 35 agreed. Of the respondent, 89.7% (n=32) strongly argued due to globalization, health should facilitate ‘free movement of people, goods and services’. A total 45.9% (n=16) agreed that health should advance ‘socio-economic development and equality’. Furthermore, 82.8% (n=29) agreed that the country should advance ‘Africa regionalism and south-south cooperation’ and 85.7% (n=30) strongly argued for a ‘whole-government approach’ in addressing global health challenges. ‘HIV and AIDS’ and ‘access to medicines agenda’ were the main policy issue advanced. The main domestic factors that will shape South Africa’s involvement in global health were its ‘political leadership’ and ‘capacity of negotiators’.

INTERPRETATION
It is evident that within South Africa, state policy actors are largely concerned with promoting global health interest in the world of low politics, namely, human rights, development assistance and moral and ethical reasoning. Furthermore, the country is interested in managing domestic health challenges posed by HIV and AIDS. South Africa drives its global health through building coalition with other state and non-state actors such as civil society. HIV and AIDS as a policy issue, present a potential entry point for engagement on global health diplomacy. However, capacity of its negotiators will continue to inhibit the ability of South Africa to achieve its global health leadership.

P123 - Exposure to Nanomaterials: Public Health Challenges

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INTRODUCTION
Nanotechnology is a growing field globally and its application and possible risk as a result of exposure to nanomaterials is increasingly being studied. Exposure to nanomaterials may occur in environmental and occupational settings.

OBJECTIVE
To highlight the application of nanomaterials and possible public health challenges that may be posed by exposure to nanomaterials.

METHOD
A literature review was conducted to determine the current phase of nanotechnology development and its possible challenges to public health.

DISCUSSION
Studies indicate that nanomaterials may be more toxic than their larger counterparts. In addition, nanomaterials due to their sizes, have an ability to trans-locate to all parts of the body. Several studies on occupational exposure assessment have shown exposure to nanomaterials during their synthesis. A pioneering study in South Africa has also shown exposure to gold nanoparticles during their synthesis. In addition, a case study in China has linked nanomaterials exposure to lung diseases.

CONCLUSION AND RECOMMENDATIONS
The increasing use of nanomaterials and resulting exposure may lead to various diseases that pose new challenges to public health. Therefore there is a need for further research to assess the potential risk of nanomaterials.
P124 - MDGs and their future contribution to Africa’s Public Health Legacy
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BACKGROUND
Because the 2010 country reports showed that many African countries were not on track for the MDGs, the 2015 reports will not be a surprise that the targets that countries set for themselves have not been met. However, the 2015 deadline does not pronounce gloom for African countries as the lessons learnt can be of use to chart the public health programs for the future.

OBJECTIVE
To explore how the millennium development goals can be used to chart public health programs past the 2015 deadline.

METHODS
Review of literature and MDG country reports

RESULTS
MDGs have informed training, research and health service funding foci for many African countries, which will probably continue after the 2015 report deadline.

CONCLUSION
The value of MDGs will not exhaust their usefulness after the 2015 deadline as they can be used to chart the efficiency of public health service, research and training programs.

P125 - Socio economics and drug abuse patterns: The case of nyaope
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BACKGROUND
Substance abuse has emerged as a major health and social challenge in South Africa, with children as young as 8 being reported to be using psychoactive substances. In South Africa, Substance abuse has also shown provincial, racial and socioeconomic patterns. Although nyaope is widely used in many South African Black townships, formal studies on its use, impact and composition have not been conducted and what is known is mostly what is reported by the media.

OBJECTIVE
The purpose of this study was to explore the experiences of nyaope users in selected sites in Gauteng, Mpumalanga and North West Provinces.

METHODS
Focus groups and in-depth interviews were conducted with both male and female nyaope users in selected areas. A questionnaire was used to collect demographic data, and Nvivo9 software was used to analyze the qualitative data.

RESULTS
This highly addictive, but not illegally classified drug is easily available in the townships. The users depict some form of community grouping and function. Most users are male, unemployed, almost always steal to feed their habit, live from one fix to the next and are mostly untidy in appearance. Users regret ever starting to use the drug and expressed a need for rehabilitation services, which are not easily available

CONCLUSION
Nyaope has a profound negative impact on the future of young people, and contributes to criminal activities among users. There is a need for an intensive country-wide prevention program, as well as community rehabilitation services. Government departments need to acknowledge the scourge of nyaope and partner with communities to combat the scourge.
P126 - Barriers to accessing dental care amongst the elderly in Johannesburg

INTRODUCTION
The rising elderly population in South Africa poses challenges for health authorities in respect to the growing burden of oral diseases and the negative impact on the general and oral health related quality of life. Despite the oral disease experiences and availability of free oral health services in the public sector, oral health service utilisation amongst the elderly in South Africa has been found to be low in the past.

OBJECTIVES
The objectives of the study were to determine the oral health needs, the utilisation of oral health services, and to identify barriers to accessing oral health services amongst the elderly residing in retirement villages in Johannesburg.

MATERIALS & METHODS
This was a cross-sectional study, 308 participants were recruited from 10 sites. Data was collected from questionnaires and clinical oral examinations.

RESULTS
The clinical findings of the oral health status indicated that there was a need for oral health care, however only 28% of the study population had accessed dental care in the past 12 months. Of the 72% that did not utilise the services, a barrier most frequently reported was the belief that they were not able to afford dental treatment and the lack of transport availability.

CONCLUSION
The study found that major barriers were attributed to the perception that dental service costs were unaffordable and that transport was inadequate. In as much as they perceived the need for dental care, the felt need did not necessarily translate to an expressed need.

P127 - Maximising the role of data captures in improving the PMTCT program using a cohort data validation tool and a social media chat group

BACKGROUND
To improve the quality of PMTCT services in Ephraim Mogale (EM) sub-district, Limpopo province, the Aurum Institute introduced a paper-based PMTCT Cohort Data Validation tool, applied to the Antenatal (ANC) Register at month's end by multi-disciplinary teams in facilities. The tool collates data along the PMTCT carepathway allowing gaps to be identified. Gaps are addressed and patients who did not receive adequate care are recorded on the tool and recalled.

METHOD
Seven data capturers were capacitated through Aurum mentors who trained them on the PMTCT care pathway, capturing data in the ANC Register, how data elements link to each other, enabling them to identify programme gaps and communicate ways of closing gaps to the nursing staff.

Social media, in the form of a ‘WhatsApp Messenger’ chat group, was created for data capturers to learn from each other by sharing information and pictures of work achieved in improving quality of care.

RESULTS
Involvement of the data capturers strengthened the PMTCT programme and reduced the load on the nursing staff. The completion of ANC registers vastly improved, and the need to recall patients declined as gaps in the programme were identified and closed making care more reliable.

Improvements included recording of patients in the ANC Register (Makeepsvei Clinic 15% - 100%); 32 weeks HIV re-testing (Moutsie Clinic 0% - 80 %); AZT initiation (Moganyaka Clinic 0% - 80%).

CONCLUSION
Task sharing and maximising the potential of data captures in EM led to high quality of care in PMTCT. Social media kept up enthusiasm through on going communication, support and shared learning.
P128 - Practice intentions of clinical associate students at the University of Pretoria

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INTRODUCTION
Clinical associates are seen as one potential solution to address the human resources crisis within the South African health system. A Bachelor of Clinical Medical Practice degree programme has been introduced at three South African universities to train this cadre. The aim of the study was to determine the practice intentions and preferences of clinical associate students attending the University of Pretoria (UP).

METHODS
This was a cross-sectional study of first, second and third year clinical associate students at UP. Data was collected using a self-administered electronic questionnaire consisting mainly of closed-ended questions. Analysis was conducted using STATA version 12.

RESULTS
The majority of participants (n=87, 59.6%) intended to practice in a rural area in South Africa directly after graduating. Rural practice intention was significantly associated with self-reporting of having lived most of one’s life in a rural area. If given complete freedom of choice, 53.4% of participants would prefer working in a rural area and 46.6% would prefer working in an urban area. If the Bachelor of Clinical Medical Practice qualification was internationally recognised, 25.0% of participants would prefer to practice abroad. Upon completion of their Bachelor of Clinical Medical Practice degree, 93.9% of participants intended to undertake further full-time or part-time studies with medical degrees and postgraduate clinical associate qualifications being the most popular choices.

CONCLUSION
As a substantial proportion of clinical associate students intend to practice in rural areas in South Africa, they could help address the critical shortage of health professionals in these settings.

P129 - Sociodemographic characteristics of patients accessing a Field-based Directly Observed Therapy (FDOT) programme in a peri-urban setting

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INTRODUCTION
Sociodemographic variables, such as unemployment, might be associated with poor adherence to anti-tuberculosis (-TB) treatment. We sought to describe differences in sociodemographic data collected prior to and during the implementation of an intervention to reduce TB treatment non-adherence, the Field-based Directly Observed Therapy (FDOT) programme, in a peri-urban setting.

METHODS
We compared sociodemographic data (Gender, proportion of children, median age, and unemployment) from an FDOT programme, implemented in a peri-urban setting in Kwazulu-Natal (2008-2012), to a historical database (pre-FDOT) of 650 patients from the same community who received clinic-based TB care (2005-2008). Independent Student’s t-tests were used to compare datasets. p <0.05 was considered a statistically significant result.

RESULTS
Our pre-FDOT and FDOT datasets consisted of 650 and 516 patients, respectively. When compared with pre-FDOT data, there was a decrease in the number of males accessing TB treatment during FDOT (p=0.03). The proportion of females seeking TB treatment was higher during FDOT than pre-FDOT (p=0.03). There was no difference between the proportion of children accessing TB treatment pre-FDOT and during FDOT (p=0.55). Furthermore, we did not observe a statistically significant difference between the median ages of pre-FDOT and FDOT patients (p=0.06). The unemployment rate during FDOT was significantly higher than that observed during pre-FDOT (p<0.001).

CONCLUSION
Our FDOT results suggest a divergence from established gender differences related to access to TB treatment. Unemployment is an important social variable in patients accessing TB treatment.
P130 - Race, Discrimination, and Inequities in Birth Outcomes

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One of the most persisting inequities in health worldwide is that of birth outcomes between racial and ethnic population groups. While differing socio-demographic, medical, and behavioral risk factors are known to have profound reproductive health consequences, the interrelationship between discrimination and social inequality is also an essential underlying determinant. This presentation will describe the impact of race and discrimination on birth outcomes. It will also provide an overview of the existing evidence base and discuss the implications for public health practice.

P131 - Effect of the world

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BACKGROUND

Only limited information is available on the impact of anti-tobacco mass media campaigns on smoking behaviour in low-and-middle-income countries.

OBJECTIVE

This study assessed the effectiveness of the adapted World Lung Foundation’s Sponge media campaign (SMC) on Mauritian smokers’ behaviour change towards quitting.

METHODS

Secondary data from 3 waves of the Mauritius International Tobacco Control Policy Evaluation Project was analysed. Data collected included socio-demographic characteristics, smoking behaviour and quitting intentions using a stage of change model. Also measured were smokers’ reaction to both pictorial health warning labels (PHWLs) and the SMC introduced a year before Wave 2, and 3 weeks before Wave 3, respectively. Principal component analysis allowed construction of an index of reaction and generalised estimating equations modelling determined the association between reaction to the SMC and quitting intentions over time.

RESULTS

534 smokers were followed-up from Wave 1 to Wave 3. Findings indicated that progression over time from pre-contemplation to quitting was significantly associated with reporting greater positive reaction to the PHWLs (OR=1.01; 95%CI=1.00-1.01; p=0.01) but not to the SMC (OR=1.00; 0.99-1.01; p=0.52) at Wave 3. However, greater reaction to both interventions tend to have an additive effect (p=0.07). Other predictors of positive change towards quitting included greater self-efficacy (OR=1.15; 1.11-1.19; p<0.001), better knowledge of health risks (OR=1.02; 1.00-1.03; p<0.01) and having friends who want to quit (OR=1.13; 1.04-1.19; p<0.01).

CONCLUSION

The short SMC duration in Mauritius was associated with encouraging smokers to progress along the stages of change towards quitting when combined with HWLs.
P132 - A survey of public health and general management competencies of sub-district managers in the context of PHC Re-engineering

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BACKGROUND
Lack of competent leadership and management in the public health sector has been acknowledged as one of the critical factors that have contributed to poor health outcomes in South Africa.

OBJECTIVES
To assess the public health and general managerial skills and competency levels of clinic and other sub-district managers in order to identify areas that need strengthening in the context of PHC re-engineering.

METHODS
PHC facility and various sub-district managers were surveyed using a self-administered questionnaires developed on a Likert scale. The respondents rated their level of competence and confidence in selected managerial and public health domains (n=105 questions) considered relevant for their level. These domains covered the areas of planning, organising, leading, communication, financial and human resources management, self-management, health information, environmental awareness, ethics and primary health care.

RESULTS
Four-hundred and sixty eight managers (92% female) from five provinces were surveyed. The median age was 50 years (IQR 44-55). Two hundred and fifty-nine (55%) participants had been in their current positions for a period of 1-5 years, and 189 (40%) were PHC clinic managers. All factors in the questionnaire loaded correctly with reliability scores >0.9 (cut off range 0.7-0.8). Final results from this analysis will be presented.

CONCLUSION
Findings from the final analysis that will include all the data will be presented.

P133 - Comparison of treatment outcomes of patients starting antiretroviral therapy in a private or public HIV clinic in Johannesburg, South Africa.

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BACKGROUND
Potential causes of poor ART outcomes can be patient or health system related. Data on the effect of health system on ART outcomes is scarce.

OBJECTIVE
To compare ART outcomes in patients initiating treatment in either a private or public clinic.

METHODS
We conducted a retrospective cohort analysis of routinely collected data from Thembalethu Clinic and a private clinic. Outcomes analysed were mortality, loss to follow up, virological failure and CD4 change at 6 and 12 months of follow up. Survival analysis was performed using Kaplan Meir estimates. Multivariate Cox proportional hazards models were used to assess predictors of mortality and loss to follow up. Predictors of virological failure and CD4 count change were analysed using generalized estimation and Wilcoxon rank sum respectively.

RESULTS
Baseline demographic characteristics were comparable between the clinics. Significant differences were observed in the baseline clinical characteristics of patients. 5165 (44.2%) of the public patients initiated treatment with stage 4 HIV compared to 125 (21.8%) in the private clinic. Patients in the private clinic were 60% less likely to die compared to those in the private clinic [aHR=0.39;95% CI 0.17-1.06]. Patient retention rates were 70% lower in the private clinic compared to the public clinic [aHR=1.69;95% CI 0.94-2.70]. Although patients in the public clinic were significantly associated with initiating ART with advanced HIV (p<0.001), better virological responses were observed in the public clinic [aHR=1.63;95% CI 1.15-2.31].

CONCLUSION
Health systems have an effect on ART outcomes. Public-private partnerships are encouraged to address challenges of either sector.

KEY WORDS: Antiretroviral therapy, mortality, Loss to follow up, virological failure.
P134 - Factors influencing the performance of district hospitals in South Africa (2008-2011)

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BACKGROUND
Strengthening district hospital management is an important component of achieving the Negotiated Service Delivery Agreement’s goal of strengthening health system effectiveness.

OBJECTIVES
To investigate the factors impacting on the performance of district hospitals.

METHODS
Seven indicators (Average Length of Stay, Cost per Patient Day Equivalent, Bed Utilisation Rate, Caesarean Section Rate, Facility Crude Deaths Rate, Perinatal Mortality Rate, and Still Birth Rate), for the period 2008-2011 were analysed. The best and worst performing hospitals based on the 5th and 95th centile cut-offs were identified and managers from a randomly selected sample of these hospitals interviewed.

RESULTS
Seventeen hospital managers were interviewed. The best performing hospitals had implemented rigorous monitoring and evaluation systems which included support from specialists in their regions. Some of these had successfully lobbied for increased operating budgets. The shortage of human resources, (clinical and non-clinical) was a recurrent theme reported to have a major negative impact on hospital performance by all respondents. Rural and remotely located hospitals reported severe difficulties in attracting and retaining staff. The worst performing hospitals cited budget limitations and cumbersome financial process that hindered procurement of equipment and hiring of staff as significantly impacting on their performance. Poorly functioning referral systems, the burden tuberculosis and HIV/AIDS, poverty and stigma associated with psychiatric conditions also impacted negatively on hospital performance.

CONCLUSION
The performance of district hospitals was influenced by long standing underlying challenges of the health system and was supported by rigorous monitoring and evaluation and by input from specialists.

P135 - Managerial and public health competency requirements for PHC clinic managers in PHC re-engineering: Perspectives from health experts

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BACKGROUND
The re-engineering of primary health care (PHC) in South Africa provides an opportunity to evaluate, align and strengthen the competencies of healthcare workers in the public health system.

OBJECTIVES
Our objective was to determine the roles and the key managerial and public health competencies required by managers at sub-district level in the context of PHC re-engineering.

METHODOLOGY
This was a qualitative study in which experts in primary health care, public health and health policy were purposively selected for in-depth interview.

RESULTS
Seven experts were interviewed. Clinic managers were reported to have the role of managing the clinic and community health activities as well as having some clinical responsibilities. The role of clinic supervisors was that of supporting and mentoring clinic managers, while ward-based outreach team leaders are expected to lead community health workers in the delivery of community PHC services. Nursing skills were regarded as essential for the clinic managers. Clinic managers, clinic supervisors and outreach team leaders were all reported to require knowledge of public health including skills for analysis and interpretation of health data. Generic managerial skills in the categories of planning, organising and leading and good interpersonal skills applicable to each level were also reported to be required by all managers.

CONCLUSION
Clinic managers, clinic supervisors and outreach team leaders have a significant role in ensuring the success of PHC re-engineering. They require specific managerial and public health skills that can be applied to their level and setting. Training programmes that address these skills are also required at sub-district level.
P136 - Improving haart initiations for eligible pregnant women in a primary health care setting

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BACKGROUND
This Primary Health Care (PHC) facility is in Sekhukhune district, Greater Tubatse sub-district in a village called GA-Mampuru, about 37km from Burgersfort town in Limpopo province. The PHC Facility serves a population of about 17000 people with an average of 30 new Antenatal (ANC) client/month with an HIV positivity rate around 10%. Ten% of HIV-infected women were being initiated on HAART because the system was not able to identify all eligible pregnant women, and therefore not given return dates for CD4 count results. Despite their HIV status they were given six weeks return dates according to standardised basic antenatal care (BANC) protocol.

METHOD
The aim was to increase the rate of ART initiations for eligible pregnant women from 10% to 85% within 5 months. A PMTCT Cohort Data Validation tool was used to identify eligible HIV-infected women who had not been put on ART who were then recalled for ART initiation. The recall went back four months. Nurses phoned clients who had phone numbers recorded in the ANC Register, those without numbers were traced by Community Home Based Carers who went to their homes. Line graphs were used and displayed in facilities to motivate staff and monitor improvement. Going forward, HIV-infected pregnant women were given two week return dates for their CD4 count results.

RESULTS
The backlog of seven eligible pregnant women were recalled. All returned in June and were initiated on ART along with two new clients from June who were fast tracked and initiated. Improvement was sustained the following month. In August, the only eligible ANC client was initiated on HAART.

CONCLUSION
Systems issues can hamper or enhance ART initiation for eligible pregnant women. Improvement can be made quickly. It is not about working hard, but rather working smart.

P137 - Precautionary measures, primary infection

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INTRODUCTION
HIV secondary infections complicate management of HIV/AIDS and may lead to treatment failure and mortality. Occurrence rates of HIV Primary and Secondary infections are similar. HIV infected patients take precautions to prevent re-infection by another HIV strain and avoid acquisition of secondary infections.

OBJECTIVES
The study was designed to determine acceptability of precautionary measures from HIV positive adult patients who are on ARV treatment at Phatsima Khanya Clinic in Alexandra Township, South Africa in 2012.

METHODS
A descriptive quantitative study used structured administered questionnaire to obtain data regarding demographics, knowledge, compliance and health progress to evaluate acceptability. Health progress was assessed by means of laboratory virological markers obtained from medical records. Descriptive statistics and chi-square was used to analyse data and inferential data, respectively.

RESULTS
A total of 362 participants were enrolled to assess the level of knowledge of precautionary measures (76.5% to 99%). The number of sexual partners before and after HIV diagnosis was different and most participants reported a range of 1-3 sexual partners before diagnosis. Sexually active participants 349, showed (51%) used condoms regularly, with 62.9% have disclosed their HIV status to their partners. Most (62.7%) participants are still on initial treatment regimen. Virological markers showed improvement to 70.9% of participants.

CONCLUSION
Participants have knowledge of precautionary measures which assists in adherence. Patients with less or no children were found not to be using condoms. Provider-patient relationships proved to be therapeutic as patients felt comfortable to communicate with health-care workers should they needed assistance.
P138 - Advocacy for improving recognition of traditional health practitioners’ role in public health

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BACKGROUND:
The traditional health practitioners’ project in UMkhanyakude formed a multi-stakeholder advocacy task team to identify and address barriers to successful collaboration between them and the formal health system as stipulated in the Government policy. The task team met 4 times a year with a clear agenda to improve recognition and collaboration.

METHODS:
The project analysed the minutes of the advocacy task team and the outcomes of the actions taken by different stakeholders to improve recognition and collaboration with Traditional Health Practitioners.

RESULTS:
460 THPs were trained on HIV/AIDS, Advocacy, TB/DOTS/STI, PMTCT, c-IMCI and are now referring suspected TB and HIV patients for screening in health facilities. Through the advocacy strategy, 247 THPs are now having a formal relationship with their local health facilities. THPs participate in 36 clinic committees, war rooms and improving global warming through planting of trees in their Muti Forest.

CONCLUSION:
THPs are now recognized by the formal health system through back and forth referrals and supporting treating one patient. Health care workers are moving away from ill-treating patients in clinics when they learn that the client has started consulting the traditional healer before coming into a health institution. THPs that are given a platform and opportunity to collaborate with the formal health system can be a resource to improving community health.

P139 - Provider initiated counselling and testing: The panacea to poor HIV counselling and testing services? Lessons learnt from AMREF’s HCT-TB project in South Africa.

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BACKGROUND:
In 2010, South Africa launched the biggest HIV Counselling and Testing (HCT) campaign ever undertaken in the country. The campaign put into action a reinvigorated approach in tackling HIV/AIDS through a coordinated emphasis on prevention and treatment, with HIV testing as the central component. Within the strategic components for the successful implementation of HCT was the Provider Initiated Counselling and Testing (PICT), which was adopted by the South African National AIDS Committee (SANAC) and the National Department of Health (NDOH). This paper illustrates how AMREF strengthened the performance of the district health systems in Amathole (Eastern Cape), UMkhanyakude (KZN) and Sekhukhune (Limpopo) during the HCT-Tuberculosis (TB) screening Integration project from 2007-2012.

METHODS:
The following strategies were used to strengthen HCT and TB integration implementation:
- Increasing the number of health facilities offering PICT services
- Improving the skills and competencies of the health workers in PICT
- Increasing the number of clients who seek counselling and testing services
- Increasing the number of HIV+ persons referred for case management, treatment, care and support by PICT services providers
- Improving the capacity of facility staff on data management
- Increasing the number of new HIV cases screened for TB

RESULTS:
By the end of the project:
- 130 health facilities are now providing quality PICT services
- 200 clinic workers trained to provide confidential PICT services
- 300 000 rural and hard to reach clients received counselling and testing services
- 95% of HIV+ clients were referred
- 100% of targeted health facilities have an accurate data management system
- 88% of HIV+ clients are tested for TB

CONCLUSION:
The project confirms the fundamental importance of PICT, not only in HCT, but in provision of other health services. It also highlights the importance of reciprocal trust between users and providers, as it is paramount in increasing demand, accountability and utilisation of health services.
P140 - Knowledge perception and practice of female genital cutting amongst adults in Ilorin Metropolis

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Female genital mutilation is a global phenomenon which cuts across geographical, cultural and political boundaries and varies only in its manifestations and severity. This research work was carried out in Ilorin metropolis of Kwara State. The study was a descriptive cross-sectional study. The study was carried out to assess the knowledge, perception and practice amongst adults in Ilorin metropolis on Female genital mutilation. Two thousand adults were interviewed using, a pre-tested questionnaire.

Majority 1856(92.8%) of the respondents had heard of female genital cutting. Health workers 1623(87.4%) and radio 1466(79%) were cited as the most frequent source of information while the newspaper 92(5%) was the least frequent source of information. Few of the respondents 527(28%) were aware of the different types of genital cutting. 986(53.1%) of the respondents had fair knowledge about female genital cutting while many respondents 1049(56.5%) felt it was in the woman's best interest to be circumcised. Fifty seven percent of the households practiced female genital cutting.

Majority 322(56.5%) of the households experienced severe bleeding as complication of female genital cutting while a few 74(13%) had painful menstrual period and none (0%) Infertility as a complication of FGC. Majority 287(50.4%) practiced FGC as a form of religious obligation while seventy per cent practiced FGC because of culture.

FGC, a traditional practice have serious health consequences, is of great concern to the World Health Organization (WHO). In addition to causing pain and suffering, it is a violation of internationally accepted human rights.

P141 - Barriers to health care for lesbian, gay, bisexual and transgender South Africans

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BACKGROUND
Homophobia and heteronormativity are barriers to health care for lesbian, gay, bisexual and transgender (LGBT) people, which make up 10% of the general population. In South Africa, LGBT people routinely experience discrimination and refusal of care when seeking health services. LGBT people in Southern Africa are at high risk for HIV, but often don't access the health system. In order to improve on MDG 6 (Combat HIV/AIDS, malaria and other diseases), health care services need to be LGBT-inclusive and address LGBT-specific health needs.

OBJECTIVE
To examine the barriers that LGBT people face when accessing public sector health care in SA.

METHODS
An ongoing qualitative study in three SA provinces, comprised of semi-structured interviews and focus group discussions (FGD) with LGBT health service users, representatives of LGBT organisations, and health care workers (HCW).

RESULTS
To date, 21 interviews and 2 FGDs with LGBT health service users have been completed. 20 interviewees delayed or avoided seeking health care. LGBT access to care was severely compromised by:
1. Lack of HCW's knowledge about LGBT health
2. Insensitivity, discrimination and verbal abuse experienced by LGBT people in health facilities
3. Lack of LGBT health information (i.e. safer sex information), health prevention resources (i.e. dental dams, lubricants) and health research knowledge

CONCLUSION
LGBT people face significant barriers to health care, rooted in HCW prejudice, as well as their lack of knowledge about LGBT health. HCW education and comprehensive LGBT health information are necessary to improve health care for this significant minority group.
P142 - Discrimination of lesbian, gay, bisexual and transgender people by health care workers: A call to action

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BACKGROUND
In South Africa, lesbian, gay, bisexual and transgender (LGBT) people routinely experience discrimination by health care workers, and even refusal of care when seeking health services. Even though LGBT people are recognised in national health policy as a key population, HCW attitudes are not cognisant of this. As a result, many LGBT people delay seeking care, or avoid accessing health facilities altogether. Given that LGBT people, like other marginalised groups, have poorer health outcomes, the health system’s failure to provide accessible, non-discriminatory care is indefensible.

OBJECTIVE
To examine the experiences of LGBT people in SA public sector health facilities, in order to identify shortcomings in health care worker education

METHODS
An ongoing qualitative study in three SA provinces, comprised of semi-structured interviews and focus group discussions (FGD) with LGBT service users, representatives of LGBT organisations, and health care workers (HCW).

RESULTS
To date, 21 interviews and 2 FGDs with LGBT service users and organisations have been completed. All interviewees reported experiences of discrimination by HCWs based on their sexual orientation. Nurses were perceived to be more homophobic than doctors. Discrimination took various forms:
1. HCWs refused to provide care to LGBT patients
2. HCWs articulated moral judgment and disapproval of LGBT patients’ identity
3. HCWs forcibly subjected LGBT patients in their care to religious practices
4. HCWs did not have knowledge about LGBT identities or health needs

CONCLUSION
Many HCWs’ attitudes towards LGBT patients are completely unprofessional and violate the ethical duty of care. There is an urgent need to challenge HCWs attitudes towards homosexuality and educate them about LGBT health.


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INTRODUCTION
Living conditions that people are emerged in are the primary determinants of their health and the quality of these conditions are shaped and influenced by political and economic forces (Raphael and Bryant, 2006). In view of this, Zimbabwe’s precarious socio-economic and political situation influences the social determinants of the health of its population. In the past decade Zimbabwe experienced severe economic decline characterised by hyperinflation, cash shortages, foreign exchange shortages and reduced revenue generation (Ministry of Health and Child Welfare, Zimbabwe 2012). This economic downturn resulted in numerous social challenges such as unemployment, endemic poverty and the collapse of the education and health systems as evidenced by the 2008 cholera and 2012 typhoid outbreaks. Although on the road to recovery, Zimbabwe is still fragile with severe challenges in the health, infrastructure, communications and sectors. A country is termed to be a fragile state when its government is unable and/ or unwilling to deliver core functions to the majority of its people (OECD in Stepputat and Engberg-Pedersen, 2008). A situation analysis sought to explore the social determinants of health of child-headed households in Zimbabwe’s socio-economic context. Social determinants of health are defined as “the social characteristics within which living takes place” (UN Commission for Social Determinants of Health, 2007: 4). These characteristics can promote or undermine the health of an individual.

METHODS
A situation analysis of the social determinants of health for child-headed households between 2010 and 2012 in Zimbabwe was conducted as the first phase in a larger study assessing the quality of life of these child-headed households. A literature review was conducted between March 2012 and April 2013. Newspaper articles, journal articles, theses, research reports and conference proceedings were reviewed.

RESULTS
The social characteristics embedded in child-headed households’ living environment both promote and undermine their health. The social condition undermining child health was characterised by irregular electricity supply; poor drainage and water supply; poor household solid waste management; dilapidated infrastructures such as burst pipes; inadequate medical supplies in hospitals; high unemployment and poverty rates leading to poor household food diets; and national food insecurity. Factors promoting child-headed households’ health include the large number of relief organizations in the country, intersectoral government efforts to support orphans and vulnerable children (OVC) under the National Action Plan for OVC as well as community mobilization through the Child Protection Committees (CPC) to feed, clothe and watch over vulnerable children in the community.

CONCLUSION
It is evident that determinants of health and wellbeing go beyond individual factors and are influenced by the individual’s social milieu. Therefore, in order to improve the health and quality of life of child-headed households in Zimbabwe, it is vital to address the country’s structural challenges such as economic stagnation; a half functional health system; poor sanitation and housing infrastructure among others.
P144 - A profile of sexual assault cases presenting to facility-based rape centres in 2 high violence communities in the Western Cape

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BACKGROUND
Sexual violence is a public health priority within South Africa. It has both short and long-term negative impacts on psychosocial and physical wellbeing. Quantifying the scale of the problem is challenging without reliable data.

OBJECTIVE
To determine the profile of sexual assault cases, presenting to two facility-based rape centres (clinical forensic units). This was part of a rapid assessment of injury morbidity presenting to health facilities in three high-violence communities in Cape Town.

METHODS
Data were collected retrospectively by a trained researcher on patients presenting between 27 September and 4 October 2012, using a paper-based data collection tool.

RESULTS
Of the 58 cases reported; 75.9% were female and 24.1% male. 74.1% of all reported cases occurred in children under 18 years; 67.4% in female and 32.6% in male children. The majority of cases reported in males (78.6%) occurred in 5 to 9 year olds. Amongst females the majority (25.0%) occurred in 15 to 18 year olds. Over half (58.6%) of all reported cases knew who their perpetrator was. Probable alcohol consumption was reported in 25.9% of cases. This profile differs from reported police crime statistics where adult females accounted for the bulk of reported sexual offences.

CONCLUSION
Sexual assaults are often underreported and although this sample was extremely small; a high proportion of cases were reported in children, and particularly in young boys. Data obtained from facilities treating victims of rape can help quantify the scale of the problem and tailor prevention programmes addressing the problem at a local level.

P145 - Injury Morbidity Burden at Health Services in 3 High Violence Communities in the Western Cape

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BACKGROUND
Homicide in South Africa is eight-fold the global average and is the second leading contributor to the Western Cape’s disease burden. The high levels of violence and resultant injury morbidity have consequences on population health and health services which if better understood could improve the planning of appropriate interventions. Current injury surveillance efforts are focussed on mortality.

OBJECTIVE
To conduct a rapid assessment of injury cases presenting to health facilities in three high violence communities in Cape Town.

METHODS
Data were simultaneously collected (24 hours per day) by trained study staff at six facilities, from 27 September to 4 October 2012 using an electronic data collection tool.

RESULTS
A total of 2725 cases were seen with 1048 (38.4%) reported injury cases, 1660 (61.0%) non-injury cases and 17 (0.6%) unclassified. Violence accounted for 60.4% of injury cases, and 23.2% of cases overall. Probable alcohol consumption was reported in 31.8% of all injury and 45.5% of violence cases. Males had a higher proportion of violent injuries associated with alcohol use than females (51.0% versus 32.8%). Most violence-related injuries occurred amongst men and women aged 15–34 years. In 46.8% of violent injury cases, the perpetrator was known (64.1% amongst women and 39.2% amongst men). The non-fatal injury profile differs markedly from known mortality profiles in terms of gender, age, and external cause.

CONCLUSION
Violence is a major cause of injury morbidity and is largely preventable. Programmes addressing intimate partner violence and restricting access to and reducing intake of alcohol should be prioritized.
P146 - Preliminary findings of an evaluation to inform technical assistance

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BACKGROUND
In 2012 an evaluation was developed to assess perceived impact of Anova Health Institute’s activities in four district health systems. The aim was to establish a baseline at the facility, sub-district and district pertaining to HIV-related services and to determine areas for Anova to focus in terms of Health Systems Strengthening.

METHODOLOGY
A structured questionnaire was given to staff at Department of Health facilities that Anova supports in Gauteng, Limpopo, Mpumalanga and Western Cape. Fieldwork was conducted between November 2012 and March 2013 and data were captured in MS Access and analysed using SPSS.

RESULTS
A total of 87 facility managers and 397 clinical staff responded to the questionnaire. At the time of the survey Anova supported 60 facilities in Gauteng, 106 in Limpopo, and 65 in Western Cape.

Top challenges included: accuracy of facility data and usage of data remain two of the top challenges as well as monitoring infrastructure and equipment and systems for monitoring drugs and consumables.

A primary source of mentorship for staff in facilities in this sample was Anova Health Institute, with 74.7% of managers and 62.7% of staff indicating this as their primary form of mentorship.

CONCLUSION
Preliminary findings suggest Anova is contributing to improvement of the Health System, but that gaps still exist in terms of factors that affect quality of service delivery as well as Anova’s ability address those gaps. Efforts must be taken to tailor activities based on these findings.

P147 - Focusing on children with hidden abilities: results from a child rehabilitation unit in Zimbabwe

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BACKGROUND
Approximately 350,000 persons with disabilities were identified in the 2002 Zimbabwe population census; this equates to 2.9% of the population. It is widely acknowledged that children with disabilities in Zimbabwe live under difficult circumstances. Little information exists concerning the profile of children with disabilities in Zimbabwe.

METHODS
Data was routinely collected between 2005 and 2011 from all disabled children that accessed services at the Child Rehabilitation Unit (CRU) at Harare Hospital. Children were assessed on their background characteristics, HIV status, and medical diagnosis. In total, 1275 records were captured. Descriptive statistics were used to draw summary measures.

RESULTS
Number of children with disabilities presenting for the first time at the CRU increased from 114 children in 2005 to 346 in 2010. Majority of children with disabilities were males (59.6%). Over 60% of the children were less than 2 years old. Almost one in four children (38.7%) presenting at CRU had a known HIV status. Of these, about 5.3% were HIV positive. A majority of disabilities were associated with birth asphyxia (35.8%) followed by Jaundice/Kernicterus (13.7%).

CONCLUSION
Our data indicate directions and challenges for future interventions for disabled children in Zimbabwe. There is an urgent need to improve pre-natal and neo-natal care at all levels of health service delivery and raise awareness of the implications of poor care during these critical periods. The implications of an HIV positive status on children living with disabilities need further exploration.
P148 - Homosexualité masculine à Kinshasa au temps du VIH/Sida :
De la crise de normalisation à la normativité apparente dans le cumul des cours sexuels

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RÉSUMÉ
L’hétérosexualité se vit à Kinshasa comme norme sociale ou comme étant supérieure aux autres orientations sexuelles. Les effets de l’homophobie et de l’hétérosexisme font ainsi des homo-bisexuels, une population davantage ostracisée. L’homosexuel qui est sensible à ce regard désapprobateur, finit par développer la “culpabilité sociale”. Cette culpabilité sociale naît du sentiment de ne pas être acceptés tels qu’ils sont, simplement parce qu’ils ne parviennent pas à désirer un partenaire différent : reproche que certains homosexuels font à leur société. Certains d’entre eux préfèrent souffrir de leur rejet en silence et d’autre adoptent la stratégie de camouflage, d’autres encore se confient à des personnes de confiance. Mais le cas qui intéresse le plus cette étude, est celui des homosexuels qui optent de se conformer en apparence aux contraintes sociales en fréquentant ou en prenant en mariage un partenaire de l’autre sexe, tout en recourant aux pratiques homosexuelles discrètes. C’est en somme la “stratégie de dissimulation”. L’homosexualité visible ou cachée et l’hétérosexualité déguisée conduisent à des pratiques sexuelles à risque. Les pénétrations anales non protégées sont assez fréquentes à Kinshasa. Comme le préservatif est aussi rarement employé chez les couples hétérosexuels déguisés, du fait du désir d’enfants, la pénétration anale sans préservatif constitue l’un des principaux modes de transmission du VIH et des infections sexuellement transmissibles. À Kinshasa, il y a des hommes qui ont des rapports sexuels avec d’autres hommes et parmi eux, certains ont plusieurs partenaires sexuels, y compris des femmes. Les pénétrations anales sans préservatif, exposent également les partenaires féminins des homosexuels à des risques élevés.

P149 - The persistence of unmet need for family planning in Tanzania: The disparity between female knowledge holders and male decision makers.

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INTRODUCTION
The world’s population was, and is, growing at high rates and causing economic, environmental, and health burdens to countries, communities, and families (Prata 2007). The United Nations Millennium Development Goals (MDGs) calls for the increase in use of family planning methods in order to achieving the fifth MDG of “Improving Maternal Health”. It is estimated that just by satisfying the unmet need for family planning, there would be a 33% decrease in maternal mortality globally.

OBJECTIVES
To assess the unmet need for family planning in Tanzania, and see how the disparity between female who are knowledge holders and the decision makers. were used to identify documents and articles on MTIs in SSA and its effects. The literature

METHODOLOGY
Literature review, interviews with different stakeholders in one region of Tanzania and Focus group Discussion.

RESULTS
In developing country such as Tanzania family planning is still facing unmet need (DHS 2010) Practicing family planning in most of developing slows down hunger, poverty and avert about 32% of all maternal deaths and about 10% of child hood mortality (The lancet 2006).

CONCLUSION
Family planning is still a public problem despite all the efforts that are in place there is a need to make a good policy that will promote men to get equally involved in the issue as women. This will result in healthier community.
P150 - Association between South African high school learners’ knowledge about tuberculosis and their intention to seek health care

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PURPOSE
We report on factors associated with high school learners’ positive intentions to seek health care for tuberculosis.

METHODS
A survey testing tuberculosis symptoms, transmission, prevention knowledge and intention to seek and adhere to treatment was conducted among 1114 high school learners in KwaZulu-Natal South Africa. Multivariate models corrected for clustering of students within schools tested associations between demographics, tuberculosis symptoms, transmission, prevention knowledge and intention to seek and adhere to treatment.

RESULTS
Learners knowing that coughing for > three weeks (OR: 2.33; 95% CI: 1.35-4.00), night sweats (OR: 3.12; 95% CI: 1.80-5.41) were tuberculosis symptoms; tuberculosis is transmitted when a person with tuberculosis coughs (OR: 1.56; 95% CI: 1.23-1.98), coughing in a closed room was incorrect practice for someone with tuberculosis (OR: 1.71; 95% CI: 1.05-2.78), were significantly more likely to intend taking family members for treatment. Learners knowing that coughing for > three weeks (OR: 2.69; 95% CI: 1.19-6.09), coughing blood (OR: 2.24; 95% CI: 1.33-3.76), night sweats (OR: 2.25; 95% CI: 1.09-4.64) were tuberculosis symptoms, were significantly more likely to intend encouraging family members to adhere to tuberculosis treatment. Learners knowing that coughing for > three weeks (OR: 1.47; 95% CI: 1.05-2.07), coughing blood (OR: 2.08; 95% CI: 1.44-3.01), weight loss (OR: 1.85; 95% CI: 1.38-2.49) were tuberculosis symptoms, were significantly more likely to intend taking tuberculosis treatment if symptomatic. Learners knowing that coughing for > three weeks (OR: 2.04; 95% CI: 1.45-2.87), coughing blood (OR: 1.81; 95% CI: 1.24-2.62), were tuberculosis symptoms were significantly more likely to intend adhering to tuberculosis treatment.

CONCLUSIONS
High school learners with knowledge about tuberculosis symptoms, transmission and prevention have positive intentions to seek treatment for themselves and family and adhere to treatment.

P151 - Blood utilisation patterns in the eThekwini health district during 2010.

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PURPOSE
The purpose of this study was to investigate blood utilisation in the eThekwini Health District during 2010 to inform practice, future planning and policy development of the blood transfusion service. This was the first population based blood utilisation study in the eThekwini district.

METHODS
An observational, descriptive, cross-sectional study design was used. The study population consisted of both private and public sector patients for whom blood was issued in the eThekwini Health District during 2010. Data was obtained from the South African National Blood Service who is the sole supplier of blood in the area.

RESULTS
A total of 70 595 units of blood were issued to 24 825 recipients during 2010 in the eThekwini Health District. The number of units issued to a recipient was found to differ by age and gender of the recipient, the sector and diagnostic category in which the recipient received care. Most recipients were female between the ages of 15 and 49 years. Most units of blood were issued to the medical (21%), surgical (17%) and ICU (9%) diagnostic categories. The demographics of the general population at increased risk for blood transfusion were also identified.

CONCLUSION
This exploratory baseline utilisation study provides useful information that can be used to inform both blood policy development and future studies in this field. It also very importantly highlights that data for monitoring blood utilisation needs to be improved. The health disciplines that need to conduct regular audits of blood use were also identified.
P152 - Data for Action: A simple interactive practical method for quality improvement and innovation in public health

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BACKGROUND
Data to action is a proven methodology to systematically think through application of existing data and information to drive public health policy and programs. The objectives of Data to Action include (1) identify existing data relevant to the area or issue and plan on how to access and utilize (3) identify data gaps including areas for further research (4) identify strategies for improving monitoring policies, programs and surveillance in-country (5) build capacity to identify and utilize existing data, to be able to drive policy change, make evidence based decision and advocacy.

METHODOLOGY
Data to action uses 6 interactive and practical tools; the Spidergram, Matrix for selecting priority action areas, Traffic Lights, Fishbone, Countermeasures and Practical Methods Chart.

RESULTS
The results of Data to Action methodology of capacity building are mainly quality improvement and innovation of public health policy makers and practitioners. Under quality improvement the methodology supports practitioner to measure where they are and figure out how to improve, leads to building on existing work especially doing it in ways that are enjoyable and foster interaction and helps find the “defect” in the system and “think outside the box.” While innovation involves maximizing utilization of all opportunities, adopting, adapting and adding value by using opportunities, changing the environment and looking for unique ways to meet the current and future needs.

CONCLUSION
Data to Action methodology is simple, interactive, practical and cost effective training methodology for quality improvement and innovations in public health programming.

P153 - Prevalence of obesity and hypertension co-morbidity among adults with varying levels of physical activity in resource-poor communities

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BACKGROUND
Obesity and hypertension are most common cardiovascular disease risks among South African population in transition. Little information is available on obesity-hypertension co-morbidity among adults in rural and urban communities.

OBJECTIVE
To determine the prevalence of obesity-hypertension co-morbidity among men and women with varying physical activity (PA) levels in rural and urban South Africa communities.

METHODS
A cross-sectional study of 1974 adults aged 35-70 years participating in the Prospective Urban Rural Epidemiology study. PA and anthropometric information was collected using standardized protocols of INTERHEART study. Obesity and hypertension were defined as BMI (body mass index) >30, and self-reported treated hypertension or BP ≥140/90 respectively. Co-morbidity (OHT) was defined in three categories: OHT1, obese and self-reported treated hypertension; OHT2, obese with self-reported treated HT or BP ≥140/90; and OHT3 self-reported treated hypertension or BP ≥160/100. PA was measured using metabolic equivalent task (MET)-min/week scores. Data analysis was done using Stata version 12.1, and means of the variables were compared. A p-value of <.05 was considered significant.

RESULTS
The prevalence of obesity was 48.4% and hypertension 76.8%. Obesity-hypertension co-morbidity OHT1 was 14.1%, OHT2, 31.3% and OHT3, 17.8%. OHT2 peaked at ages 50-59 years, and was greater among urban dwellers compared to rural counterparts. Women had higher prevalence rates of OHT2 and OHT3 compared to men. There was no significant association between PA and co-morbidity.

CONCLUSION
Obesity-hypertension co-morbidity was found in over 30% of the study participants, and two-thirds had hypertension. This indicates an increased synergistic cardiovascular risk in this population.
P154 - Polymerase chain reaction and histology in diagnosis of placental malaria in an area of unstable malaria transmission in Central Sudan

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BACKGROUND
Prevalence of placental malaria has been widely used as a standard indicator to characterize malaria infection in epidemiologic surveys. Placental malaria poses a greater diagnostic challenge, accurate and sensitive diagnostic tool for malaria infections in pregnancy is needed.

METHODS
A cross sectional study was conducted at Medani Hospital, which serves catchment area which is characterized by unstable malaria transmission. One hundred and seven placentae were investigated for malaria infection using polymerase chain reaction (PCR) and histology.

RESULTS
out of 107 investigated placentae, 33 (30.8%) and 34 (31.8%) were positive for malaria by histology (two (2%) and 31(29.0%) were acute and past infections, respectively) and PCR, respectively. Out of 33 positive by histology, 15 were positive by the PCR while 18 were negative. The sensitivity of the PCR was 45.5% (95% CI: 29.2%-62.5%). Out of 74 which were negative by histology, 19 were positive by the PCR. This is translated in specificity of 74.3% (95% CI: 63.5%-83.3%). Of those tested positive by the PCR, 15 were positive by the histology, while 19 were negative. This is translated into a positive predictive value of 44.1% (95% CI: 28.3%-61.0%). Of those 73 tested negative by the PCR, 55 were negative according to histology while 23 were positive. This is translated into a negative predictive value of 75.3% (95% CI: 64.5%-84.2%).

CONCLUSION
PCR had low sensitivity and specificity in comparison to placental histology, perhaps because the vast majority of the placental infections were past infections. Further research is needed.

P155 - HIV prevention and sexual assault: Views and perceptions on drivers and mitigation strategies

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BACKGROUND
The incidence of sexual assault is very high in South Africa with police estimating that a woman is raped every 36 seconds in the country. Gender Based Violence (GBV) and child abuse, both common forms of sexual assault have been associated with HIV transmission. Given the high prevalence of HIV particularly amongst women and vulnerability of young women to sexual assault, it is important to understand the drivers of sexual assault, public perceptions about its occurrence and views on how it can be prevented and/or mitigated. These views are also important in the design of HIV prevention programs which include a component to address GBV.

METHODS
A national qualitative study was conducted with purposively selected adults (over 18 years). Fifteen (15) focus groups discussion with the adult general population were conducted in urban, semi-urban and rural locations nationally. A previously tested, open and non-directive discussion guide was followed. The data were recorded electronically, transcribed verbatim and translated into English and subsequently analysed thematically using Atlas.ti Qualitative Analysis Software.

RESULTS
There were nuanced interpretations of sexual assault ranging from gender based violence to child abuse, often articulated within gender and power relations. Young women were identified as most vulnerable and often disempowered to report sexual assault. Various physical and relational contexts were identified to increase the risk of sexual assault, including alcohol use, domestic overcrowding, walking in and use of isolated areas and child trafficking. Societal fragmentation was also seen to be an underlying risk factor.

Despite mixed views on appropriate measures to deal with sexual assault, there was consensus on the need to empower various sub populations through education and dialogue. - Female: We have many cases of sexual abuse happening in taverns, you will find a woman has had more than to drink she can’t find her way home or too drunk she will be raped.

Social cohesion and increased societal support for victims were also ranked high. Other measures included strengthening families through improved parenting skills, limiting access to alcohol, improving quality of services for victims and improving efficiencies in the criminal justice system in dealing with perpetrators. Interestingly, another common view was the need for women to ’change’ their behaviour.

CONCLUSIONS
HIV incidence remains high in South Africa and sexual assault has been shown to be an important driver. As such any attempt to address sexual assault should be based on public perceptions of reasons and contexts in which it occurs; including an understanding of socio-cultural drivers and how they can be mitigated.
P156 - Mortality trends in the Cape Metropole 2001-2010

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BACKGROUND
The City of Cape Town has been collecting cause of death statistics from the local offices of the Department of Home Affairs routinely since 2000. Statistics South Africa does not provide mortality statistics below provincial level. Hence, local mortality surveillance is required to provide information on a district and sub-district level, which is crucial for monitoring population health and the impact of interventions.

OBJECTIVE
To identify the leading causes of mortality and premature mortality in Cape Town and its sub-districts.

METHODS
Cape Town mortality data for the period 2001–2004, 2006 and 2010 were analysed by age, cause of death and sex. Cause-of-death codes were aggregated into four broad cause groups: (i) HIV/AIDS and TB, (ii) other communicable diseases, (iii) non-communicable diseases and (iv) injuries. Premature mortality was calculated in years of life lost (YLLs). Age-specific and age-standardized death rates were compared across sub-districts.

RESULTS
The pattern of mortality reflects the quadruple burden of disease observed in the national cause-of-death profile, with HIV/AIDS, other infectious diseases, injuries and noncommunicable diseases all accounting for a significant proportion of deaths. HIV/AIDS has replaced homicide as the leading cause of premature mortality, although homicide remains the leading cause among males. Ischaemic heart disease has replaced road traffic injuries in the top four causes of premature mortality together with tuberculosis.

CONCLUSION
Trends in mortality in the last decade indicate some gains in health but highlight the need for multisectoral interventions to focus on HIV/AIDS and TB, homicide and injuries and non-communicable diseases.


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BACKGROUND
Exclusive breastfeeding is recommended as the optimal way to feed infants during the first months of infancy. Despite this fact, a UNICEF report shows that only 12% of mothers in the state of Qatar exclusively breastfed their babies during 6 months after birth. A previous study in Qatar showed that health care agencies should be actively providing support to mothers to improve the breastfeeding practices in Qatar.

OBJECTIVES
1) gain insight on the existing support systems 2) explore the required breastfeeding promotion initiatives 3) identify the culturally appropriate ways of implementing the required initiatives from the health care providers’ perspective 4) determine the percentage of mothers who received effective breastfeeding support in a limited period of time

METHODS
A “mixed-method” of qualitative-quantitative design has been chosen for this study. For the qualitative part, 36 doctors and nurses of the prenatal and post partum clinics will be interviewed using a semi-structured questionnaire. For the quantitative portion of the study, a survey questionnaire will be provided to mothers who visit the center during prenatal and postnatal visits.

RESULTS
This is an ongoing study and the results will be finalized by July 2013.

CONCLUSION
Linking research findings to policy-making, service delivery, and practice are important dimensions of this project. In this presentation, we will conclude by presenting the study’s results and make recommendations for future practice and research.
P158 - Evaluation of the health

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BACKGROUND
WHO definition of health as a state of “complete physical, mental and social well-being and not merely the absence of disease or infirmity”, although not revised for many years, is intensively becoming subject to criticism as limited, suggesting that health should be observed as a complex phenomenon. Virchow’s “Medicine is a social science, and politics nothing, but medicine at a larger scale”, centuries ago has summarized the public health’s big idea that human health and disease are personification of society as a whole and therefore, require political action.

METHODOLOGY
We have used mix-methods research as to capture all information in WHO Commission on social determinants of health (SDH) Conceptual framework, i.e., evidence synthesis of existing documents and literature that evaluates health system in a country as SDH.

RESULTS
Our literature review included keywords: Macedonia, equity, health system, and has resulted in identification of 2520 documents in the electronic databases and manual search of documents available at Ministry of Health. 195 documents were included in analysis of the health system after the independence.

DISCUSSION
Our findings indicate that health system as a social determinant of health in RM has experienced numerous challenges, caused mainly by the reforms, influenced by many external and internal factors. Life expectancy of population in Macedonia is below EU average and individuals live almost 12% of their lives (8.6 years) with some disease. Gini index has increased from 28.1 in 1998, to 43.2 in 2009 and the country’s health system is ranked 51 out of 142 countries by the Legatum prosperity index, which implies further exploration of basic health indicators and underlying causes.

P159 - Association between environmental lead exposure and aggression at early adolescence: Findings from the Birth to Twenty Birth (BT20) Cohort.

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INTRODUCTION
Chronic and/or high exposure to lead is associated with a battery of neurological health effects later in life. Recently, a small but growing body of evidence has shown a relationship between lead exposure and aggressive behaviour. This study investigated the association between lead exposure and aggression in adolescents within the Birth to Twenty Cohort in Johannesburg, South African.

OBJECTIVES
To summarize the distribution of demographic factors and blood lead levels at age 13; investigate predictors of elevated blood lead levels using multiple logistic regression analyses; to examine association between blood lead levels and aggression in adolescents in Johannesburg, South Africa.

METHOD
Study sample is sub-sample at 13, 14 and 15 years of age collection waves. A total of 1042 study participants were included in the study. A set of bivariate analysis was conducted for all factors in the study. Regression analysis was used examine the association between lead exposure and violence in and outside of school – and aggression within the study cohort.

RESULTS
More than 72% of males in the study had elevated blood lead levels compared to 47.98% in women. Blood lead levels ranged from 1.04 mg/dl to 28.12 mg/dl. The results showed a significant association between lead exposure and violence in and out of school and aggression.

CONCLUSION
Findings from this study provided information about blood lead levels in young people in Johannesburg. The significant association between lead exposure and aggressive and violent behaviours may shed light on a possible environmental contribution to violence in South Africa.
P160 - Psychological impact and coping strategies of women affected by vesico vaginal fistula (VVF) in Akwa Ibom state, Nigeria.

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BACKGROUND
Vesico-vaginal fistula (VVF) is an abnormal communication between the urinary bladder and the vagina resulting in the continuous involuntary discharge of urine. In Sub-Saharan Africa between 30,000 and 130,000 women develop fistulas each year during childbirth. This study aimed to examine the psychosocial impact and coping strategies of women affected by VVF in Akwa Ibom State, Nigeria.

METHOD
This was a cross-sectional descriptive study: 120 women with VVF were interviewed using a structured questionnaire, combined with unstructured interview schedule. SPSS version 17.0 was used to analyse the quantitative data, while the qualitative data were analysed using thematic content analysis.

RESULTS
The quantitative analyses showed a significant influence of isolation and depression on the coping strategies of women affected by VVF. Analysis for social isolation revealed higher mean scores and higher r-value (X̅ passive = 53.29, SD = 7.17 and r-cal = 0.487). For depression, the analysis showed the mean score (X̅) and the calculated r-value for active coping (X̅ active = 53.2, r1 = -0.621*) which were higher than those for passive coping (X̅ passive = 25.08, r2 = 0.233*). Emerging themes from the qualitative analyses included rejection, blame, shame, loss of sexual intimacy and loneliness.

CONCLUSIONS
Given the adverse effects of VVF on women’s psychological status and coping strategies, there is need for information, education and communication on the root causes and preventive measures of VVF. The capacity of the health system should also be strengthened, including the provision of skilled maternity care at delivery.

P161 - Occupational exposure to fine and ultrafine particles during sieving of dust from gold mine tailings

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BACKGROUND
Many epidemiological studies have implicated airborne fine and ultrafine particles with negative health effects (including respiratory and cardiovascular diseases). Evidence suggests that ultra-fine particles are likely to be more toxic per unit mass than their bigger counterparts and will therefore present a greater hazard.

OBJECTIVE
To determine the size distribution of particles emitted during the sieving of dust from Gold mine tailings in the Johannesburg area.

METHODS
Particle emission of a Vacuum Industrial Siever during the sieving process was characterized using a Scanning Mobility Particle Sizer® (SMPS) and an Aerodynamic Particle Sizer® (APS) Spectrometer, from TSI Corporation. Number concentration and size distribution were measured at different tasks during the sieving process.

Filter sampling was also done and the filters were analyzed using the X-ray Diffraction and Fourier Transform Infrared. The sieving process was carried inside and outside of an extractor hood to assess the effectiveness of the extractor hood as a control measure. Post and pre task background measurements were also taken.

RESULTS
Relative to the pre background, there was an increase in the particle number concentration during the sieving process. Different tasks yielded different amount of particle emission, with the running and cleaning of the Siever at the beginning of the operation emitting the most particles. Sieving inside the extractor hood has the potential to reduce emission and therefore exposure, as fewer particles were counted when compared to sieving outside the hood.

CONCLUSION
The sieving process of the dust from the mine dumps generate particles with an average size of 25nm, small enough to be taken in by the human body and then translocate to distant organs. The identified dust particles are silicates.
P162 - Knowledge, attitudes and beliefs regarding counselling behaviour for HIV/AIDS, STIs and TB: A survey of Ethekwini district health care workers

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BACKGROUND
Health Care Workers’ (HCWs) are important as South Africa is turning the tide against HIV infection. However, HCWs’ counselling behaviour may be influenced by their knowledge, beliefs and attitudes about HIV and AIDS, STIs and TB (HAST).

OBJECTIVE
To assess eThekwini District Municipality HCWs’ knowledge, beliefs and attitudes regarding counselling behaviour for HAST.

METHODS
A descriptive cross sectional study design was chosen. Data about HAST counselling behaviour were collected using self administered questionnaires. Data were captured using SPSS version 14 and univariate, bivariate and multivariate analysis was undertaken. The level of significance was P<0.05.

RESULTS
University educated HCWs were well informed regarding counselling behaviour for HAST with no statistically significant differences between the HCWs with the university education and those with college education. Some HCWs’ negative attitudes and beliefs about poverty resulted from fear of contracting HIV and or TB infection, with older HCWs showing statistically significant association with beliefs. However, no significant statistical difference was found between HCWs who see less than 100 patients per day and those who see more than 100 patients per day.

CONCLUSION
The study found that HCWs were well informed regarding counselling behaviour for HAST. However, fear of contracting HIV and or TB infection resulted in negative attitudes.

P163 - Integration of Trained Traditional Health Practitioners in the Formal Health System: Findings of a mid term Evaluation - UMkhanyakude district in KwaZulu Natal province, South Africa.

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BACKGROUND:
The KwaZulu Natal Traditional Health Practitioners (THPs) project aims to build the capacity of 460 THPs as part of a robust and sustainable health system that better reaches communities currently underserved. These THPs were integrated into the formal health system and allowed to refer clients to the health centres, as well as follow up cases referred back to them.

METHOD:
248 THPs and 300 beneficiaries were interviewed in a mid term evaluation designed to assess the impact of trained THPs on the health system in locations which they operate in.

RESULTS:
81% community respondents reported that they were happy and satisfied with services offered by THPs after their training and 99% of THPs had been able to refer 5, 077 people to clinics for HIV/TB screening within 6 months of completing training. 88% of patients seen by THPs also reported that THPs showed between high and extremely high levels of knowledge about health problems in the community.

CONCLUSION:
In underserved locations, THPs will continue to be the first point of call for many patients and their training in health topics will not only raise the confidence of unwell members of the community but will contribute to the prevention and control of many diseases.
P164 - Prevalence of human immune deficiency virus, Hepatitis B, Hepatitis C, and Syphilis in blood donors in a tertiary health facility in South Eastern Nigeria

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INTRODUCTION
Blood donation is a very important life saving intervention in health care services. It is also known that some diseases are transmitted from the seemingly healthy blood donors like HIV, Hepatitis B, Hepatitis C and Syphilis and WHO has recommended that these diseases should be screened to get safe blood. In this part of country there are other diseases that can be transmitted like malaria and should be screened in this endemic area. Since screening of blood donors is done in this health facility, it is therefore necessary to know the prevalence of such high transmissible diseases in these blood donors.

OBJECTIVE
To determine the sero-prevalence of screened Blood borne diseases in blood donors

METHODS
The records of the blood donors were reviewed and Bio- data and positivity of the diseases were collected. Data was analyzed with Excel and Epi-info.

RESULTS
The total number of blood donors in 2012 were 2626 out of which males 2292(87.3%) and females 271(10.3) P value<0.05. Majority of the donors were within the age group 29-39 1143(43.3%). The seroprevalance of HIV 8(0.3%), Hepatitis B 8 (0.3%), Hepatitis C 5 (0.2%) and Syphilis (0.1%). All the cases were males.

CONCLUSION
The sero-prevalence of these blood borne diseases are very low, it could be that people know their status and do not come for blood donation or since the investigation done for HIV is for antibodies, not antigen, which means some cases are missed, still exposing the patients to the disease.

KEY WORDS: HIV, HBV, HCV, Syphilis, Blood donors

P165 - Use of Insecticide treated bed nets amongst public health physicians Nigeria

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BACKGROUND
Malaria contributes to high morbidity and mortality rate in both young and old in this part of the world. One of the methods for the prevention of malaria is the use of Insecticide treated bed nets. These were distributed to household. It is therefore very important to know, if the people who are advocating the use like the public health physicians are actually practicing it.

OBJECTIVE
To determine the access of insecticide treated bed nets (ITNs) to the public health physicians
To determine the utilization of the ITNs

METHODS
A cross sectional study was carried out with structured questionnaire distributed to all consented public health physicians who were around when the questionnaire were distributed at the Association conference held during the election year 2013 in Ilorin, Nigeria.

RESULTS
Out of the two hundred questionnaire distributed 174 (87%) were collected back. There were females 88(51%) and males 86(49%). The majority 79 (48%) of the respondent who indicated their ages were age group of 34-43 years. About 110(63.2%) had access to ITNs while 37(33.6) out of them always use it and most non-utilization factor was sweating.

CONCLUSION
Although a good number of the respondent have access to the nets only few use it due to the tropical nature of resource limited country like Nigeria. It is therefore necessary to manufacture user-friendly ITNs.

KEY WORDS: Insecticide Treated Nets, Physicians
P166 - mHealth in the context of PHC re-engineering in South Africa: A pilot study in the North West Province

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BACKGROUND
The increasing use of mobile health (mHealth) in primary health care (PHC) demands a critical appraisal. At present, a mHealth system is being field tested in the North West Province where the re-engineering of PHC includes community health workers (CHWs).

OBJECTIVE
To describe and appraise the functionality and implementation process of a mHealth system in the context of PHC re-engineering.

METHODS
The results are based on in-field observations and interactions with the CHWs and NW Provincial staff by the research team who developed and are implementing the system.

RESULTS
The system replaces the paper-based monitoring forms in use. CHWs use mobile phones to record their household visits which include adherence support, health checks of children, and visits to pregnant and post-natal females. Longitudinal patient data can be accessed from a web-console. The team supervisor uses a tablet to monitor CHWs’ activities in real time. Participating PHC facilities use similar phones to receive referrals from CHWs and relay the service outcome back to the CHWs. The system allows for notification of births by either CHWs or facilities. The research team conducts monthly site visits to address implementation challenges and to update Provincial staff on progress. These activities result in responsive architectural refinements based on the needs of Provincial staff and CHWs.

CONCLUSION
This system serves as a lighthouse mHealth project, yielding robust data on CHW services. The research team is currently engaging with the NW and National Departments of Health to explore ways in which to institutionalise the system.

P167 - Sosial-economics and lifestyle

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INTRODUCTION
Overweight and obesity are assuming epidemic dimensions globally and are replacing most traditional public health concerns such as under-nutrition and infectious diseases as one of the most significant contributors to ill health.

OBJECTIVE
To determine prevalence of overweight and obesity and its socioeconomic and lifestyle determinants.

METHODS
A descriptive, cross-sectional study was carried out among members of the non-academic staff of the University of Benin. Respondents were selected using multistage sampling technique. A pre-tested, interviewer-administered, semi-structured questionnaire was the tool for data collection. Data analysis was carried out using the SPSS version 20. Cronbach alpha test of reliability score was 0.84. Level of significance was set at p < 0.05.

RESULTS
A total of 413 respondents with mean age (S.D) 39.45 ± 9.46 years participated in the study. The prevalence of overweight and obesity were 57.9% and 16.7%, respectively. Majority of the respondents had good knowledge of overweight and obesity (80.9%). Only 25.4% exercised regularly while 41.6% and 65.9% had good dietary and alcohol consumption habits, respectively. Overweight and obesity were higher among older (p = 0.003), respondents with a higher level of education (p = 0.019), higher income (p < 0.001), poor exercise (p = 0.042) and poor alcohol consumption habits (p < 0.001).

CONCLUSION
The study has revealed high prevalence of overweight and obesity among the study population. Despite of good knowledge, there is also high levels of the modifiable risk factors of overweight and obesity. Behavioural change communication intervention programme is recommended.
P168 - Prevalence of health promoting behaviours among individuals with cardiovascular disease in rural and urban communities of South Africa - the PURE study

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BACKGROUND
Little is known about adoption of health promoting behaviours among individuals with coronary heart disease (CHD) or stroke event in poor-resource communities of South Africa.

OBJECTIVE
To examine the prevalence of avoidance or cessation of smoking and undertaking regular physical activities by individuals with CHD or stroke event.

METHODS
A cross-sectional survey of 1974 adults aged 35-70 years participating in the Prospective Urban Rural Epidemiology (PURE) study in South Africa. Information on physical activity (PA) and smoking were collected using international physical activity and INTERHEART study questionnaires. Outcome variables were smoking status, and PA levels using metabolic equivalent task (MET)-min/week score. Health promoting behaviours (HPBs) were defined as a high work/leisure-related PA and/or not-smoking status. Data analysis was done with STATA version 12.1, and prevalence of HPBs were summarised by gender and location. Proportions were compared using Chi-square test, p-value >0.05 was considered significant.

RESULTS
Among 101 (5.3%) individuals with self-reported CHD or stroke, 24.8% continued to smoke; and only 12.9% undertook high PA; 20.0% did not undertake any of the two HPBs, 69.4% had at least one of the HPBs, and 10.6% had all two. No significant associations were observed between HPBs and location and education. Females were 9 times more likely to undertake two HPBs than males (OR 9.00 (95% CI 9.14 - 88.57). Overall, only 4.0% quit smoking.

CONCLUSION
Among patients with CHD or stroke event from poor-resource communities in South Africa, the prevalence of health promoting behaviours was low, with even lower levels among men.

P169 - The GHLO Collaborative; Advancing Global Medical Education and Leveraging International Experience in Key Population Care.

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BACKGROUND
There is a growing interest of professional health students, health workers and medical schools to incorporate international electives into their medical education. On the 2012 AAMC matriculating questionnaire 65% of students attending US medical schools express interest in having an international experience during their medical school training, while only 35% report having done so by the time they graduate. Lack of awareness of program options, questions about accreditation and limited communication with potential hosting institutions are cited as some of the challenges faced by institutions wishing to enhance international mobility opportunities for their students. Additionally, students face difficulty finding exchange opportunities; cite a complex application process, receiving limited support from home institution and limited funding.

The Association of American Medical Colleges (AAMC) representing 141 accredited United States and 17 accredited Canadian medical schools, created the Global Health Learning Opportunities (GHLO®) Collaborative to address these challenges. GHLO launched its pilot phase in February 1, 2012 and has evolved to now consist of three main dimensions: 1) Transactional: providing a web based application service for final year student global mobility that also includes institutional training and support, health and safety resources, housing assistance and alumni status; 2) Transformational: providing a platform for faculty engagement that facilitates curricula and resource sharing, joint research, special interest and working groups, joint conference presentations and publications, best practice, and CME; 3) Transnational Partnerships with organizations that help to advance GHLO’s goals including non-profit organizations, ministries of health and education, among others.

The elective opportunities can be clinical, research or community-based primary care engagement with priority given to service to resource limited settings, specifically primary care, infectious disease, care and treatment for key populations in HIV epidemic areas.

OBJECTIVE OF GHLO COLLABORATIVE
To facilitate and build an international network of healthcare professionals who are transformed by global experiences. In response to student interest, there will be an emphasis on opportunities that focus on engaging with underserved communities across the globe and with key populations in HIV epidemic areas in the Sub-Saharan Africa region.

ANTICIPATED OUTCOME:
By taking part in international electives and faculty exchanges facilitated through the GHLO Collaborative, professional health students and health care providers will gain first-hand, supervised experience in the care and management of key populations of HIV epidemic; improve individual cultural and possibly linguistic competence and be better equipped to provide knowledgeable as well as sensitive care to vulnerable individuals regardless of the location of their future work.
P170 - Sending of feedback

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Lack of feedback is a common constraint to the proper functioning of primary health care and the two-way referral process which links the tiers of health care. Information is lacking on the factors affecting this feedback process. This study was designed to assess the level of practice as well as the factors influencing the process of sending feedback by medical consultants at the University College Hospital (UCH), Ibadan, Nigeria.

A cross-sectional study of all medical consultants who routinely receive referrals and actively provide specialized patient care was carried out using a self-administered questionnaire. Verification of their feedback practice was done by assessing all new patients’ records (1,207) in their clinics. Data was analyzed using descriptive statistics, chi-square test and multivariate logistic regression set at 5% level of statistical significance.

Mean age of the respondents was 46.5 ±7.5 years and 51.2% had 15-24 years working experience as a doctor. Although 84.1% of the respondents had good knowledge of the two-way referral system, only 56.1% reported sending feedbacks. Evidence of feedbacks was available in only 9.7% of case notes reviewed. Working experience, existence of a coordinating system for referrals, being an Ophthalmologist, being an outpatient and detailed information on the referral letter to the consultants were significantly associated with sending of feedbacks. Predictors of sending feedbacks were however being an outpatient and a referral letter containing the diagnosis.

To strengthen primary health care, there is a need for a mechanism to monitor referrals, re-orientate medical consultants about the feedback.

P171 - Assessment of Health Impacts

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A reliable supply of clean wholesome water is highly essential in a bid to promoting healthy living amongst the inhabitants of any defined geological region. Poor quality of water is responsible for the spread of deadly diseases such as cholera, dysentery, typhoid and poliomyelitis. Water in sachets is readily available and the price is affordable. However, there are concerns about its wholesomeness. This study assesses the microbiological characteristics of sachet water samples and the consequent impacts on human health. Twenty four brands of sachet water were selected using stratified random sampling technique. These were obtained directly from the factories in the selected locations. Water samples were assessed for heterotrophic bacteria (THB) using pour plate method. Standard microbiological techniques were used for the isolation and identification of existing bacteria. E. coli was not detected in any water sample. Based on 100 cfu/ml standard set by National Agency for Food and Drug Administration and Control (NAFDAC), 8.33% compliance level was recorded. The identified organisms included Pseudomonas aeruginosa, Klebsiella edwardsii, Kl. pneumoniae, Aerococcus viridans, Chromobacterium violaceum, Proteus morganella, Micrococcus luteus, Pseudomonas alkaligenes all of which have serious consequences on human health. There is need to review the sachet water production process in Nigeria so as to develop strategies for its improvement.
P172 - Uptake of the elements of community health strategy and its effectiveness in accelerating the achievement of health outcomes in different socio-demographic contexts in Kenya

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INTRODUCTION:
Despite focused health policies and reform agenda, Kenya has not made a breakthrough in improving the situation of households trapped in the viscous cycle of poverty and ill health. Further more, in spite of effective interventions to address MDGs such as focused antenatal care, and immunization of children, their utilization have remained low (Nganda et al, 2004; Wolfe et al, 2001; Guyatt et al, 2004). This raises the question as to whether improving the health services delivery system, the ‘supply side’ by itself without strengthening the ‘demand side’, could improve health status of the community. Researchers have shown that addressing the demand side is critical in improving health outcomes (Melissa and Fairhead 2008). New approaches are therefore needed to reverse the worsening poverty and health trends. Great Lakes University of Kisumu developed and tested a model to facilitate the delivery of health care service as an effort to accelerate the achievement of MDGs through the Community Health Strategy in different socio-demographic context. The purpose of this paper is to present a model for health systems performance improvement based on evidence based information within a resource constrained setting in different socio-demographic contexts in Kenya.

OBJECTIVES:
The objective of the study was to evaluate the effectiveness of the Community Health Strategy in accelerating the achievement of MDGs in different Socio-demographic context in Kenya

METHODS:
The study was quasi experimental with pre and post intervention surveys, in intervention and control sites. Qualitative and quantitative methods of data collection were adopted. Community Unit assessment was only undertaken in the intervention sites. Study sites and Community Units were purposively selected, based on readiness to launch CHS. Neighboring districts, not ready to implement CHS, were selected as control sites. All households within the selected Units were included in the study but 20% sample was randomly selected for the surveys in both control and intervention sites. The intervention included the establishment of village registers of all households to provide community based information including all health status aspects targeted for improvement. The household registers were updated every six months to monitor change in health seeking behaviour. The community-based information was analysed and displayed on chalk boards.

RESULTS:
Community Health Committees were actively involved in implementation of Community Health Strategy based on the frequency of meetings held. Community based information systems was used as evidence to drive dialogue evident from the chalkboards which were displayed and updated on monthly basis. Key health indicators from chalkboard formed topics for dialogue. Among the key improvements noted were governance, the use of evidence based information to drive change and health outcomes. There was improvement in health indicators in the intervention sites as compared to non-interventions sites. Change in indicators measured were different for different socio-demographic contexts. Only Butere had a significant change in ANC from 47% at baseline to 72% at endline as compared to Nyalenda from 82% to 76% and Garissa from 54% to 52%. Where as the number of women who delivered under skilled delivery improved in both Butere and Garissa, Nyalenda had a negative change. The change was significant (<0.0001 ) for ANC, health facility delivery, water treatment, latrine use, ITN, presence of clinic card and measles. The change in indicators was more significant in the rural setting as compared to the peri-urban and the nomadic sites.

P173 - Commonizing HIV services in Nigeria

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INTRODUCTION
Nigeria HIV/AIDS management/care program has been seen as a vertical program with specialized personnel, separate laboratories and special clinic days since 2004. This has fueled stigma and discrimination, inefficiency and ineffectiveness in the system and mass refusal of care by HIV infected persons. The objective of this proof of concept was to examine the impacts of full HIV integration in selected health care facilities in Nigeria.

METHOD
E&F Management Consult with funding from US government, developed an innovative HIV programming matrix which fully integrated HIV services into the core health management services of supported facilities. This new model required no special task force on HIV within the facility, no special HIV clinic nor clinic days, no special HIV laboratory and no special HIV personnel.

RESULT
Six secondary and 38 primary facilities were enlisted for this process. Naive supported sites adapted to the new programming pattern faster than experienced sites. In all sites, cost of programming reduced significantly with most sites able to sustain services at half or less of their proposed budget. Also the healthiness of the systems improved as disfranchised health-workers had access to HIV knowledge. Weekly enrollment improved, quality of care was better and reports were timely.

CONCLUSIONS/RECOMMENDATIONS
As HIV programming move from the emergency to sustainability mode, full integration through effective commonization of services is critical. All health workers should be trained on HIV management and services commonized at all levels to enhance effectiveness and efficacy, improve quality, minimize/eradicate stigma and discrimination in all supported sites.
P174 - Use of volunteers in community HIV programming in Nigeria

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INTRODUCTION
HIV/AIDS management and care has extensively stretched the resources of the health industry in Nigeria. To provide care and services, EFMC decentralized care. Initially this was executed using staff and task shifting. However with recent shift into home based testing, it became paramount to engage the services of volunteers to support this process. This paper defines what was done, how and the benefits of this process.

METHODS
As funding was limited, volunteers were drawn from individuals who showed interest to work with EFMC. Each individual completed the EFMC/CFHI volunteer form and qualified ones were enlisted to work with staff in field based activities including HTC, PMTCT and Home Base Care. They were mentored to deliver services at homes, and during outreaches. Each volunteer was at the end of the day given a transport/communication allowance of N1000.00 (approximately $7).

RESULTS
Engagement of volunteers improved advocacy, mobilization, and referrals; and freed staff for key areas of programming. As staffs were also given the daily stipends, the use of the volunteers who had no other organizational benefits was very effective and efficient with tangible results.

CONCLUSIONS/RECOMMENDATIONS
Use of volunteers has dual benefits: (1) It provided cheap but qualified labour for the HIV work, and (2) It actively engaged the youths preventing idleness, social vices, and empowered them with new skills/competences which can help them get good and better jobs few months later. Volunteerism should therefore be supported, actively utilized to minimize the rate of unemployment in Nigeria and build the skills of new project managers in various fields of human endeavor.

P175 - Community awareness and perception about HIV/AIDS in Osogbo local government, Osun State, South Western, Nigeria.

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OBJECTIVE
This study aims to assess community awareness and perception about HIV/AIDS in Osogbo Local Government, Osun State.

MATERIALS AND METHODS
A cross sectional descriptive survey carried out using multi stage sampling technique to select 449 respondents. Data were collected using a semi-structured questionnaire.

RESULTS
Majority of the respondents were within the age group 21-30 years with a mean age of 33.5 years. Most of them were female 272 (60.6%), skilled 236 (52.6%), Christian 321 (71.5%) and many 340 (75.7%) had post primary school education. On assessing awareness of the respondents about HIV/AIDS, 438 (97.6%) have heard about HIV/AIDS and 425 (94.7%) believed that it exist, 208 (46.3%) believed that it can be transmitted through kissing, 114 (25.4%) through hugging. Concerning assessment of their perception towards HIV/AIDS 111 (24.7%) believed that it is an act of God’s punishment. A significant association was found between occupation of the respondents and their perception about PLHIV (p=0.000) and also between the educational status of the respondents and their perception (p=0.001).

CONCLUSION:
Respondents showed a high level of awareness on HIV/AIDS but there is misconception about HIV transmission and treatment. Health education through health talks and mass media exposure will be helpful to raise their knowledge regarding the scourge of the epidemic.

KEY WORDS: Community; Perception; HIV/AIDS; People living with HIV/AIDS
P176 - Healthcare workers perception of human resources management

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BACKGROUND:
There is a shortage of skilled human resources in the health sector in many countries around the world especially in African countries such as Nigeria. This is an impediment to the achievement of many healthcare goals and objectives. The main objective of this study was to explore the opinion of healthcare workers about some aspects of human resources management practices in hospitals in Nigeria. The findings are intended to inform the planning and implementation of human resources management programmes in hospitals that would help in the retention of scarce healthcare workers.

METHODS
A cross-sectional study was undertaken in four hospitals in south-west Nigeria. A self-completed questionnaire was used to elicit the opinion of the healthcare workers about some aspects of human resources management in the hospitals. A multinomial logistic regression model was used to determine the possible predictors of human resources management.

RESULTS
The respondents perceived the management of human resources in their respective hospitals as poor (20%), fair (44%) and good (36%). The degree of agreement was higher than 50% (i.e. positive) for 4 out of the 6 dimensions and lower than 50% (i.e. negative) for only 2 out of the 6 dimensions on human resources management. The two dimensions that had lower than 50% degree of agreement were: (i) adequacy of staff in all key positions, and (ii) adequacy of compensation to attract and keep key staff. The predictors of the respondents’ perception of human resources management in their respective hospitals as fair or good were age less than 40 years, being a medical doctor or administrator, and working in the National Teaching, Mission or State Teaching Hospital.

CONCLUSION
There is the need to address the adequacy of staff in all key positions, and the adequacy of compensation to attract and keep key staff in hospitals despite the overall positive perception of human resources management in the hospitals.

KEYWORDS: Hospitals, human resources management, Nigeria

P177 - Is smokeless tobacco use reducing initiation of regular smoking among South African Adolescent?

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OBJECTIVE
To determine the difference in prevalence of regular smoking among South African adolescents (Grades 8-10) who had started tobacco use with Smokeless tobacco (ST), cigarettes, or both products.

METHODS
Data was obtained from the combination of the 1999, 2002, and 2008 South African Global Youth Tobacco use Surveys (GYTS). Based on the age at which each participant first tried a cigarette and/or ST, participants were classified into one of three groups: (a) cigarette initiators; (b) ST initiators; and (c) dual initiators. Poisson regression was used in comparing prevalence ratios between these groups of ever-smokers with regards current regular smoking (i.e. smoked for ≥20 days/past month), while controlling for survey year and known risk factors such as gender, parental smoking and friend smoking.

RESULTS
Of the ever cigarette smokers (n=4,028), 44.3% (95% CI=41.1-47.6) were cigarette initiators, while 38.6% (95% CI= 36.4-41.3) were ST initiators and 17.1% (95% CI= 15.0-19.4) were dual initiators. The prevalence of current smoking among cigarette initiators was 23.6% (95% CI=20.3-27.3). In an adjusted analysis, compared to cigarette initiators, the prevalence among dual initiators (Adjusted prevalence ratio (APR) = 1.06; 95 CI=0.83-1.35) and ST initiators (APR=0.95; 95% CI=0.81-1.11) were not significantly different. However, having a positive image of male smokers was more likely to lead to current regular smoking when compared to having a negative image (APR=2.01; 95% CI: 1.69-2.39).

CONCLUSIONS
There is no evidence that ST initiators in the general South African adolescent population are significantly less likely to become established smokers.
P178 - Out-of-Pocket payments, health care access and utilisation in South-Eastern Nigeria: A gender perspective

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Out-of-pocket (OOP) payments have severe consequences for health care access and utilisation and are especially catastrophic for the poor. Although women comprise the majority of the poor in Nigeria and globally, the implications of OOP payments for health care access from a gender perspective have received little attention. This study seeks to fill this gap by investigating the gendered impact of OOPs on health care access in south-eastern Nigeria. 411 households were surveyed and six single-sex Focus Group Discussions conducted.

This study confirmed the socio-economic (predominantly poor, subsistence farmers) and demographic (widowhood, less educated) vulnerability of female-headed households (FHHs), which contributed to gender-based inter-household differences in health care access, cost burden, choices of health care providers, methods of funding health care and coping strategies. FHHs had higher cost burdens (12.1%) from seeking care and untreated morbidity (10.6%) than male-headed households (MHHs) (9.8% and 4.3% respectively) with affordability as a reason for not seeking care. There is also a high utilisation of patent medicine vendors (PMVs) by both female –and male-headed households. OOP payment was predominantly the means of healthcare payment for both households (86.9% for FHHs and 91.8% for MHHs). Both FHHs and MHHs spoke of the difficulties associated repaying health-related debt with implications for the medical poverty trap.

It is recommended that the removal of user fees and introduction of prepayment schemes be considered to improve access and provide protection against debt for FHHs and MHHs. Improved access to primary health centres and regulation of patent medicine vendors is important. The vulnerability of widows is of special concern and efforts to improve their health care access and broader efforts to empower them including enactment of laws that protect them from discriminatory practices (e.g. disinheritance) and improve their livelihoods (e.g. micro-finance schemes) should be encouraged for them and other poor households.

P179 - Population-level epidemiology of tuberculosis and diabetes mellitus in the context of epidemiological and economic transition.

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BACKGROUND
The Diabetes Mellitus (DM) burden is rising, particularly in low- and middle-income countries. Given that the link between DM and TB has been recognized, we aimed to explore correlations between these diseases at country and regional levels.

METHODS
We utilized 2008 WHO data on TB incidence and DM prevalence. The World Band Gross National Income (GNI) per capita data was used as an economic transition proxy. Correlations were calculated using Spearman’s correlation coefficient.

RESULTS
A significant positive correlation was found between TB and DM in Europe but a negative correlation was found in the Americas. We found a positive correlation between GNI growth between 2004-2008 and DM prevalence in the African and Eastern Mediterranean regions, but a negative correlation in Europe. Within Africa, this association remained significant in Eastern and Central African, but not in Southern and Western African countries, where GNI growth was slower. We hypothesize that beyond a level of GNI growth, additional income can be used to address chronic diseases. By contrast, less developed countries are less equipped to address NCD epidemics resulting in a rise in DM prevalence accompanying GNI growth.

CONCLUSION
The non-significant correlation between TB and DM in regions outside of Europe and the Americas suggests that TB burden is driven by other factors such as HIV-infection and social determinants in less developed countries. This highlights that the association between TB and DM is heterogeneous requiring assessment of the impact of transition on TB burden in high TB-burden settings.
P180 - Community acceptability for clinical trials in Lagos, Nigeria

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**BACKGROUND**

A variety of clinical trials have been conducted in Nigeria in recent years. The low level of community acceptability has been partly blamed for the limited success of these trials. This study was conducted to assess the willingness of participants to enroll in future trials.

**MATERIALS AND METHODS**

Self administered questionnaires were completed by 247 female respondents with age ranging from 13 to 29 years. Data analysis was done using the SPSS version 12 data editor with univariate odds ratios and 95% confidence intervals (95% CI) used to evaluate the correlates of willingness to participate (WTP) in clinical trials.

**RESULTS**

A total of 94 (41%) of the respondents reported that they will be willing to participate (WTP) in future trials. Higher willingness was associated with prior sexual experience (OR = 1.23, 95% CI: 1.12–1.53), involvement in high risk sexual behavior (OR = 1.35, 95% CI: 1.05–1.62) and monetary incentives (OR = 1.39, 95% CI: 1.02–1.42). Decreased WTP was associated with concerns about physical harm (OR = 0.62, 95% CI: 0.21–0.54).

**CONCLUSION**

The level of WTP recorded indicates that much work still needs to be done in the area of educating potential subjects in clinical trials about their safety. Incentives for would-be subjects should also be a part of the planning to encourage greater participation in these trials.

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P181 - Prevalence and factors influencing intimate partner violence among married women in an urban community of Lagos state.

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**BACKGROUND**

A cross-sectional descriptive study on intimate partner violence (IPV) was conducted among 400 married women in Ikosi-Isher Local Council Development Area (LCDA). The study objectives were to determine the prevalence, attitude and factors influencing intimate partner violence in this LCDA.

**METHODOLOGY**

A cross-sectional descriptive study was conducted in Ikosi Isheri LCDA among 400 married women. A multistage sampling technique was used. A pretested interviewer administered questionnaire adapted from the WHO multi country study on women's health and life experiences was used to collect information about the socio-demographic data of respondents and their husbands on prevalence and factors influencing IPV.

**RESULTS**

The lifetime prevalence for physical violence, sexual violence and psychological violence were 50.5%, 33.8% and 85.0% respectively while the prevalence in the last 12 months were 28.3%, 23.8% and 55.0% respectively. A total of 222 (55.5%) respondents had attitudes that were supportive of IPV and factors that influenced experience of physical violence were respondents’ lower educational status (OR: 3.7; CI: 1.5–8.9); partner’s daily consumption of alcohol (OR: 7.53; CI: 3.01–18.39) and witnessing of childhood parental violence by respondents and their partners.

**CONCLUSION**

The prevalence of IPV is high in Ikosi-Isher LCDA and therefore community based preventive interventions aimed at breaking the cycle of abuse, transforming gender norms which support IPV and reduction of alcohol intake should be considered.

**KEYWORDS**: Intimate partner violence, women, physical violence.
P182 - Decentralisation of drug resistant TB diagnosis, treatment & management: collaboration amongst primary healthcare, NTP and hospitals for sustainability

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BACKGROUND
Prior to the introduction of the new Policy Framework on Decentralised Management of drug resistant tuberculosis (DR-TB) in August 2011, all DR-TB patients were required to be admitted to inpatient facilities to access DR-TB treatment. This was practically not feasible and the bed capacity at specialised hospitals was significantly limited. The new Decentralised Policy required integration of DR-TB care into drug sensitive TB (DS-TB) programmes at primary health care (PHC) level for the more appropriate and effective management of DR-TB patients with the elimination of treatment delays.

OBJECTIVE
To have PHC workers trained in the initiation, treatment and management of DR-TB patients; receive on-going clinical support and clear communication and support from specialised TB hospitals for complicated cases. To implement a reporting and recording system at sub-district level that could assist with programme evaluation and support and communication from specialised registration centres.

METHODS
A dedicated professional nurse is allocated to each sub-district to support staff managing patients in PHC facilities and to provide a link to the specialised TB hospital. Nurses and medical officers working in PHC clinics were offered a three day DR-TB course to be facilitated by experienced PHC clinicians, TB program managers and staff from the specialised hospital. Additional mentorship for clinicians is provided through monthly multi-disciplinary DRTB review meetings in each sub-district, supported by staff from the specialised TB hospital but convened by existing experienced PHC medical officers. A paper based register and electronic database was implemented in all 8 sub districts.

RESULTS
More than 17 DR-TB courses have been presented in Cape Town since 2008; with more than 341 PHC clinicians empowered through mentorship and training to manage DR-TB patients in PHC clinics. Paper-based DR-TB registers have been implemented in all 92 PHC clinics and a decentralised electronic recording and reporting system now allows real time registration and updates of DRTB patient data at a sub district level into a national data base.

CONCLUSION
Decentralisation of DR-TB diagnosis, treatment and management from specialised facilities to the primary care setting can be successfully achieved with training and mentorship support for PHC clinicians, and with minimal additional funding or human resources.

P183 - Utilization of community based health information systems in various socio-economic contexts in Western Kenya.

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INTRODUCTION
Health Information Systems (HIS) are considered fundamental for the efficient delivery of high quality health care. However, a large number of legal and practical constraints influence the design and introduction of such systems (Hallvard et al., 2004). A major issue facing Africa is inability to quantify and analyze the situation it faces with credible data and to use in planning and managing service delivery. Establishing good information systems is essential to DHS performance improvement. The persisting poor performance of the DHS in spite of decades of efforts to improve it is a problem to be addressed. The hypothesis is that poor performance is caused by inability to implement health systems improvement policies and strategies as a result of deteriorating socio-economic situation in the country, made worse by inadequate information system required for evidence based management of the health system.

OBJECTIVE
To describe the perspectives on information availability and information use among users of community based health information systems in various socio-economic contexts in Kenya.

METHODS
The material for this study was gathered by semi-structured interviews. The interviewees were purposefully selected from various community units and public health facilities. Altogether front-line, middle and top-level health information users were interviewed. The two themes discussed were information availability and information use. The data were organized and analyzed manually, grouping them into themes and categories.

RESULTS
The main category “use of information” consisted of four sub-categories: (1) who (2) how and when (3) for what purpose (4) development of information culture (increase demand for information).

CONCLUSIONS
There were many individual and facility aspects which influence the use of information in addition to factors concerning system usability and users. The connection between information demand and information use was recognized and the managers proposed numerous ways to increase the use of information in management work. The implementation and use of community based health information system seemed to be planned as an essential tool in strategic information management in the community units and health care facilities studied.

KEYWORDS: information demand, community based information systems, dialogue.
P184 - A participatory approach to strategic risk assessment within the public health sector of South Africa: A pilot study

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BACKGROUND
The development of a validated risk profile is necessary to focus efforts towards risk mitigation within the Department of Health (DoH). The achievement of DoH strategic goals and objectives are often hindered by the lack of systematic documentation of risks to achieving these goals and the limited involvement of various levels staff in the risk assessment and mitigation identification process.

OBJECTIVE
To develop a provincial DoH risk profile pertaining to strategic health programme goals outlined in the Annual Performance Plan (APP) using a participatory approach to risk assessment.

METHODOLOGY
A multidisciplinary group of 73 health professionals in a provincial DoH in South Africa, identified and rated risks to health programme objectives outlined in the APP using group consensus. The World Health Organization's (WHO) building blocks was used as a framework for the identification of risks.

FINDINGS
Interest and participation in the risk assessment exercise was high and yielded a total of 738 risks across seven core health programmes outlined in the APP (TB, HIV and AIDS, mother and child health, integrated services, oral health, emergency medical services, pharmaceutical services). Realistic mitigations were identified for the top seven risks for each programme.

CONCLUSION
An inclusive and transparent risk assessment process is useful to develop a comprehensive risk profile, build capacity and assist management to improve the understanding and buy-in of risk mitigation strategies to ensure achievement of health goals among all levels of staff.

P185 - Piloting the National Health Research Database

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BACKGROUND
Provincial Health Research Committees (PHRC) in South Africa are expected to manage and coordinate health research conducted in the country. Differences in structure and procedures however, have resulted in fragmentation with loss of information at a national level. In association with the National Department of Health (DOH) and in response to a need to capture health research trends in South Africa, a National Health Research Database (NHRD) was developed by the Health Systems Trust.

OBJECTIVES
The aim of the NHRD is to create a repository for health-related research in South Africa. The objectives are to support the PHRCs to manage the research application process and monitor and track research activities in provinces through the creation of a standardised web-based system.

METHODOLOGY
The functionality, feasibility and applicability of the NHRD was piloted in two provinces. Problems, challenges and changes were documented as this process was conducted directing subsequent refinements to the database.

RESULTS
Key positive findings were that use of an electronic online database was quicker, reduced capturing errors; and provided a common system for all provinces. Negative findings were that the use of the database was not always as intuitive as anticipated. A training manual to assist researchers to upload their research proposals was developed.

CONCLUSION
The database reporting system was successful with limitations. The system once launched, will provide an efficient system for researchers to apply for provincial approval and allow provinces to identify patterns of research in the provinces and areas where research warrants further investigation.
P186 - Incorporating quality improvement methodologies into HAST management strategies at a sub-district level

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BACKGROUND
The Aurum Institute has worked with the Ekurhuleni North HIV AIDS STI and TB (HAST) management team on a Quality Improvement (QI) since February 2012. The project has evolved from being programme specific and Aurum driven towards being adopted as a broader managerial philosophy applied to the all HAST programmes.

OBJECTIVE
To document and analyze ways in which the QI programme has evolved over this period.

METHODOLOGY
Through the application of Deming’s framework of “Profound Knowledge” we use qualitative, open ended interviews and meeting observations to tease out and categorize vital themes and concepts that evolved. These data were triangulated with a closed ended survey to verify themes that emerged among a wider sample of participants.

RESULTS
The analysis identifies the gradual evolution of specific PMTCT QI projects at a facility level to a general application of QI methodologies into all aspects of the HAST programme. The increased use of validation processes and strategic information linked to QI initiatives in meetings as well the application of Plan Do Study Act (PDSA) cycles in broader managerial improvement efforts over time in important to note. A culture of safety to experiment evolved over this period as opposed to the compliance driven management approach.

CONCLUSIONS
An NGO QI project focused on one programme has the potential to evolve and provide a space for HAST management team to adopt QI as a management culture applied across all programmes.

P187 - The role of data validation in a QI approach

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BACKGROUND AND OBJECTIVES
Data analytics and data validation are inextricably linked to Quality Improvement (QI) initiatives. This abstract is concerned with exploring their relationship in the context of an Aurum Institute/Department of Health (DoH) QI project in Ekurhuleni North Sub-district that commenced in February 2012.

METHODOLOGY
The research is based on qualitative, open-ended interviews and participant observations with key stakeholders participating in the project as well as QI experts based at the Institute of Healthcare Improvement (IHI). An extensive literature review on the subject informs the analytical framework used to guide the interviews.

RESULTS
The main finding of the study relates to the perception of an over-emphasis on data validation techniques to the detriment of operational improvement plans during the initial phase of the project. While data validation is critical to improving the quality of data in the District Health Information System (DHIS), not enough emphasis was given to developing mentors skills to carry out small scale projects of change.

CONCLUSIONS
The findings indicate an area of future research where the degree to which QI is focused solely on data is called into question.
P188 - A diagnostic evaluation of data quality in diarrhoeal disease in children under five in the Western Cape 2007-2012

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BACKGROUND
According to the Western Cape Mortality Profile 2009, diarrhoea is the second leading cause of death in children under five in the province, accounting for 16% of all deaths within this age group. Since 2007, a seasonal diarrhoeal plan to address the summer peak of acute enteritis in children under has been put in place.

METHODS
Routine health care facility data were analysed to identify trends. A self-assessment of data quality was conducted using the SASQAF tool. Annual diarrhoea plans and reports were reviewed. Focus group interviews were held with health care programme managers and clinical staff.

RESULTS
Diarrhoeal disease incidence peaked in 2009 and thereafter showed a general downward trend. Generally, data were found to be of a high standard; however three SASQAF domains, the pre-requisites of quality, accuracy, and comparability and coherence were below the acceptable standard. A lack of agreement between annual reports and routine data was found. In addition, a parallel data information system exists. Focus group discussions revealed the challenges and successes experienced by health care workers.

CONCLUSION
The diarrhoeal seasonal plans have achieved rapid institutionalisation and expansion in all districts in the Western Cape. There is room for improvement and strengthening of routine information systems, including human resources, hardware and software. The standardized data tool was not able to detect local level data inadequacies.

P189 - An assessment of evaluations conducted in the Western Cape Department of Health 2006-2013

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BACKGROUND
The National Evaluation Policy framework was adopted by cabinet in 2011 and aims to improve the impact of government programmes through evaluation. Since 2006 the Western Cape Department of Health has maintained data of all research conducted in health facilities within the province.

METHODS
The health research database was analysed to identify all evaluations conducted in the above period. Health Programme Managers were additionally requested to submit evaluations. The evaluations were analysed and grouped per theme and by type of evaluation conducted, based on an a priori classification developed from the literature.

RESULTS
A total of 48 evaluations were found. Fifty eight per cent of evaluations found were conducted in the HIV/Aids area (27) followed by child health 19% (9) and Women’s Health 6% (3). Fifty six percent of all evaluation reports were not recorded in the Provincial research database.

CONCLUSION
A high proportion of evaluations focussed on HIV/AIDS. Greater emphasis should be placed on including other programmes aimed at addressing the local burden of disease. In order to strengthen evaluation utility and allow for the sharing of knowledge it is recommended that all public sector evaluations be stored in a national evaluation repository.
P190 - Factors associated with contraceptive use in a rural area in Western Cape Province

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BACKGROUND
Safe and effective contraceptive use can substantially improve women’s reproductive health. Although the contraceptive prevalence rate (CPR) in South Africa is comparable to rates globally, inequalities in CPR affect poor and rural women. This study aimed to determine the CPR and factors associated with contraceptive use in a rural district of Western Cape Province.

METHOD
Cross-sectional survey data based on 412 face-to-face interviews with female participants between 18 and 44 years of age were collected in 2006 for a primary fetal alcohol syndrome prevention study in a rural district in Western Cape Province. The study used effective contraception (ECC) as the outcome variable. ECC included use of oral contraceptives, condoms, injectables or sterilisation. Independent variables included socio-demographic factors, substance use, psychosocial factors, community factors, childbearing characteristics and partner characteristics.

RESULTS
Women were more likely to use ECC if they reported high self-esteem (compared with low or moderate self-esteem (prevalence risk ratio (PRR)=1.23; 95% confidence interval (CI) 0.99 - 1.53); if they strongly or moderately agreed that their culture entitled men to make decisions regarding child-bearing compared with those who disagreed (PRR=1.28; 95% CI 0.96 - 1.71); and if they had one child or more compared with no children (PRR=1.62; 95% CI 1.24 - 2.11).

CONCLUSION
The CPR for sexually active women in this study was low at 39.3%. To promote contraceptive use in similar rural populations, family planning programmes should focus on increasing men’s approval of contraception, improving partner communication around family planning and bolstering women’s confidence in their reproductive decision-making, and particularly their self-esteem. There should be greater focus on nulliparous women.

P191 - Evaluating the responses to completing ICD-10 codes at a District Hospital amongst doctors and allied healthcare professionals.

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BACKGROUND
The ICD-10 coding system was developed to translate the description of health information into codes using a standardised format. In South Africa, due to financial reasons, the private health sector is robust about ICD 10 coding for primary discharge diagnosis. The public sector does not use this unless a private patient enters a public hospital. However, with the planned National Health Insurance (NHI), the public sector will have to code all the patients. This also aids accurate morbidity trend comparisons within provinces and around the world.

OBJECTIVES
To assess doctors attitudes and perceptions regarding instituting compulsory ICD-10 coding

METHOD
This was a descriptive cross-sectional survey involving all doctors who work at the District hospital. An online self- administered survey questionnaire was used.

RESULTS
The survey was emailed to 60 doctors of whom 33 (55%) responded. Approximately half of the participants were new graduates. Thirty nine percent (39%) felt that coding needs to be done, but that they are too busy to do it, while 22.6% said that they would not know where to start coding because there are so many codes and it is confusing. Even though 67.7% had worked with ICD 10 codes, the majority (58.1%) felt that ward clerks should fill in codes. Having no proper training (45.2%) was seen as the biggest hurdle to implementing coding, followed by 29% feeling that doctors do not see the need for coding. A high percentage (64.5%) did see coding as beneficial with the same number requiring proper training.

CONCLUSION
Instituting compulsory ICD-10 coding needs to occur with the input of doctors and other health professionals. Consultative processes will result in buy-in and as well provide innovative ideas for implementation.
P192 - Screening and brief interventions for hazardous and harmful alcohol use among hospital outpatients in South Africa: results from a randomized controlled trial

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BACKGROUND
High prevalence rates of hazardous and harmful alcohol use have been found in a hospital outpatient setting in South Africa. Hospital settings are a particularly valuable point of contact for the delivery of brief interventions because of the large access to patient populations each year. With this in mind, the primary purpose of this randomized controlled trial is to provide screening for alcohol misuse and to test the efficacy of brief interventions in reducing alcohol intake among hospital outpatients in South Africa.

METHODS
The study design for this efficacy study is a randomized controlled trial with 6- and 12-month follow-ups to examine the effects of a brief alcohol intervention to reduce alcohol use by problem drinkers in a hospital setting. The unit of randomization is the individual outpatient identified as a medium risk drinker attending the Dr George Mukhari Hospital. Outpatients were screened for alcohol problems, and those identified as medium risk drinkers were randomized into an experimental or control group. The experimental group received one brief counselling session on alcohol risk reduction, while the control group received a health education leaflet.

RESULTS
Of the 1427 screened for alcohol and agreed to participate in the trial 394 (27.6%) tested positive for the Alcohol Use Disorder Identification Test (AUDIT) (score 7/8-19) and 51 (3.6%) had an AUDIT score of 20 or more. Among the 282 (72%) hospital outpatients who also attended the 12-month follow-up session, the frequency of positive screening results at baseline/follow-up were100/43.9% for the AUDIT (P<0.001) for the control group and 100/51.7% (P<0.001) for the intervention group. The intervention effect on the AUDIT score was -1.5, which was statistically not significant. Daily or almost daily tobacco use and poor subjective health status also significantly reduced in both control and intervention group, however, there was no significant intervention effect.

CONCLUSION
The results suggest that alcohol screening and brief intervention performed with hospital outpatients provided a 12-month benefit for hazardous alcohol users in South Africa. Given the lack of difference in outcome between control and intervention group, alcohol screening and the provision of an alcohol health education leaflet may in itself cause reduction in drinking.

P193 - Health research in the Western Cape province: Gaps and over research topics

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BACKGROUND
Important, and large scale research has been conducted on the Western Cape Department of Health facilities. These studies are conducted in both urban and rural settings – stretching from epidemiology to vaccine studies. Information such as who conducts them, who funds them, and what research gaps exist have not been reported to a wider audience, thus, this presentation.

AIM
To present a review of research by health services in the Western Cape in 2011 and 2012.

METHODS
Databases from health authorities in the province for research approval were assembled and reviewed. The databases capture information required in the application form, which includes data on study topic and type, funding source, research budget, principal investigator affiliation and location of study. Study topic was post-coded based on study title to a variable that included the main Burden of Disease categories - supplemented by codes for a category ‘other’ (which included disease entities not contained in the main Burden of Disease categories).

RESULTS
Over two years, 615 projects were approved in the province, 56% were projects approved on the district health platform, the rest (44%) being projects implemented at hospitals. The Cape Metro approved the majority (70%) of all projects. HIV/TB comprised the largest single category (28%) for health research. Injury constituted only 4% of research. There is a dearth of health systems research within the province.

CONCLUSION:
The skewness in health research towards topics favoured by foreign funders clearly determines what topics gets funded to the detriment of research focusing on strengthening health systems. This review provides important indication for future research, highlights gaps and areas that are under research in the Province.

KEY WORDS: Health Systems Research, database, Burden of Disease
P194 - Acceptability of an integrated MMC / HIV strategy by health care workers in KwaZulu-Natal

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BACKGROUND
Medical male circumcision (MMC) is being implemented as an integral component of HIV and AIDS prevention programmes in the absence of guidelines in KwaZulu-Natal, South Africa. Acceptability of this strategy by the health care workers (HCWs), their ability to disseminate correct messages and sociocultural aspects of MMC are its critical success factors. The study aimed to establish HCW perspectives on these factors to inform implementation guidelines.

METHODOLOGY
A purposive quota sampling method was used to select HCW participants (nurses, clinicians and counsellors) for Focus Group Discussions at three study sites. An interview schedule with open-ended questions based on study objectives and guided by the Health Belief Model (HBM) was used to interview HCWs to determine the acceptability and attitudes to the provision of the integrated MMC strategy. Data analysis on findings was conducted using thematic analysis and theories of structuration and the post traditional order to understand choices and decision making of the participants.

RESULTS
There is poor knowledge of the procedures and some principles of the integrated HIV strategy. Personnel role confusion exists. There were missed opportunities for some clients due to unstructured referrals. There was a perception that being circumcised would result in the discontinuation of condom use by males and concerns about stigma and discrimination from the likely non-inclusion of HIV positive males MMC procedures.

CONCLUSION
There is still need to engage further with stakeholders if the implementation of the policy is to be successful. More training and support needs to be provided to staff.

P195 - The Pan African Clinical Trials Registry five years later: Where are we now?

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BACKGROUND
Clinical trials registries are databases where key administrative and scientific information, sufficient to identify a trial’s existence, are stored. The Pan African Clinical Trials Registry (www.pactr.org), is currently the only WHO Primary Register in Africa. The registry can be used by stakeholders to understand the trial landscape, locate trials, network with collaborators, minimize duplication of research, or to align funding with research needs and capacities.

OBJECTIVES
To provide a description of clinical trial activity by reviewing trials registered on www.pactr.org.

METHODS
We analysed www.pactr.org applications over time. We evaluated the following data items: country, disease, intervention, PI, funding source. Analysis was done using Excel and descriptive statistics.

RESULTS
In May 2013, 180 trials completed registration. Fifty seven trials are multi-centre trials with sites in 24 African countries, and principal investigators are from 20 countries. The funders are inter-governmental agencies; non-governmental organizations; governments; universities; investigator-sponsored and partnerships between these. The majority of registered trials are in the field of HIV/AIDS (31), followed by Malaria (27), and Tuberculosis (20). There are 76 trials in other non-communicable diseases. Of the registered trials 56 include children. Registered trials focus on treatment (86), prevention (19) and diagnosis (7). There were 9, 40 and 60 registrations in, 2009, 2011 and 2012 respectively.

CONCLUSION:
The receipt of WHO-endorsed primary registry status, coupled with active promotion increased trial registration rates. Registration numbers have tripled in a single year, highlighting the value of a local registry for researchers of on-going trials.
P196 - The use of PCR and extensive urine microscopy in the diagnosis of Schistosomiasis among schoolgirls in KwaZulu Natal

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BACKGROUND
Schistosomiasis, a neglected tropical disease of developing countries where women and girls are most at risk. The laboratory diagnosis may be challenging since haematuria and egg excretion are variable in people with light infections with low levels of egg excretion.

OBJECTIVES
To compare two diagnostic tests: real-time PCR for detection of Schistosoma-genus DNA and extensive microscopy as a practical tool in the local setting.

METHODS
Urine samples were collected from 708 girls, aged 10-12 years, from 18 primary schools. Quantification of Schistosoma-specific DNA was performed on a 200 μL aliquot of urine, using an automated DNA isolation and PCR set-up.

RESULTS
With full microscopy (3 days 2x10mL urines) 227 (32%) of the participants were positive for S. haematobium, using a day 1 microscopy (2x10 mL urines) 184 (26%) were positive and Schistosoma DNA was detected in 177 (25%) of the participants using 200 μl of urine. DNA loads corresponded significantly with the average intensity of infection determined by microscopy.

CONCLUSIONS
The Schistosoma PCR set-up compared well with extensive microscopy. Requiring a single small volume urine sample, this approach could be used as a relatively straightforward laboratory-based procedure to assess the distribution of schistosomiasis in large study populations and to identify communities at risk.

P197 - Use of polyclonal intravenous immunoglobulin at a paediatric referral hospital in South Africa between 2009 and 2012

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BACKGROUND
Polyvalent intravenous immunoglobulin (IVIG) is registered for specific indications in South Africa but is being used off-label for a variety of indications which have not been documented. The use of IVIG is increasing despite there not being a strong evidence-base. The objectives of this study are to describe the registered and unregistered indications, use and cost of IVIG at a tertiary paediatric hospital in South Africa from January 2009 to March 2012. An observational, cross-sectional descriptive study design was used and data was collected from the electronic dispensing database of patients, supplemented by a folder review of pharmacy records from a convenience sample of all patients who were issued polyclonal IVIG both as outpatients or inpatients.

RESULTS
Over the three year period of the study, 185 patients were identified who had received at least one dose of IVIG. In total, there were 872 issues of IVIG across the years, almost evenly distributed between registered and unregistered uses [416 (47.7%) vs. 456 (52.3%) issues respectively]. The highest number of absolute issues were for primary immunodeficiencies (215 (24.7%)), followed by non-kidney transplant patients (189 (21.7%)) and Guillain-Barré syndrome patients (98 (11.2%)), with the lowest issues going to Thrombocytopenias (20 (2.3%)) and Allogenic Bone transplants (8 (0.9%)). Though the absolute issues per year fluctuated only mildly in line with the patient variation seen (2009 – 303, 2010 – 225, 2011 – 268), the value of the issues, and the attributable percentage of the pharmacy rose year on year.

CONCLUSION
More than half of all IVIG issued at the paediatric hospital was for unregistered uses, with wide variation in the pre-and intra-treatment workup of patients, frequency, duration and total dose given per indication of treatment. Considering the pressures on supply and the pharmaceutical costs, a more standardized, protocol-driven approach to the prescription of IVIG is called for.
P198 - Soft drink consumption
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BACKGROUND
Over the last few decades soft drink consumption has been steadily increasing especially at an alarming rate in adolescents. Soft drinks have been associated with positive energy intake. An unhealthy diet along with a lack of physical activity is a major risk factor for health problems like overweight and obesity, cardiovascular diseases and diabetes. Children and adolescents are becoming susceptible to the development of NCDs due to an increase in consumption of heavily processed and highly caloric foods, leading to early onset of morbidity.

AIM OF THE STUDY
To investigate soft drink consumption among grade 11 and 12 learners at a secondary school in Gauteng, South Africa.

METHODS
A quantitative descriptive survey was conducted among 382 learners (grade 11 and 12) of Liverpool secondary school. A self-administered questionnaire was used to collect data. STATA version 10 was used for data entry and analysis.

RESULTS
All learners who participated in the survey reported that they consumed soft drinks over the past 12 months. Out of the 382 learners, only 55 were non-frequent consumers. Carbonated drinks were the most commonly consumed (73.6%). Factors such as frequent snacking (p=0.042), frequent fast food consumption (p=0.001) and easy availability of soft drinks (p=0.00) positively influenced consumption of soft drinks. Over 55% of the learners had very poor knowledge about the ill effects caused by increased consumption of soft drinks.

CONCLUSION
Considering the high consumption of soft drinks, the level of awareness regarding the ill effects of these unhealthy dietary practices among the learners in this study is very poor. Household and school level interventions to improve dietary habits have to be developed.


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INTRODUCTION
Historically, the majority of Anopheles gambiae complex mosquitoes collected from the Vlakbult region of Mpumalanga have been the minor malaria vector Anopheles marui. However, recently, entomological surveillance has revealed that the majority of malaria vectors collected in Vlakbult was Anopheles arabiensis. The aim of our study was to obtain baseline data on the vector prevalence and insecticide susceptibility of the malaria vector mosquitoes in the Vlakbult region, Mpumalanga Province of South Africa.

MATERIALS AND METHODS
This is an experimental study based on World Health Organization (WHO) bioassay testing procedure. A total of 130 mosquitoes were collected from November 2012 to January 2013. Adult mosquitoes were collected using three different methods: Collection from Pit traps, C02 traps and Human landing catches and larval collections were conducted. Mosquitoes belonging to the Anopheles gambiae Complex were assayed for insecticide susceptibility. In this procedure, mosquitoes were exposed to 4% DDT and to 0.05% deltamethrin. A 24-hour post exposure to insecticides was recorded to ascertain susceptibility to insecticides. Species identification was conducted through PCR and Morphological keys. Eliza test was performed on wild caught adult mosquitoes to detect parasites in the mosquitoes.

RESULTS
Mosquito Identification by morphological keys together with PCR revealed that 27% (35/130) of samples collected were An. arabiensis, followed by 20% (26/130) of samples identified as An.funestus group. The funestus groups were identified as An. Leeson and An. vaneedem. Mortality recording after 24 hours revealed 100% mortality from 4% DDT exposure (22/22) and also 100% mortality from 4% deltamethrin (Pyrethroid) exposure (8/8). The ELIZA test for parasites detection also revealed parasite prevalence of zero (0/32), indicating 0% parasites infectivity rate. The non-vector species identified included anophelines from the An.marshalli group.

KEY WORDS: Anopheles arabiensis, Insecticides, Susceptibility, Polymerase Chain Reaction, DDT, Indoor Residual Spraying.
P200 - Investigation of a cholera outbreak in Limpopo (Musina), South Africa- March 2013.

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INTRODUCTION

In 2008, Zimbabwe experienced a cholera outbreak which swept across the country and spread to nearby countries. By January 2010 there were 98,741 reported cases and 4,293 deaths. South Africa (SA) started reporting cases of cholera in December 2009. In March 2013, one case of cholera was reported in SA, a Zimbabwean national who had visited Zimbabwe three days before getting sick in SA. Following the experience from 2008 Zimbabwean outbreak, there was an urgent need to attend to the outbreak in SA, to provide public health interventions in order to stop the outbreak and prevent the spread thereof.

METHODS

Responding to the outbreak, Outbreak Response Teams were activated from facility, provincial and national level. The outbreak was coordinated at the District Joint Operation Committee (JOC) level. The JOC established sub committees to look into: case management, surveillance, Environmental assessment, water and sanitation, health promotion and social mobilization, communication and logistic support.

RESULTS

Cholera was confirmed in an adult male patient admitted to Musina Hospital, with watery acute diarrhea and dehydration. *Vibrio cholera* 01 serotype inaba was isolated by conventional culture and the presence of the cholera enterotoxin was demonstrated through molecular techniques. The patient responded well to intensive fluid therapy in hospital and recovered successfully.

CONCLUSION

Although the source of the outbreak was not identified, the outbreak was well contained and no further cases were reported in SA other than the one confirmed case. This confirms that SA is able to detect a case of cholera within the country through their surveillance system.

KEY WORDS: Cholera, Case management, Surveillance, Social mobilization and Health promotion.


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BACKGROUND

Lesotho has the 3rd highest prevalence of HIV in the world with an estimated 23% of adults infected. At least 50% HIV-infected patients present with oral manifestations of HIV as the first sign of the disease.

AIM

To determine the knowledge, attitudes and behaviour of oral health care workers (OHCWs) in Lesotho with respect to oral manifestations of HIV/AIDS.

METHOD

An analytical cross-sectional survey was conducted on all 46 OHCWs in 25 public and private care facilities in 10 districts using a self–administered questionnaire in three parts. Data was analysed using Microsoft excel and the R statistical programme. Fisher’s exact test was used for correlations.

RESULTS

The response rate was 100%. Nearly all agreed that oral lesions are common in HIV-infected patients, 97.7% identified oral candida as the most common lesion, however less than 60% correctly identified Kaposi’s Sarcoma (KS). Only 16.7% felt they had comprehensive knowledge of oral HIV lesions, although 84% reported having previously received training. More than two thirds (63%) felt confident in managing HIV patients. Significantly fewer participants from the private sector correctly identified KS (p-value 0.023) and periodontal diseases (p value 0.0029).

CONCLUSION

There are increasing numbers of people living with HIV in Lesotho and while participants were confident with their management, there is a need for more comprehensive training with regard to diagnosis and management. Due to the shortage of OHCWs there is a need to train other health care workers in the diagnosis and management of oral HIV lesions.
P202 - Family support for HIV/AIDS caregivers: The experiences of home based care givers in Vhembe District (Limpopo Province, South Africa)

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BACKGROUND
The prevalence of HIV/AIDS and tuberculosis (TB) has put strains on health system in many developing countries including South Africa adding the burden of complexity to health care services across the globe (Floyd & Wilkinson, 2000). 80 percent of South African population makes use of the public sector for their health needs which increase workloads on the health system (Steinberg, Kinghorn, Soderlund, Schiernout & Conway, 2000). Home based care givers play an important role in relieving pressure from the health care system.

OBJECTIVES
The study aimed to (i) determine the experiences of HIV/AIDS care givers regarding family support for their work (ii) to determine the needs of HIV/AIDS care givers and (iii) to identify and link care givers with available support structures.

METHODOLOGY
The study design was qualitative, exploratory and descriptive research conducted in the Vhembe District of Limpopo province. The sample composed of seventy two (72) participants who were all home based caregivers. Data was collected through semi-structured interviews and focus group discussion. Data was analyzed through a combination of analysis guidelines from Cresswell (1994), and Streubert and Carpenter (1995).

RESULTS
The findings suggest that majority caregivers enjoyed support from family members, which was mostly in the form of words of encouragement. Participants in the study recommended more resources to be allocated to care givers in form of finance and basic medical equipments. Care givers also highlight the need for trainings on HIV/AIDS patient care, support and management.

KEY WORDS: Family Support, HIV and AIDS & Care givers

P203 - South Africa Field Epidemiology and Laboratory Training Program (SAFELTP) - Building capacity and competency for applied public health practice, 2006-2013

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BACKGROUND
Establishing and sustaining public health units (PHU) at district and provincial levels is one objective outlined in the Human Resource for Health Strategy for the South Africa (SA) Health Sector 2012-2017. The SAFELTP aims to build national capacity in applied epidemiology.

OBJECTIVE
To describe the SAFELTP, outcomes since inception and the potential to meet the epidemiology staffing for the proposed PHU’s.

METHODS
We reviewed the program design, intake, graduation, project accomplishments and post-program employment of graduates.

RESULTS
SAFELTP is a 2-year full-time training, combining classroom-based instruction and mentored field work. The training develops competence in public health surveillance, outbreak investigations, database analysis, communication and hypothesis driven research. Residents receive a MPH degree from U.P. Since 2006, 63 residents have enrolled and of the 49 eligible to complete, 46 (94%) have completed. Over the 7 years, residents have conducted >100 outbreak investigations, 60 surveillance evaluations, 24 planned studies, analysed 53 databases and presented >78 papers at local and international conferences. Over 7 residents have received awards at international conferences. Forty three (93%) residents have remained in SA applying their epidemiology skills with 80% currently serving within SA’s public health system.

CONCLUSION
SAFELTP has graduated its 5th cohort of residents, the majority of whom serve in the South Africa public health sector. SAFELTP is poised to contribute to meeting the staffing need for the proposed PHU’s.
P204 - The Mental Health Information Centre of Southern Africa: narrowing the science-to-service gap in mental health

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BACKGROUND:
Nearly two-thirds of individuals with mental disorders never seek help from a mental health professional mainly because of a lack of easy access to mental health information and service providers. Greater allocation of resources to mental health services and more community awareness initiatives are needed to address this unmet need. The aim of the Mental Health Information Centre of Southern Africa (MHIC), an NGO in the Department of Psychiatry at Stellenbosch University, is to contribute to efforts to meet this need by increasing public awareness and knowledge of mental illness and available treatments, and providing referrals to mental health service providers.

OBJECTIVE
To determine the effectiveness of our service to the South African public and mental health professionals.

METHODS
All contacts (i.e. calls, emails, website hits) to the MHIC since August 2011 are analysed.

RESULTS
Analysis of our data shows that information on mental health related issues such as obsessive-compulsive disorder, depression and bipolar disorder was sought. MHIC interventions included provision of information via email/telephone within 24 hours, the mailing of pamphlets and other sources of relevant information, and referrals to mental health service providers. Since the launch of our website (www.mentalhealthsa.org.za) in August 2011, 110 organizations and 410 individuals have registered on the MHIC database.

CONCLUSION
Our statistics suggest that the MHIC renders a valuable service to the community of Southern Africa through their ongoing efforts to provide easy access to accurate mental health information and local mental health service providers.

P205 - Correcting Surveillance Inaccuracies and Improving on Pesticide Poisoning Notification

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In South Africa, pesticide poisoning constitutes a medical notifiable condition. This surveillance system process is taught to medical students and other health professionals so that informed policy decisions can be made in regard to pesticides and poisonings. Under the list of notifiable conditions, “poisoning agricultural stock remedies” is cited. Yet for reasons unknown, health professionals are taught to only report organophosphate poisonings (OPs). Thus, poisonings by any other class of pesticides (e.g., pyrethroids, organochlorines, herbicides, anticoagulants) goes unreported and consequently is not monitored through this surveillance system. Furthermore, training on reporting of only OP poisonings emphasizes that pesticides are predominately used for agricultural production. This means that health professionals in urban areas tend to misdiagnose pesticide poisoning symptoms as a result of not conducting environmental exposure screening and not having an awareness of urban pesticide use. The intention with this study was to design a mechanism for improving notification of all pesticide poisoning cases and for reducing misdiagnosis, particularly in urban areas where pesticide use in poor communities and poisoning cases are high. An algorithm and new poisoning incident reporting form were produced and are discussed. The algorithm promotes reporting of unlabelled street pesticides which are predominately involved poisoning the urban poor, and specifically children.

KEY WORDS: pesticide poisoning, notifiable conditions, algorithm, surveillance, environmental exposure screening
P206 - What does Pest Management Have to Do with Urban Poverty Alleviation Strategies?

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Living with infestations of cockroaches, bed bugs, flies, and rats on a daily basis are social determinants of poverty and health in South Africa. Yet, in reviewing policy indicators for poverty alleviation the focus is on employment, housing, infrastructure and access to basic services. Within these indicators the reality of poor households living with and combating poverty related pests is not addressed. It is argued that pest management, not only with pesticides, needs to play a more integral role in South Africa’s poverty alleviation strategies for health promotion, reduction of exposure to toxic pesticides, and to encourage sustainable livelihoods. To highlight this point, findings from research on the use and sale of street pesticides (e.g., agricultural pesticides decanted into common beverage containers for household pest control) in Cape Town are presented. The study found that 92% of 200 township households surveyed used pesticides to control pests and 83% used street pesticides. Street pesticides, found mostly in urban poor communities, are highly acutely toxic and cause chronic effects such as neurological damage, developmental effects and cancer. National, provincial and municipal policies are now focusing on issues related to climate change (e.g., energy use), but not on the issue of pest increases (e.g., rat infestations) related to climate change. There is an urgent need to include an integrated and non-toxic pest management approach in government poverty related policies.

KEY WORDS: poverty alleviation policies, social determinants of health, pests, pesticides, sustainable communities

P207 - Health Manpower Development: The Need for Postgraduate Training in Sierra Leone.

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OBJECTIVE
To justify the need for postgraduate specialist training of medical doctors in Sierra Leone.

METHODS
A descriptive study and questionnaires were administered to government registered doctors inclusive of interns.

RESULTS
66.3 % (126) doctors registered under the Ministry of Health and Sanitation, participated in this study. 77.8% were male and 22.2% females, with a male to female ratio of 3.5:1. Majority of specialists were over 50 years of age who will retire in the next 10 years and 52.7% were Public Health Specialists. All non-specialists had the desire to specialize, and 52.2% stated career development as the main reason for specialization, while 44.4% stated the need for more specialist.

CONCLUSIONS
There are few clinical specialists in Sierra Leone, and most will be retiring in the next 10 years, with more males than female doctors. More medical officers are willing to specialize in Internal Medicine, Obstetrics and Gynaecology, Pediatrics and Surgery, and few interested in Radiology, Psychiatry, ENT, Ophthalmology and Anaesthesiology.
P208 - The role of Ethics in moving Africas Public Health

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Public health bioethical issues often centres around the relationship between the individual on one side and larger groups or the state on the other. It considers the obligations, rights and claims of those involved in these relationships and it raise moral concerns that are different from those in ‘regular’ health care practice. Personal autonomy, might not be given priority in public health care, where other values, such as the protection of the health of individuals and groups, the prevention of harm to others, and the promotion of health equity are central.

There is a need for a code of ethic for public health that would preserve fairly and appropriately the negative rights of the citizen to non-interference, balanced by the positive rights embodied in the affirmative obligations to improve public health.

Emphasis should be placed on Communitarianism which has the vision of an appropriate social order and the virtues that will maintain it, while it focus on creating a good society and on producing the right individuals for that society. Major components of virtuous conduct, for example, are knowing one’s place and fulfilling one’s duties in society. Solidarity, as part of Communitarianism, which centres around the preservation of a particular shared understanding of society and its goals and a shared idea of the good life will be used as illustration to enable Africa’s Public Health Legacy to move beyond the MDG’s.

P209 - The role of case study research in exploring how facility managers use information in decision-making

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BACKGROUND

Improved management of primary care is central to improving health outcomes. Management literature suggests that managers use a wide range of information in decision-making: formal as well as “soft” information such as local context knowledge, experiential information and tacit knowledge but there is little empirical work on this in the health field and little guidance on what research methods are best suited to understanding these practices.

OBJECTIVE

Consider how a case-study design within a participatory action learning research (PALR) approach can be used to explore how facility managers use information in making complex decisions.

METHODS

A multiple case study design was used within a PALR approach. Four facility managers (FM) and an academic researcher (AR) have been co-researchers in the study. In phase one, the AR collected data through observation of the FMs at work, followed by a set of in-depth interviews with the FMs using story telling techniques and mind maps. The AR collated this data into a narrative. In phase two, the FMs checked the narratives and engaged in individual reflective learning and collaborative analysis. In phase three, key lessons distilled were taken to the sub district peer group (all facility managers in the sub-district) for group reflective learning. Rich case descriptions were thus collaboratively developed for each decision-making case.

RESULTS

The methodological strengths and limitations of a multiple case-study design within this health system research study are discussed, as well as the respective roles of health service partners and academics wrt ethics and research-in-practice.
P210 - Community consultations in the development and implementation of the National Health Insurance (NHI) in South Africa

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AIM AND OBJECTIVES OF COMMUNITY CONSULTATIONS
The aim of the community consultations was to test a public policy engagement using the NHI. The objectives of community consultations were to conduct community consultations to guide development of the NHI, enable communities to contribute to the development and implementation of the NHI and to enable communities to hold government accountable for the implementation of the NHI.

METHODS OF CONDUCTING COMMUNITY CONSULTATIONS
- Training sessions were conducted for the service providers on the NHI and how to conduct consultations.
- NHI Roundtable Discussions
- Consultations at community sites and at workplaces

FINDINGS AND DISCUSSION
- The majority of the people approached had never heard about the NHI. The few that heard about it had no idea about the content.
- People were generally interested to learn about the NHI. Some groups brought their questions easily while others had to be probed.
- Questions were asked on membership and access to the NHI, financial implications for beneficiaries and for the public health sector and Structure of the NHI and its leadership.

CONCLUSION AND RECOMMENDATION
- Community members are interested to learn about issues that affect/will affect their daily lives with the NHI.
- It is essential to bring new information as close as possible to the people as it is generally not picked up in other ways.
- It is essential to have a good preparation for the staff before reaching out to the community as they feel more confident.
- The community members hope for a serious change in health care with the NHI but are reserved to raise their hopes.

P211 - Participatory Action Research (PAR) and community participation: Developing a people’s policy for health in South Africa

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INTRODUCTION
PAR is a way of collecting information for organizing that honours, centres and reflects the experiences of people most directly affected by issues in our communities. People use PAR to learn more about their material conditions – access and quality of health care, and about each other. Community participation is an open and accountable process through which individuals and groups within selected communities can exchange views and influence decision-making.

METHODS
The PAR approach used in this project includes the Plan, Act, Observe and Reflect phases. In the plan phase, we conduct a desktop review to understand the context, health situation, history of NHI and participation in health matters. In the Act phase, we pilot-test and conduct community consultations where we support communities to engage with the materials on the NHI and give input on its implementation. During the Observe and Reflect phases, we conduct an impact evaluation to determine if the project had impact in enhancing people’s participation in the development and implementation of the NHI.

FINDINGS AND DISCUSSION
Some of the principles of PAR that have been applied to the NHI project in SA. People are experts in their own experiences, and have many different ways of knowing and getting information about their conditions. They control the gathering and use of information about their communities and gather information to inform their actions for change. People reflect on the information they’ve gathered and the way in which they are gathering it throughout the process. They are active and not passive participants in the process and agree on principles and values that will guide their information gathering and stay accountable to them.

Conclusion
PAR is particularly useful when, as is the case of the new National Health Insurance (NHI) in South Africa, where there is little or no information available through government or academic research that reflects people’s experiences of access and quality to health care.
P212 - TB-HIV integration tool: measuring the status of TB and HIV integration at a PHC facility

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BACKGROUND

In KwaZulu-Natal approximately 80% of TB patients are living with HIV. The South African TB/HIV Integration policy for Primary Health Care (PHC) services was implemented in April 2010 to alleviate the dual burden of disease. However, comprehensive TB and HIV data management tools to measure co-infection at public health care facilities are lacking and service delivery is affected by this. There is a need for a tool to capture and measure the status of TB and HIV integration at a facility level.

OBJECTIVES

To develop and assess the effectiveness of a tool to measure TB and HIV integration at PHC facilities.

METHODS

A tool was developed to assess TB and HIV integration in 38 healthcare facilities in a district in KwaZulu-Natal. The items in the tool were adapted from the National Department of Health’s practical guide for TB and HIV integration at a facility level. This tool will be completed by programme staff between May 2013 and June 2013 using data sources such as TB registers and HIV registers.

RESULTS

The tool will be collected and examined for items that are incomplete, completed incorrectly and omitted. A focus group discussion to determine the strengths and weaknesses of the tool will be undertaken. Quantitative and qualitative analysis will be conducted.

CONCLUSIONS

The TB and HIV integration tool can be used as a comprehensive measure of the status of TB and HIV integration of services in public health care facilities.

P213 - Can a profile of a health care facility predict the facility’s quality-of-care audit score?

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INTRODUCTION

South Africa’s per capita expenditure on health far exceeds that of countries of comparable level of development. Yet the health outcomes are relatively poor. Among the major concerns are the disparities in access to care and health outcomes. The Minister of Health, Dr Aaron Motswaledi is currently introducing the National Health Insurance (NHI) as a method of healthcare financing to reduce the disparity in access to health care and to improve the quality of care in the public sector. In order to standardise the measurement of quality of care within the country, the Office of Standards Compliance has developed National Core Standards; against which health care establishments are assessed through audits. The findings from audits identify the gaps that need to be addressed through quality assurance activities. The basis of quality assurance is that managers need to ensure that there are measurable improvements in the health service delivery and outcomes. There are a number of approaches to assessing quality: Structure-Process-Outcome model, medical audit, utilization review, occurrence screening, medical chart review and profiling.

AIM OF THE STUDY

The aim of the study was to assess if the profile of a health care facility is able to predict the facility’s quality of care audit performance of the facility.

METHODS

A census of all the public sector hospitals that have had a completed quality of care audit in the period December 2011 to end of October 2012 was conducted. A sampling frame consisted of the 47 public sector hospitals that had already been audited. Profiles of the hospitals were completed and they consisted of quantitative or qualitative description of quality-related indicator characteristics derived from the first 4 sections of the hospital questionnaire. It is from these profiles that the quality-of-care audit score was predicted.

RESULTS

The analysis was conducted on the 42 of the 47 audited hospitals, and most of them are located in urban areas. Four categories of hospitals were assessed: District Hospitals, Regional Hospitals, Provincial Tertiary Hospitals and Central Hospitals. Comparative analyses showed that majority of central hospitals were not affected by budget constraints and had delegations. Variables that seem to be associated with good audit performance were: CEO post filled, quality improvement plan (QIP) implementation, any awards received in the past 12 months and the availability of delegations. Through the use of multi-linear regression analysis a predictive model was developed, that showed that availability of delegations, any awards and QIP implementation were the predictors of quality-of-care audit score. The predictive model managed to explain 56% of the variation in the quality-of-care audit score. The predictive model was used to predict the quality-of-care audit score for a hospital that was not included in the study. The predictive model managed to give an audit score of 52% and the actual score for that hospital was 47, which is 5% off the mark.

CONCLUSIONS AND RECOMMENDATIONS

The predictive model has been able to show its ability to predict the quality-of-care audit score from the hospital profile. The implementation of profiling of health establishments will not only assist the OSC in identifying risky health establishments, but will also go a long way in ensuring that there is improvement in the quality of care rendered in those facilities.
P214 - We care for you

Shabangu
University of Pretoria

BACKGROUND
Steve Biko Academic Hospital (SBAH), formerly known as Pretoria Academic Hospital is one of the four tertiary hospitals in Gauteng Province and is the teaching hospital for the University of Pretoria. After moving into new premises in 2006, the hospital commissioned the School of Marketing of Tshwane University of Technology to conduct a patient satisfaction survey. This survey revealed that the hospital had serious deficiencies with regards to staff attitudes towards patients.

In order to deal with this shortfall, the “We care for you” project which later became a programme was established in 2008. The aim of this programme was to achieve an excellent service through consolidating the culture of care in order to improve the relationship between health care workers and patients.

METHODS
A cross-sectional descriptive study was conducted at Steve Biko Academic Hospital (SBAH). A consecutive sampling technique was employed, self-administered questionnaires were completed by staff members and interviews were conducted with patients. Data was collected from 314 staff members and 721 patients.

RESULTS
The majority of the patients were educated up to secondary school. Most of the patients stayed less than 4 days in the hospital. The patients enjoyed relating to the staff and there has been some improvement in the attitude of night staff. Majority of patients who were previously admitted stated that the staff attitude has improved (64.5% in 2012 and 78.3% in 2013). Majority of patients rated the service as good/excellent (82.9% in 2012 and 85.6% in 2013).

CONCLUSION
The study has shown that the overall service rating has improved over time. The implementation of what staff was trained on rather than the training has contributed to improvement in the staff attitudes and thus the patients' satisfaction. This is evidenced by a shift from what was described as poor staff attitude in the 2007 survey to an improved staff attitudes and patients' satisfaction in the 2012 study with 82.9% of patients rating the service as good/excellent. The improved rating has also been sustained as per the findings from 2013 data set.

P215 - Knowledge of lifestyle modification among hypertensive patients in Port Shepstone, 2012

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INTRODUCTION
South Africa has a high burden of non-communicable diseases. During Selectives 01, we identified the most common ailments seen in health facilities in Port Shepstone, KwaZulu-Natal. Hypertension was among the top five common conditions seen. We observed that many patients were overweight, and this prompted us to conduct research around lifestyle modification and hypertension.

OBJECTIVES
To describe the demographic profile of hypertensive patients in Port Shepstone
To determine if patients receive information on hypertension and lifestyle modification from their healthcare worker
To determine patients' knowledge and behaviour about lifestyle modification in the management of hypertension

METHODS
An observational, descriptive, cross-sectional study design was used. A convenience sample of 100 hypertensive patients from Marburg Clinic and Murchison District Hospital was used. Patients were interviewed using a structured questionnaire developed by the investigators. Data was analysed in Microsoft Excel.

RESULTS
Majority of the patients interviewed were female (80%). The median age was 61.5 years (IQR 52 to 70). Only 35% of patients reported to have received information about hypertension from their healthcare worker. Majority (80%) of patients reported that they had received advice on dietary changes from their healthcare worker, and 74% reported to have made changes to their diet. A high percentage of patients (93%) had knowledge on healthy preparation of food.

CONCLUSION
Whilst patients appear to have knowledge on a healthy diet and healthy preparation of food, we do not know if this impacts on their behaviour. Health education and health promotion activities should be ongoing at healthcare facilities.
P216 - An exploration of the ethical complexities inherent in the collection, use, storage and export of biological samples in research: perspectives of potential and current clinical research participants in Pretoria, South Africa

Sibanda

In the last ten years, research on biological samples has attracted an increased amount of attention. This increase is due, not only, to the promise that such research shows in the development of more effective medicines, but also, to the different perspectives that exist between the researchers and research participants. In as much as health research is becoming increasingly dependent on biological samples analysis, there are ethical concerns on how these samples are collected, used, stored and the extent to which researchers may re-use, share and export these samples. A number of researchers have sought to investigate the preferences of research participants with regard to biological samples use, storage and benefit sharing in Canada, Asia, United States, Scotland, Sweden, Australia, United Kingdom, Netherlands, and in Africa, Nigeria, Egypt and Uganda. Unfortunately, no such investigation has occurred in South Africa. As such, this study set out to explore and document the perceptions of South Africans in terms of biological samples collection, usage, re-usage, storage, sharing and benefit sharing.

AIM
The aim of the study was to explore the perspectives of South African clinical research participants, both current and potential, on the collection, usage, re-usage, storage, sharing and benefit sharing of biological samples.

OBJECTIVE
The objective of the study was to assess opinions of potential and current clinical research participants on the collection, usage, re-usage, storage and benefit sharing of biological samples.

METHODS
A cross-sectional survey was conducted in Pretoria between December 2011 and June 2012. One hundred and fifty two (152) research participants were interviewed from a cross-section of potential and current clinic research participants at the University of Pretoria Clinic Research Unit and the Diabetes Unit at Steve Biko Academic Hospital. All interviews were conducted face to face with a trained researcher and research assistant. A questionnaire consisting of both close and open-ended questions was used to solicit the views of respondents.

RESULTS
COLLECTION AND USAGE
Almost a third 46 (30.7%) of the respondents said they had no choice in giving the biological samples. These respondents felt compelled to give samples because they needed treatment. More than a fifth of the respondents reported that they were not given an explanation before the samples were taken. Most of the respondents who received an explanation 111 (86.0%) on how the sample would be used, were told that tests would be done on the sample. Overall, 111.8% of respondents were worried about giving samples, a higher proportion of potential respondents (14.6%) than current participants (10.6%) were worried. Only 6% of the respondents thought there were risks in giving samples.

STORAGE
Although three quarters (75.0%) of the respondents stated they would not mind having their samples stored, more than a tenth 17 (11.2%) of the respondents in this study stated they would object to having their samples stored. Other respondents stated that they would require more information on where the sample was being stored and why it was being stored.

RE-USAGE
Almost a quarter (21.9%) of the respondents interviewed felt they did not mind their samples being used for another research project.

RE-CONTACT
Slightly more than half (55.0 %) of the respondents wanted to be re-contacted each time research is being done on their stored tissue and 43.7% would want the research ethics committee to give permission on their behalf.

EXPORTATION OF SAMPLES
Seventy percent of the respondents were willing to have samples exported. Those objecting stated that they prefer for research on their samples to be done in South Africa.

BENEFIT SHARING
Sixty-seven (40.4%) of the respondents did not mind if the researchers made profit based on their samples. However, 58 (38.4%) said they would not be happy at all if any profit was made by a researcher developing a test or medicine from their sample. Only, 22 (14.6%) of the respondents wanted a share in the profits.

CONCLUSION AND RECOMMENDATIONS
The proportion of persons who feel compelled to give samples is a concern and may reveal that the concept of informed consent is not well understood. The communication mechanisms for informed consent should be revisited and alternative strategies, such as the use of pictures, videos and other media, should be evaluated for its usefulness in helping respondents understand. Most of the respondents would not mind having their samples stored, re-used and exported. However, they need to know why the samples are stored and where they are sent to, which reflects back to information communicated in the consent form. The concept of generating profit from the samples did not resonate well with some of the respondents.
P217 - From digital immigrant to digital native: taking traditional medicine to the online environment - obstacles and facilitators

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The Multi-disciplinary University Traditional Health Initiative (MUTHI) was launched in 2011 to build sustainable research capacity on herbal medicines for better public health in Africa. Funded by the European Union, MUTHI comprises universities from five countries (RSA, Uganda, Mali, Norway, UK). The South African Herbal Science and Medicine Institute at the University of Western Cape (UWC) aims to train 100 African investigators in the conduct of clinical trials of herbal medicines over a four-year period. Interactive one-week, face-to-face workshops form the backbone of this capacity development initiative, but are costly, restrict numbers and require expert facilitators. To expand MUTHI’s reach, we are developing on-line, open-access training modules hosted on the UWC e-teaching platform. Initial obstacles to e-learning development included 1) lack of familiarity with online tools; 2) scepticism of effectiveness; and 3) limited bandwidth. To address these, the developer attended an intensive, interinstitutional Information and Communication Technology (ICT) course. Participants were required to engage actively with e-tools and link the affordances of these to pedagogical principles underpinning traditional teaching. We will demonstrate a MUTHI e-learning module, which includes video footage from a face-to-face workshop. The module has been pilot-tested and accessed by 35 users. Formal evaluation indicates ease of use but occasional limitation in viewing videos. Users want immediate feedback on test results and certification. We attribute navigating from a traditional to a dynamic, online environment to effective training, timely ICT support, and a desire to build a sustainable, local legacy which will endure beyond the end of the project.

P218 - MUTHI– unlocking the potential of indigenous herbal medicine by developing clinical trials investigators in Africa

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Research capacity to investigate the efficacy of traditional herbal medicines is lacking in Africa. In 2011, the Multi-disciplinary University Traditional Health Initiative (MUTHI) was launched to build sustainable research capacity on plants for better public health in Africa. Funded by the European Union, MUTHI comprises universities from five countries (RSA, Uganda, Mali, Norway, UK). Work packages span the steps necessary in drug development specific to herbal medicines, including ethno-pharmacology, laboratory techniques, intellectual property rights and clinical trials. In 2011, we conducted a needs assessment of knowledge and experience in clinical trials methodology. Fifty-eight investigators from 14 African countries demonstrated significant training needs in analytical and statistical knowledge. We developed a one-week workshop package to address these needs. Selection to attend workshops is competitive with past workshops held in Cape Town (November 2011) and Kampala (February 2013), and future workshops planned for South and West Africa. Workshops are facilitated by local and international experts and to date, 40 participants from eight African countries have attended. Classroom performance software technology (‘clickers’) is used to facilitate interactive learning. Evaluation is highly favourable and feedback is continually incorporated into future workshops. To expand the reach of MUTHI and build sustainability locally, a nine-module online training programme is under development. The open-access e-learning is hosted by the University of the Western Cape and Global Health Trials (www.globalhealthtrials.tghn.org). By enhancing the capacity of African investigators to discover new drugs from traditional herbal medicines, MUTHI is providing an innovative, collaborative response to a significant public health challenge.
P219 - The National Health Research Database application process for researchers seeking provincial health research approval

**BACKGROUND**

Researchers wishing to conduct research at health facilities in South Africa are required to apply for access approval from the respective Provincial Health Research Committee (PHRC). High volumes of researcher applications and lack of a standardised and reliable system to support PHRC administrators often result in researchers having to endure long waiting times to get approval. The National Health Research Database (NHRD) funded by the National Department of Health was therefore developed to provide a quick and efficient system for the processing applications made by researchers.

**OBJECTIVES**

The NHRD aims to:
- Assist the PHRCs in setting health research priorities, for the provinces and the country;
- Provide standardised criteria for research conducted in the public health facilities;
- Increase transparency regarding ethical considerations in health research;
- Assist researchers to collaborate through sharing of research information;
- Reduce duplication in research efforts;
- Facilitate the best use of limited research resources.

**RESULTS**

The NHRD provides a standardised, automated web-based application for researchers to apply for access approval. It will reduce administrative turn-around times for approvals and ensure that a more effective line of communication is developed between researchers and PHRCs. The set of automated reports that have been developed will support the accurate monitoring of research conducted in South Africa.

**CONCLUSION**

The development of the NHRD was completed in May 2013 and will be launched officially during the course of 2013.

P220 - The role of Life Orientation Educators and Community Health Workers in promoting Personal Hygiene and Sanitation Education (PHASE) amongst learners and their families: the case of Rustenburg 7 Piloting Schools in North West Province

**BACKGROUND AND INTRODUCTION**

Rustenburg Local Municipality area has relatively high rural and informal settlements that do not receive adequate municipal water and sanitation services. Coupled with improper hygiene behaviours, this puts the local children and their families at high risk of many preventable waterborne diseases like diarrhoea. Since August 2011 AMREF has been implementing a PHASE project to improve community, learner and educator knowledge, participation and behaviour change surrounding personal hygiene and sanitation to prevent waterborne diseases.

**METHODS**

Project data including: periodic interviews, observations and focus group discussions with the learners, Life orientation Educators, Community Health Workers (CHWs) and project beneficiaries was collected after 18 months of implementing the project. Trained CHWs also collected household data on latrines, water and hand-washing practices to track key project outcomes.

**RESULTS**

40 CHWs have managed to reach out to 440 families on a wide range of PHASE topics. Life Orientation Educators are leading the Health Concern Clubs in schools and have reached out to 3,000 learners in promoting good hygiene practices in schools and at home. Learners and School Governing Bodies are also actively participating in Health Concern Clubs where they plan PHASE activities as part of school led total sanitation.

**CONCLUSIONS AND RECOMMENDATIONS**

Establishment of Health Concern Clubs led by LO Educators have proved to be effective in promoting good hygiene practices at school level. Household visits by Community Health Workers and School Governing Bodies is also fundamental in monitoring compliance of learners at home in implementing PHASE at community level.
P221 - Awareness of selected public schools regarding the hazardous nature of fluorescent lamps in Johannesburg

W Siziba, Nisha Naicker, Angela Mathee, Andre Swart

Due to their mercury content, fluorescent lamps are regarded as hazardous waste, and fall under the category of electrical waste. Mercury has toxicological properties that may result in detrimental acute or chronic impacts on human health and the environment. The objectives of the study were to determine the awareness levels of selected public schools regarding the hazardous nature of fluorescent lamps.

Quantitative research approach was adopted for purposes of analysing data. Proportionate purposive sampling was used to sample a total of 22 public schools and data was collected through the use of structured questionnaires and observation checklist.

The findings revealed that 77% of the schools were aware that fluorescent lamps contain mercury vapour. However, only 68% knew that spent lamps are regarded as hazardous waste because of mercury vapour. As a consequence, 32% of the schools were likely, due to a lack of knowledge, to be exposed to mercury vapour in cases where fluorescent lamps break in the presence of employees and learners. The total average percentage of awareness level at selected public schools with regards to the hazardous nature of fluorescent lamps was high (77%).

Health education (in schools) on mercury vapour, susceptible populations, routes of exposure and the health effects of mercury in both humans and environment, would encourage public schools to practise the proper management of fluorescent lamps and thereby prevent the exposure of employees, learners and the environment as far as is reasonably practicable.

P222 - Profile Of Gambling Behaviour In South Africa: A Comparison Of Formal, Informal, And Rural Contexts

L Skaal, D Stein, B Myers, H Sinclair

Although many people enjoy gambling as a recreational activity, and while gambling may have some economic benefits for society as a whole, a small number of gamblers may suffer a range of negative consequences, including comorbid psychiatric disorders such as depression and substance use disorders, as well as impairments at work and at home (Petry, Stinson, & Grant, 2005). The aim of this study was to determine the profile of gambling behaviour Limpopo Province.

RESEARCH DESIGN
A quantitative method, and questionnaires were used to assess gambling disorders, using CPGSI, Brief Biosocial Gambling Screen (BBGS) and Kessler-10 was used to assess for the presence of co-occurring mental disorders, and the AUDIT, a screen for alcohol use disorders. The Need for services was also established.

RESULTS
Of the 900 participants, 239 were from rural, 222 urban and 439 formal and informal settings. Of these, 26% were likely to be pathological gamblers; 4% were likely to have a severe mental disorder and 30% were high risk problem gamblers and 30% were high risk level drinkers. The majority of gamblers were not aware of existing gambling help line and 20% used churches for counselling. There was a significant link between mental disorders; pathological gambling and alcohol abuse according to demographic profile. (P< 0.001)

CONCLUSION
Pathological gambling and associated risk behaviours are of concern, especially among rural dwellers. There is a need to strengthen awareness of health risks associated with gambling and upscale the services for high risk gamblers.

KEY WORDS: Gambling; Associated Risk Factors; comorbid psychiatric disorders
P223 - Is TB-HIV Integration happening?  

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BACKGROUND
Tuberculosis and HIV were among the highest three causes of Years of Life Lost in South Africa in 2009. TB remains the leading cause of death and morbidity amongst people living with HIV in developing countries. South Africa has an estimated TB/HIV co-infection rate of 71%. The South African TB/HIV Integration policy for Primary Health Care (PHC) services was implemented in April 2010. The aim of this study is to describe the status of TB/HIV integration in a district in KwaZulu-Natal with the intention of implementing interventions to improve integration.

OBJECTIVES
1. To determine the progress towards implementation of the policy
2. To design and implement interventions to improve TB/HIV integration in identified facilities
3. To create a basic model of care for TB/HIV integration

METHODS
A baseline assessment to determine the status of implementation of integrated TB and HIV services was conducted in all primary healthcare facilities. On analysis of the baseline data interventions to improve TB and HIV integration in identified facilities were developed.

RESULTS
Preliminary results indicate that there is inconsistent implementation of the policy. Qualitative and quantitative data analysis will be conducted in terms of infrastructure, service delivery, infection control and healthcare worker wellbeing. Interventions to improve TB/HIV integration will be implemented and evaluated after six months and one year.

CONCLUSIONS
The integration of TB and HIV in PHC facilities is essential in order to minimise the morbidity and mortality from this dual epidemic and improve patient care and management.

P224 - High levels of susceptibility and active Hepatitis B infection in Gauteng healthcare workers

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BACKGROUND
Hepatitis B (HB) infection, caused by the HB virus (HBV), is a major public health problem in South Africa. HBV is a blood-borne virus, thus healthcare workers (HCWs) are at high risk of occupational exposure to HBV. This study aimed to investigate HBV in HCWs working in Gauteng.

METHODS
HCWs’ serum samples were screened for HB surface antigen (HBsAg), antibodies to HBsAg (anti-HBs), and antibodies to HB core antigen (anti-HBc) using the Elecsys® 2010 electrochemiluminescence immunoassay (Roche diagnostics, Penzburg, Germany). HBV deoxyribonucleic acid (DNA) was extracted using the High Pure Viral Nucleic Acid kit (Roche Diagnostics, Penzburg, Germany) and amplified using real time polymerase chain reaction (PCR) (LightCycler Software Version 4.1, Roche diagnostics, Penzburg, Germany). Data were collected using Microsoft Access (Microsoft Office, 2010) and analysed using Epi info version 6.04 (CDC, 2004).

RESULTS
Of all HCWs, 28.8% (68/236) were susceptible (negative for all HBV markers); 49.6% (117/236) were immune due to vaccination (anti-HBs positive only); 12.7% (30/237) were immune due to natural infection (anti-HBs and anti-HBc positive); 21.6% (51/236) were exposed to natural infection (positive for either HBsAg, anti-HBc, or HBV DNA); 8.1% (19/236) were infected (positive for either HBsAg or HBV DNA); 7.2% (17/237) were HBV DNA positive.

CONCLUSION
Over 7% of these HCWS have active HBV infections, posing a risk to their patients. Also, 28.8% are susceptible to acquiring HBV infection from their patients. Thus there is a need for a vaccination policy for HCWs that protects both themselves and their patients.
P225 - The effectiveness of two

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BACKGROUND
The treatment of substance use disorders is a public-health priority, particularly in South Africa where resources are scarce. We tested two brief interventions (BIs) delivered by peer counsellors for risky substance use among adults presenting to emergency departments (EDs) in South Africa.

METHODS
In this randomised controlled trial, we enrolled patients presenting to one of three 24-hour EDs who screened at risk for substance use according to the Alcohol, Smoking, and Substance Involvement Screening Test (ASSIST). Eligible moderate and high risk users, were randomly allocated to one of three conditions delivered by peer counsellors: Motivational Interviewing (MI), Problem Solving Therapy (PST) or a Psycho-educational Control Group (PE). The primary outcome was self-reported reductions in substance use according to ASSIST scores use at 3 month follow-up.

RESULTS
Of the 2736 patients screened, 335 met inclusion criteria, were willing to participate in the intervention and were randomized to one of three conditions: 110 MI, 112 PST and 111 PE. There was a significant effect of intervention type on ASSIST scores ($F_{2, 178} = 5.95, p=0.003$). Planned contrasts revealed that the PST reduced substance use significantly more than MI, $p=0.01$, CI [-5.76—0.79] and the PE, $p=0.001$, CI [-6.78—1.77) at endpoint.

INTERPRETATION
With the addition of minimal resources, BIs are feasible to conduct in EDs and are acceptable to patients. PST appears to be the most effective BI in reducing substance use among at risk participants.

P226 - Global experience in health

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BACKGROUND
In 2010, Fairfield University received a three-year grant from the United States Agency for International Development (USAID), through Higher Education for Development (HED), to support a university service-learning program to deliver educational material on health-related topics to middle school students in Bambey, Senegal, a rural area, 60 miles east of the capital, Dakar.

OBJECTIVE
Fairfield University must work with the selected partner, University of Bambey, which has four rural campuses, about 20 miles apart, connected by both paved and dirt roads. However, the faculty is dedicated and competent, and the students are vibrant, intelligent, and hard working.

METHODS
Each University of Bambey campus might have just two or three majors of study. The USAID/HED grant specifies that Service-Learning must be used to deliver the training, and the use of computer technology is essential. The project will begin with pretesting of the professors and students, followed by testing at the end of the project, to assess the success of the project. The university of Fairfield faculty may serve as consultants and site visitors for Bambey university teacher’s.

RESULTS
Opportunities for Bambey University faculties may be educative, research, or for technical experiences. For students, they are participating in a E-learning program such as Malaria, HIV/AIDS, Tuberculosis. Social, cultural and political systems dictate differences in beliefs, values.

CONCLUSION
The Program is the flagship international educational exchange program sponsored by the US government and designed to increase mutual understanding between the people of the United States and the people of other countries.
P227 - The impact of community health workers (CHWs) and improved monitoring on PMTCT programmes in the Free State Province – a randomised control trial (RCT)

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University of Cape Town

PMTCT services need to be strengthened to eliminate paediatric HIV by 2015 in South Africa. Studies show CHWs as critical to the strengthening of primary health care services in developing countries.

This pragmatic cluster randomised control trial assessed the efficacy of CHWs to reduce missed opportunities at PMTCT services. The study was conducted in 32 antenatal clinics in Motheo district in Free State where HIV prevalence was estimated at 30% in 2011.

At 16 clinics CHWs followed women individually through pregnancy, presenting information on PMTCT. At all clinics routine data was verified against paper-based registers and clinical records and at feedback meetings training was provided to improve data quality and use of data to identify missed opportunities.

Over the 24 months there was a significant increase in HIV retesting rates at 32 weeks and PMTCT coverage across all sites. Over time HIV-negative women at first test were more likely to retest for HIV at 32 weeks at the intervention clinics (OR: 1.32, 95% CI: 1.03-1.69, p<0.05). Although PMTCT coverage of HIV-infected women at intervention sites was more likely this was not significant.

The increasing trend across all clinics may have been due to the monitoring intervention that took place across all clinics. This co-intervention may have reduced the power of the study to detect a significant difference in coverage due to the CHWs. It appears that both the CHW and monitoring interventions had an impact on missed opportunities at PMTCT services.

P228 - Seroprevalence of HIV

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Human Immunodeficiency Viral infection and protein energy malnutrition (PEM) are highly prevalent in Nigeria and when they occur together, the outcome is usually severe as both conditions lead to immune suppression. HIV alone accounts for 14.0% of childhood mortality even though children constitute only 6% of global HIV infection burden. This study was aimed at determining the prevalence of HIV infection among malnourished children below 5 years in Kano State, Nigeria. A total of 400 malnourished children were randomly selected and tested for the presence of HIV I & II using parallel ELISA rapid test kits ie Stat pak and Determine (both immunochromatographic techniques). Thirty-one samples were found to be positive to HIV 1 giving a prevalence of 7.8%. There was no statistically significant difference between sexes, male to female ratio being 1:1.3 and peak age of presentation was 2-3 years. Sixty four percent (64.0%) presented with severe form of HIV infection (stage 4) according to WHO paediatric HIV clinical staging and about half of them came with marasmus by the Wellcome classification of malnutrition. There was no significant association between the type of malnutrition and the severity of HIV infection at presentation, (p value >0.05). Commonest signs and symptoms were oral candidiasis (67.7%), lymphadenopathy (44.0%), fever (64.5%) and cough (54.8%). Sixty four percent of the children were from polygamous families. There was a significant statistical correlation between polygamy and incidence of HIV infection, (p<0.01). Only 45.0% of the women were aware of their HIV status prior to this study. Seventy four percent (74.0%) of those who were aware of their status had no knowledge of the prevention of mother to child transmission (PMTCT) services and even those who were aware, none of them accessed the care. A population based HIV screening is therefore recommended while perinatal HIV screening and PMTCT services need to be expanded.
P229 - Absenteeism attributed to depression among employees at a tertiary hospital: a record review

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INTRODUCTION AND OBJECTIVES
Depression increasingly contributes toward the non-communicable disease burden globally. Morbidity due to depression impacts on employee wellness and productivity in the workplace. Anecdotal evidence points to an increase in absenteeism attributed to depression in a tertiary hospital. This study aimed to investigate absenteeism ascribed to depression over a period of four years in terms of demographics, absenteeism rate, and direct financial loss to the hospital.

METHODS
The researcher did a descriptive review of the hospital’s depression-related absenteeism records from 2007 to 2011.

RESULTS
During the study period, 172 individuals accounted for 259 incidents of depression-attributed absenteeism. Nurses and females were most likely to take sick leave with a diagnosis of depression. Direct financial loss to the hospital amounted to almost R900 000. The incidence of depression-related absenteeism increased over the four years.

CONCLUSION AND RECOMMENDATIONS
Absenteeism attributed to depression appears to be an increasing problem among hospital employees. Causes for this problem need to be identified and addressed, specifically among vulnerable employees.

P230 - Improving the performance

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The discussion focuses on improving the performance of the health system in Africa through a Results-Based Monitoring and Evaluation Framework. This against a background of health system analyses on the continent by the United States Agency for International Development (USAID)’s 20/20 Health System Analysis Framework. It sought to determine health system performance by assessing the extent to which the realization of health goals which include responsiveness, equity, financial risk protection and efficiency were being realized. Methodologically, this study was carried out through a documentary search in which publications by Africa’s health ministries, United States Agency for International Development (USAID), World Health Organization (WHO), African regional and sub regional bodies were reviewed. The major findings revealed that most African countries were experiencing capacity constraints around health system building blocks, which was undermining the full realization of health goals thus resulting in unfavourable qualitative and quantitative health indicators. It was therefore recommended that health system performance in Africa could be improved through the collaborative adoption and systematic implementation of the Results-based Monitoring and Evaluation Frameworks. Some lessons were from Zimbabwe’s framework for the implementation of the National Health Strategy (2009-2013), and the WHO Country Cooperation Strategy (2009-2013) which revealed that this framework provided a platform upon which capacity may be built to improve the performance of the health system. More lessons from Kenya also led to the recommendation that the Results-Based Monitoring and Evaluation Framework is an innovative tool upon which the performance of the health system may be improved.
P230 - Knowledge, Attitude and Practices Towards Onchocerciasis in Tikonko Chiefdom, Bo District.

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Connaught Teaching Hospital

**BACKGROUND**
Tikonko Chiefdom of Bo District, is along the riverine areas, located about 219km from the capital Freetown, has a total of 155 villages and is populated by 39,399 people, constituting 0.8% of the total population of Sierra Leone, and 8.5% of the population of the Bo District according to the 2004 census.

**METHOD**
332 respondents were interviewed by random sampling.

**RESULT**
Most respondents were farmers (45%). Knowledge of the vector was poor, only 38% knew that the Blackfly was the vector for the disease. 98% did not know the causative. Knowledge of symptomatology was encouraging. Majority knew that blindness (72%), pruritus (70%), and skin swelling (52%) were among the signs and symptoms of Onchocerciasis. Knowledge of complications was also encouraging; with 72% of respondents knowing it caused blindness and 50% knowing it caused elephantiasis. 79% knew it could be treated, and 71%, claim they would seek treatment to prevent the disease. 86% claim they would seek treatment if they have the disease. Majority claim that treatment would prevent complications, and will interact with people infected with Onchocerciasis.

**CONCLUSION**
Attitude and practice towards Onchocerciasis are encouraging so far, but knowledge has to be improved so that people can adopt adequate preventive measures.

P232 - A survey of first year postgraduate students in Public Health, Discipline of Public Health Medicine, School of Nursing and Public Health, University of KwaZulu-Natal.

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**BACKGROUND**
Postgraduate students enrolled at South African universities face a number of challenges. These can include work and family commitments, as well as a significant time lag from undergraduate study. Moreover, postgraduate students have diverse backgrounds (cultural, social, political, geographic, and educational) that may impact on the success of their studies.

For Public Health postgraduate students, in particular those from clinical undergraduate studies, additional challenges may include reading and synthesizing large volumes of academic discourse, analyzing public health problems, and constructing logical evidence based arguments.

Not surprisingly, there is a high level of attrition experienced in postgraduate programs. Negative consequences of attrition include the financial loss associated with government subsidies, the decrease in availability of skilled individuals, and the psychological impact on students that do not complete their studies.

Previous studies have highlighted the importance of understanding student characteristics in terms of factors influencing attrition and retention. However, there is limited evidence available, especially with respect to postgraduate students in Public Health.

**AIM**
To provide baseline information about student characteristics, educational and employment experiences of postgraduate students enrolled in their first year (2013) in Public Health at the University of KwaZulu-Natal.

**METHODS**
This is an observational, descriptive study using a cross sectional survey design.

**RESULTS**
This study will provide information on the student characteristics, motivation and career expectations of the postgraduate students in Public Health. This information will be useful in understanding student attrition and retention in Public Health. It will also help teaching staff in the appropriate development and implementation of the curriculum.
P233 - Overweight, obesity, underweight and stunting in female primary school learners in Zululand, South Africa – evidence for a nutritional transition

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BACKGROUND
Evidence from studies in South Africa demonstrate that a nutritional transition is occurring in rural communities, linked to a change in lifestyle. This is characterized by shifts in patterns of food consumption, reduction in physical activity, and a diet high in sugar, salt and trans-fats. As a consequence, over nutrition (overweight and obesity), and under nutrition (underweight, wasting and stunting) co-exist in communities, which can have a substantial impact on the health outcomes of children.

AIM
To describe the nutritional status of 963 female learners (8-12years) in 31 primary schools in Nongoma and Ceza, Zululand, KwaZulu-Natal, using anthropometric data collected during the 2011 HPV Vaccination Demonstration Project.

RESULTS
Overall, 9% of female learners were overweight; 3.8% were obese, 9.2% were underweight, and 4% stunted. In terms of age categories, the highest levels of stunting were in the 11–12 year age groups and underweight was highest in the 10 year age group. The highest levels of overweight and obesity were in the 9-10 year old age groups. Moreover, 17.4% of those underweight, were also stunted. Stunting was also present in 11.1% and 22.9% of overweight and obese learners respectively.

CONCLUSION
This study found evidence of under and over nutrition among female learners in rural KwaZulu-Natal, suggesting the presence of a nutritional transition. The findings can assist health professionals and policy makers in the further development and implementation of nutritional health promotion and education programs in schools.

P234 - The relationship between oral candidiasis and micronutrient deficiency in an adult TB cohort in Alexandra, Johannesburg

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Tuberculosis (TB) is a major public health problem worldwide, and particularly in South Africa. Micronutrient deficiency (malnutrition) is caused by insufficient supply of vitamins and minerals for normal cell function in the body. Nutritional deficiencies in minerals, vitamins and diets rich in carbohydrates have been implicated in the pathogenesis of oral candidal infections. Malnutrition and wasting are associated with TB, and HIV/TB co-infection may potentially worsen the wasting that occurs in TB or HIV infection alone.

AIM
of the study was to investigate the relationship between micronutrient deficiency and Oral Candidiasis (OC) in adult TB patients. The prevalence of OC and its association with malnutrition in terms of Zinc (Zn), Iron (Fe), Albumin, Selenium (Se), Vitamin A (Vit A) and Vitamin D (Vit D) deficiencies were evaluated in a cross sectional study among eighty eight (n=88) TB adult patients. Patients underwent a complete oral examination for presence and type of OC and blood collection was done for serum nutritional assessment for levels of the micronutrients (Zn, Fe, Albumin, Se, Vit A and Vit D).

RESULTS
The mean age was 36 years of age, with the majority being females (60%) and HIV positive (69.3%). The prevalence of OC was 60% with pseudomembranous OC (48%) being the most common. Serum concentrations for Zn deficiency (< 8.2 μmol/L) was 69.4%, Vit A deficiency (< 1.05 μmol/L) was 52.3%, Albumin deficiency (< 35 g/L) was 69%, Se deficiency (< 46 μg/L) was 93.2%, Fe deficiency (< 9 μmol/L) was 53.7% and Vit D deficiency (< 49 nmol/L) was 45.1%. OC was prevalent in 40% (Zn deficiency), 25% (Vit A deficiency), 32% (Albumin deficiency), 33% (Se deficiency), 31% (Fe deficiency) and 36% (Vit D deficiency). However, there was no significant association between micronutrient deficiency and OC (p > 0.05).

Conclusion: These data demonstrate that OC in TB adult patients is not associated with micronutrient malnutrition. Longitudinal studies are required to investigate the relationship between micronutrient deficiency and OC in adult TB patients further.


**P235 - Prescribed Daily Doses (PDDs) of hypolipidaemic agents with emphasis on HMG CoA reductase inhibitors**

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Dyslipidaemia is a major cardiovascular risk factor in the South African population. The primary aim of the study was to determine the prescribing patterns of hypolipidaemic agents on the South African market with specific emphasis on the Prescribed Daily Doses (PDDs) of HMG CoA reductase inhibitors (statins). A retrospective, cross-sectional pharmacoepidemiological study was conducted on 2011 data. All records for hypolipidaemic agents were extracted for analysis. A total of 4805 patients (56.88% males) were prescribed 38373 hypolipidaemic agents. The average age of patients was 56.07 (SD=13.32) years. Statins accounted for 93.85% of prescriptions, followed by fibrates (3.61%). Simvastatin was the most frequently prescribed statin (accounting for 62.59% of all prescriptions), followed by atorvastatin (17.04%) and rosuvastatin (11.68%). The average PDDs were generally lower or in agreement with the Defined Daily Doses (DDDs), except for rosuvastatin. The average PDD of simvastatin was 23.70 (DDD=30 mg), pravastatin 25.35 mg (DDD=30 mg), lovastatin 26.31 mg (DDD=45 mg), atorvastatin 20.91 (DDD=20 mg) and fluvastatin 57.29 mg (DDD=60 mg). The average PDD of rosuvastatin was 15.02 mg and the DDD only 10 mg. The fibrates constituted 3.61% of prescribing, with most prescriptions for bezafibrate. Only one cholesterol absorption inhibitor drug was prescribed (ezetimibe) accounting for 1.64% of prescriptions. Other hypolipidaemic agents prescribed accounted for only 0.89% and consisted of the combination of ezetimibe and simvastatin, and cholestyramine. There are a variety of generic equivalents available for the statins on the South African market. Further studies are needed to investigate the cost implications of generic prescribing.

**P236 - Exploring Health Care**

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**BACKGROUND**  
World Health Organisation encourages health promotion to all organisations responsible for the provision of health services. MHP is one of the Millennium Development Goals (MDG). The promotion of mental health is everyone’s responsibility (Naidoo and Wills, 2009). Mental health services takes large proportions of health budgets to services in Milton Keynes NHS.

**AIM**  
To explore health care professionals’ views at an independent mental health hospital in St. Neots Grange (UK) in order to understand their perceptions and uptake of MHP in a care-based health service/setting.

**METHODS**  
Qualitative research methods were implemented from a constructionist epistemological perspective. A purposive sample was conducted wherein thirteen health care professionals were interviewed using semi-structured interviewing techniques. The data collected was subject to a thematic content analysis. Ethics approval was sought and granted from the SNPGMHH ethics committee and UoL/LOE.

**RESULTS**  
Four themes emerged from the data collected namely: 1) people who promote mental health in a care-based mental health hospital; 2) Factors that impact on or influence the promotion of mental health in a care-based independent hospital; 3) how MHP is promoted in a care-based independent hospital and 4) evidence of MHP in a care-based independent mental health hospital.

**CONCLUSIONS**  
There is evidence that MHP is taking place in SNPGMHH with an average awareness thereof. There is a need for staff and patients education and training. Everyone employed in a care-based setting is deemed to be responsible and capable of promoting mental health (MH). MHP is beneficial and its need remains high requiring a situational balance between health care (HC) and health promotion (HP) activities.

**KEYWORDS:** Mental health promotion; health care professionals’ views/attitudes/perceptions and mental health independent hospitals.
P237 - An investigation into the existence of health services delay in the diagnosis and initiation of appropriate tuberculosis treatment at rural hospitals of Vhembe district, Limpopo Province of South Africa.

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BACKGROUND:
Tuberculosis remains a major global health problem ranking second leading cause of death from infectious diseases worldwide. The Global tuberculosis report 2012 reports that about 1.4 million people died from TB in 2011 with South Africa amongst five countries with the largest number of incident cases. High TB mortality is evidently associated with delayed TB diagnosis and treatments, which makes it an important issue of focus in this study.

OBJECTIVE:
The purpose of this study was to investigate the existence of health service delay in the diagnosis and initiation of appropriate tuberculosis treatments at rural hospitals of Vhembe district, Limpopo Province of South Africa.

METHODS:
A quantitative approach, using cross-sectional descriptive survey design was adopted. The setting was seven hospitals of Vhembe district. The target population was all files of admitted tuberculosis patients. A total of fifty eight randomly selected files were studied. A structured document study checklist was developed and used to collect data. Validity and reliability of the checklist was ensured. Necessary approvals, clearance and consent were obtained. Data was analyzed using Excel spread sheet to determine the mean.

RESULTS:
The study discovered a mean average of 43hrs delay in the diagnosis and 45hrs delay in the initiation of appropriate tuberculosis treatments.

CONCLUSION:
There is a considerable delay in the diagnosis and treatment of TB at rural hospitals of Vhembe district, Limpopo province of South Africa. Early TB diagnosis and treatment depends on sputum AFB collection practices as well as the sputum AFB turnaround time. Since the recommended sputum AFB collection practice is on the sport with a turnaround time within 24hrs of the first health care visit, strict implementation of these practices would go a long way to reduce health service delays at rural hospitals.

KEY WORDS:
Health service delay; TB diagnosis; Initiation of TB treatments.

P238 - Disability Unit Staffs’ perceived challenges and experiences of serving students with disabilities at a tertiary institution in South Africa

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BACKGROUND:
Disability is a phenomenon that places a heavy social and emotional burden not only on those who are classified as functionally disabled, but also on social institutions. For students with disabilities in a tertiary institution, lack of the necessary support services can render them socially excluded and overly dependent.

PURPOSE:
The study explored and described the perceived challenges and experiences associated with serving students with disabilities at the University of Venda.

METHODS:
This was a total population survey due to the limited number of staff members that were serving students with disabilities at the Disability Unit. The study adopted a quantitative approach and used self-administered questionnaire. Microsoft Excel was used to analyse data.

RESULTS:
Disability prevalence in the study setting was 141(2%) and included mostly 34% physically impaired and 22% partially sighted students. The participants reported being overwhelmed with work pressure and were grossly understaffed. Participants also encountered challenges emanating from handling 'abuse' cases, appalling sanitation conditions, harsh physical environment and non-user-friendly facilities.

CONCLUSION AND RECOMMENDATION:
The study found that staffs of the Disability Unit lacked the necessary resources and support to deal with disability issues. A campus wide disability awareness campaign among the university community and an increased budget allocation for the Disability Unit are recommended.
P239 - Healthcare 2030
Planning for patient centred quality of care in the Western Cape

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The Western Cape Department of Health is entering its third wave of long term planning. The reflection on the last two decades post democracy and the lessons learnt from planning and implementing the Comprehensive Service Plan of 2010 as well as the changing external and internal environments inform the vision and planning process for 2030.

A planning methodology has been developed to allow for geographic based modeling based on the seven key principles and six values. The allocation of resources is differentiated on the basis of a dependent population calculated on household incomes as a proxy to address equity. A workload calculator is used to develop staffing levels for various sections of the service platform. The vision narrative is innovatively developed and reflects multiple perspectives of what different stakeholders hope the Western Cape health service would look like in 2030.

Healthcare 2030 aims to shift emphasis towards patient centred quality care with a strong focus on equity, prevention and promotion. The bedrock of the health service platform is the district health service supported by secondary, tertiary and specialized hospitals as well as an efficient emergency medical service. The areas of greatest investment is primary health care including community based services.

Re-orientation of health services towards patient centredness, prevention and promotion requires a rethink of human resource management and development particularly the importance of working in teams, infrastructure development, information management, the optimal use of ICT opportunities and leveraging of strategic partnerships with communities, academia, private sector and others. Collective and decisive leadership will be a key underlying precondition to the successful implementation of Healthcare 2030.

P240 - A formative evaluation of the development of a Quality Improvement Learning Collaborative capacity building program to improve Paediatric and Adolescent HIV/TB health outcomes

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BACKGROUND

New national health policy emerges every year, but often fail to get rapidly translated into practice due to individual, organisational, and system level challenges. In the recent past, various new policy developments and guidelines have been adopted for paediatric and adolescent HIV/TB health programs in South Africa in order to improve maternal and child health outcomes, such as the National Strategic Plan for HIV, STIs, and TB 2012-2016, the Paediatric and Adolescent HIV/TB Blue-print for Action 2012-2016, and the Strategic Plan for Maternal, Newborn, Child, and Women’s and Nutrition in South Africa 2012-2016. Traditional capacity building programs, typically delivered through training and mentoring, often fail to bring about rapid and wide-scale changes due to the local obstacles for knowledge translation and system changes required. In addition to a district support model delivering training and mentoring to frontline health care workers, we developed a capacity building program that is based on the Quality Improvement Learning Collaborative model - a strategy that involves shared learning of key stakeholders working in paediatric and adolescent ART/TB health programs to rapidly achieve significant improvements in process, quality, and efficiency. This paper describes the implementation process of program development activities and describes achievements, challenges and lessons for implementation of the quality improvement learning collaborative.

OBJECTIVE

To describe the formative evaluation of program development activities undertaken to develop the Quality Improvement Learning Collaborative.

METHODS

A context-specific and evidence-based quality improvement approach was developed based on important drivers and obstacles that needed to be addressed during the project period. Program development activities included project planning meetings that utilized affinity diagrams, cause and effect diagrams, flow diagrams, driver diagrams, and other project planning tools. Preparatory phase activities included the identification of collaborative stakeholders, development of an implementation package, development of a collaborative structure, training material, mentoring strategies, and strategies for data management. During the preparatory phase, process evaluation activities utilized qualitative and quantitative data through the review of routine program monitoring implementation tools and activity reports. Lessons learnt were shared with collaborative stakeholders in consultative forums, and in consensus meetings to define best practise and standards of care.

RESULTS

The program development project for the QI Learning Collaborative was adapted to the South African context and to our specific program. Program personnel supported the development of the Collaborative, and highlighted important drivers and obstacles that should be addressed for effective capacity building of health workers using the QI Learning Collaborative approach. A driver diagram depicting the primary and secondary drivers and associated quality improvement change ideas to improve paediatric and adolescent HIV/TB outcomes is presented. A logic framework for the Collaborative is presented with a project evaluation plan listing key indicators to track progress and impact. Key lessons learnt by the project steering committee are: 1) future program development activities will require additional investment in program staff capacity building to ensure active engagement with program development theory and in-depth understanding of the QI Learning Collaborative methodology, 2) ensure adequate time available for project planning, integration with existing program activities, and a plan outlining transition from previous capacity building activities, to the QI Learning Collaborative model, 3) actively involve Department of Health, civil society, and academic leaders and experts to ensure that the Collaborative is integrated with existing capacity building initiatives.

CONCLUSIONS

The program development project for the planning and preparation of the QI Learning Collaborative was implemented according to plan. Progress and success to date have been based on developing a model of care that would ensure that standards of care are implemented to achieve the objectives of the paediatric and adolescent HIV/TB health programs in South Africa.
P241 - Enhancing community facility linkages to improve retention in care and psychosocial support for HIV/TB services through the South to South Quality Improvement Learning Collaborative program

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BACKGROUND
To date the South African government has developed various policies and guidelines that emphasise the need for better community and facility linkages in order to improve the health of the nation. There is need for interventions to ensure rapid translation of policies into a coordinated response amongst interrelated stakeholders working towards policy objectives. In addition to a district support model delivering training and mentoring to frontline health care workers, we developed a capacity building program that is based on the Quality Improvement Learning Collaborative model - a strategy that involves shared learning of key stakeholders working in PMTCT and paediatric and adolescent HIV/TB to rapidly achieve significance improvements in process, quality, and efficiency. Here we report the formative evaluation of the Quality Improvement Learning Collaborative aiming to improve retention in care and psychosocial support outcomes.

OBJECTIVE
To describe program development activities, achievements and challenges for a quality improvement learning collaborative that aims to enhance health facility and community linkages, retention in care and uptake of psychosocial support services.

METHODS
A context-specific and evidence-based quality improvement model was developed based on important drivers and obstacles that needed to be addressed during the project period. Program development activities included project planning meetings that utilized affinity diagrams, cause and effect diagrams, flow diagrams, driver diagrams, and other project planning tools. Preparatory phase activities included the identification of collaborative stakeholders, development of an implementation package, development of a collaborative structure, training material, mentoring strategies, and strategies for data management. During the preparatory phase, process evaluation activities utilized qualitative and quantitative data through the review of routine program monitoring implementation tools and activity reports. Lessons learnt were shared with collaborative stakeholders in consultative forums, and in consensus meetings to define best practise and standards of care.

RESULTS
The program preparation and development phase identified the objectives of the quality improvement learning collaborative and a number of change ideas and implementation packages to be implemented. Strategies and change ideas identified include approaches to reduce stigma and discrimination within facility and communities, improving retention in care, improving the competencies of health care workers providing adherence and psychosocial support services, and ensuring community and family linkages. The program development project for the planning and preparation of the quality improvement learning collaborative was implemented according to plan. Key lessons learnt by the project steering committee are: 1) future program development activities will require addition investment in program staff capacity building to ensure active engagement with program development theory and in-depth understanding of the quality improvement learning collaborative methodology, 2) ensure adequate time available for project planning, integration with existing program activities, and a plan outlining transition from previous capacity building activities to the planned quality improvement learning collaborative model, 3) actively involve Department of Health, civil society, and academic leaders and experts to ensure that the quality improvement collaborative is integrated with existing capacity building and quality improvement initiatives.

CONCLUSIONS
The program development project for the planning and preparation of the quality improvement learning collaborative was implemented according to plan. Progress and success to date have been achieved in developing a model of care that would ensure that standards of care are implemented to enhance retention in care of mothers, infants, children, and adolescents in HIV/TB programmes.
P242 - The development of a Quality Improvement Learning Collaborative capacity building program to improve PMTCT outcomes of mother-infant pairs at 18 months post-partum: Key findings from a formative evaluation

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BACKGROUND
New national health policy emerges every year, but often fail to get rapidly translated into practice due to individual, organisational, and system level challenges. In the recent past, various new policy developments and guidelines have been adopted in PMTCT in South Africa in order to improve maternal and child health outcomes, such as the National Strategic Plan for HIV, STIs, and TB 2012-2016, the PMTCT Action Framework for 2012-2016, and the Strategic Plan for Maternal, Newborn, Child, and Women’s and Nutrition in South Africa 2012-2016. Traditional capacity building programs, typically delivered through training and mentoring, often fail to bring about rapid and wide-scale changes due to the local obstacles for knowledge translation and system changes required. In addition to a district support model delivering training and mentoring to frontline health care workers, we developed a capacity building program that is based on the Quality Improvement Learning Collaborative model - a strategy that involves shared learning of key stakeholders working in PMTCT to rapidly achieve significance improvements in process, quality, and efficiency. This paper describes the implementation process of program development activities and describes achievements, challenges and lessons for implementation of the quality improvement learning collaborative.

OBJECTIVE
To describe program development activities undertaken to develop the quality improvement learning collaborative aimed at improving key PMTCT outcomes for mother and infant pairs.

METHODS
A context-specific and evidence-based quality improvement approach was developed based on important drivers and obstacles that needed to be addressed during the project period. Program development activities included project planning meetings that utilized affinity diagrams, cause and effect diagrams, flow diagrams, driver diagrams, and other project planning tools. Preparatory phase activities included the identification of collaborative stakeholders, development of an implementation package, development of a collaborative structure, training material, mentoring strategies, and strategies for data management. Preparatory phase, process evaluation activities utilized qualitative and quantitative data through the review of routine program monitoring implementation tools and activity reports. Lessons learnt were shared with collaborative stakeholders in consultative forums, and in consensus meetings to define best practise and standards of care.

RESULTS
The program preparation and development phase identified collaborative objectives and a number of change ideas and implementation packages to be implemented by the collaborative. Strategies and change ideas identified include improving the quality of family planning services, elimination of mother-to-child-transmission of HIV, early identification and access to ART, integration of nutrition support services, improving retention in care, and linkage of facilities and communities. Key lessons learnt by the project steering committee are: 1) future program development activities will require addition investment in program staff capacity building to ensure active engagement with program development theory and in-depth understanding of the QI Learning Collaborative methodology, 2) ensure adequate time available for project planning, integration with existing program activities, and a plan outlining transition from previous capacity building activities, to the QI Learning Collaborative model, 3) actively involve Department of Health, civil society, and academic leaders and experts to ensure that the Collaborative is integrated with existing capacity building initiatives.

CONCLUSIONS
The program development project for the planning and preparation of the QI Learning Collaborative was implemented according to plan. Progress and success to date have been based on developing a model of care that would ensure that standards of care are implemented to achieve the objectives of the PMTCT program in South Africa.
P243 - The lived experience of male intimate partners of female rape victims in Cape Town, South-Africa

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BACKGROUND
In the republic of South Africa, and indeed elsewhere, most research on sexual assault issues reflects a focus on female rape victims. The effects of rape on individuals close to the primary victims, particularly the intimate partners, are not clear. The lack of knowledge and understanding in this area provided the impetus for the study.

OBJECTIVE
The primary purpose of the study was to explore, analyse and interpret the lived experiences of male intimate partners of female rape victims and the meaning of such experiences within six months of the rape. A secondary purpose was to formulate a framework to understand and conceptualise male intimate partners' experiences.

METHODS
The research question was: what are the lived experiences of intimate partners of female rape victims during the six months following the rape? Purposeful sampling was used. Nine intimate partners of female rape victims participated in four face-to-face, semi-structured interviews: (a) within 14 days of, (b) a month after, (c) three months after and (d) six months after the rape. The steps of Colaizzi's and the within-case and across-case approach, was used for data analysis. The hermeneutic-phenomenological approach of Paul Ricoeur formed the framework for the interpretation of the findings.

RESULTS
Data analysis indicated two life-worlds of intimate partners: (a) being-in-the-world as a secondary victim of rape and (b) living in multiple worlds—the worlds of their female partners, family, friends, society, employers or colleagues, professionals and the justice system.

CONCLUSION
This study illustrates that the rape of a female victim undoubtedly affects her male intimate partner, both physically and mentally. Progress towards recovery is halting and inconsistent.

P244 - Training, mentorship and supervision as key components of a facility-based Community Health Worker model

D van Zyl
Community Media Trust

Primary Health Care re-engineering recognises the role of Community Health Workers (CHWs) as an affordable and quickly trainable workforce able to improve health outcomes through early identification of disease and referral to health services, and to reduce the burden on professional health workers through task-shifting. This study considered the role and impact of integrating CHWs into clinics to improve patient uptake of PMTCT programme services, and to provide costing of the intervention components. A pragmatic cluster randomised controlled trial was set up in 32 sites across the Mangaung Metropolitan Municipality and Mantsope sub-district (previously Motheo District) in the Free State. 16 clinics offered standard of care in the PMTCT programme, with another 16 clinics assigned the CHW intervention. The CHWs supported the clinic by providing additional PMTCT-focused services, including facilitating health promotion sessions in the waiting areas, scheduling individual follow-up consultation appointments for HIV-positive and HIV-negative expectant mothers to ensure PMTCT programme retention, assisting with task sharing, and running awareness events to promote PMTCT within the community.

Placing emphasis on strong training and support was hypothesised to be an important investment in the impact of CHWs in these facilities. Qualitative findings from beneficiaries and implementers in the field support the importance of training, mentorship and support of CHWs if they are to have an impact on broader health outcomes.
P245 - Health system policies and strategies for reducing urban-rural health inequities in South Africa

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INTRODUCTION
The health system has been identified as a key intermediary social determinant of reducing health inequities by the Commission on the Social Determinants of Health. Three approaches to address urban-rural inequities within health systems were highlighted by the Commission: the provision of primary health care facilities to rural residents; relatively higher budgets to rural districts and facilities to accommodate the greater cost of providing such care to more dispersed populations; and the need to provide skilled health workers to such settings through human resource strategies.

METHODS
Documents related to the policies, strategies and expenditure of the South African national and KwaZulu-Natal provincial Department of Health from 1994 - 2012 were reviewed to assess the development and implementation of these three approaches.

RESULTS
The documents reviewed emphasised only one of the three approaches, viz. human resource constraints and the need to attract staff to rural facilities. However, only two strategies, mandatory community service and the rural allowance, have been implemented. Research on these two strategies found that they had not been effective in reducing urban-rural staffing inequities.

CONCLUSION
The reengineering of the primary health care system currently underway has highlighted the importance of comprehensive government approaches to the social determinants of health, particularly in rural areas. It is recommended that South Africa should develop and implement a specific rural health strategy.

P246 - Improving the first point of contact for patients at Elim Hospital outpatient department

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BACKGROUND
A picture familiar and much commented on in the Public health sector is the overcrowding, bottlenecks and long waiting times for patients leading to customer dissatisfaction with services.

OBJECTIVE
This action research is an on-going study and the researcher’s attempt to address this problem at Elim hospital within Vhembe District, Limpopo. The study is undertaken in the context of 2 of the National 10 point plan priorities and 3 of the 20 National objectives to accelerate improved health care and contribute to the Governments’ Health sector vision “A long and Healthy Life for all South Africans”.

The study addresses factors that influence a person’s experience at the hospital first point of contact, namely; the time spend waiting, the physical environment and their experience of compassion during this time.

METHODS
A baseline survey was done to establish client satisfaction and waiting times. Intervention measures undertaken included:
- Implement a queuing system to direct the flow of people through the area including a fast line for the elderly, disabled and pregnant women
- Providing employees to assist with information and enhance public relations
- Capacitate, educate and inform clients about primary health care facilities and referral systems and documentation requirements for public health facilities records
- Non-budget improvement of infrastructure and physical environment
- Establishment of a project team to:o Re-organize existing patient administration cubicles to accommodate a fast line for patients with special needs and specialized clinics
  o Training of queue attendants by local commercial bank as community project on improving public relations and the needs of clients
  o Training of Help Desk nursing staff and implement a booking system for specialized clinics
  o Distribute information pamphlets to clinics in catchment area including first contact area regarding referral system and documentation needs
  o Infrastructure project to separate the current first contact area from the casualty/emergency area and compliment the environment

The project will be evaluated at the end of July 2012. To determine the effectiveness of measures undertaken, outcome indicators will be measured against baseline indicators.
P247 - Use of Community Based Health Information in assessing cost variations by context and implementation phases of health interventions.


Improving the Performance of Health System
While economic evaluations are an important tool to guide decision-making and priority setting, authors of recent reviews have identified a number of important methodological limitations. These include inconsistencies or failures to specify the costing perspective, to clarify costing assumptions, to identify sources of cost data, to apply sensitivity analysis to assess how robust findings are, or to use discounting to adjust for differences in the timing of interventions or outcomes. While these methodological problems can be readily fixed, there is a more difficult set of questions about economic analyses that have surfaced in the literature over the past decade. Specifically, these relate to the external generalizability of economic models across settings and contexts, and economic considerations in the scale-up and sustainability of interventions. In this study we report findings on costs analysis using information captured from community based health information system on implementation of community health strategy in Kenya. The study was nested within an ongoing quasi-experimental study on the uptake, implementation and effectiveness of a CBHC program, in three different socio-demographic contexts in Kenya. Cost data were collected from eight community health units. Findings show the total cost of establishing, maintenance and sustaining a community health program in Kenya as ranging between USD 14,135 to 20,354 per annum with variations based on contexts. The community is a major contributor towards community based health programs in Kenya with variations based on contexts. Results of the two studies indicate that the context in which a program is implemented is critical in designing cost structure during planning. The study have shown that there is need to widen perspective in making assumptions about and assessing costs, requiring a system perspective which takes into account societal, ministerial and other stakeholders in the entire system. The cost elements and their intersection shift across implementation phases, regions, districts, management styles and countries. Community based health programs and frontline manager research involvement programs cost structure planning require to take cognizant of the context and these shifts during initial planning phases

Key words: Community, health, system, cost, context.

P248 - Assessing equity in the distribution of community pharmacies in preparation for the national health insurance: role of corporates, independent community pharmacies and public clinics

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Background
In 1994, regulatory reform to the community pharmacy (CP) sector in South Africa (SA) was implemented to address the unequal distribution of pharmaceutical services. The Green Paper for a National Health Insurance (NHI) system identifies CPs as additional access points for medicines in combination with public clinics. This paper reviews the impact of regulatory reform since 1994 on the distribution of CPs and public clinics in SA’s 9 provinces and 10 selected districts.

Methods
CP, clinic and population data were sourced from relevant national databases for assessing trends in numbers, growth and distribution (per 10,000 residents) of facilities. Interviews were conducted with 8 key leaders in pharmacy.

Results
The quality of existing data on CPs and the availability of data on public clinics are poor. There has been a decline in the number of CPs relative to population since 1994 and enormous differences between provinces and within provinces at district level in numbers and ratios of CPs and pubic clinics. The increase in numbers of CPs and in public clinics has not kept pace with population growth and need. Corporates have seen the main areas of growth but this not associated with meeting need or equity in distribution.

Conclusion
In the absence of a rigorous system for monitoring and enforcement of regulations, of incentives supporting CPs in rural areas and of firm plans for expanding the pharmacy workforce, the inclusion of CPs as additional access points for medicines under the NHI could undermine equity.
P249 - Assessing knowledge, attitudes and practices regarding Mycobacterium tuberculosis infection risk among Health Science students in a TB endemic setting

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BACKGROUND
South African health care workers, including Health Science students (HSS), are at increased risk of contracting tuberculosis (TB) and require knowledge of TB infection prevention and control (TB-IPC) measures.

OBJECTIVE
To assess knowledge, attitudes and practices regarding TB infection risk among HSS.

METHODS
HSS at Stellenbosch University (n=327) participated in a cross-sectional interventional study, with pre- and post-intervention questionnaires. The intervention included personal accounts by medical professionals affected by TB and TB-IPC education.

RESULTS
HSS overestimated risk of developing TB, but underestimated drug-resistant tuberculosis (DR-TB) mortality. Only students in their clinical years answered questions relating to TB practices at Tygerberg Hospital: 63% (114/182) reported regular contact (once a week or more) with patients who had defaulted on TB treatment. Only 8% (15/177) reported that N95 respirators were always available where needed. Natural and mechanical ventilation were reportedly not used in clinical areas (60%, 108/179 and 55%, 90/164 respectively). Additional TB-IPC measures including airborne precaution signs and single-room isolation were reportedly inadequately utilized. Pre-intervention knowledge of personal protective equipment use was poor but improved by 20% post-intervention (0.575/1 vs 0.775/1 [p < 0.001]).

CONCLUSION
HSS lack knowledge of TB control measures and report inadequate implementation of TB-IPC in their training institution. A structured educational intervention increased students’ awareness of occupational TB infection risk and knowledge of TB-IPC measures. More opportunities for training in TB-IPC are urgently needed for HSS in TB-endemic settings. A similar intervention could be included in all Health Science curricula to protect students and future professionals.

KEYWORDS: TB; TB-IPC; Health science student education; Occupational risk

P250 - A description of medical student rural community health projects and alignment to district health priorities.

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BACKGROUND
The medical curriculum at Stellenbosch University (SU) should adapt to train students to effectively function as doctors in the South African health context. As part of curriculum change SU medical students rotate in rural health facilities and communities to familiarise themselves with the working environment where they will contribute after qualification. During these rotations they do community health projects. Students do descriptive, health promotion or quality improvement projects. Topics are chosen together with community and health facility stakeholders.

METHODS
Student projects are uploaded onto the Ukwanda Moodle website. 209 student projects from January 2012 to January 2013 were downloaded and analysed using an innovative web-based survey tool. All relevant details were extracted to an excel file.

RESULTS
Students conduct projects in a large range of facilities and environments ranging from district hospitals to informal settlements and mobile clinics. Descriptive and health promotion projects as the most common. The topics they identify align well with the provincial health priorities. The rigor and external validity of the studies are of low quality. Continuity at sites and between student groups is poor.

CONCLUSION
With the above new information to our disposal we can improve the student curriculum and rural rotations. Adaptations to student project relevance and rigor should be made in order to better align it with health priorities and increase the long-term impact of health science student involvement on the health of our rural communities.
P251 - Rural electives: providing transformative learning opportunities and Influencing choice of career - The Stellenbosch University experience

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CONTEXT
Rural background and longitudinal rural clerkships for medical students including training at rural medical schools are established predictors for rural practice. Considering that less than a third of all South African medical students originate from rural areas and are educated in urban universities, additional strategies are necessitated to encourage rural career choices. This study explores the benefits of a one month rural elective in influencing further rural practice and is funded by the Stellenbosch University Rural Medical Education Partnership Initiative.

METHODS
This qualitative study evaluated rural elective students’ learning experiences and possible influences on future career choice. Online anonymised surveys and feedback from focus group discussions were analyzed to identify recurring themes.

SUMMARY OF RESULTS
Students described the rural elective as an enriching experience and a positive opportunity facilitating exposure to the context in which they will ultimately work. Adapting to environments with limited resources and populations with varying cultural backgrounds were embraced and valued by students. In addition, learning opportunities for community engagement and patient-centered care were seen to inspire students to return to rural areas.

CONCLUSION
Rural electives provide transformative learning experiences that could influence urban educated medical students’ choice of working in rural areas. Further investigation of this model is recommended.

TAKE HOME MESSAGE
Innovative medical education models offering shorter periods of rural exposure may serve to enhance rural recruitment in South Africa.

P252 - What are the health system

Yaya Bocoum

INTRODUCTION
Despite several advances in key areas, syphilis remains a major public health problem. Syphilis in pregnancy is a major risk for the mother and the fetus and increase risk for HIV transmission. Unfortunately, antenatal syphilis screening is often poorly implemented in sub-Saharan countries. The purpose of the study is to identify and understand barriers affecting health system performance for syphilis screening among pregnant women in Burkina Faso.

METHODS
We used qualitative methods, including in-depth interviews and observations. The study was conducted in the health district of Kaya. A purposive sample was used to capture a range of perspectives across different actors with different roles and responsibilities. 75 interviews were conducted with health providers, district managers, facility managers, traditional healers, pregnant women, community health workers, and Non Governmental Organizations (NGO) managers. Data were transcribed and then converted into Nvivo software to organize the data into codes and categories.

RESULTS
The study revealed that the barriers are at health providers and community levels. Fragmentation of services, lack of monitoring and evaluation, communication, motivation for prescription and unawareness of syphilis burden are barriers at provider level. Cost of testing, distance to laboratory and lack of knowledge about syphilis are identified barriers at community level.

CONCLUSION
The study highlights barriers such as distance, cost of testing, and knowledge about syphilis. The introduction of point of care testing for syphilis could be a lever for improving coverage of antenatal syphilis screening and probably outweigh the factors for not being screened.
P253 - 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 multifaceted interventions are needed.
Partnering to Improve Health around the Globe

Background
Tobacco use is a significant risk factor for several diseases (e.g. oral cancer, lung cancer, stroke, coronary heart disease, TB, asthma, etc.) and a leading cause of death in the world. Currently, it is estimated that the use of tobacco causes more than 5 million deaths per year and projected that this will rise to over 8 million deaths annually by 2030. Of these, 70% will occur in developing countries. Furthermore, about 25% of the TB mortality in Africa has been attributed to tobacco use, and thus threatens meeting related Millennium Development Goals (MDGs).

Tobacco control is relatively new in Africa and plays a prominent role in the fight against NCDs and several related deaths. Studies have shown that the majority of smokers want to stop, but find quitting very difficult. Support and brief advice from health care providers (HCPs) have been shown to increase quit attempts and improve chances of staying quit. However, many HCPs lack the required skills and often miss the opportunity to talk to their patients about the benefits of tobacco use cessation. To address this gap, Global Bridges: Healthcare Alliance for Tobacco Treatment, a well-coordinated, global and evidence-based initiative, seeks to mobilize the global community of health care providers and organizations to make a population seeks to have impact on tobacco use through effective treatment and implementation of tobacco control policies.

About Global Bridges
Global Bridges is a science-based initiative to help health care providers and organizations unite to treat tobacco use and dependence while implementing effective tobacco control policies. It was created through an unrestricted grant from Pfizer Medical Education Group to the Mayo School of Continuous Professional Development and the Mayo Clinic Nicotine Dependence Center. The initiative is hosted by Mayo Clinic and supported by two other international partners, the American Cancer Society and the University of Arizona.

Global Bridges’ objectives are to:
- Build connections and create opportunities to share treatment and advocacy expertise among network members within and across regions.
- Provide state-of-the-art, evidence-based training in treatment and advocacy to network members.
- Facilitate the implementation of Article 14 of the World Health Organization’s Framework Convention on Tobacco Control (FCTC) in every nation.
- Ensure the long-term financial sustainability of the initiative.

Global Bridges in Africa
Dr. Lekan Ayo-Yusuf, an Associate Professor at the University of Pretoria, member of the WHO scientific advisory group on tobacco regulation (WHO TabReg) and a recognized regional expert on tobacco dependence research is the AFRO (the World Health Organization’s African Region) Regional Director for Global Bridges and will be working with colleagues to create and mobilize a network of health care providers and organizations across the continent dedicated to advancing effective tobacco dependence treatment and advocating for effective tobacco control policy.

Training Workshop Programme
Generally, we offer 3-day training based on level two of ATTUD provider proficiency and motivational interviewing as the behavioral support strategy for tobacco cessation. The first day focuses on didactic teaching to provide knowledge, and the second day focuses on application of skills through practice/role-play activities. The second day ends with a brainstorming session of what participants feel might be challenges and solutions to implementing what they have learned. The training is generally limited to about 20-40 people so as to take advantage of opportunities to interact during role-plays. The group is split into two sub-groups on the second day, with the second half of the group attending the third day.

We also conduct a one-day programme for a larger audience at preconferences, but with the competency outcome of level one of the ATTUD framework.

Workshop Participants
The target group includes HCPs, policy makers, health managers, health counselors, clinic managers, or any person who has continuous interactions with tobacco users.

Course Objectives:
- Have updated knowledge of global and regional burden of tobacco use.
- Know the local and global (WHO FCTC) policy initiatives for tobacco control.
- Know the evidence-base for policy and health provider effectiveness in tobacco use treatment (5As/2As & R).
- Understand the basics of nicotine dependence and the evidence-base for effectiveness of pharmacotherapy.
- Know the elements of brief Motivational Interviewing behavioral therapy for tobacco use treatment.
- Understands the strategies to elicit and respond to “challenge talk”.
- Demonstrate the primary skills for:
  - Engaging the patient
  - Responding to resistance
  - Exploring and enhancing motivation for behaviour change

Joining the Network
Membership is open to health care providers who are interested in receiving training in the treatment of tobacco dependence/smoking cessation or are currently treating patients. Also welcomed are those providing health counseling, running a clinic, or any other form of continuous interactions with tobacco users.

Please visit our website, www.globalbridges.org, or contact Joyce Jakavula (Project Coordinator) at joyce.jakavula@up.ac.za for more information.
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