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2010 CONFERENCE

Healthy environments, healthy people
and public health advocacy

ABSTRACT BOOK

29, 30 Nov & 1 Dec 2010
East London International Convention Centre
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ORALS
Abstracts
L01 - Empowering communities in health promotion in the Cite de Palmiers and Yabassi health districts in the Littoral region - Cameroon

1Z Achidi, 2K Kondji, 3G Zoumboudem, 4B Nkoum

1Training Department (CAMPHA), 2National Coordinator (CAMPHA), 3Project Coordinator CAMPHA, 4Research Department (CAMPHA)

BACKGROUND
This project targeted the fight against malaria, Vitamin A deficiency and vulgarization of immunization. Malaria remains the number one killer disease representing 40-50% of consultations, 23% of hospitalizations and 40% household annual budget, while immunization coverages (abstention rate of above 10%) are still at low ebb together with a high rate of Vit.A deficiency (7% in the project zone as against a 40% rate at the national level of children 0-5yrs).

OBJECTIVE
To seek for an appropriate local response to the perennial problems faced by the communities with regards to above aspects targeting the MDGs 4 and 5 through a community appropriation approach.

METHOD
Meetings were held at the National level involving all stakeholders. Lobby at the district level for adherence, engagement and support from the elites, administrative, traditional and religious authorities. The project worked in collaboration with existing dialogue structures. Community leaders, community relay agents, Women and youth groups were trained in the administration of Vit.A in children 12-59 months, distribution of ITNs to target groups.

RESULTS
Community leaders planned and put in place local initiatives to fight against malaria, promotion of vaccination and increase in the Vit.A Intake. Training session of members of dialogue structures of the two HDs was carried out. By December 2009, 14 out of 15 dialogue structures had received funds to helping community initiatives.

CONCLUSION
Community leaders, religious and traditional authorities approved this approach of community appropriation in seeking for solutions to their health problems.

L02 - Willingness and self-rated competence to provide smoking cessation services by family and community medicine doctors in a tertiary hospital in Nigeria

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BACKGROUND
Patients advised to quit smoking by their physicians are 1.6 times more likely to quit than patients not receiving physician advice. However, most smokers do not receive this advice when visiting their physicians. This scoping study was to assess the willingness and self-rated competence of doctors to provide tobacco cessation services as a prelude to the establishment of a hospital based cessation service.

METHODOLOGY
Self-administered semi-structured questionnaire was used to collect information from doctors working in the family medicine and community medicine departments of a teaching hospital.

RESULT
Forty-one doctors participated in the study. Mean age of participants was 35.5 ± 7.5 years. Majority (61.0%) were males, 70.7% were married and most (78.1%) had worked for five or less number of years in the institution. About half (53.2%) were aware of Nigeria tobacco decree, 13.5% were aware of WHO Framework Convention on Tobacco Control (FCTC) and the 5As of smoking cessation. Only 4.9% had ever used the change model. All respondents had very good perception about tobacco cessation with the least score being 71.1%. Strong barriers to tobacco cessation activities in everyday practice identified by respondents included having no materials to hand out (41.5%), not knowing where to send patients for counseling (31.7%), lack of time (29.3%), not knowing what to say (14.6%) and feeling of inability to help the patients quit (14.6%). Smoking cessation services were not offered routinely in the clinics of 82.9% of respondents. Generally, less than 10% believed they had excellent knowledge and skills in pharmacology of nicotine, interaction of nicotine with other drugs, motivating patients to quit and behavioural smoking cessation techniques. About a quarter (24.4%) believed they are competent in advising patients/clients about reducing ETS in the home. Seventy percent expressed willingness to learn more about these topics while almost all respondents (92.7%) expressed willingness to receive training in tobacco cessation with majority (53.7%) preferring the on-site continuing medical education mode.

CONCLUSION
Training and creation of an enabling environment is needed to encourage doctors practice tobacco cessation in their facilities.
L03 - Understanding the determinants and preventive strategies for high school violence in South Africa: The stakeholders’ targeted model

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BACKGROUND
School violence is a serious public health issue in South Africa. In 2009, Akinsola & Ramakuela conducted a study on teachers’ perceived prevalence, determinants and preventive strategies for violence-related behaviours among South African high school children in rural Limpopo district. Based on the results of this study, a model was developed.

OBJECTIVE
One of the assumptions underlying this model is that any form of school violence is not just a school’s problem. It involves schools, families and the communities. Hence the objective of developing this model is to provide a broad-based explanation about the determinants of violence in the schools and the preventive measures.

METHOD
The study which formed the basis of this model used a quantitative cross-sectional design. Although all the teachers in the ten randomly selected schools were eligible to participate in the study, only 136 responded to the questionnaire. The instrument of data collection was a questionnaire and the data was analyzed descriptively using the SPSS.

THE MODEL
The diagram depicting the model is a rectangle which consists of two disproportional layers. The narrow external layer presents the main theme being addressed, school violence in South Africa and the various forms of violent behaviour being perpetrated by the students. The second layer presents the two sub-themes, the determinants and preventive measures. The inner layer is divided into two parts which show the relationship between the determinants and the preventive measures.

CONCLUSION
The paper shows that since the determinants of school violence in South Africa is multi-faceted, the strategies to address the problem must also operate at various levels.

L04 - Exposure to emissions from Kerosene cooking stoves and the health problems experienced by women in Olorunda community, Ibadan, Nigeria

S Ana, A Adeniji
University of Ibadan, Nigeria

BACKGROUND
Kerosene stove emissions lead to indoor air pollution and several health hazards in Nigeria yet empirical evidence is lacking.

OBJECTIVE
This study was designed to assess emissions from kerosene cooking stoves and to determine the health problems experienced by women in a native community in Ibadan.

METHODOLOGY
A survey of 167 kerosene stove users (KSU) was done using questionnaire to assess respondents’ knowledge of emissions and the health problems they experience. Respirable Suspended Particulate Matter (RSPM) and Gas Emissions (GE) were measured within the vicinity of the kerosene stoves using gravimetric sampler and gas monitors respectively and their values compared with guideline limits. A digital spirometer was used to assess the lung function status (FEV1) of 72 KSU. Data was analysed using descriptive statistics, Chi-Square, student t-test and Spearman-rank correlation tests.

RESULTS
The mean age of the respondents was 38±12.9 years. Sixty-five percent of KSU had at least secondary education. The mean duration of exposure to GE among KSU was 18.9±9.8 years. Mean RSPM for KS was 248.1± 14.1µg/m3 compared with guideline limit of 250µg/m3. Mean GE in ppm were: CO, 0.00; CO2, 200.1±12.4; SO2, 0.01±0.00 and NO2, 0.00. Chest pain 8.4%, breathing difficulty 4.8%, cough 0.6% and tightness of chest 2.4% were the prevalent health problems experienced. Mean values of FEV1 in litres among KSU was 2.0 ± 0.5. There was a negative correlation between particulate burden and respondents’ lung function status (r = -0.46, p<0.05).

CONCLUSION
Safe cooking practices to minimize health hazards must be encouraged through health education.
L05 - Adolescents attributes of the onset and maintenance of their smoking behaviour

N Arendse
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BACKGROUND
Tobacco smoking remains the largest preventable behavioural cause of chronic disease and premature death. Many people continue to engage in this behavior, despite the well-known negative health consequences. The most common form of smoking is cigarette smoking, which is a type of risk-taking behaviour that is becoming increasingly prevalent among adolescents. Cigarette consumption rates are increasing among adolescents in various parts of the world; each year nearly a million adolescents start to smoke. This behaviour, if continued into adulthood, may lead to a range of debilitating diseases of lifestyle.

OBJECTIVE
To identify factors associated with the initiation and maintenance of cigarette smoking the study explores South African adolescents' perceptions of their cigarette smoking behaviour.

METHODS
The study is conducted in a qualitative paradigm using Polkinghorne's narrative inquiry of the analysis of narrative type. Individual interviews were carried out on six boys and six girls from an English-medium high school within Cape Town. Their ages ranged from 16-18 years.

RESULTS
It was revealed that adolescent smoking is not determined by knowledge, beliefs and attitudes alone, but by social and environmental influences as well. Risk and protective factors for adolescent smoking was identified on a psychological, physical, social and environmental level. Of emerging significance was the adolescents' common misinterpretation of 'smoking out of habit' for 'addiction'.

CONCLUSION
This study focused on the importance of adolescent health and how it is affected by factors associated with tobacco use in South Africa. Underlying risk and protective factors needs to be integrated to strengthen current smoking cessation programmes.

L06 - Child pedestrian injury prevention responses: Towards prevention priorities for South Africa

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¹Safety and Peace Promotion Research Unit (SAPPRU), Medical Research Council-University of South Africa, Cape Town, South Africa, ²Institute of Child Health, Red Cross War Memorial Children's Hospital, Cape Town, South Africa

BACKGROUND
Globally, road traffic crashes, injury and death continue to be a leading threat to public health. In Africa, the road traffic death rate for children is reported at 19.9 per 100 000 population, double the world rate. Studies in African and other low-to-middle-income settings indicate that pedestrians endure the greatest proportion of road-traffic injuries and fatalities. In South Africa, pedestrian injuries are the leading cause of non-natural or injury death amongst children younger than 15 years. Despite national recognition of the child pedestrian injury and death burden, there appears to have been an inadequate prevention response by existing networks, programmes and projects.

OBJECTIVE
The aim of this review was to identify effective child pedestrian injury prevention programmes and interventions for use in South Africa.

METHOD
An in-depth search across all electronic databases for descriptive and evaluative documentation on local interventions was conducted. The selection of reports was guided by the study aims and parameters using a coding system that identified the article in terms of their relevance to the research question and contribution towards the field of child pedestrian safety. Articles were organized and coded according to intervention type and core intervention dimensions.

RESULTS
The study reports on interventions that demonstrated a reduction in child pedestrian death, injury, injury risk, and/or that improved pedestrian road safety behaviour. Programmes combining educational, engineering and/or enforcement strategies reported greater success at promoting pedestrian safety. Even though South Africa favours the formulation and implementation of environmental-design type measures, there is a need for the evaluation of best practices.

CONCLUSION
Subsequently, this will contribute to an improved need to appropriate to address the risk factors that place child pedestrians at increase risk of traffic-related injuries. Furthermore, these findings indicate that effective interventions usually involve a fusion of educational programmes, enforcement, environmental and engineering interventions, combining a variety of passive and active interventions to bring about a comprehensive appeal for the individual to learn in an interactive way within their environment.
L07 - Improving referral of TB patients from a district hospital to TB clinics in an area of high TB prevalence

Behroozi, Lin, Schutz, Meintjes, Burton

INTRODUCTION
Hospital patients referred for outpatient TB care have a low level of subsequent attendance at community TB clinics following discharge. Barriers to accessing TB care include a lack of patient understanding about diagnosis, medication and prognosis. We assessed the impact of the TB discharge unit at GF Jooste Hospital in Cape Town during the first year of operation.

METHODS
To investigate the impact of in-hospital TB education and referral calls on patient arrival at outpatient TB care after discharge. Patients on TB treatment or diagnosed with TB in hospital were counselled by lay counsellors, and clinics were called to confirm patient arrival. If the patient did not arrive, a follow-up call was made to the patient.

RESULTS
Baseline (March 2008): 20 of 45 (44%) TB patients discharged home arrived at primary care TB clinics.

Results of intervention (870 patients discharged home, July 2008 – June 2009)

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<th>Already on TB treatment (n=300)</th>
<th>New TB diagnosis (n=570)</th>
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<td>Arrived at TB clinic</td>
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<td>Completed TB treatment (of those who arrived at TB clinic)</td>
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Among the 570 TB patients who arrived at TB clinics, 520 were tested for HIV (91%), with 442 patients HIV positive (85%). 207 / 407 eligible patients never initiated ART (51%).

CONCLUSIONS
The TB education and referral intervention improved clinic arrivals. However, we

L08 - Effect of periodic presumptive treatment on prevalence of STIs in female sex workers: Cluster-randomised controlled trial

Bello, Delany-Morethe, Rees

OBJECTIVES
We assessed the effectiveness of periodic presumptive treatment (PPT) plus syndromic management compared to SM alone (SM) in reducing the prevalence of N. gonorrhoeae (GC) and C. trachomatis (CT) amongst brothel-based female sex workers (FSW) in Johannesburg.

METHODS
Brothels were randomised to either monthly PPT with azithromycin 1 g (n=6), or a vitamin supplement (n=6) for 12 months. Symptomatic sexually transmitted infections (STI) were treated with SM, irrespective of study group. FSW were evaluated at monthly visits for CT/GC on genital swabs by ligase chain reaction. The primary outcome was the prevalence of CT/GC at first follow-up visit. All analyses were intent-to-treat. Cluster-level analyses were conducted using t-test and linear regression, adjusted for baseline prevalence. Person-level analyses were conducted using logistic regression, with robust standard errors to adjust for intra-cluster correlation.

RESULTS
542 FSW attended >1 visit. Median visit interval was 11 weeks. At first follow up, CT average weighted-prevalence was significantly lower in PPT (6.2%) compared to SM brothels (12.9%) (adjusted odds ratio [aOR] 0.52, 95% CI 0.27 to 0.97, p=0.046). For GC, prevalence at follow up was 5.7% in PPT compared to 10% in the SM brothels (aOR 0.52, 95% CI 0.25 to 1.09, p=0.11).

CONCLUSION
PPT was more effective than SM in reducing the prevalence of CT/GC. The greatest impact was observed for CT, which is frequently asymptomatic. This strategy is recommended for rapid reduction of STI prevalence in high risk groups.
L09 - Underlying and proximate determinants of HIV infection in South African long distance truck drivers

**OBJECTIVES**
We report on the prevalence of HIV infection in long distance truck drivers, identify important risk factors for HIV infection, and demonstrate how mobility increases the risk of HIV infection in this population.

**METHODS**
A national representative survey of 1900 long-distance truck drivers, co-drivers and assistants sampled from 109 small, medium and large road-freight depots was completed in 2004 in South Africa. An interview-administered questionnaire was used to collect data on sexual behaviour. Saliva and urine samples were tested for HIV, and N. gonorrhoeae (GC) and C. trachomatis (CT) respectively. Data was analysed using the proximate-determinant framework which categorises potential risk factors hierarchically into proximate and underlying determinants of infection.

**RESULTS**
The prevalence of HIV, GC and CT infections was 26.4%, 2% and 6.8% respectively. HIV infection was related to a number of proximate and underlying determinants. Significant proximate risks for HIV included penile cleaning (aOR 2.4, 95% CI 1.3–4.5), history of STI (aOR 2.1, 95% CI 1.7 to 2.7), presence of genital ulcers (aOR 1.4, 95% CI 1.0–2.1), and lack of circumcision (AOR = 1.3, 95% CI: 1.1–1.69). Mobility was a significant underlying determinant of HIV infection. Risk increased with increasing time on the road (aOR 1.5, 95% CI 1.0–2.2).

**CONCLUSIONS**
Long distance truck drivers have a high prevalence of HIV infection and may play an important role in HIV transmission in the region. The mobile nature of their work influences their behaviour as well as access to services for HIV prevention and treatment.

L10 - Awareness and knowledge about human Papilloma Virus among female students at a South African university and their attitudes towards the Human Papilloma virus vaccine

**BACKGROUND**
Human Papilloma Virus (HPV) is the etiological agent in cervical cancer. There is a high prevalence of HPV infection among South African (SA) women, and cervical cancer is the second most common cancer among them. Two HPV vaccines, Cervarix and Gardasil, have recently been licensed for use in SA and models show that vaccination may lead to about 70% decline in cervical cancer cases. However, there is a need to know how to effectively promote and deliver the vaccines to ensure optimal uptake and coverage. Little research has been done in SA to describe women’s knowledge of HPV and cancer of the cervix. The correlates and the predictors of women’s interests in receiving the HPV vaccine have not been characterized. It is therefore necessary to have locally obtained data which would guide the formulation of policies on the introduction and propagation of HPV vaccination in SA.

**OBJECTIVE**
The study aimed to describe the knowledge and awareness of HPV infection and vaccine of female university students and to determine the predictors of vaccine acceptability.

**METHODOLOGY**
A cross-sectional survey on a stratified sample of 150 female students was conducted. Self-administered questionnaires were used to gather information on the students’ sexual behavior, awareness and knowledge about HPV infection and HPV vaccine and their health related beliefs. Logistic regression was used assess to determine the predictors of willingness to be vaccinated.

**RESULTS**
The study found that 70% of the participants were sexually active. Awareness and knowledge on HPV/vaccine were poor. Only 22% were aware of HPV and that a HPV vaccine was available in South Africa. A greater proportion (80%) reported willingness to be vaccinated. Being aware of the existence of a pap smear, higher knowledge about HPV, higher perceived vaccine effectiveness and higher perceived severity of HPV infection were significantly associated with increased willingness to be vaccinated.

**RECOMMENDATIONS**
There is need for education about HPV and vaccination in South Africa. An effective vaccine marketing strategy should emphasise the effectiveness of the vaccine, susceptibility to contracting HPV and its severity. Lobbying should also be done for the reduction in the cost of the vaccine.
L11 - The use of GIS in the analysis of fatal fall and burn injuries in older adults

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INTRODUCTION
Injuries are leading contributors to the years of potential life lost (YPLL) in developing countries such as South Africa. The prevention of injuries requires a multi-disciplinary approach which translates into a great demand for data on the magnitude, distribution and characteristics of injuries, especially at local administrative levels. The aim of this paper is to demonstrate the utility of a geographical information system (GIS) in injury analysis.

METHODS
Data on fall and burn injuries of victims 50 years and older, as recorded in the National Injury Mortality Injury Surveillance System (NIMISS), Gauteng in 2001-2002, were extracted to create a GIS database. All cases were geo-coded against a list of 2001 census main place names.

RESULTS
Fatal fall and burn injury categories in older adults contributed 242 cases (about 1%) of all fatal injuries for Gauteng in 2001-2002. The majority of injuries originated in Gauteng (98.6%), but geo-coding and the map output revealed that only 140 of the cases could be assigned to a main place, due to limitations in the surveillance data. This data meant that only 38 (26%) of all main places in Gauteng had one or more cases of fatal fall or burn injuries with an older adult victim.

CONCLUSIONS
The establishment of a GIS and the process of geo-coding can contribute safety promotion by spatially disaggregating areas where injuries occur. This will reveal areas where the burden of fatal injuries is higher for certain groups. Greater attention to the recording of the geographical attributes will enhance future GIS applications.

L12 - Environmental risk factors for acute respiratory infections among children under-five in Ibadan, Nigeria

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INTRODUCTION
Acute respiratory infection (ARI) is a major cause of childhood mortality and morbidity in Nigeria. About 38.8% of illnesses seen in outpatient clinics and hospitals in Nigeria are acute respiratory infections.

OBJECTIVE
The main objective of this study was to identify the significant risk factors for ARI in children under-five years of age.

METHOD
A prospective case-control study was conducted for the purpose of this research. The study populations were women with under 5 aged children in Adeoyo Children Teaching hospital and Ooni Memorial Children hospital diagnosed with ARI (Cases) and without ARI (Controls). A pretested eight-section questionnaire was administered to voluntary participants and 50% were followed up to document the household environmental conditions.

RESULT
A total of 440 children were enrolled. The mean age for cases was found to be 20.41±2.5 compared to controls 20.8±2.3. In addition, factors discovered responsible among cases as compared to controls include: the use of mosquito coil (53.0%), shared care with more than one child less than five years of age (45%); previous occurrence of ARI (60.5%); pet in the home (66.2%); and the use of lantern on a regular basis (54.8%) were all discovered to be significant.

CONCLUSION
This study showed that factors that contribute to the acquisition of ARI are heterogeneous. Therefore, increased awareness of the importance of the indoor environment with regards to prevention and control of ARI will be of significant importance.
L13 - Using photo-voice as a participatory method to explore community perceptions of health

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BACKGROUND
This study forms part of a participatory action research project exploring how civil society action, community agency and the use of human rights approaches can reduce health inequalities and contribute to the realization of the right to health. Community participation is a key aspect of the right to health and involving community members in defining the health issues they face is important to inform health policy making.

AIM
The aim of this study was to explore how members of a community-based organisation view health and human rights in their community.

METHODS
The visual method of photo-voice was used. Participants were selected through convenience sampling. Four individuals were given disposable cameras to take photos of things that make them think of health in their community. They were interviewed individually about the photos to explore meanings and what they understood about health. Interviews were audio recorded and transcribed and data was analysed by the researcher and the photographers, using thematic content analysis. A second phase of the project will focus on understandings of human rights. Only the first phase results are reported here.

RESULTS
Participants’ took photos largely related to the socio-economic determinants of health. Themes identified from the interviews were access to nutrition, substance abuse, effects of crime, adequate housing and unemployment.

CONCLUSION
When community members identify what health means to them they are given a voice to identify the problems they face related to underlying determinants of health in their community.

L14 - Validation of verbal autopsies in rural South Africa: The influence of AIDS mortality

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IRD and Institut Pasteur, Paris, France

OBJECTIVES
To validate the causes of death, especially AIDS mortality, determined by verbal autopsy (VA) in the Agincourt subdistrict of rural South Africa.

METHODS
VAs were conducted on all deaths recorded over the period January 2001-August 2005. Validation involved comparison of VA diagnoses with hospital diagnoses obtained for those who died in one of the three district hospitals. Cause specific mortality fractions (CSMFs) and measures of sensitivity and specificity were calculated, to assess performance of the VA on a group and individual level respectively, for children <5 years and those aged ≥5 years.

RESULTS
A total of 273 cases (32 <5 years olds and 241 aged ≥5 years) were included in the study. Preliminary results show that the CSMFs of the VA and hospital records did not differ significantly in the <5 years group. In those aged ≥5 years, only the difference for pneumonia/other acute respiratory infections and diseases of the digestive system was significant. For HIV/TB sensitivity of the VA was as follows: 67% in children under 5 years and 79% in those aged ≥5 years. Specificity is below 90% for HIV/TB for all ages.

CONCLUSIONS
The Agincourt VA questionnaire continues to provide a reasonable estimate of the frequency of causes of death among adults and children at population level in the AIDS are.
L15 - Socio-economic inequalities in obstetric morbidity in India: A Decomposing Analysis

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BACKGROUND
According to biomedical causes of maternal deaths, more than 70 percent deaths are from direct obstetric complications. In India, every year large number of women suffers obstetric problems and most of them are owing to deprived socio-economic status.

OBJECTIVE
Growing number of the earlier studies on Obstetric Morbidity are based on clinical settings and provides information only on biomedical causes. Only few researches focused on socio-economic determinants of Obstetric morbidity but none of them attempted to understand pathways in which it operates. Empirical examination of socio-economic inequality in maternal morbidity is vital for health policy.

DATA AND METHODS
Present paper examined recent National Family Health Survey (NFHS-3) data for empirical evidence. Socio-economic inequality computed based on concentration index proposed by Wagstaff (1999) and further concentration index has been decomposed to find the pathways of the emergence of socio-economic inequality in Obstetric morbidity.

RESULTS
Results are evident that reported mean number of obstetric problems is more in depressed social groups than their counter groups. Concentration index also reveals the same. Decomposition analyses indicate that poor economic status is alone major contributor to the inequality in maternal morbidity, followed by women’s illiteracy and belonging to Muslim religion.

CONCLUSION
Results of the present study suggest that maternal morbidity is greatly predicted by socio-economic status of the women. Analysis signify that socio-economic status as a root cause of Obstetric morbidity and results are critical to both socio-economic and health policy in India.

L16 - Prevalence and risk factors of diarrhoea among displaced adults Zimbabweans in Limpopo

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BACKGROUND
The political and economic decline in Zimbabwe has led to many Zimbabweans migrating to South Africa. Immigrants face major risks, including health risks, when crossing the border as well as in South Africa, where many are unable to find sustainable employment and are faced with poor housing, xenophobia and isolation.

OBJECTIVE
To describe the prevalence of diarrhoea among adult Zimbabwean immigrants residing in Limpopo Province of South Africa and to explore risk factors associated with diarrhoea occurrence.

METHOD
This cross-sectional study was conducted in February 2010. 110 displaced Zimbabwean immigrants aged 18 years and above were interviewed in Louis Trichardt. Data was collected on both diarrhoea occurrence and risk factors (living conditions, water, sanitation and hygiene, and socio-demographic characteristics). Associations between diarrhoea prevalence and risk factors were assessed using Chi-square / Fisher’s exact and T-tests.

RESULTS
The prevalence of diarrhoea was 24.5%. The mean number of diarrhoea episodes was 0.38 per person in two weeks. Multiple cross-tab analyses revealed that those with diarrhoea had more labour contract jobs, compared to those without diarrhoea (who had more piece jobs). The proportion living in make shift houses was higher for those with diarrhoea. Finally, those with diarrhoea had a higher monthly expenditure than those without.

CONCLUSION
Results show that the conditions that Zimbabweans in Louis Trichardt stay in, puts them at risk of diarrhoea. Continuous prevention efforts need to include public awareness and educational campaigns on sanitation, hygiene, water quality and methods for household treatment and storage of water.
L17 - Urban living and mental health: The link between schizophrenia and the urban environment

L18 - Participatory action in facilitating the Health Kick intervention
**L19 - Experience of women in Good Start III project applying for child support grant**

**S Hlangu, P Ijumba**

**BACKGROUND**

CHWs in the control arm of GOOD START III project recruit pregnant women eligible for the study in Umlazi and counsel them on children’s grants and assist them to applying for the Child Support Grant (CSG).

**METHODS**

Pregnant women are recruited by community health workers at about 20 weeks and receive their first counseling visit on grants information and requirements to apply for the children’s social grants. They are encouraged to obtain all documents required for CSG application and to apply early after delivery. CHWs visit them again postnatally to check if they have applied for CSG, and if not, they identify the problems and assist in finding solutions. They are then visited for the last time to find out if they have received the CSG and are reminded to go for data collection.

**RESULTS**

A total of 1811 pregnant women have been recruited since June 2008. About 1250 have applied for CSG, 936 have received CSG and 836 plan to apply. Most of these women are very grateful to the CHWs for giving them information on grants. Below are some of the positive experiences reported by mothers:

- “Thank you so much for helping me with applying for an I.D., now that I have the I.D. I will apply for the CSG for my child and the one that I’m pregnant with after delivery. I didn’t know that your work is important to our community, you really helped me, thank you.”
- “I didn’t know that I can apply for the CSG with the RTHC while I’m still waiting to collect my I.D. from Home Affairs. Thank you for giving me that information, now my grant application has been processed and successful.”

**CONCLUSION**

Although there are women having bad experiences when applying for the CSG, majority has been successful through our project and are encouraging those with bad experiences to try and apply again.

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**L20 - Neuro-behavioural effects of pesticide exposure among emerging farmers and adult members of their family in the Western Cape**

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**BACKGROUND**

Emerging farmers in South Africa are particularly vulnerable to health effects of pesticides. However, measures to protect their health and safety and that of their families have not kept up with their increasing numbers.

**OBJECTIVES**

This study aimed to determine the neurobehavioural effects of organophosphate (OP) pesticide exposure amongst emergent farmers and adult members of their family and the consequences for safety.

**METHODS**

A cohort study involving 319 (male and female participants) residents residing on emerging farms in the Western Cape was conducted in 2009/10. This paper reports only on the baseline survey. Data collected included a questionnaire with sections on demographics, socio-economic factors, lifestyle factors and work history; five sub-tests of the WHO (NCTB) battery; the Q16, the Brief Symptom Inventory (BSI) and Vibration sense threshold.

**RESULTS**

The median age was 39 years (range 19–73 years). There were 127 male and 30 female applicators. Applicators performed better than non-applicators on the WHO (NCTB) sub-tests (Digit Span, Digit Symbol, Benton Visual Retention Test, Santa Ana Pegboard and Pursuit Aiming). Male applicators consistently performed worse than male non-applicators on the Q16, BSI and Vibrations sense tests. There were no differences between female applicators and non-applicators on the WHO (NCTB) tests. However, female applicators consistently performed better than female non-applicators on the Q16, the BSI and Vibration sense tests.

**CONCLUSION**

The results suggest that applicator status is associated with better neurobehavioural performance. Further multivariate analysis to be conducted will explore the effects of confounding and the role of cumulative exposure.
L21 - Epidemiology of child injuries in Uganda: Challenges for health policy

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BACKGROUND
There is a global disparity in injuries between the developed and developing world, with 90% of deaths occurring in the developing world. Children in Africa bear the majority of this burden, with the highest unintentional injury rates in the world.

OBJECTIVE
This study collected data to better understand the injury patterns among children living in Kampala, Uganda and to provide evidence that injuries are a significant component of child health.

METHODS
Trauma registry records of injured children seen at the Mulago Hospital Casualty Ward were analyzed. This data was prospectively collected when patients were initially seen and included patient condition, demographics, clinical variables, cause, severity, and location of injury. The Kampala Trauma Score was used to measure injury severity. Outcomes were captured on discharge from casualty and at two weeks for admitted patients.

RESULTS
From August 2004-2005, 865 injury visits for children <18 years were recorded. The mean age of presentation was 11 years (95% CI 10.9-11.6), and 68% (95% CI 65-72%) were male. 64% (n=559) were treated in casualty and discharged, and 35% (n=296) were admitted. The most common causes were road traffic crashes (34%, n=292), falls (18%) and violence (15%). Most children (n=732, 87%) were mildly injured. 1% were severely injured (n=10). Of the 306 admitted patients, by two weeks, 6% had died (n=19) and of these, 12 (63%) had moderate injuries and 4 (21%) had mild injuries.

CONCLUSION
In Kampala, children bear a large burden of injury from preventable causes. Deaths in low severity patients highlight need for improvements in facility-based care. Further studies are necessary to capture overall child injury mortality and to measure chronic morbidity due to sequelae of injuries.

L22 - Predictors and facilitators of traditional medicine utilization among HIV/AIDS persons on anti retroviral therapy

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BACKGROUND
South Africa is severely impacted by HIV/AIDS with ~ 5.2 million living with HIV; 1,000 AIDS-related deaths per day. Government-sponsored antiretroviral treatment (ART) was initially limited to relatively few; however there has been acknowledgement of Traditional Medicine (TM). Although the use of TM is prevalent among South Africans, its impact on ART is unknown.

OBJECTIVE
To determine how patients with HIV are using TM relative to ART & assess prevalence, facilitators, predictors, barriers, and types of TM used by patients.

METHOD
A cross-sectional study was conducted January-August 2009. A questionnaire was administered to 100 participants enrolled at ART clinics in both urban Western Cape & rural KZN to determine demographic characteristics, health status, and use of ART.

RESULTS
Patients (51%) reported TM use less than previous estimates. Approximately half of the patients took herbal mixtures (umbalaza) & TM was self-administered without traditional practitioner. Majority (73%) reported using TM prior to being diagnosed with HIV & only 1 patient had informed their healthcare provider about use of TM with ART. Patients (33%) used TM to gain strength, relieve symptoms-numbness, ulcers, & bad dreams. Patients reported combining ART & conventional medicine (47%) with TM.

CONCLUSION
The study revealed patients had an existing history of using TM for chronic conditions prior to their diagnosis & treatment with HIV; and continued using TM in conjunction with ART. This suggests that TM is an accepted “treatment modality” for patients and is used in combination with conventional medicine. Improved outcomes may be possible through collaboration with traditional healers to identify low-cost, effective alternatives to HIV/AIDS management of specific conditions/symptoms.
L23 - Women, violence and tobacco: Are we missing an important link?

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BACKGROUND
The tobacco industry now aggressively profiles and targets women in order to increase its consumer base, since fewer women than men use tobacco all over the world. In response to the call by the WHO for more research aimed at understanding tobacco use among women, this study aimed to examine associations between history of domestic violence and current tobacco use among reproductive age women.

METHODS
Data from the 2008 Nigeria Demographic Health Survey (NDHS), a nationally representative cross sectional survey of 33,385 women aged 15-49 was analysed. Logistic regressions were used to assess associations between domestic violence and tobacco use.

RESULTS
Only 0.8% of women were current users of tobacco in any form. Of these, 0.5% used snuff, 0.2% used cigarettes, 0.1% used chewing tobacco while 0.1% smoked pipes. The odds of tobacco use increased with experiences of severe physical violence (OR=2.9; 95% CI: 2.2-3.9) and sexual violence (OR=2.9; 95% CI: 2.0-4.1). Emotional violence was however not found to significantly increase the odds of tobacco use. Those women who had also been hurt physically by a former partner had higher odds of current tobacco use (OR=5.2; 95% CI: 2.1-12.8). Interestingly, women who used tobacco had more often also physically hurt their husbands even when the husbands were not hurting them (OR=2.2; 95% CI: 1.3-3.8).

CONCLUSION
Experiencing violence affects the psychological health status and may explain susceptibility to tobacco use in women. In the spirit of World No Tobacco Day 2010, tobacco control strategies must recognize the psychosocial environment of tobacco users and also address domestic violence for sustained impact.

L24 - Utilisation of primary health care research findings within the Gauteng Health and Social Development Department

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Health and Social Development Department

INTRODUCTION
Researchers and funders of research would be delighted to know that the work they produce and support is influencing practice, policy and improvements in health care delivery (Albirt, 2007). Mitchell Schneider (2001) clarifies that one of the PHC values: to achieve a health system that “Puts people at the centre of health care” may not achieve its meaningful reform of the research agenda unless accompanied by implementation of PHC research findings.

OBJECTIVES
To assess the influence of research on decision making.
To describe opportunities or challenges of implementing research findings.
To improve ways of “research” management for decision makers to utilize research.

METHODS
A retrospective audit of studies was made and a “knowledge, attitudes and practices”, questionnaire survey was conducted to managers.

RESULTS
Sixty percent of managers do not use “research” findings for planning due to inaccessibility of reports, whereas 20% read the findings for interest. “Research” is one of the Key Performance Areas (KPAs) of approximately 20% managers and it is thus in their Operational plans. Relevant results are used for advocacy and trainings. Actual implementation that is linked with research should be presented, in order to encourage and promote research. Implementation of certain findings is impeded by budgetary constrains.

CONCLUSIONS
The current provincial research dissemination strategy should be reviewed and/or strengthened, in order to update managers of “findings” presented at local and national conferences. A national mandate, to incorporate research as KPAs, is required, to encourage operational research and evidence based planning. Improvements linked with research should be presented, to encourage “research”. Implementation of the National Health Act, pertaining to budget allocation for research should be strengthened.
L25 - Rodent control in urban communities in Johannesburg, South Africa: From research to action

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INTRODUCTION
Rodents have the potential to contaminate food, damage structures and carry diseases. Rodent-borne diseases remain a concern among human populations, due in part to changes in climate, the growth of cities and deteriorating public hygiene. Preventive efforts require greater understanding of the epidemiology and social contexts in which rodents are prevalent.

This study aimed to determine rodent prevalence, and identify factors associated with rodent infestations in five urban communities in Johannesburg. The information generated was used to influence subsequent rodent infestation prevention efforts.

METHODS
The Health, Environment and Development (HEAD) study is a longitudinal panel study conducted in five settlements across Johannesburg. Data on socio-economic status, domestic behaviour and housing quality are collected annually. Multivariate logistic regression data revealed key risk factors for rodent prevalence at household level.

RESULTS
Rodents were perceived to be a major household problem in all five areas studied (prevalence 54%). Factors associated with increased prevalence of rats included lower income, living in informal housing, overcrowding, having no waste container, storing water (rather than receiving reticulated water), storing food in unrefrigerated containers, use of a pit latrine, infrequent waste collection and leaks, cracks and internal damp.

CONCLUSION
Socio-economic status, housing quality, and domestic behaviour and services have a major bearing on exposure to rodents in urban Johannesburg communities. This information served as a platform for influencing rodent infestation prevention and control efforts. In collaboration with research partners, including the municipality and communities, rodent awareness campaigns were launched at various study sites with great success.

L26 - Youth mental health advocacy in Kenya

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Basic needs UK in Kenya

BACKGROUND
Mental health and physical health are inseparable and equally important yet only a small percentage of the 450 million people in the world suffering from mental and behavioral disorders are receiving treatment. In Kenya, although no prevalence studies have been carried out, some site specific studies indicate that about 25-30% of people seeking outpatient care in rural facilities have a psychological problem co-existing with a physical problem.

OBJECTIVE
Creating awareness, educating communities, prevention of causative factors and sending a strong message to policy makers, those responsible in resource allocation, professionals and to all citizens to take charge of their mental health and hold Government and other duty bearers to account especially in service delivery to people with mental disorders.

METHODS
Intensive media campaign in association with young goodwill ambassadors partnering with BasicNeeds. Also inviting participation in community based activities that highlight how persons with mental illnesses can and are rehabilitated through sustainable livelihood endeavors.

EXPECTED OUTCOME
That Kenyans will have the right information concerning mental health and how to deal with it and will be exposed to avenues for access of relevant treatment, care and resources when dealing with mental health issues.

CONCLUSION
Mental illness should be treated just like the other illnesses and should be mainstreamed in Primary health care right at the community level. We the youth are determined to make that a reality in Kenya.
BACKGROUND
Despite substantial efforts directed in PMTCT implementation; its effectiveness in averting HIV infection and improving mother and child health in low resource settings is still not clear.

OBJECTIVE
To describe outcomes of following mother and child pairs over five years within PMTCT initiatives.

METHODS
A cohort of pregnant women enrolled at 36 gestational weeks from three maternal and child health clinics in Zimbabwe. Mother and child pairs were followed up 6 monthly over five years.

RESULTS
More than half of the women presented with either a serological STI or vaginal infection in pregnancy regardless of HIV status. Nevirapine uptake for mother infant pairs was 66.4%. Only 56% of the HIV negative mothers had a second HIV test within the first year. MTCT of HIV at 15 months was 21.8% (17.8-25.8). HIV positive mothers and their children succumbed to mortality; 79(16.5%) and 114(23.8%) respectively, whilst the HIV negatives were LFU. Risk of HIV infection and re-infection was due to changing sexual partners, subsequent unplanned pregnancies, children with different paternity despite ignorance of sexual partners' HIV status and regardless of one's own status too. Condom use significantly increased (10%) among HIV positive women and decreased among the HIV negatives. More than 50% of the sexual partners had not taken an HIV status, whereas 20% HIV positive women had not disclosed their HIV status.

CONCLUSIONS
LFU and high mortality within PMTCT needs further investigation. Interventions should be targeted towards positive sexual behaviour, frequent evaluations and emphasis on follow up care.

L28 - The impact of the Onelove mass communication campaign on condom use for HIV prevention in South Africa

INTRODUCTION
The South African Onelove HIV prevention campaign was launched in 2009 by Soul City and partners. The campaign objectives are being implemented via multimedia vehicles complemented by social mobilisation interventions. A midway evaluation has been conducted to reflect on progress to date including to assess the impact of the campaign on condom use.

METHODS
A mixed method evaluation, using both quantitative and qualitative approaches, was used. Quantitative data were collected from 9728 participants nationally. Data were analysed in Stata software using descriptive, logistic regression and propensity score analyses. Qualitative data were collected from ten focus group discussions and analysed in Atlas TI.

RESULTS
After five months of the campaign, 61% of respondents had been exposed to the Onelove campaign via Soul City TV drama, Soul City radio drama and/or print booklets. Exposure to Onelove was associated with increased knowledge levels (OR=1.5) and led to a 4% attributable increase in condom use at last sex, or an estimated one million people. The qualitative data supported these results with participants indicating that the Onelove message of promoting protective sexual behaviours had been received. However, there was evidence of continued misconceptions about condom use.

CONCLUSIONS
The findings indicate that the Onelove campaign has been a successful vehicle for Soul City to continue promoting condom use. The evidence suggests changes in both knowledge and behaviour associated with campaign exposure, consistent with previous Soul City evaluations. Future mass communication needs to sustain and increase condom use, as well as address misconceptions related to their use.
L29 - HIV PCR tests for early infant diagnosis: Using laboratory information system data to monitor aspects of the National PMTCT Program

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BACKGROUND
The HIV epidemic in South Africa contributes significantly to the high infant mortality rate. Early infant diagnosis is required to identify HIV-infected infants and to measure the efficacy of the prevention of mother-to-child transmission (PMTCT) program. Current national guidelines stipulate that all HIV-exposed infants undergo a PCR test at 6 weeks.

OBJECTIVES
To describe HIV PCR testing rates, the number of HIV-infected infants diagnosed early and the efficacy of PMTCT interventions in South Africa.

METHOD
The estimated number of HIV-exposed infants born was compared to PCR test data extracted from the NHLS Data Warehouse for January 2008 to March 2010. PCR testing in children of all ages and infants under 2-months was assessed. The percentage of positive tests in infants <2-months was used as a proxy for the MTCT rate.

RESULTS
PCR tests performed in the first 3 months of 2008, 2009 and 2010 were compared. The total number of PCR tests in children of all ages increased from 44,400 to 61,600 to 69,800. Early infant diagnosis in <2-month olds increased from 37% to 44% to 49% of all tests performed whilst the percentage PCR positivity decreased from 9.7% to 6.5% to 5.3% suggesting improved PMTCT interventions. However, half of the estimated HIV-exposed infants do not currently access an early PCR test and these infants are less likely to have accessed PMTCT interventions resulting in higher transmission rates.

CONCLUSION
The NHLS Data Warehouse provides invaluable information regarding PCR testing in South Africa. It is a national resource that should be exploited to improve monitoring and evaluation and can also improve service delivery by alerting clinicians to positive PCR tests as soon as results are available.

L30 - Spatial variations in risk of Human Immunodeficiency Virus in South Africa using joint disease modelling

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BACKGROUND
The prevalence of human immunodeficiency virus (HIV) in South Africa has stabilised. But the prevalence is still very high with geographical variations in the country due to differentials in the social-economic factors. However, additional factors such as sexual behaviour may also influence the variations in HIV risks; but they may not be accurately available at the small geographical area level. A joint model of the district level-spatial distribution of HIV and Syphilis was undertaken; the latter taken as a proxy for increased HIV transmission route through sexual risk behaviour. We then investigated districts with excess risk in HIV.

METHODS
The data used was from the national antenatal HIV and Syphilis prevalence surveys conducted between 2006 and 2009 among 36,000 women. For each the 52 health districts, we selected 3 contextual determinants viz: 1. Material and Social Deprivation, 2. Incidence of Sexually Transmitted Infection in over 15 year olds and 3. Incidence of Pulmonary Tuberculosis over the total population. Syphilis prevalence first was used as a covariate, and secondly in a joint spatial model. Incidence of PTB was used as a proxy for comprised immunity due to HIV infection.

RESULTS
The residual geographical pattern showed that districts that were more deprived and had higher STI and PTB incidences were associated with higher HIV prevalence. After adjusting for syphilis prevalence, there still remained considerable variations in HIV across the districts.

CONCLUSIONS
The resulting map of excess spatial HIV risk variation may indicate other spatially relevant risk factors. Understanding this variation is essential to determining districts in which resources for preventive and treatment programs should be strategically targeted. Joint disease spatial models are more methodological and epidemiologically advantageous than univariate spatial models.
L31 - Childhood behavioral and developmental disorders: Association with maternal alcohol consumption and use of health services in Cape Town, South Africa

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BACKGROUND
Fetal Alcohol Spectrum Disorders (FASD) describes a wide range of cognitive and development impairments resulting from prenatal alcohol exposure. The Western Cape province of South Africa has reported one of the highest rates of FASD globally. However, little data are available on the health care utilization and costs resulting from prenatal alcohol exposure.

OBJECTIVES
To estimate excess utilization of health services amongst children with diagnosed behavioral and developmental disorders (BDD) and its association with maternal alcohol consumption in Cape Town, South Africa.

METHODS
Caregivers of 55 children aged 4 to 12 years with BDD (cases) and 55 controls of similar age were interviewed at a tertiary children's hospital in Cape Town. Logistic regression compared health service utilization and maternal alcohol consumption habits between groups.

RESULTS
BDD were significantly associated with current maternal alcohol consumption (Adjusted Odds Ratio [AOR]=2.98; 95% CI= 1.02, 8.70), maternal binge drinking in the last six months (AOR=4.67; 95% CI=1.10, 19.90), and maternal alcohol use six months before pregnancy (AOR=3.00; 95% CI=1.12, 8.03), but not significantly with reported maternal gestational drinking (AOR=1.77; 95% CI=0.57,2.53). The median number of clinic visits in the last six months was significantly higher in cases (6 versus 2; p<0.001).

CONCLUSIONS
Current and past maternal alcohol consumption, a possible proxy for unstable home environments, is significantly associated with childhood BDD. An effect from gestational alcohol consumption could not be conclusively demonstrated in our data. Prevention of maternal alcohol consumption remains a key public health priority for protecting child health.

L32 - The utilization of health care services by children with foetal alcohol syndrome in the Western Cape, South Africa

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BACKGROUND
Although rates of Foetal Alcohol Spectrum Disorder (FASD) in South Africa are the highest reported worldwide, there are little data reporting the health care costs of caring for children with FASD in this country.

OBJECTIVE
To estimate utilization of health care services in the Western Cape by children with FASD, and the associated costs.

METHOD
A cross-sectional analytical study conducted through interviews of 44 caregivers of children (0-12 years) with FASD. Patients were recruited from lists of diagnosed children attending two tertiary hospitals and one regional hospital.

RESULTS
The median number of annual visits to public health care facilities per child was 8 (IQR 4 to 14), approximately 3 times the background rate for children of the same age. Total average annual costs per child was R8,738.63 (95% CI: R 6,799.05; R 10,678.23). Total annual societal cost for the province was R596,603,747.30 (95% CI: R464,84,741.60; R 729,022,753.30). Caregivers in receipt of a social support grant reported spending significantly less on care for a child with FASD (Fisher’s exact p=0.004). The costs attributable to increased health care utilisation by children affected by FASD in the province represent approximately 5% of the provincial health budget.

CONCLUSION
These study results confirm the significant burden of FAS/FASD on the Western Cape economy and the health care system. The data suggest that receipt of social support grants help to reduce health care costs and confirm the need for an urgent strategy to focus on FAS prevention in South Africa.
L33 - Validity and reliability of a field kit for cholinesterase estimation amongst workers exposed to organophosphate insecticides

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BACKGROUND
Biomonitoring of workers exposed to hazardous pesticides is essential to protect workers’ health. Field kit cholinesterase (CHE) estimation as an indicator of organophosphate (OP) exposure has previously shown to have good reliability but weak validity.

OBJECTIVES
To test the reliability and validity of a new version of the Test Mate OP field kit on 57 samples drawn from OP-exposed farmers in the Western Cape Province of South Africa.

METHODS
Estimates of erythrocyte cholinesterase (ECE) were made on both field kit and laboratory testing. Duplicate samples were available for 36 samples for the field kit and 41 samples for the laboratory analysis. Twenty participants were able to contribute samples for both field kit and laboratory testing.

RESULTS
Both the field kit and laboratory demonstrated strong agreement on duplicate testing (Pearson’s correction coefficients of 0.83 and 0.89, respectively, p <0.01). The coefficient of variation was 2.5 times higher for the laboratory samples (14.0) than the field kit samples (5.5). Field kit ECE estimates were consistently lower than the laboratory estimates (mean difference of -13.4 U/g; 95% confidence interval of -16.2 U/g to -10.6 U/g ) and the correlation coefficient for the laboratory and kit ECE values was 0.55; p = 0.01.

CONCLUSION.
The use of the field kit for sequential monitoring is supported by the good precision and repeatability demonstrated in this study. As a single test, however, the kit show poor validity. We recommend ongoing use of the kit for biomonitoring, particularly in resource-poor developing countries.

L34 - Missed opportunities for accessing HIV care among Tshwane TB patients under different models of care

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BACKGROUND
The dual HIV/AIDS and tuberculosis (TB) epidemic is responsible for a large proportion of South Africa’s burden of disease. HIV positive TB patients’ access to HIV care may be compromised when HIV care is provided separately from TB care.

AIMS AND OBJECTIVES
This study aims to compare access to HIV care for TB patients in settings with Antiretroviral Treatment (ART) and TB care under one roof and settings with geographically separately rendered care, in Tshwane.

METHODS
A retrospective record review of about 1947 patients, registered with TB from September 2008 to March 2009 and followed up till March 2010, is performed at facilities with on-site ART and facilities without on-site ART. ART initiation for HIV positive TB patients is established through linking of TB register patient identifiers to the electronic ART register. Semi-structured interviews regarding HIV/TB care are held with TB programme nurses.

Data analysis entails univariate analysis and multiple logistic regression for predictors of ART initiation and for successful TB outcomes.

RESULTS
Preliminary results indicate good HIV testing rates, but poor access to ART overall. Data collection and analysis will be completed before the conference.

CONCLUSION
Results will help to choose the best model of care for dually infected patients.
L35 - A baseline assessment of maternal, neonatal and child health and nutrition services in Seven Districts

N Magijjwa, K Nyawo, T Ngomane

Health Systems Trust

INTRODUCTION
The National Department of Health prioritised improvements in the health of mothers and children. To improve the capacity of districts performing poorly and to meet the Millennium Development Goals, 18 health sub-districts across the country were prioritised as needing interventions. Health Systems Trust was commissioned to support the implementation of improvements in the quality of care with regard to maternal, neonatal and child health and nutrition services.

METHOD
A form was developed for reviewing ANC, labour & postnatal services in facilities. A sample of 174 out of 389 facilities was selected and an assessment was conducted in 12 CHCs and 99 clinics. Patient records (mothers and children) as well as data collection tools were studied and managers and staff were interviewed.

RESULTS
The findings indicated limited health service provision and low health indicator status in the districts and facilities providing delivery services. The percentage of professional nurses trained on key MNCH/N procedures also varied. Record keeping was poor. Though all districts had interaction with community groups, few facilities had meetings with the groups and fewer discussed MNCH/N matters on the agenda.

CONCLUSION
The results were communicated to both the districts and the sub-districts and HST facilitators in the seven districts had already started using the findings which have been incorporated into locally relevant, integrated MNCH/N plans to be incorporated into district health plans.

L36 - Heavy metal concentrations in the blood of pregnant women ingesting non-nutritive substances

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INTRODUCTION
Some pregnant women ingest non-food substances to remedy ailments, to satisfy cravings and with the intention of promoting health during pregnancy and an easy labour (Holst et al 2009). Herbal preparations such as isihlambezo are among the preparations used in this way.

OBJECTIVES
The objectives of the study were to determine the prevalence and nature of ingestion of non-nutritive substances, to understand the factors motivating this practice and to determine the differences in blood concentrations of selected heavy metals (lead, mercury, cadmium, arsenic and manganese) in consumers of non-food substances relative to non-consumers.

METHODS
The study was conducted at the Rahima Moosa Mother and Child Hospital in Westbury, Johannesburg. A total of 340 pregnant women aged 18 years and older participated in the study. Data were collected through the administration of pre-structured questionnaires and blood samples, and the conduct of in-depth interviews with users of non-nutritive substances and midwives.

RESULTS
Preliminary results indicate that 39% of the study participants were using non-nutritive substances during pregnancy. Additional information from the questionnaire data, laboratory analyses and qualitative interviews will be presented.

CONCLUSION
The study will provide information about the extent of ingestion of non-nutritive substances during pregnancy, and inform the need for public health action in this regard.
BACKGROUND
Measles outbreak was reported in Gauteng Province since March 2009. In August 2009 Limpopo reported confirmed cases of measles in Marble Hall Sub district of Sekhukhune district. By November 2009 all the districts in Limpopo had reported confirmed measles cases. Measles presents with fever, body malaise, cough, runny nose (Coryza) and red eyes (conjunctivitis). This stage is followed by rash that usually starts to appear first behind the ears, then the face and finally spread through out the whole body. Within 2-3 days the rash gets concentrated on the trunk and upper extremities. Rash lasts for a period of 3-7 days.

METHODOLOGY
Patient data was captured from line-listings and compared with dataset from National Health Laboratory services. Epi Info™ version 3.3.2 (2005) software was used to carry out the analysis of data.

FINDINGS
A total number of 613 measles related cases were reported during August 2009 and May 2010. The index case was reported from Sekhukhune District on the 24th August 2009 and had a proportion of 20.6%, then the outbreak spread to Waterberg district which had a proportion of 21%, then to Mopani district, Vhembe district and Capricorn district had a proportion of 15.7%, 35.4% and 7.3% respectively. The majority of the cases were between the age group of 1 year to 9 years (45.9%). The outbreak also affected adults of age group above 30 years (5.1%). There was no significant difference between the males and females who were affected.

DISCUSSION AND CONCLUSION
The outbreak affected mostly children above 15 years of age including adults. There was an epidemiological linkages with the outbreak which occurred in Gauteng Province. It was also noted that areas with low immunization coverage were mostly affected. The contributory factors were linked to cross border issues where services were inaccessible because of the NO-GO areas.

RECOMMENDATIONS
Private medical practitioner’s needs capacity in diagnosing measles and it was further recommended that Data management be enhanced in the health facilities and sub-districts. In line with the EPI (SA) goals and strategies, the Limpopo Department of Health and Social development should develop strategies to improve measles coverage in all low performing municipalities, conduct immunization campaigns and quarterly door to door campaigns which will improve or strengthen surveillance of all childhood vaccine preventable diseases.

L38 - The role of organophosphate exposure in the aetiology of depression and suicidality amongst farm workers on grape farms in the Western Cape Province, South Africa

BACKGROUND
World-wide, organophosphate pesticides (OP’s) have been associated with adverse neuropsychiatric effects, like depression, following acute intoxication. Evidence also suggests that long term psychiatric effects may arise from low-dose OP exposures other than acute poisoning. Farm workers in South Africa and globally are annually exposed to OP’s for a large proportion of the year.

OBJECTIVE
To ascertain the relationship between long-term exposure to OP’s and psychological factors, specifically depression, that predispose to suicide, amongst farm workers in South Africa.

METHODS
In 2002, a cross-sectional survey was conducted of 817 farm workers on vineyards in the Western Cape Province of South Africa. Exposure assessment was based on job activities, duration of work in exposed activities, history of past poisoning and environmental exposure. Depression, suicidal symptoms and impulsivity were assessed using the 28-item General Health Questionnaire, Beck Depression Inventory, Brief Symptom Inventory, Scale for Suicidal Ideation and Barrat Impulsiveness Scale, respectively. Confounders measured included demographic factors, alcohol consumption, history of past/current psychiatric condition, current socio-economic status and use of protective clothing.

RESULTS
A history of past pesticide poisoning was positively associated with an increase in psychiatric disorders (GHQ, OR:2.17) and depression (GHQ Severe Depression subscale, OR:1.62). Workers who smelled pesticides in their homes on spraying days also reported higher scores on the GHQ Severe Depression subscale (OR: 1.66). No associations were demonstrated between cumulative and recent pesticide exposure and adverse neuropsychiatric effects.

CONCLUSION
The data suggests that environmental exposure and acute pesticide poisoning are risk factors for depression and suicidality amongst grape farm workers.
L39 - Immunological and virological responses in highly active antiretroviral therapy naïve patients exposed to Isoniazid Preventive Therapy: A retrospective cohort design

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INTRODUCTION
Antiretroviral therapy (ART) is frequently initiated in patients on Isoniazid Preventive Therapy (IPT). We compared treatment outcomes (mean CD4+ count increases, immunological success and time-to and proportion of achieving viral load decay ≤400 copies/mL) in patients concurrently on ART and IPT to those on antiretroviral treatment after completing IPT.

METHODS
Using a retrospective cohort study design, 200 medical records of ART naïve patients who met the eligibility criteria at six ART clinics were selected. Analysis was by MANOVA and posthoc statistical tests. Approval was obtained from the University of South Africa and Botswana Human Research Development Committee.

RESULTS
Medical records were categorized into four treatment groups; (n=58) EFVipt-current, (n=54) NVPipt-current, (n=45) EFVipt-past and (n=43) NVPipt-past. Baseline CD4+ counts and viral load was not statistically different among the treatment groups. CD4+ count for all treatment groups increased significantly over time (p = 0.001) and showed the same trend for all the groups. However, the groups differed in absolute CD4+ count increase at different follow-up time points (p = 0.008). Post hoc tests showed higher CD4+ counts in both Nevirapine groups (past > current IPT) at respective times. Time-to and proportion of patients to virological decay showed no treatment group differences although patients who had received Efavirenz and IPT in the past fared better. Adjusting for the age covariate that differed significantly at baseline had no effect on treatment outcomes.

CONCLUSION
Prior exposure to IPT was associated with superior immunological and virological outcomes in patients initiating ART in the respective regimens.

L40 - Determinants of HIV-VCT utilization among secondary schools teachers in Thika district, Kenya

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BACKGROUND
Despite proven benefits, availability and high knowledge of Voluntary Counselling and Testing (VCT), its uptake is varied and often poor. It is commonly argued that teachers in Sub-Saharan African countries have relatively high HIV prevalence rates than the general population.

OBJECTIVE
To identify determinants of HIV-VCT uptake amongst secondary schools teachers.

METHOD
A cross-sectional survey was done employing a questionnaire, focused group discussions and interview schedules. A sample of schools from Thika district, central Kenya was randomly (simple) chosen from every educational zone and 246 teachers who consented from each school so chosen participated in the study.

RESULTS
HIV-VCT utilization among the teachers was 30.5%. The younger and less experienced teachers were more likely to utilize HIV-VCT services than the older and more experienced ones (Likelihood ratio, P = 0.004). Private school teachers were more likely to utilize HIV-VCT services than those of the public schools (OR = 2.356, 95% CI limit, 1.082-5.128). Teachers scared of the HIV prevalence in their area were three times less likely to utilize HIV-VCT services (OR = 0.312, 95% CI, 0.104-0.936). The teachers who had not sought HIV-VCT service were less likely to perceive HIV-VCT services as beneficial (Likelihood ratio, P =0.027). Various factors were identified as barriers to HIV-VCT uptake; most of them were post test implicated. A number of factors that motivated some teachers to seek HIV-VCT services were also identified; HIV/AIDS awareness campaigns and urges ‘to know status’ were most cited factors.

CONCLUSION
Although HIV-VCT utilization among secondary school teachers was higher than that of the general public, at 30.5% was still low. Various factors were found to influence HIV-VCT uptake which prompt the need for improved awareness including the link between prevalence and infection, post test care and support to increase HIV-VCT utilization.
L41 - A partnership-based approach to urban environmental health research: The Johannesburg-based HEAD Study

A Mathee, N Naicker, A Swart, S Naidoo

The conduct of research in urban settings, especially longitudinal studies, is often prohibitively expensive, especially in developing countries. Four institutions in Johannesburg (the South African Medical Research Council [MRC], the University of Johannesburg [UJ], the University of the Witwatersrand [Wits] and the City of Johannesburg [CoJ]), under the umbrella of the World Health Organization Collaborating Centre for Urban Health, have been responding to the challenge of generating urban-based environmental health data on a partnership basis.

The Health, Environment & Development (HEAD) study was commenced in five relatively impoverished housing settlements in Johannesburg in 2006. Visits are undertaken to a pre-determined set of dwelling sites in each study area annually, and a suitable respondent from the primary household interviewed to obtain information about socio-economic status, demography, living conditions, neighbourhood infrastructure, health and social concerns. Each of the four partners makes specific financial and in-kind contributions to the management and conduct of the study. Despite numerous challenges, conduct of the HEAD study has been sustained for the initially planned five-year period (2006 to 2010), and recently extended for a further five-year phase. The data generated has been translated into a variety of projects and programmes of local, as well as national, benefit.

This presentation will outline the process of conceptualization of the HEAD study, the contributions of the four partners, overall management of the study, the opportunities created for research capacity development at under-graduate, Masters and PhD level, some challenges encountered and plans for further consolidation and development of the study.

L42 - Fieldwork challenges encountered in urban health research in Johannesburg: The HEAD study

A Mathee, T Harpham, N Naicker, B Barnes, S Plagerson, M Feit, A Swart, S Naidoo

With rapid growth predicted in the global urban population over the next two decades, health will increasingly have an urban bias. The picture of public health is particularly complex in African cities, where rates of urbanization, poverty and inequity are high, and where the conduct of research to gain an understanding of the health trends, and associated factors, is of particular importance. In 2006 the World Health Organization Collaborating Centre for Urban Health commenced a panel study of living conditions and health status in five low-income Johannesburg housing settlements.

With four waves of data collection having been completed, the research team has encountered, and had to overcome, a variety of data collection challenges. This paper describes the main data collection problems encountered by the research team within the HEAD study, with special emphasis on sampling, gaining access to communities, conducting research in settings with high proportions of international migrants, conducting research in sites of rapid development or change and the security and well-being of fieldworkers.

The findings will be of use to those planning or conducting health research in urban settings.
L43 - The challenge of research translation: Lessons learned from the HEAD study

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Notwithstanding the quality of research and the significance research findings, the translation of research into policies, programmes and projects is seldom a foregone consequence. Instead a variety of factors may determine research translation success, as a result of standard processes as well as unplanned or opportunistic occurrences.

The Health, Environment & Development (HEAD) study was commenced in five relatively impoverished housing settlements in Johannesburg in 2006. Visits are undertaken to a pre-determined set of dwelling sites in each study area during August each year, and a suitable respondent from the primary household is interviewed to obtain information about socio-economic status, demography, living conditions, neighbourhood infrastructure, health and social concerns and quality of life.

Data collected over the first four years of conduct of the study have highlighted, to varying degrees across the five study sites, for example, a virtual epidemic of hookah pipe smoking, growing food hunger, insecurity and a decline in the consumption of fruit and vegetables in the poorest sites and high burdens of chronic diseases. While a similar approach involving ward councillors was adopted to local research translation in the five study sites, the responses have ranged from disinterest to a formalised and sustained process of project implementation in one of the sites.

This paper will outline the research translation experience of the HEAD study, and attempt to elicit the factors that have acted as determinants of success or failure.

L44 - Strengthening HIV Counselling and testing services and integration with tuberculosis services at Mnquma Sub-district in the Eastern Cape

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INTRODUCTION

South Africa is experiencing twin-pandemics of HIV and Tuberculosis. With 460,000 TB cases reported in 2008, SA has fifth highest TB burden, and a second highest incidence rate of 948/100,000. TB-HIV co-infection (73%) is one of highest globally, making South Africa an epicenter of TB. The aim of the study is to assess the quality and utilization of existing HCT and TB services in public health facilities of Mnquma. Strengthening capacity of health care workers to deliver quality C&T services and integration with TB, as well as improve data management (reporting and use).

METHODS

This is a cross-sectional descriptive study among 29 facilities informed by national priorities using two main strategies (operations research and health systems strengthening).

RESULTS

Quality of HCT-TB service delivery has substantially improved. Since 2008, there is a two-fold increase in the number of HIV patients tested for TB and for both infections leading to an increased number of people diagnosed and treated for HIV and TB. The decreasing proportion of HIV positive patients tested positive for TB shows that HIV patients are being screened. However, there is still need for assistance to strengthen TB/HIV referral system, consolidation of trainings of various healthcare professionals.

CONCLUSION

VCT-TB service delivery has substantially improved. Access to screening and testing has increased number of people diagnosed and on treatment. Referral systems need to be strengthened. Physicians, CHWs and DOTS need TB/HIV integration training.
L45 - The Research Application Management System (RAMS)

T Mbatha, I Friedman, T Mhlaba
Health Systems Trust

INTRODUCTION
The Research Application Management System (RAMS) is a web-based database for storing research applications/proposals submitted to Provincial Health Research Committees (PHRCs) for approval. The system is the product of the National Department of Health, developed by Health Systems Trust and Clyral.

RATIONALE FOR THE CREATION OF THE RAMS
In 2006, Health Systems Trust was mandated by the National Department of Health to assist with the establishment and capacitating of the PHRCs. One function of the PHRCs, among others, is to approve and give permission to researchers who want to conduct research in their respective provinces. The proposals and protocols must then be stored in a database in order to keep records of what type of research is being conducted in provinces, so as to, among other things assist with the process of research priority setting. It was the established during the provincial visits that while some PHRC secretariat directorates do have Excel databases to store submitted proposals, others do not have a proper storage system. Even with those PHRCs that do have the database, the system of keeping this information is not uniform and properly standardized. A need therefore arose to create a uniform and standardised tool/system that can be used to store proposals and protocols submitted to PHRCs, hence the development of the RAMS.

TARGETED USERS OF THE RAMS
The primary targeted users of the RAMS are the PHRCs. But other organisations doing health research that would benefit from using the system will be encouraged to do so. The envisaged benefit in using the RAMS is to maximized transparency, information sharing, and better management of research process happening in the provinces as per the National Health Act of 2003.

L46 - Community involvement for healthy rivers healthy people

P McLaren
Duzi Umngeni Conservation Trust

BACKGROUND
The Umngeni River runs through my hometown of Howick. Three years ago I became aware of the public health dangers threatening the river, with the potential to severely compromise both the river and local community health when the Howick branch of Duzi Umngeni Conservation Trust (DUCT) was launched. As an occupational therapist relevant community health experience gained while doing postgraduate studies through the University of Witwatersrand in the rural area of Manguzi, KwaZulu Natal provided valuable skills in engaging with technical issues relating to the eight strategic focal areas of DUCT.

DUCT HOWICK OBJECTIVES
- Act as advocates for river health
- Become informed and monitor focal areas, transferring information and encouraging community involvement in initiatives e.g. World Clean Up Day, recycling, monitoring & reporting of sewage spillages & water leaks, development of an urban conservancy incorporating the river, tributaries and wetlands around Howick and Mpophomeni
- Cooperate with government structures, in particular the local (uMgeni) and district (uMgundlovu) municipalities
- Attend the Upper Umngeni Catchment Management Forum and river related meetings

METHODS
A working group of eight volunteers chose four focal areas: faecal waste, solid waste, industrial pollution, alien invasive plants and held regular well-documented meetings. Two labourers were supervised twice a week to implement strategic activities.

RESULTS
The dedicated monitoring and intervention has been successful. The National Lottery is funding nine DUCT river care teams for the Umngeni River from Midmar Dam wall to the sea over three years.

CONCLUSION
This example of good practice i.e. community involvement in river health needs to be replicated. The monitoring of the river care teams is a key component and needs to be explored.
L47 - The prevalence of intentional and unintentional injuries in selected Johannesburg housing settlements

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INTRODUCTION
Injuries, from intentional and unintentional causes, make a considerable contribution to the global burden of ill health. In 1996, the World Health Assembly adopted a resolution declaring violence a leading public health priority.

With ongoing urbanization, the burden of injuries is likely to be a particular challenge in cities. In the Burden of Disease survey of 2000, Bradshaw et al reported intentional and unintentional injuries were the second leading cause of Disability Adjusted Life Years (DALY’s) in South Africa.

METHODS
Data were extracted from the database of the Johannesburg-based Health, Environment, and Development (HEAD) study. The HEAD study is a panel study (commenced in 2006) involving the collection of information about households living in five housing settlements using pre-structured questionnaires.

RESULTS
A total of 1805 interviews took place across all HEAD study sites from 2006 to 2009. More than 70% of households reported alcohol and drug abuse as a major neighbourhood concern. Respondents from Hospital Hill and Riverlea reported the highest percentages of gunshots and stabings. Female-headed households were significantly more likely to report more than three intentional injuries (OR 1.53; 95% CI 1.02-2.32) (p < 0.04) over the four-year period of the study, as were respondents from Hospital Hill (OR 2.53; 95% CI 1.43-4.46) (p < 0.001), and households earning less than R1000.00 per month (OR 1.79; 95% CI 0.94-3.41) (p = 0.07).

CONCLUSION
This analysis has shown that communities in the HEAD study sites bear a high burden of intentional injuries. These injuries have far-reaching consequences for health. The poorest, as well as female-headed households are particularly vulnerable to exposures of violence.

L48 - A qualitative assessment of adherence to the completion of tuberculosis (TB) treatment in five sites in KwaZulu-Natal

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Health Systems Trust, Durban South Africa

BACKGROUND
The TB-HIV and AIDS co-infection rate in South Africa is high, with an estimated 73 percent of new TB patients co-infected with HIV. Full adherence is necessary for treatment success, as it is the case with anti-tuberculosis medication. This study examined the experiences of TB patients in taking their medication; it identified strategies which helped them remain on TB treatment and explained why former TB patients stopped taking their medication.

DESIGN/METHODS
A qualitative descriptive study using an interview guide was conducted in TB programmes of five hospitals in KwaZulu-Natal. 99 persons were interviewed. They comprised of two groups: those on TB treatment at the time of the study (n=53) and those (n=46) who had dropped out the TB treatment. Conversations were recorded, transcribed and thematically analysed.

RESULTS
Despite that some patients experienced improved health once they began the treatment as well as that the majority of all participants understood the importance of remaining on treatment, patients who dropped out of treatment, compared to those who were still on treatment at the time of the study, were in a more marginalized socio-economic situation.

CONCLUSION
These results suggest that for TB programmes, it important to understand patients’ social and economic situations as those in marginalized situations are more likely to drop off treatment.
L49 - Development and tracking of body composition of rural South African youth: Ellisras Longitudinal Study

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OBJECTIVES
The aim of the study was to investigate the development and tracking of fat pattern variables of children from preschool age into late adolescence from the Ellisras Longitudinal Study.

METHODS
Anthropometric measurements of children were measured twice a year from 1996 to 2003. In total, 2,225 children born between 1986-1994 (aged 3 to 10 years) were enrolled in the study following a cluster sampling method at baseline (1996) and followed over time. In 2003, 1,771 children born between 1986 – 1994 (aged 9 to 17) years were still in the study.

RESULTS
The prevalence of over fatness increased (3.9% to 21.8%) over time. Longitudinal tracking coefficient derived from GEE for fat pattern variables ranged from B= 0.20 (95%CI 0.13 0.27) to B =-0.95 (95%CI -1.04 -0.86). There was a significant tracking of subcutaneous fat while the skinfold ratios showed low and insignificant tracking over time.

CONCLUSION
The development of over fatness was more prevalent among both preschool and primary school girls compared to boys. Changing lifestyle is the prime candidate for possible intervention for future studies.

L50 - Parental understanding of anaemia in Kikoneni amongst mother participating in INSTAPA study

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BACKGROUND
IDA is the most common nutritional disorder in the world affecting billions of people most of who live in developing countries. It is important that the condition is identified early in children because of its adverse effects of behavior and development.

OBJECTIVES
To determine the prevalence of IDA
To assess parental understanding of anaemia (IDA)

METHODOLOGY
A cross-sectional study was conducted among 45 mothers under the INSTAPA programme at Kikoneni. An open ended questionnaire was administered to them to determine their parental understanding of anemia.

RESULTS
A total of 138 cases of anemia were reported following an active case search at Msambweni hospital. Out of these cases, 58% were attributed to malaria, 12% to Protein energy malnutrition, 3% to HIV, another 3% to Sickle cell disorder while 24% attributed to other causes. Following a separate survey on the parental understanding of anemia amongst mother-child pairs participating in the INSTAPA programme at Kikoneni, it was realized that 70.6% of them had heard of the term anemia before while 29.4% had not heard of the term before. None of the mothers mentioned the use of iron supplements while a total of 42.2% did not know any prevention measures for anaemia. None of the respondents mentioned liver, chicken, pulses or nuts while 22.2% of them did not know any foods consumed to prevent anaemia.

CONCLUSION
There are multiple causes of anaemia which is not a disease but a sign of another underlying problem thus knowledge on danger signs and prevention was a challenge to mothers.
L51 - Evaluation of a service provider short course for prevention of Fetal Alcohol Syndrome (FAS)

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BACKGROUND
South Africa has among the highest reported rates of Fetal Alcohol Syndrome (FAS) globally. Primary prevention targeting women at risk of alcohol-exposed pregnancies (AEP) could substantially reduce the incidence of FAS.

OBJECTIVE
To evaluate the effectiveness of a short training intervention to improve service providers’ screening, identification and management of women at risk of AEPs.

METHODS
Training to screen and counsel women at risk for AEPs was offered to service providers in two municipalities in the Western Cape Province, South Africa. Effectiveness was evaluated through a before-after study of service providers’ knowledge and confidence levels and a comparison of service providers’ practices (assessed indirectly via service user exit interviews) at intervention and control clinics.

RESULTS
The proportion of service providers indicating alcohol during pregnancy as harmful to the fetus increased after training (23% vs 67%; p < 0.001). After training, providers expressed significantly more confidence for 4 skills indicators related to the identification and management of women at risk for AEP. Female clients at intervention clinics were more likely than those at the control clinics to receive alcohol advice (OR=2.13; 95% CI: 1.27 to 3.53), counseling (OR=1.3; CI=1.05 to 1.56) and an offer of family planning (OR=1.1; CI=1.06 to 2.10) after the training. Time group interaction variable analysis in multiple logistic regression modeling confirmed these effects as related to training.

CONCLUSION
A short training course, based on brief motivational interviewing principles, appears to be effective in building service provider capacity to better prevent and manage women at risk of AEPs.

L52 - Malaria intervention as an entry point to address community health issues in Tanzania: AMREF experience

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African Medical and Research Foundation (AMREF) in Tanzania

INTRODUCTION
Mtwara rural district is one of the poorest districts in Tanzania. Indicators of health and other MDG indicators show poverty levels much higher than the national average. The district has the second highest level of under-five mortality rate in the country standing at 232/1000 as compared to 115/1000 nationally. This is undoubtedly linked to inadequate access to prompt and effective malaria prevention and control, a weak health system and low community and civil society involvement.

METHODS
In 2007 a baseline survey was conducted. Results showed higher child and maternal mortality rates, low malaria awareness, knowledge and treatment; and weak district capacity to address malaria at community level. AMREF in collaboration with the district authorities and community members designed a community based malaria control initiative aiming to strengthen the capacity of civil society and local government in Mtwara to manage community based health care, reducing mortality and morbidity among children under five years, pregnant women and other vulnerable groups.

RESULTS
Midterm evaluation showed improved malaria diagnosis, health seeking behavior, and strengthened community health structures and Community Based Organizations. There was also improvement from baseline values as follows: Community awareness and knowledge on malaria rose from 60% to 80%, ownership of mosquito nets from 19% to 71%, antenatal attendances at least once from 71% to 76%, parents/caretakers recognizing malaria symptoms from 56% to 69%.

CONCLUSION
A community based intervention using the principles of community partnership and capacity building proved to be valuable in improving community health indicators.
L53 - Food security in impoverished urban settlements in South Africa: Findings from the Health, Environment and Development Study

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BACKGROUND
Food security is a basic human right. However, approximately one sixth of the developing world does not have sufficient food, impacting on the overall quality of their lives. In this paper we investigate the prevalence and trends in household food insecurity in three impoverished communities in the Johannesburg.

METHODS
Annual cross sectional surveys, commencing in 2006, were conducted in three impoverished settlements; Riverlea, Braamfischerville and Hospital Hill. A structured questionnaire was used to obtain information on demographic profiles, socio-economic status, and food security.

RESULTS
The overall prevalence of food insecurity was greater than 80%. In Riverlea and Hospital Hill, the poorest sites, the level of food insecurity increased over the three-year study period. Food consumption dropped, especially the consumption of fruits and vegetables. Poverty was significantly related to food insecurity (p=0.002). There was no significant difference in food insecurity between male and female headed households. Residing in an area for 10 years or more had a significant protective effect in 2006 (38.2% of the food insecure; p=0.01). However by 2008 this positive effect had decreased and 53.3% of the food insecure households had resided in their dwellings for 10 years or longer.

DISCUSSION
Findings from this study indicate that food insecurity is unacceptably high, and has been rising in recent years. The urban poor communities appear to be at particular risk in South Africa. Hunger relief and poverty alleviation needs to be more aggressively implemented in order to improve the quality of life in these poor communities.

L54 - Acceptability of home-based HIV counselling and testing in a rural district in South Africa

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BACKGROUND
Various social, structural, and economic barriers hinder optimal utilization of facility-based voluntary HIV counselling and testing services. Thus, over 90% of those who are HIV-infected remain unaware of their status. To overcome these challenges, there is growing interest in alternative, community-based models such as home-based HIV counselling and testing (HBHCT).

METHOD
As part of a community randomized controlled trial, we are implementing a HBHCT intervention in a rural district of South Africa. Trained lay counsellors offer door-to-door HCT using rapid HIV test kits. At the time of testing, lay counsellors use a cell phone to collect data on client characteristics, testing history, and HBHCT uptake. As the trial is not yet complete, we report preliminary results from the first few months of the intervention.

RESULTS
Lay counsellors tested 2,150 people, approximately 78% of those approached. Of these, 58% were first time testers and 11% were HIV-positive. Nearly three-quarters of testers were women (74%) and only 4.5% of were pregnant at the time of testing. Forty-three percent of testers were single, while 39%, 13%, and 5% of testers were married, widowed, and co-habiting or divorced/separated, respectively. The mean testing age was 40 years for both genders. One hundred and two couples received couples counselling and testing.

CONCLUSION
Preliminary results suggest that acceptance of HBHCT in a rural area of South Africa is high and consistent with evidence from similar intervention studies in other sub-Saharan African countries. This indicates that HBHCT may be appropriate for scale up in comparable rural settings.
L55 - Quality of in home rapid HIV testing by community lay counsellors in a rural district of South Africa

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BACKGROUND
Low rates of HIV testing in health facilities suggests that expansion of HIV counselling and testing (HCT) to non-clinical settings is critical to the achievement of national goals for prevention, care and treatment. As such, due consideration must be given to the ability of lay counsellors to perform HCT in community settings.

METHODS
As part of a community randomized controlled trial, we are implementing a home-based HCT intervention. Using rapid HIV test kits, trained lay counsellors conduct door-to-door HIV testing in a rural district of South Africa. To monitor test quality and counsellor skill, additional dry blood spots are taken for laboratory-based ELISA testing. Sensitivity and specificity were calculated using the laboratory test as the gold standard and 95% confidence intervals were calculated using the Wilson method.

RESULTS
From a total of 2,742 samples with confirmatory laboratory testing, we found a sensitivity of 99.0% (95% CI: 96.6 - 99.7%) and a specificity of 99.9% (95% CI: 99.7 - 99.9%) for the lay counsellor field-based rapid tests. Both measures are high and the lower confidence bound for specificity meets the international standard for assessing HIV rapid tests.

CONCLUSION
These findings indicate that adequately trained lay counsellors are capable of conducting high quality rapid HIV tests and accurately interpreting the results. This evidence supports a recent change to national regulations, stating that trained lay counsellors can conduct finger pricks to obtain small quantities of blood for testing. This will have important implications for the expansion of HCT services in community-based settings.

L56 - Baseline assessment findings of the data transfer processes in primary health care facilities in Region F, Johannesburg

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INTRODUCTION
The linked interpretation of accurate data from different sources is the key component of useful monitoring and reporting systems. Health facilities supported by the Reproductive Health and HIV Research Unit (RHRU) have many data relay points in their reporting systems. This relay increases the probability of reporting errors. A baseline assessment was conducted at three primary health care (PHC) facilities in the Johannesburg Inner-City to determine the feasibility and appropriateness of conducting assessments at all RHRU-supported facilities.

OBJECTIVE
Identify data relay points, timelines and assess training requirements and standard operating procedure (SOP) needs, whilst investigating staff knowledge, attitudes and perceptions around reporting systems.

METHOD
A structured self-administered questionnaire was used to collect data from three randomly selected sites to understand the current patient/data flow within the PHCs.

RESULTS
There are multiple service entry points with data collection tools between which patients are referred. There were clear inconsistencies in staff's understanding of the various data collection tools and lack of SOPs on the data-related processes. Absence of SOPs and training hindered task-shifting in data processes and increased the error rate between relay points among new staff. Findings were inconsistent with other data quality assessments done in that the data flow varied between healthcare services (TB, HIV, STI, etc) and sites, was fuscated and multi-directional.

CONCLUSION
Assessment outcomes indicate the need for SOPs and identify the data reporting weaknesses that result in compromised data quality. Knowledge gained from the assessment will be used to improve the validity and efficiency of data collection, collation and reporting at these 3 sites. Lastly the need for investigating the data transfer processes at the other 11 sites was reaffirmed.
L57 - Experiences of community health workers conducting home counseling visits to pregnant and postnatal women within a randomized control trial project in Umlazi KwaZulu-Natal

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BACKGROUND

Good Start III is a randomized controlled trial project implementing an effectiveness study of an integrated community based intervention package for improving child and maternal health in Umlazi. We describe the experiences of CHWs in conducting home visits.

METHOD

CHWs identify and recruit pregnant women in 15 intervention clusters. They visit them twice when their still pregnant and give five postnatal visit when the baby is a full term or seven visits if the baby is a low birth weight. Women are counseled on birth preparedness and early newborn caring practices, including breastfeeding, identification of newborn and maternal danger signs as well as basic newborn care. CHWs also refer ill participants to the local health facilities.

RESULTS

To date 1588 pregnant women have been recruited into the study and received 8 558 visits. CHWs feel appreciate by their participants and majority have built good relationships. First time mothers find detailed information they receive from CHWs very useful compared to what they get from the clinics. "Clinics have no time for dialogue." Some mothers who refuse visits during pregnancy sometimes turn to CHWs for assistance after delivery because of the good experiences shared by their neighbors participating in the project. Because CHWs visit often, mothers are motivated to look after their babies and to share the changes they observe in their babies. Gogos in households participating in the study have assisted the CHWs to stress the importance of the key messages delivered by CHWs and encourage the younger pregnant women to go for antenatal care. The referral notices are making a difference they assist participants to access the health facilities services with ease, as a result CHWs are asked for referral letters even after they have completed the visit schedules.

CONCLUSION

Participants appreciate the visits done by CHWs, because they encourage them to visit the health facilities when the need arises and have time to answer their questions. Gogos are an important resource in the households.

L58 - Alternative classifications of cause of death data: Will it shift priority setting and interventions?

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INTRODUCTION

Mortality data are generally reported according to causes of death. Alternative classifications may provide health policy makers with information useful for health service provision and assessing quality of existing services. For example, the broad care needs classification is based on the effects and care needs of disease. Avoidable mortality classifies causes into categories that are amenable to health care or are preventable, and can give an indication of the quality of health services. The intervention accessible shares are utilized to assess the proportion of the burden of mortality that can be addressed by cost-effective interventions. These alternate classifications will be applied to data for the City of Cape Town to assess their utility in informing policy making.

METHOD

Mortality data for the metropole and 8 health sub-districts for 2006 were extracted from the City of Cape Town mortality surveillance system and the alternative classifications into broad care needs, intervention accessible shares and avoidable mortality applied.

RESULTS

The burden of disease classification shows a quadruple burden of disease: infectious disease mortality, injuries, non-communicable diseases and the growing HIV/AIDS epidemic. Preliminary analysis showed that 68% of child deaths would require acute care, while 73% of deaths over 5 years would need long term care. In addition, half of all deaths could be considered avoidable, with 20% being treatable and 30% preventable.

CONCLUSION

It is anticipated that the alternative classifications of mortality will provide useful information for health policymakers and may shift the focus of priority setting and interventions.
L59 - Impact of research on fieldworkers: Lessons learned from a survey amongst women in Tshwane, South Africa

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BACKGROUND
Fieldworkers are a crucial part of the research process and the quality of the training and support they receive is often one of the contributing factors to the success or failure of a research study.

OBJECTIVE
This paper explores the challenges encountered by fieldworkers conducting a survey among women in Tshwane, South Africa and describes how these problems were addressed.

METHOD
A baseline survey on women’s health relating to alcohol use was conducted in Tshwane. This survey was part of a larger project, which aimed to develop interventions for the prevention of Foetal Alcohol Syndrome. Twelve fieldworkers administered an hour-long questionnaire to all participants. Challenges and problems encountered by fieldworkers were assessed through daily debriefing sessions and a focus group discussion at the end of the fieldwork phase.

RESULTS
It was found that fieldworkers face daily challenges when working in the field. These include safety and security issues, problems gaining access to participants and emotional burnout. Increased fieldworker and interviewer training decreased the occurrence of practical problems; while debriefing and support sessions decreased negative emotional responses.

CONCLUSION
Many pitfalls in the fieldwork process were identified and addressed. Suggestions as to how to deal with these challenges are discussed.

L60 - Psychiatric nurse practitioners’ experiences of working with mental health care users presenting with acute symptoms

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BACKGROUND
Psychiatric nurse practitioners working with mental health care users presenting with acute symptoms work in a complex environment. This environment is characterised by mental health care users who may present with a history of violence, sexual assault and substance misuse.

OBJECTIVE
To explore and describe the experiences of psychiatric nurse practitioners working with mental health care users presenting with acute symptoms.

METHODS
A qualitative, explorative, descriptive and contextual design was used. Data was collected by means of conducting four focus group discussions involving twenty one psychiatric nurse practitioners. The researcher made use of naive sketches, drawings and field notes for the purpose of data triangulation. Data was analysed in accordance with Tesch’s method of open coding.

RESULTS
Psychiatric nurse practitioners describe working with mental health care users presenting with acute symptoms through the following three themes: experience of entering an unsafe world where care becomes a burden; negative emotional reactions and attitudes towards mental health care users that compromise quality nursing care; and a plea for a nurturing environment that would enhance quality nursing care.

CONCLUSION
Psychiatric nurse practitioners make a plea for a nurturing working environment that would enhance quality nursing care. They suggest skills and competency development, organisational support, and a need for external resources.
L61 - Why do some HIV infected patients not get onto ARV’S at an antiretroviral clinic in Durban, KwaZulu Natal?  

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BACKGROUND
The demand for comprehensive HIV/AIDS services is greater than the available supply, particularly for the provision of antiretroviral therapy. The resulting bottle-neck in service delivery has resulted in many eligible patients not being initiated on antiretroviral therapy. The objective of the study was to quantify patient loss to care and recommend improvements for health care system for better patient retention.

METHODS
In this observational cohort study of adult patients eligible for antiretroviral therapy, pretreatment preparation of patients for antiretroviral therapy and the Health system variables associated with pretreatment loss to care were analyzed.

RESULTS
At McCord Hospital’s HIV clinic, Sinikithemba, 54% of the patients eligible for antiretroviral therapy had not initiated antiretroviral therapy by the end of December 2007 and 94% had not been in care for six months or more. With a median CD4 count of 60 for these patients, and the median time between first clinic visit and last clinic visit of five days, mortality is expected to be high in this group of patients.

CONCLUSIONS
These high loss to care numbers and low median CD4 indicate the need for program monitoring of patients from the time of eligibility for treatment and further investigation into the impact of treatment waiting times on loss to care and patient mortality in the pretreatment phase. The patient, clinical and program factors associated with patient loss to care need to inform changes in health care systems for better patient retention.

L62 - Integrating health into the language curriculum in multilingual contexts: The case of scientific english and french in medical faculties in Cameroon  

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INTRODUCTION
This paper examines the teaching and learning of English for Medical Students in Cameroon and compares it to the traditional language teaching curricula. The Cameroon multicultural society has a peculiarity in that only two of the 248 languages are Official Languages. English is used by 20% of the population concentrated in the two Anglophones regions namely: South West and North West. The rest of the eight regions (about 80%) are predominantly French speaking. Notwithstanding its international advantage, English does not receive the needed attention in Cameroon’s health requirements. Even when this is done, little attention is paid on the scientific or medical content.

METHODS
A comparison of the traditional language class to the Scientific English language class is made to see best practices. The content, methodology and approach are examined, analysed and reported using appropriate research tools.

RESULTS
The results indicate absence of appropriate medical terminology, idioms and expressions in the lectures. The absence of teaching a technical appropriate jargon potentially inhibits communication between the doctor and the patients in most parts of Cameroon.

CONCLUSIONS
An integrated content approach is needed by both medical specialists and language practitioners to forge working documents that can enable stake holders to fully implement Cameroon’s bilingual policy in the medical field. It is only then that the patients, the doctors and the government can heave a sign of relief that health goals are being met.
L63 - Is tobacco control having any effect on mortality in South Africa?

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BACKGROUND
South Africa was a global leader with the introduction of the Tobacco Products Control Act in 1993 and the Tobacco Products Control Amendment Act in 1999. Tobacco consumption in certain demographic groups have decreased. However, it is not clear whether there have been any reductions in mortality.

OBJECTIVE
To describe the trends of selected tobacco related mortality for the period 1997-2007 including lung cancer, chronic obstructive pulmonary disease (COPD), ischemic heart disease (IHD), stroke and hypertensive disease.

METHOD
A descriptive analysis of death notification data compiled by Statistics South Africa was undertaken. Age specific death rates were calculated using ASSA 2003 model population estimates and age standardised rates were calculated using the WHO world standard.

RESULTS
Lung cancer death rates were higher for males than females and have decreased in recent years to 25 per 100 000 populations while the rates remained unchanged for females at about 8 per 100 000 populations. The decline was more marked in the 45-59 age groups. Mortality rates from COPD and IHD were higher for males, while mortality from hypertensive heart disease was higher for females. IHD remained constant while hypertensive heart disease increased.

CONCLUSION
This study has shown some degree of decline in selected tobacco related causes of mortality but suggests that some causes may be influenced by other risk factors such as hypertension. The reduction in tobacco related mortality is only seen among men and may indicate that the tobacco control efforts do not reach women.

L64 - Trading health for wealth: A critical examination of the relationship between to the HIV/AIDS disability grant and patient adherence to state funded antiretroviral medication in KwaZulu-Natal, Durban

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INTRODUCTION
HIV and AIDS disability grant (DG) policy asserts that a grant be provided to HIV positive individuals whose CD4 count is below 200 cells. This grant is subject to review every six months and is subject to expiration for those whose CD4 count rises above 200. The consequence of this policy approach has in some cases had both devastating and unintended effects to adherence. The objectives were to identify the factors and most common reasons for dropping out of the antiretroviral therapy (ART) programme, as well as to investigate the relationship between antiretroviral (ART) adherence and receiving the HIV and AIDS DG.

METHODS
A cross-sectional, qualitative study, that drew upon a non probability sampling technique. The study involved eight ART patients who received the HIV and AIDS DG, eight who are no more receiving the HIV and AIDS DG, eight who have never received the HIV and AIDS DG and eight who have dropped out of the ART programme, as well as two doctors. Thematic analysis was employed to analyse data.

RESULTS
HIV and AIDS DG receiving patients found it more feasible to adhere to their ARV medication. Unemployed patients who did not receive the DG found it difficult to take their medication accordingly. Lack of food was the dominating reason for patient drop-outs.

CONCLUSIONS
Patients, who did not have means of support, while unemployed, found it difficult to take their medication as prescribed. Not receiving the DG led to treatment interruptions and dropping out of the ART programme.
**L65 - Climate change and health: The performance implications of work in hot weather; presentation of a protocol**

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**BACKGROUND**

There is now widespread agreement that the earth is warming, due to emissions of greenhouse gases caused by human activity. With the prospect of a warmer world, increased attention is being devoted to the implications for worker well-being and work performance. The ‘high occupational temperature health and productivity suppression’ programme (HOTHAPS) is a multi-centre health research and prevention programme aimed at characterising and quantifying the extent to which working people are affected by, or adapt to, heat exposure while working.

**OBJECTIVES**

To describe climate conditions in selected study sites; measure the environmental working conditions (temperature and humidity) for the study groups; determine the effect of work in hot weather on workers’ physiology (heart rate) and performance levels (work output); explore workers’ perceptions of the effect of heat on their work environment, health, comfort and productivity levels; establish the preventive and adaptive measures that workers use to cope with workplace heat exposures and provide a basis for policy recommendations related to working environments and work patterns.

**METHODS**

A mixed methods approach will be adopted in this study, with both quantitative and exploratory qualitative components. The study will be conducted among adults who work in environmentally exposed conditions, performing work with measurable outputs, such as fruit pickers.

**EXPECTED OUTCOMES**

This project should provide more detailed insight into the experience, perceptions and consequences of heat levels that outdoor workers are exposed to and its implications for future worker health and productivity levels in South Africa and also contribute to climate policy formulation.

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**L66 - The relationship between environmental exposures to pesticides measured by means of an environmental index and the reproductive health of boys living on farms in the rural Western Cape**

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**OBJECTIVE**

This study investigated the effect of pesticide exposure, measured by means of an environmental index, on pubertal growth of boys residing in the rural Western Cape.

**METHODS**

A cross-sectional study of 269 boys including 176 boys residing on farms and 93 not residing on farms was conducted in the rural Western Cape. Tests included a questionnaire (items on demographics, birth weight, general health, reproductive health, diet, and living history, exposure to pesticides, smoking and alcohol consumption) and anthropometric measurements including height, weight and BMI of boys. Proximity, spraying intensity and environmental exposure index was calculated measuring the lifetime average distance from spraying, average intensity of spraying and a combination of these, respectively. Linear and logistic regressions analysis was used to determine association between risk factors and the anthropometric outcomes.

**RESULTS**

The mean age of the boys was 11.55 years ranging between 9.42 - 13.16. > 60% of height & weight measurements were below the 50th percentile for age (according to CDC growth charts). The median lifetime proximity of home to nearest spraying area was 100.04 meters (Range 17.48-974.55) and frequency of spraying was 53.57times/year (range 0 - 91.42). The life time proximity index was also associated with a shorter stature ($\beta = 0.0032$, (CI 0.0002-0.0062), $P = 0.03$). No association was found between the other exposure indices and the rest of the outcome measures.

**CONCLUSION**

The results indicated that lifetime environmental exposure to pesticides could have adverse effects on the growth of boys, thus calling for a further evaluation of these effects.
L67 - Perceptions of integrating TB and HIV services: In-depth interviews with TB nurses in inner-city Johannesburg

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BACKGROUND
In South Africa approximately three-quarters of TB patients are also HIV-positive. Many primary health care (PHC) facilities are not well-equipped to identify co-infected patients or deliver integrated TB/HIV care. The Reproductive Health & HIV Research Unit piloted a TB/HIV integration project in four inner-city Johannesburg PHC’s, commencing October-December 2007. The project trained PHC nurses and introduced new data collection tools.

METHODS
Between April-June 2010 in-depth interviews with TB nurses were conducted at four intervention sites and 2 control sites. Nurses were asked about their perceptions of integration of TB/HIV services such as symptom screening, tuberculin skin testing (TST), and isoniazid prophylactic therapy (IPT).

RESULTS
Seventy-five percent of nurses in intervention sites reported that TB/HIV integration had improved at their facilities, while 50% of control sites reported improvement. Nurses attributed this to increased referrals between HIV counselors and TB services and to health talks which increased patients' awareness of risks around TB/HIV.

Nurses from all sites reported TB symptom screening had increased. However, 100% of intervention sites reported an increase in TST coverage compared to 50% of controls. An increase in IPT coverage was reported by 75% and by 50% of nurses at intervention and control sites respectively. Nurses attributed increased TST and IPT coverage to their having greater awareness of benefits of these services, like improved CD4 counts among patients taking IPT.

CONCLUSION
Intervention sites reported improved integration of TB/HIV services compared to controls. The interviews will be validated by review of programme data in the National TB Database.

L68 - Outdoor air particulate burden and lung function status of residents of selected communities in Ibadan

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BACKGROUND/OBJECTIVE
Outdoor air pollution is a major public health hazard in urban communities. In Nigeria, little is known about outdoor particulate concentrations and their potential effects on lung function. This study assessed outdoor air particles and pulmonary function status of residents in Ibadan.

METHOD
Cross-sectional survey design was used. These particulate generating areas were purposively selected: Ojoo park-OJ (High traffic); Bodija Market-BM (Commercial); Oluyole Estate-OL (Industrial). The University of Ibadan-UI (Academic) was the control area. High volume sampler was used to collect suspended particulates (6-8a.m) and (12-2p.m) for one-week period at each site. A calibrated digital spirometer was used to assess the lung function status (FEV1) of 140 respondents that consented. Results of sampling were compared with standards. Data analysis was done using statistical methods.

RESULTS
The mean particulate concentrations (morning and afternoon) at the three communities were; 286.0±102.0 and 170.3±139.0µg/m3 (OJ), 342.3±122.4µg/m3 and 502.0±39.9µg/m3 (BM), 220.9±74.6 and 418.6±156.8µg/m3 (OL) respectively. Mean concentrations in UI were 220.6±69.9µg/m3 and 294.1±38.4µg/m3. Particulate concentrations recorded in the afternoons were higher than the NGL daily limits of 250µg/m3 (p<0.05). The observed FEV1 in litres at the experimental and control groups were 1.6±0.6 and 2.0±0.6 respectively. The observed FEV1 at the experimental areas were significantly lower than control (p<0.05), indicating higher vulnerability. There was a significant negative correlation between particulate burden and FEV1 of residents (r=-0.31, p<0.05).

CONCLUSION
A high outdoor air particulate burden and decline in lung function status of majority of residents were observed. Government should formulate policy guidelines to reduce particulate load around residential areas.
L69 - Protective instruments against harmful widowhood practice in Igboland the case of Owerri municipal council Nigeria

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Harmful Widowhood Practice (HWP) is an obnoxious, inhuman treatment and Violence against Women (VAW) following the death of their husbands. The are the Umuadas -the daughters married outside their community, family members and community because of the prevalent cultural norms. The HWP is a common traditional practice in most African societies. In Nigeria, it is predominantly practiced in Igboland. Some of the traditional HWPs are wife and assets inheritance including sexual cleanings – the practice in which a widow has sex with another man following the death of her husband, to purg the husband's guilt. The study therefore, examined the HWPs in Igboland.

The study adopted qualitative method of data collection. A validated and structured interview guide was used for the data collection. The 241 widows identified in the 5 communities of OMC were randomly selected and interview for the study. The data collected were and analysed using thematic approach.

The findings of the investigation reveals that harmful widow practices persisted in the communities of OMC and possibly apply to other Igbo communities in Nigeria due to the Igbo world perception about deaths, causes of deaths, marriage and hereafter the umuada’s ruthless and uncompromising behaviour in the implementation of the widowhood practices. The efforts of agents of change like the churches, NGOs, governments to curb the harmful cultural practices proved abortive due to lack of legislation.

HWP is common among in Nigeria, therefore, for the achievement of MDGs in Nigeria, the government should provide legislation for the protection of widows.

L70 - Determinants of household water chlorination in nomadic communities: Case of Mbirikani location, Loitoktok district, Kenya

L Owinyi

Africa Medical and Research Foundation (AMREF)

BACKGROUND
Diarheal diseases are the 2nd most prevalent conditions in Loitoktok district (DMOH 2009). This is mainly attributed to poor access to safe water and low sanitation coverage. Only 25% of households have access to improved sanitation facilities while 95% of those without latrines use bush method. Most households rely on surface water while those chlorinating water is only 16%.

OBJECTIVES
The study sought to assess factors at the household, community and service levels that determine household water chlorination in Mbirikani.

METHODOLOGY
The study adopted a cross sectional design. A simple random sample of 215 households at 95% confidence interval was collected. Quantitative data was analysed using SPSS and STATA version 10. Qualitative data was transcribed and content analysis done.

RESULTS
Household level factors affecting utilization of chlorine are mainly lack of knowledge (83.3% at p value 0.000). Community level factors include added burden to women to undertake water chlorination and nomadism (61% at p value 0.000). Service level factors realised include change of taste and smell of water (23% at p value 0.000) and poor access to chlorine outlets (51.8%, 95% CI 45.558, and 58.057).

RECOMMENDATION AND CONCLUSION
Lack of understanding of water chlorination and mentality that water sources are safe are the main reasons household chlorination isn’t done. Poor access to chlorine outlets and change of water taste are also contributing factors. There is need for social marketing of chlorination and also testing other water treatments models. The interventions would be more effective if designed to target women.
L71 - Predictors of cigarette use amongst migrant workers in farming communities in Saki West, Nigeria

Owoaje, A Adebiyi, A Adebayo, O Bello

Nigerian Tobacco Control Research Group, Department of Community Medicine, University College Hospital, Ibadan, Nigeria

BACKGROUND
Majority of rural migrant farm workers experience a myriad of substandard environmental conditions and psychosocial variables that place them at risk for substance abuse.

METHODOLOGY
An exploratory cross sectional survey was conducted to assess tobacco use pattern among migrant farmers in Saki West LGA, Oyo State. Questionnaires were used to obtain information on socio-demographic tobacco use pattern.

RESULT
A total of 518 respondents were enrolled into the study. Mean age of respondents was 27.9 ± 7.3 years. Majority (61.2%) were males. Most (78.8%) had no formal education. Majority (73.4%) were from Republic of Benin, 16.2% from Togo, 8.9% from Nigeria and 1.5% from Ghana. Majority were Christians (59.1%). Seventy-three percent were married. Most (88.9%) respondents were subsistent farmers with 80.5% of them being self-employed. The mean number of hours of work in main job was 6.5 ± 2.3 hours. A very high proportion (87.3%) expressed satisfaction with their work (87.3%) and life (89.3%). Only 14.5% of respondents are current smokers. About four percent smoked occasionally while 10.8% smoked daily. Over a quarter (32.3%) of those who smoked in the past did so for more than ten years. The occasional smokers took between 1-28 sticks of cigarette weekly while about 20% of those who smoked daily took ten or more sticks of cigarette daily. Mean age at cigarette smoking debut was 14.6 ± 10.8 years. Very few respondents (0.4%) had smoked Marijuana before. Independent predictors of ever smoked were: polygamous/polyandry family background (Adjusted Odds Ratio AOR= 1.9, 95% CI= 1.2 – 3.0), alcohol use (AOR= 3.7, 95% CI= 2.3 – 5.8) and living without spouse and children (AOR= 1.7, 95% CI= 1.1 – 2.7) while predictors of current smoking were: polygamous/polyandry family background (AOR= 2.0, 95% CI= 1.2 – 3.5) and alcohol use (AOR= 4.2, 95% CI= 2.5 – 7.1).

CONCLUSION
Alcohol use and working as a migrant worker without spouse and children modulate smoking tendencies amongst migrant workers. Social networks within migrant farm workers may be useful in stemming this pattern.

L72 - Accountability, Global health funding and community level antiretroviral therapy access in South Africa

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BACKGROUND
Much Global Health Initiative (GHI) funding for HIV in South Africa focuses on community-level antiretroviral therapy (ART). ART in South Africa is mostly provided through the public health system. Non-Governmental Organizations (NGOs) provide staff and technology to ART in the public sector. This paper explores accountability to local community recipients.

METHODS
Research arose out of a broader study of the impact of GHIs on the South African health system. A representative sample of provinces, districts and facilities was chosen using a rural/urban criteria and the presence (or not) of GHI funding. Ongoing data collection included document analysis and individual interviews at national and sub-national levels. This paper reflects preliminary findings from qualitative interviews.

RESULTS
We found that NGOs at local level are generally accountable to local government. However, higher-level funding and policy decisions do not necessarily reflect local interests. GHI-funded services are accountable to their respective GHIs, who are accountable to their funding structures. Matching funding to local needs relies on NGO staff on the ground with sufficient knowledge and initiative. Both NGO and government acknowledge that community involvement improves health services, but community interaction is still limited. Problems include who is represented and how. The accountability of services and funders to communities is overlooked.

CONCLUSIONS
Any new initiative should first map community needs around its specific issue. Epidemiological surveys often neglect underlying needs and causes. Second, both government and NGOs should ensure accountability to the local recipient communities, not only to funders. Without this, health services and NGOs will continually lag behind community needs.
L73 - Re-engineering Primary Health Care (PHC) in South Africa

Y Pillay, P Baron

1National Department of Health, South Africa, 2Independent consultants, working for NDOH

BACKGROUND
The outcomes of the health system in South Africa are sub-optimal. Key indicators such as life expectancy, infant and maternal rates and HIV and TB rates all indicate that South Africa is not on track to achieve the health related MDGs. Comparison with Brazil, show similar indicators in 1990, yet since then the Brazilian health system has performed much more effectively than South Africa.

OBJECTIVE
To re-engineer PHC in South Africa so as to improve health outcomes.

METHOD
The Minister of Health and MECs went on a study tour to Brazil in early June to assess the Brazilian PHC system. A technical task team (TTT) in the NDOH reviewed available documentation on PHC in South Africa. This TTT had in-depth discussions with some provincial health departments. They interacted with all the senior provincial managers of PHC and assessed their responses to questions related to the provincial successes, challenges and recommendations around PHC. A chief architect of the Brazilian PHC strategy interacted with the TTT and shared documentation and lessons learnt in Brazil. Presentations were made to the Minister of Health, the MECs and provincial HODs. Three provincial case studies on PHC were taken into account.

RESULTS
Preliminary results point to systems strengthening (e.g. the district health system) and improving accountability through the system where every action is focussed on improving patient and population health. Key priority actions that will result in early improvement in outcomes are the improvement of all aspects of the PMTCT programme and a focussed and rational use of community health workers and the teams in which they work.

L74 - Methamphetamine use and sexual risk behavior among high school students in Cape Town, South Africa

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OBJECTIVE
To investigate whether methamphetamine use is associated with sexual risk behavior among adolescents.

METHOD
A cross-sectional survey of 1561 male and female high-school students in Cape Town (mean age 14.9 years), was conducted using items from the Problem Oriented Screening Instrument for Teenagers (POSIT) HIV Risk Scale.

RESULTS
Nine percent of the students had tried methamphetamine and 30% of male and 17% of female students reported sexual debut. Multinomial logistic regression analyses showed that methamphetamine use in the past year was significantly associated with being in a higher HIV/STI risk category (BRR = 2.1, 95% CI: 1.10 – 4.03, p < 0.05).

CONCLUSIONS
Methamphetamine use coupled with a high HIV prevalence in South Africa, raise serious cause for concern about the potential for methamphetamine to further exacerbate the prevalence and spread of HIV in Cape Town.
L75 - The use of commensal and pathogenic escherichia coli strains in water and sanitation samples to indicate health risk to people living with HIV/AIDS in Zimbabwe and South Africa

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1Department of Microbiology, University of Venda, Thohoyandou, Limpopo Province, South Africa, 2Water and Health Research Unit, University of Johannesburg, Johannesburg, Gauteng Province, South Africa

Acquired Immune Deficiency Syndrome (AIDS) emerged in the 1980s as the most terrifying epidemic of modern times. AIDS as a disease is caused by a virus called the Human Immunodeficiency Virus (HIV). Sub-Saharan Africa continues to be the hardest hit by the global HIV and AIDS epidemic. Presently very little data is available on how water, sanitation and hygiene infrastructures are affecting the lives of people living with HIV and AIDS. Presently very little data is available on how water, sanitation and hygiene infrastructures are affecting the lives of people living with HIV and AIDS. This study aimed to assess the impact of water infrastructure, water quality, sanitation infrastructure and hygiene practices on PLWHA in urban, peri-urban and rural communities in Zimbabwe and South Africa.

Structured questionnaires were used to obtain information regarding household demographics, water source, water collection practices, time spent collecting water, water storage practices, costs involved in water and sanitation services, hygiene practices associated with sanitation and the level of hygiene understanding in each household. Water samples were collected from households in sterile bottles and analyses for culturable bacteria were performed in the laboratory within 24 hours. Toilet seats were swabbed using sterile methods using Phosphate Buffered Saline and transported to the laboratory for further analysis. Total coliforms and E. coli were enumerated using the Colilert® System. Pathogenicity of the cultured E. coli were confirmed using a multiplex polymerase chain reaction with positive and negative controls and the results used to determine the risk to the health and well being of PLWHA. The results of the study indicated the prevalence of various pathogenic strains of E. coli in the households which increased the risk of infection for people living with HIV/AIDS. In general, the counts of total coliforms and E. coli in the drinking water samples were above the recommended safety level of the World Health Organisation. The study results indicated the risk factors to which the vulnerable people in rural, peri-urban and urban communities are exposed, and highlighted the need for water, hygiene and sanitation interventions.

L76 - Is there room for improvement? Intervening at facility and district level to improve access and quality of care in a well-performing TB Control Programme: The Cape Town experience

V Scott, V Azevedo, J Caldwell

Written on behalf of the Cape Town Integrated HIV/TB Taskteam: list members

INTRODUCTION

In Cape Town new smear positive cure rates increased from 67% in 2004 to 78% in 2008. This success has been supported by a number of interventions, one being the development of a facility audit tools. We set out to identify what improvements in access to and quality of the TB programme were possible at sub district and facility level.

METHOD

We report on the results of 4 audits done in 2008 and 2009 in all 128 public primary care facilities in Cape Town, which were used in local quality improvement processes.

RESULTS

See Table 1.

DISCUSSION

Case detection and rapid initiation of treatment to reduce the infectious load of TB in the community is key to programme success. At local level this translates into maximising opportunities to improve access. The audits identified that the sputum turn-around-time and the system of recalling sputa positive clients needed to be improved, as well as screening of HIV positive clients and follow up of child contacts.

Errors in the standard drug regimes prescribed were mainly due to clients being given the incorrect dosage for weight, or not being changed timeously from the initiation to continuation clients and follow up of child contacts.

Table 1

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Mar-08</th>
<th>Oct-08</th>
<th>May-09</th>
<th>Oct-09</th>
</tr>
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<tbody>
<tr>
<td>Access</td>
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<td></td>
<td></td>
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<td>General clients</td>
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<td></td>
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<tr>
<td>% TB clients with a Treatment Commencement Time (TCT) &lt;5days</td>
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<td>49%</td>
<td>55%</td>
<td>52%</td>
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<td>Immuno-compromised clients</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>% VCT clients screened symptomatically for TB</td>
<td>83%</td>
<td>88%</td>
<td>92%</td>
<td>93%</td>
</tr>
<tr>
<td>% ARV clients screened symptomatically for TB</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child contacts</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% TB clients with child contacts recorded</td>
<td>55%</td>
<td>61%</td>
<td>68%</td>
<td>72%</td>
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<td>% TB clients with child contacts investigated &amp; treated</td>
<td>33%</td>
<td>30%</td>
<td>49%</td>
<td>45%</td>
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<tr>
<td>Quality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% TB clients following correct regimen</td>
<td>92%</td>
<td>91%</td>
<td>92%</td>
<td>94%</td>
</tr>
<tr>
<td>% TB clients with sputum recall dates noted</td>
<td>86%</td>
<td>83%</td>
<td>85%</td>
<td>91%</td>
</tr>
<tr>
<td>% Co-infected TB/HIV clients for whom HIV stationery is used</td>
<td>46%</td>
<td>47%</td>
<td>51%</td>
<td>60%</td>
</tr>
<tr>
<td>% Co-infected TB/HIV clients who have a CD4 count done (CD4 + staging in 2008)</td>
<td>46%</td>
<td>50%</td>
<td>89%</td>
<td>88%</td>
</tr>
<tr>
<td>% Co-infected TB/HIV clients who receive Cotrimoxazole prophylaxis</td>
<td>72%</td>
<td>80%</td>
<td>80%</td>
<td>84%</td>
</tr>
</tbody>
</table>
L77 - Knowledge, attitudes and practices of women regarding maternal and child health in Mpumalanga

N Sematlane, K Rendall-Mkosi
University of Pretoria

INTRODUCTION
Maternal and child mortality are high in South Africa. Targeted interventions like patient-held records and patient health literacy have proven to improve their outcomes. This is a formative study of knowledge, attitudes and practices of women regarding maternal and child health in Mpumalanga towards development of a patient handbook with records and health information.

METHOD
Focus group discussions and key informant interviews collected information on what is known, believed and practiced concerning five aspects- ANC, PMTCT, family planning, infant care and feeding.

RESULTS
Women had reasonable ANC knowledge. Unplanned pregnancies, cultural beliefs and health service related barriers contributed to women’s reluctance to book for ANC. Unpleasant obstetric history influenced early booking. Delivery at clinic was construed as an incentive for attending ANC. There were notable gaps regarding PMTCT knowledge, but a positive attitude and good enrolment. Post-delivery follow-up care of HIV positive mothers was lacking. Concept of exclusive infant feeding was misunderstood. Societal pressure favouring breastfeeding, irregular supply of infant formula by clinics, and inability of women to purchase formula influenced mixed feeding. The ubiquitous nature of cultural infant care practices and beliefs overshadowed knowledge regarding infant care. Fair contraceptive knowledge was obscured by inconsistent use and increased teenage pregnancy, partly due to misconceptions about side-effects, traditional values, and potential of accessing child support grant.

CONCLUSION
Study has provided insights into the knowledge, attitudes and practices of women regarding maternal and child health that could be used for ensuring the handbook being developed is appropriate for target group.

L78 - Using a Road-to-health Card Master Chart to investigate malnutrition in Nyandeni Sub–district in the Eastern Cape

T Ngomane
Health Systems Trust

INTRODUCTION
Globally, malnutrition remains a public health problem. Health Systems Trust established Community-Based Growth Monitoring and Promotion (CBGMP) sites to assess the extent of the problem.

OBJECTIVE
To investigate malnutrition, using a Road-to-Health Card (RTHC) Master Chart, amongst under-5 year old children from deep rural areas, from which Primary Health Care (PHC) facilities are not easily accessible.

METHODOLOGY
A descriptive cross sectional study in which 20 CBGMP sites were randomly selected from 30 possible sites to pilot the use of RTHC-Master Chart to detect malnutrition. Volunteers were coached to weigh and plot weights on Road To Health Cards Master Charts. The study was cascaded to 20 PHC facilities in the same catchment. Twenty randomly selected PHC facilities in the same catchment area served as control sites.

RESULTS
Seven percent (1110) of 14250 children from CBGMP sites were underweight for age as revealed by RTHC Master Chart. Of the 62244 children weighed at the 20 randomly selected PHC facilities, only 0.8% were underweight. The prevalence of malnourished children at CBGMP sites was considerably greater than that of the PHC facility sites. This suggests that RTHC Master Chart was used to detect malnutrition. The study has proved to be a good way of monitoring malnutrition in under-5 children. Their use is encouraged amongst volunteer health workers, especially in deep rural areas without easy access to PHC facilities.
L79 - Eye protection practices and symptoms among welders in the Limpopo Province of South Africa  

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Welding is associated with several ocular and systemic hazards especially where adequate protective measures are not taken. The purpose of this project was to study the eye protection practices and symptoms among welders in the Capricorn District of Limpopo Province, South Africa. Questionnaires designed to investigate eye protection practices and symptoms experienced were completed by one hundred and fifty (150) welders. The types of welding done were shielded metal arc (84%), oxyacetylene gas (4%) and silver brazing (12%). The number of years spent in the welding industry ranged from one to 10 years with a mean of 5 ± 3.1 years and the number of hours of welding per day ranged from one to10 hours with a mean of 6 ± 2.1 hours. A large percentage of the welders (89%) reported wearing protective devices when welding and the most common protective devices used by the welders were: helmets (57%), goggles (15%), and face shields (13%). Six percent used inefficient protective devices such as sunglasses. Sixty one percent reported occasional exposure to welding flashes when not wearing any eye protection. Welding-related eye symptoms reported included foreign body sensation (18%), persistent after-images (31%), and watery eyes (50%). Although the majority of the welders wore protective devices while welding, a few did not always use such devices while others used sunglasses for protection. Moreover, many of the welders were occasionally and only a few were always exposed to welding flashes when protective devices were not used. Therefore, we concluded that eye protection practices amongst the welders appeared to be inadequate to avoid hazards associated with welding. It is recommended that an eye protection educational campaign for welders should form part of the South African Government’s workplace safety program.

L80 - Effectiveness of workplace interventions in increasing level of physical activity among healthcare workers

L Skaal, S Pengpid

Department of Public Health, University of Limpopo, (Medunsa Campus)

INTRODUCTION AND BACKGROUND

South Africa has a well-documented burden of obesity and NCD, such as diabetes and cardiovascular diseases, and it increases with age and gender, healthcare workers are no exception. Because most adults spend their waking hours at work, some of which involves a lot of sitting, finding ways to include physical activity during the workday is the most practical way for many adults to become active. The workplace can be used as a place to maximize Physical activity provided the management is seen to be endorsing this effort. Almost all the strategies that have been used to promote PA have failed to make a lasting impact, especially in SA, where cultural practices somehow are responsible for poor compliance to exercise, especially among Black women. The aim of this study was to examine the effectiveness of workplace interventions in increasing the level of physical activity among healthcare workers.

METHODS: RESEARCH DESIGN

A single group, pretest-posttest non-experimental design was used. A questionnaire was used to collect data. The following parameters were assessed: fitness levels, BMI, exposure levels and knowledge. Impact evaluation; exposure levels; Knowledge were assessed post intervention. The results were analyzed using SPSS 17.0 version and excel programs. Chi square test was used to analyse and calculate the p-value scores. Paired Sample t-test was used to compare means pre-post test.

RESULTS

One hundred and sixty three staffs with mean age of 44.31 and SD of 10.286 were investigated. Results showed 27% of staff had Normal weight and 73% Overweight and Obese. NCDs are common in many staffs, with obese staffs being more affected. At baseline, Nonmedical staff had poor knowledge compared to medical staff (p<.05). Post intervention, Mean scores of Knowledge (3.651) were significantly (p<.05) higher. Staffs mainly used environmental re-evaluation and self re-evaluation as processes of behaviour change. High levels of exposure; Processes of Change and good knowledge resulted in increased level of PA of staff (p=.000).

CONCLUSION

The Level of exposure, knowledge and Processes of Change were constructs that correctly resulted in improvement in level of PA of staff. There is a need to develop sustainable interventions to increase PA among healthcare workers so that they can become role models and pioneers of healthy lifestyle.
**L81 - Health literacy about Tuberculosis (TB) differs by gender amongst KwaZulu-Natal high school students**

**M Taylor, S Dlamini, C Jinabhai, P Sathiparsad, A Meyerwetz, H de Vries**

**UKZN, 2Dept Public Health Medicine, NRMEM, UKZN, 3School of Social Work, UKZN, 4School of Psychology, UKZN, 5Dept of Health Education & Health Promotion, Maastricht University**

**BACKGROUND**
Health literacy, including modes of transmission, TB/HIV co-infection, prevention, signs/ symptoms and treatment, has a critical role in TB control through improved health-seeking behaviour, early diagnosis and adherence to TB treatment, and ultimately compliance with the NTB Programme recommendations.

**Objectives.** To investigate health literacy about Tuberculosis amongst KwaZulu-Natal high school students.

**METHODS**
In a cross sectional study of 10 randomly selected KwaZulu-Natal urban/rural schools, students completed an anonymous semi-structured questionnaire investigating their knowledge, beliefs and attitudes, social support, self-efficacy, cues to action, intentions, and barriers to health seeking behaviour and treatment adherence, about TB using the I-Change theoretical model.

**RESULTS**
Of 1138 students, 98.0% isiZulu speaking (47.5% male, mean age 17.08 (SD 1.64) and 52.5% female, mean age 16.47 (SD 1.56), 36.5%, 32.4% and 31.1% were in grades 9, 10 and 11 respectively. Of these students 5.9% had previously received TB treatment. Although 69.2% of students considered TB to be a disease that usually affects the lungs, 54.7% females vs 44.3% males confirmed that TB can infect many parts of the body (p=0.007). Significantly more females than males knew coughing >3 weeks to be a symptom of TB, that TB was not transmitted through using the same toilet as someone infected (41.9% vs 32.3%, p<0.005), perceived TB as treatable (45.7% vs 38.7%, p=0.006), knew that treatment takes 6 months (35.4% vs 25.8%), would encourage a TB patient to go to the clinic monthly (49.1% vs 41.6%, p=0.02), would remind to take TB tablets (48.1% vs 40.7%, p=0.005) and as a cue to action, knew someone cured of TB (30.2% vs 19.6%, p<0.005). However, fewer males (16.2% vs 20.1% believed that people with TB often get HIV).

**CONCLUSION**
Tuberculosis health literacy amongst KwaZulu-Natal high school students needs attention with a special focus on males to improve their health-seeking behaviour.

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**L82 - Use of alcohol and other drugs in caregivers of preschool children in peri-urban KwaZulu-Natal, South Africa, an area of epidemic HIV infection**

**M Taylor, S Kauchali, L Davidson, M Chhagan, T Kvalsvig, S Arpadi, C Mellins, I Susser, M Craib, F Bah, Z Stein**

2,3University of KwaZulu-Natal, 4,7,8,11Columbia University, 9Hunter College, 10Asenze Project

**BACKGROUND**
The Asenze study is investigating preschool children’s health and development in peri-urban KwaZulu-Natal, and households were surveyed to enrol 4-6 year old children and their primary caregiver. The negative effects of substance use by caregivers could detrimentally influence the care children receive.

**AIM**
To investigate the prevalence of the use/abuse of alcohol and other drugs (AOD), by caregivers.

**METHODS**
The Alcohol Use Disorders Identification Test (AUDIT) and the Client Diagnostic Questionnaire (CDQ), valid measures of substance use for lay researchers, were translated into isiZulu and administered to mothers / primary caregivers by trained research assistants.

**RESULTS**
Of 519 caregivers, 83.4% did not drink alcohol. Amongst the women drinkers ciders were the most popular form of alcohol (10.6%), followed by beer (3.3%), traditional beer (1.7%) and spirits (0.9%). Binge drinking was reported by 4.0% of the women whilst 5.7% of women expressed feelings of guilt about their drinking. The prevalence of smoking cigarettes was low (3.1%) and in the past six months few women had smoked cannabis (0.2%), although 1.3% boiled cannabis mixed with other herbs; 1.7% used volatile inhalants to get high, 0.4% had used ecstasy or other club drugs and there were no reports of use of Mandrax or sugars.

**CONCLUSION**
While traditionally in isiZulu communities women did not drink alcohol or use other substances, alcohol use is becoming more common and binge drinking may affect the safety and welfare of the children. Professional assistance was required for the small sample of caregivers who abuse alcohol.
L83 - Towards a global UN policy on HIV and urban slum settings – an invitation to comment on the draft document

Liz Thomas, J Vearey, P Mahlangu

UNAIDS and UN Habitat are in the process of preparing a joint working paper and this provides an opportunity for the South African public health community to engage in this process. Despite over half of the global population now found to reside in urban settings, little attention has been paid to understanding HIV in urban slum settings. HIV prevalence has been found to be higher in slum areas than in adjacent areas within cities in Southern and East Africa. In these contexts, the HIV epidemic is generalised and in up to two thirds of the urban population live in slum settings in Southern and Eastern Africa. Whilst urban slum populations are found to be concentrated in developing countries – particularly in Asia and Africa, they also exist in cities developed countries. There is increasing awareness that biomedical and behavioural responses to HIV need to be understood in the context of the broader drivers of HIV infection. Consideration is given in this global working paper to the conditions in slums that affect both the risks of transmission of HIV as well as the impact of urban slum settings on HIV progression. Proposals are made in the working paper regarding measures to promote prevention of HIV transmission, as well as to mitigate the impact of HIV in urban slum settings.

L84 - Provision of benefit medical examinations for former miners in the Eastern Cape: Feasibility, experiences and lesson learnt

Z Thuthu, T Mhlaba

BACKGROUND/OBJECTIVES
Recent prevalence studies amongst former black miners in South Africa have provided sufficient evidence of an epidemic of silicosis. The current Occupational Diseases in Mines and Works Act (ODMWA), makes provisions for statutory examinations, referred to as Benefit Medical Examination to be conducted to all active and former miners and diagnosis submitted to the Medical Bureau for Occupational Diseases for certification of compensable lung diseases. Hence, the objectives of the study is to determine feasibility of providing benefit medical examinations for former miners in the Eastern Cape create awareness and capacitate facility personnel on provisions of ODMWA.

METHODS
Action research study involving 196 former underground gold to undergo benefit medical examinations and apply for compensation for those eligible.

RESULTS
Lack of knowledge of the provisions of the ODMWA Act amongst both health personnel and former miners was evident. Availability of BME Forms from MBOD, lack of interest from facility personnel and equipment breakdowns were the major obstacles in the process.

CONCLUSION
To date 32 former miners have been examined. Seven former miners from the sample have passed away and out of the 32 eight are on active tuberculosis treatment.
L85 - Factors influencing glycaemic control in diabetics, in three community health centres, in the city of Johannesburg

G Timothy, J Moorman
Dept of Community Health, Wits School of Public Health, University of the Witwatersrand

INTRODUCTION
Diabetic complications impact on the individual, the healthcare delivery system, and also have high cost implications. These complications are mainly influenced by poor glycaemic control. Studies have shown the management of diabetes to be sub-optimal in primary health care settings. Good glycaemic control will not only benefit the individual patient but will also have a positive financial impact on South Africa’s already overstretched healthcare budget.

METHODS
In this cross sectional study set in three Community Health Centres (CHCs) in the Johannesburg Metropolitan Health District, 418 diabetic patients were selected. Patients were classified into a well or poorly controlled glycaemic group (HbA1c < 7% or ≥ 7%) based on the results of HbA1c testing conducted. Differences between the two groups were investigated. Interviews with healthcare professionals were conducted to identify health system challenges to providing optimal care.

RESULTS
Of 394 patients with a measurable outcome (HbA1c), only 62 (15.7%) had well controlled diabetes. The mean HbA1c was similar across the three CHCs studied (p=0.464). On multivariate analysis significant predictors of good glycaemic control were found to be a shorter duration since diabetes diagnosis, treatment with oral medication alone, being male, and those who were unemployed.
Numerous challenges reported by health professionals including high patient to staff ratios, lack of working equipment as well as a need to improve diabetes management skills. Record review revealed that only 16% of patients had ever had HbA1c testing.

CONCLUSIONS
The majority (84.2%) of the study population had poor glycaemic control. Management of diabetes in these CHCs can be considered suboptimal. Although the study concludes that patient related factors are at the forefront in terms of factors influencing glycaemic control, improved strategies in all spheres can only improve diabetes management at the CHCs.

L86 - Children’s perceptions of the causation and prevention of childhood burn injuries in Cape Town

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BACKGROUND
South Africa has a high rate of preventable children’s burn injuries with 1300 estimated deaths annually. South African childhood burn injury studies have mainly focused on expert and parents’/caregivers’ descriptions and accounts of burn occurrence and their prevention. Despite their particular vulnerability, children’s perspectives have not been accommodated in these processes or in the implementation of safety interventions. The generation and clarification of these understandings will contribute to the development of more appropriate interventions, and highlight issues relevant for prevention policy more closely aligned to children’s contexts and experiences.

OBJECTIVE
This study investigated children’s perceptions of the causation and prevention of childhood burn injuries.

METHODOLOGY
Using a qualitative approach study data were collected using three isiXhosa focus group discussions on a convenience sample of 10 – 11 years old children, ranging between 4 – 6 participants per group, from three schools in Khayelitsha and Philippi. These areas have reported elevated rates of burn injuries in Cape Town.

RESULTS
The children in this study demonstrated an appreciation of the widespread extent of burns in their communities and attributed the problem to factors ranging from children’s individual actions, their unsafe social conditions, and caregivers’ actions. They emphasized child supervision in the home and the upgrade of their social environment especially housing as important prevention strategies.

CONCLUSION
This study has shown that children are able to contribute to social change processes. It recommends an integrated approach to burn injury prevention and calls for the inclusion of children in studies concerning children’s wellbeing and safety.
L87 - Factors determining the occurrence of sexually transmitted infection among learners in high schools of the Lusikisiki educational district of the Eastern Cape Province

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BACKGROUND
Sexually transmitted diseases are highly infectious and communicable diseases, which remain the major cause of morbidity and mortality among the youths.

AIM
To investigate the socio-economic factors determining the STI rate among the learners in high Schools of the Eastern Cape Province.

METHOD
Cross-sectional study design was used. Data was collected using self-administered questionnaires. The SPSS version 14 statistical package was used to carry out a descriptive statistical analysis.

RESULTS
Of the total sample, 65.1% were females, about 18.8% lived with the persons other than their biological parents; and 55% reported that those they lived with were unemployed. Among the participants, 86% reported that they had sex before; and out of this figure, 39.6% reported that they contracted STIs. There was significant relationships between age and being sexually active (p= 0.002); number of sex partners and being sexually active (p= 0.020); and sex discussion and knowledge of foul smelling as an STI symptom (p= 0.024).

CONCLUSION
STIs are prevailing among learners in the study and the program on Health Promotion School should take into cognizance youths' contextual perceptions, values and practices in developing, implementing and evaluating risky sexual health prevention programs.

L88 - Effects of mobile telephony on biodiversity

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BACKGROUND
With over 4 billion users across different age groups world wide, mobile telephones have made a palpable impact on the social and economic life of several countries. Nevertheless issues related to its usage and attendant impacts are on the increase receiving very little attention and investigation.

OBJECTIVE
To assess the symptom experienced in relation to mobile phone use and to compare the radiation levels from user's mobile phones with standards.

METHODS
The study relied on secondary information from published works as well as a survey to elicit information on the health impacts of mobile telephony viz perceived health effects, audiometric test and assessment of radiofrequency radiation (RFR)(Power levels) of the participants mobile phone(s).

RESULTS
Results indicated Ominous effects of environmental radiofrequency radiation due to the ubiquitous nature of mobile phones base stations on mammals, birds, insects and plants. From the survey conducted, participants mean age was 29 + 7.6 years and 63% were females. Nokia brand of phone (49%) was mostly used. Among experienced symptoms reported, Tingling in the ear (15.7%), Fatigue (7.25%) and Headaches (5.6%) were most prominent. Air conduction audiometry revealed that the prevalence of hearing impairment for men was 10.8% compared to the females 30.3% (p<0.05). Most mobile phones had radiation levels above the Russian and Swiss standards but were below the international commission for non-ionizing radiation protection (ICNIRP) standard.

CONCLUSION
More research is needed most especially in the less developed countries to identify and establish associations between mobile telephony and its implication on biodiversity.
L89 - Up-skilling of community care givers to provide comprehensive TB/HIV/PMTCT care at community level in a rural area of KwaZulu Natal

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BACKGROUND
The aim of this project was to up-skill community care workers (CCWs) in order to enhance the provision of TB/HIV/PMTCT integrated care at community level, integrate the CCWs into one community cadre and harmonise their scope of work.

METHODS
The study was conducted in Sisonke district, KZN. A participatory approach was used to design and implement a comprehensive training program for CCWs to provide TB/HIV/PMTCT integrated care. Key program managers and TB and HIV/AIDS coordinators as well as NGOs involved in provision of TB and HIV/AIDS services at community level were involved in the design of the up-skilling program.

RESULTS
A total of 47 CCWs were trained, multi-sectoral community mobilization events that included Chiefs, THPs, PNs and CCWs were conducted in 15 villages to introduce the program into the communities/villages. CCWs provided HCT, TB symptoms screening, STIs symptoms screening, TB sputa collection and referral to health facilities. 1561 people attended community mobilization events, 393 people were counseled and tested for HIV (25%), screened for TB and STIs symptoms. Out of 393 people screened for TB symptoms, 19 were suspects and sputa were collected on the spot. Out 393 people tested for HIV, only 19 people tested HIV positive (5%) and all 19 HIV positive clients had their blood taken for CD4 test.

LESSONS LEARNED
Chiefs and THPs led the way for HCT and this encouraged people in the community to go for HCT. Higher numbers of people that accepted HCT indicates the acceptability of CCWs to provide HCT, TB screening and STIs screening in their own communities. The acceptability of CCWs to provide HCT in their own communities could be an avenue to reduce stigma related HIV and TB in the community.

L90 - Patients’ perspectives on integration of TB/HIV services in a rural District, South Africa

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BACKGROUND
The objectives of this study were twofold: (1) to assess the level of integration of TB/HIV services from patients’ perspective, (2) to assess the level of knowledge of TB and HIV patients on TB and HIV transmission, prevention and care.

METHODS
A cross-sectional study was conducted using exit interviews with both TB and HIV/AIDS clients. Ten facilities in Sisonke district, a convenience sample of 125 clients was used. Ethical clearance for the study was obtained from the University of the Western Cape and the DOH-KZN research unit and written consent forms were signed by all participants.

RESULTS
Total of 125 HIV clients were interviewed, 80% were females, 20% were males with a mean age of 36.6 years and SD of 10.8. The majority of the participants (96%) had a CD4 test done, 93.6% were educated on ART adherence and 66% were ART...The majority of HIV clients (85.6%) were screened for TB and none of them were screened for IPT. Only 50% of HIV-TB co-infected clients were initiated by the same clinician while 93% of TB/HIV co-infected clients preferred to be seen by same clinician. Only 36% of participants were knowledgeable about TB but gender was a highly significant predictor for knowledge levels (n=109, OR=2.42, p=0.000). The majority of participants (80%) knew that HIV positive clients were more likely to be infected with TB and 82% of participants knew that TB was curable.

CONCLUSION
The findings of this study suggest there is certain degree of integration of TB/HIV services however there is need devising interventions geared to gender and age groups regarding TB/HIV prevention and treatment.
L91 - Defining the key challenges and priority intervention in rural health care to improve national health outcomes

1M Versteeg, 2I Couper

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INTRODUCTION
The renewed commitment by the National Department of Health to improve national health outcomes may lead to more equitable access to health care in rural areas and improvements in rural health outcomes. However, past experiences have shown the rural health care context can be overlooked despite good intentions. The purpose of the research was therefore to identify the major challenges and priority interventions in the field of rural health care in order to contribute to improved national health outcomes. The outcomes combined with desk-top research and in-depth interviews with key informants will be used for a position paper on rural health.

METHODS
The research was descriptive and mainly qualitative of nature, using the following methods: Literature and desk-top review, in-depth interviews with key informants, and a Delphi Study.

RESULTS
A panel of 54 rural health care experts (health managers, practitioners, and policy experts) across the country was established to give input. The first round of the Delphi questionnaire yielded a response rate of 83% (n=44). Panelists rated 103 statements in the following categories: Governance and Leadership, Medical Products, Vaccines, Technologies, Infrastructure, Service Delivery Packages and Models, Human Resources for Health, Financing. The first round showed a high level of consensus among participants regarding challenges and priorities. Participants also brought in new issues, in particular around HR and rehabilitation services in rural areas. In the second Delphi round panelists identified and motivated for the Top 5 Challenges and Top 5 Priorities for rural health care improvements.

CONCLUSION
A clear picture is emerging regarding the major rural health care challenges and priority interventions, amidst broader health system challenges. It will be critical to bring the results under the attention of government and key stakeholders to make sure the rural health context is adequately addressed in policy-making and implementation.

L92 - Reducing stress and burnout to make health managers more effective

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Stress and burnout are common among health professionals in rural areas, but are seldom measured. In this paper we describe a short intervention to reduce stress and burnout, and qualitative and quantitative evaluations of the impact in three groups of managers.

In 2008, 130 babies died of diarrhoea and dehydration in the Ukhahlamba district of the Eastern Cape. The subsequent media attention and official investigations left managers feeling very bruised and disempowered. An intervention was planned and offered in 2009 to two groups of managers in Ukhahlamba. A similar intervention was offered to a third group of managers in Chris Hani district in 2010.

In each case, the intervention has consisted of a series of three short workshops, about six weeks apart, run by two trauma psychologists. For each group, an independent person has evaluated the impact of the intervention both qualitatively and quantitatively.

For most participants, scores for burnout and compassion fatigue were very high initially, dropped markedly, and remained lower two months after the last workshop. Compassion satisfaction scores rose and leadership behaviour scores also improved. Qualitative evaluations were generally very positive and senior managers report that management teams are working more effectively.

The next challenge is to scale up the intervention to involve far more managers at provincial, district and facility levels as part of a wider effort to improve the health of communities, and health workers. As one manager put it, a year later:
L93 - Facilitating the use of research evidence to inform health policymaking: The SUPPORT tools

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OBJECTIVE
To describe tools developed as part of the SUPporting POlicy relevant Reviews and Trials (SUPPORT) project (www.support-collaboration.org); aimed at improving the effectiveness, efficiency, and equity of health policies through better use of research evidence to inform decisions.

METHODS
The SUPPORT tools consist of a series of articles that address four broad areas: supporting evidence-informed policymaking; identifying needs for research evidence in relation to three steps in policymaking processes, namely problem clarification, options framing, and implementation planning; finding and assessing both systematic reviews and other types of evidence to inform these steps; and going from evidence to decisions.

RESULTS
Each article begins with scenarios designed to help readers decide on the level of detail relevant to them when applying the tools. These activities include, for example, using research evidence to clarify problems, assessing the applicability of the findings of a systematic review about the effects of options selected to address problems, and organising and using policy dialogues to support evidence-informed policymaking. In several articles, the set of questions presented offers more general guidance on how to support evidence-informed policymaking. The tools have been written for high-, middle- and low-income settings and, wherever possible, examples and additional information resources have been drawn from disparate settings.

CONCLUSIONS
By focusing on how to support the use of research evidence in health policymaking, the SUPPORT tools are meant to aid the use of the best research evidence available at the time that it is needed and in the time available to compile such evidence.

L94 - How healthy is HIV/AIDS research in Africa? A descriptive review of randomized controlled trials of HIV/AIDS prevention and treatment in Africa

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INTRODUCTION
To effectively address HIV/AIDS in Africa, we require evidence on preventing new infections and providing effective treatment. Ideally, this evidence comes from randomized controlled trials (RCTs). Our previous research described African RCTs of HIV/AIDS until 2003. This study updates that analysis.

OBJECTIVES
To describe RCTs of HIV/AIDS, conducted in Africa, and reported between 2004 and 2008.

METHODS
We searched the Cochrane HIV/AIDS Specialized Register in September 2009. Two researchers independently evaluated studies for inclusion and extracted data using standardized forms. Details included location, interventions, origin of principal investigators and funders.

RESULTS
Our search identified 834 RCTs, of which 68 were conducted in Africa. Forty-two assessed prevention-interventions and 26 treatment-interventions. Prevention RCTs focused on preventing mother-to-child HIV transmission (15/42) and treatment trials focused on opportunistic infections (13/26). RCTs were conducted in 16 countries with most in South Africa (20), Zambia (12) and Zimbabwe (9). The median sample size was 628 (range 33-9645) with a median follow-up of 28.5 months (range 3-67). Twenty-nine principal investigators resided in the United States (US) with 18 from African countries. Trials were co-funded by different agencies with most funding obtained from US government and non-government agencies. Nineteen pharmaceutical companies provided partial funding to 15 RCTs and African agencies co-funded 17 RCTs. Ethical approval was reported in 65 trials and informed consent in 61.

CONCLUSION
Prevention trials dominate the trial landscape in Africa. Of note, few principal investigators and funders are from Africa. These findings mirror our previous work and continue to indicate a need for strengthening trial research capacity in Africa.
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P001 - What’s in the lunchbox? Factors associated with healthy eating in disadvantaged schools in the Western Cape, South Africa

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AIM
The aim of the study was to identify factors associated with tuck shop and lunchbox behaviour of Grade 4 learners in schools in the Western Cape Province.

METHOD
Learners completed a questionnaire assessing their nutrition knowledge (NKS), self-efficacy (nutrition self-efficacy score, NSS) and behaviour (KAB). Dietary intake was determined by means of an un-quantified 24-hour recall. Trained field workers recorded what learners had eaten the previous day. The data were used to generate a Dietary Diversity Score (DDS) and a Meal Score (MS). The DDS was defined as the number of food groups consumed during a 24hr period out of a possible 9 different groups. The MS was derived from the number of meals/snacks out of a possible 6 meals/snacks. The weights and heights of each participant were measured and body mass index (BMI) and z scores were calculated.

RESULTS
Only 2% of learners were underweight while 19% were overweight or obese (BMI ≥25). Learners who did bring a lunchbox to school had significantly lower BMI percentiles and BMI-for-age, than their counterparts (p<0.05). Furthermore, these learners were younger, had a higher SLS, DDS, MS, and came from predominantly urban schools, compared to those who did not bring a lunchbox to school.

CONCLUSION
Children who brought a lunchbox to school appeared to have a greater dietary diversity, more regular meals, and had a greater nutrition self-efficacy than those that did not bring a lunchbox. These results emphasise the importance of bringing a healthy lunchbox to school.

P002 - Knowledge, attitudes and practices of health care workers regarding hepatitis B vaccination, in the Ekurhuleni Metro, Gauteng Province

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BACKGROUND AND AIM
Hepatitis B is a serious liver disease caused by the hepatitis B virus (HBV), with an estimated 360 million chronic infections worldwide. In South Africa (SA) over 50% of the population has been exposed to HBV, and at least 3 million people are chronic HBV carriers. HBV can be transmitted through exposure to infected blood and body fluids in the hospital setting, thus health care workers (HCWs) are at risk of contracting HBV. There is an effective vaccine against HBV which is recommended by the SA Department of Health, yet previous studies have shown that most HCWs are not vaccinated. This study aimed to investigate the knowledge, attitudes and practices regarding HB vaccination amongst HCWs in the Ekurhuleni Metro.

METHODS
This was a cross-sectional study which made use of a self-administered questionnaire that was sent to a randomly selected sample of 215 Ekurhuleni HCWs (nurses and doctors) who were working in 3 public hospitals, 7 district clinics, and 110 general practices.

RESULTS
The overall response rate was 74.9% (155/210). Two thirds (107/155) of respondents had poor knowledge about HB vaccination, and knowledge was not associated with vaccination uptake. However, 74.5% (112/150) had positive attitudes towards HB vaccination, and a positive attitude score was a significant predictor for being vaccinated (OR=1.13, p=0.007). While 72% (116/161) of HCWs had been vaccinated, only 61.2% (71/116) of those vaccinated had received all 3 doses of the HB vaccine. Doctors were 2.23 times more likely to be vaccinated than nurses (p=0.049). Most vaccinated HCWs did not know whether or not they were protected against HBV, as 72.4% (84/116) had never checked their immune status after vaccination.

CONCLUSION
Guidelines should be put in place to increase vaccination uptake and protect HCWs from HBV infection.
P003 - Outbreak of acute renal failure in children — Lagos, November 2008

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BACKGROUND
Following reports of sudden upsurge in cases of unexplained acute renal failure (ARF) in children in the two teaching hospitals in Lagos, an investigation was conducted to determine the extent and cause of the outbreak. A paracetamol-based teething mixture (MP) contaminated with Diethylene glycol (DEG) was found to be responsible. DEG is a highly toxic organic solvent and a known nephrotoxin.

OBJECTIVE
To determine the cause of outbreak of Acute renal failure in children.

METHOD
Descriptive study and laboratory analyses were carried out. Caregivers were interviewed and hospital records reviewed. A suspected case was defined as a child with fever, inability to pass urine, with or without any or all of the following: vomiting, diarrhoea, cough, skin rashes. Samples of suspected medications were tested for DEG and other potential contaminants by the State Drug Quality Control Laboratory (DQCL).

RESULTS
Between 15th August and 12th December 2008, a total of 48 suspected cases were reported with 38 (92%) deaths in the 2 Teaching Hospitals. Only 33 of these were identified. The median age was 3 years (range 6 months – 5½ years). From hospital record review, the index case reported on 15th of August 2008. Of the 33 patients with clinical history documented, the major symptoms were fever (26, 78%), anuria (21, 63%), vomiting (16, 48%), and diarrhoea (14, 42%) respectively. Of the 16 cases with records available on drug consumption prior to their illness, 16 (100%) mentioned the use of Paracetamol of which 8 (50%) specifically named the suspect Teething Mixture (MP) and all (100%) died. Laboratory analysis of samples of the MP bought in the open market showed the presence of DEG. Samples retrieved from mothers and analysed at National level showed the presence of DEG at a concentration ranging from 6.75 - 91.0%. Also, of 2 samples of another PCM based syrup (FJ) analysed, one was found to be contaminated with DEG.

CONCLUSION
The source of outbreak was DEG contaminated paracetamol based syrups. The outbreak was interrupted by specific recall of the MP, closure of the manufacturing industry and aggressive mass enlightenment campaigns against the use of MP. Adherence to good manufacturing practice (GMP) should be practiced by Manufacturers and enforced by relevant government agencies. Mothers should be discouraged from routine use of teething mixtures. Also, indiscriminate sale of teething mixture and other medications during immunization sessions must be disallowed.

P004 - Air pollution and risk factors for adverse birth outcomes — A pilot study

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BACKGROUND
Disorders in childhood are probably initiated in-utero, compounded by adverse birth outcomes. Environmental pollution, nutrition and genetic polymorphisms interact to result in adverse outcomes.

AIM(S)
To describe birth outcomes among a sample of pregnant mothers exposed to industrial pollution, compared to those without such exposures and to test methodological approaches for a longitudinal study investigating the association between environmental pollution and respiratory outcomes among children.

METHOD
100 pregnant women of which 50 were selected from the industrially polluted south Durban and 50 from the less polluted, north Durban, were selected. Pollutant data from environmental monitoring stations managed by the eThekwini municipality will be used to describe the exposure of all participants. Participants were interviewed about their health status, obstetric history, exposure history and biochemical assay information. Mothers and their babies were screened for markers of oxidative stress, allergy, atopy and genetic polymorphisms. Samples are currently been analysed for antioxidant levels. Descriptive data will be presented, including pregnancy and labour histories, exposure history and biochemical assay information.

CONCLUSION
This is a pilot study is proposed to serve as preparation and proof of concept for a full scale longitudinal birth cohort study.
P005 - Evaluating measles vaccination coverage in high burden areas of the Western Cape Province, following the mass immunization campaign

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BACKGROUND
Measles outbreaks occurred in a number of Southern African countries in 2009/2010, including South Africa. A national mass immunization campaign was held as an epidemic response intervention, aligned with the WHO’s new recommendations.

OBJECTIVES
To determine measles immunization coverage in children aged 6 months to 5 years from “hard-to-reach” communities of the Western Cape which experienced the highest burden of measles cases in the recent outbreak, according to RTHC and reported vaccination during the campaign. To use the information from and experience of this study to define rapid review methodology to determine the need and focus for localised mop-up immunization campaigns.

METHODS
Provincial surveillance data was utilized to identify the top 5 areas from which most suspect cases originated. Two-stage sampling was employed to firstly select geographically defined clusters within the high incidence area and subsequently a child-caregiver pair per household. A community survey was conducted with care-givers. Data analysis will estimate proportions with 95% confidence intervals and predictors modeled using multivariate logistic regression.

PRELIMINARY RESULTS
Site B (Khayelitsha), M Mbekweni, Phillip, Delft and Du Noon experienced the highest burden of measles cases. Approximately 400 care-givers from each area responded. The proportion of children immunized for measles during the campaign was 92.2% [95% CI: 88.6-95.0]. The campaign increased second dose coverage in over 18 month olds from 72.9% to 86.7% (n=165).

DISCUSSION
The mass immunization campaign achieved adequate coverage for measles in “hard-to-reach” areas.

P006 - Community health and GIS: Using GPS and GIS for foetal alcohol syndrome education and outreach in the Bergrivier municipality in the Western Cape, South Africa.

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BACKGROUND
Foetal Alcohol Syndrome (FAS) is the most common preventable birth defect in the world. South African communities have amongst the highest reported rates of FAS globally. Efforts to address FAS amongst rural populations in the West Coast district near Cape Town are ongoing.

OBJECTIVES
In August 2008, Global Positioning Systems (GPS) and Geographic Information Systems (GIS) were used to collect data on legal and illegal alcohol vendors as a basis for tracking future FAS prevention measures.

METHODS
A total 112 coordinates of legal and illegal alcohol vendors were recorded with attribute data—name, address, town, size, legal status, and type of alcohol in 7 rural areas. Shapefiles were created and analyzed by alcohol vendor density, alcohol vendor/person, and percent illegal. Vendor density and population density represent alcohol accessibility and are based on vendors/km2 and vendors/person.

RESULTS AND DISCUSSION
Towns with the densest legal and illegal vendor distribution are Piketberg and Eendekuil. In addition, Porterville and Velddrif demonstrate high densities in the GIS Density Analysis. These towns should be prioritized for FAS education and interventions. Illegal vendors (42%) were clustered, making alcohol use difficult to track, monitor, and regulate.

CONCLUSION
GIS provides spatial documentation of determinants of FAS risks amenable to geographically-based prevention strategies, as well as providing baseline data to evaluate the effectiveness of liquor legislation aimed at controlling access to alcohol. Results are being repurposed into health education materials that encourage community responsibility and reduce the social determinants of health outcomes such as FAS.
P007 - Implementing a computerized substance abuse surveillance system in the Western Cape, South Africa: Methods, challenges and benefits

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Alcohol and Drug Research Unit, Medical Research Council, Cape Town

INTRODUCTION
The provision of accurate, in-depth data on substance abuse trends, need for treatment and service delivery has become increasingly important in light of the increasing prevalence of substance abuse in South Africa. A computerized substance abuse surveillance system (SASS) was designed to gather data on substance use, associated problems, service needs and services received on all clients presenting for generic social welfare services at the 16 district social service offices in the Western Cape.

METHODS
The SASS electronic data collection system is programmed in Microsoft Visual Basic.NET and operates using the Microsoft .Net Framework v2.0. Intake social workers based at each of the 16 demarcated district offices enter client data on substances used, presenting problems and services received onto an interactive software programme.

RESULTS
SASS was piloted in 3 districts and successfully implemented in the 16 districts of the Western Cape, of which approximately 8 are dispatching data on a regular basis. Challenges experienced during implementation of the surveillance system include limited infrastructure, inadequacies in staff capacity, and lack of organisational support for the system. Despite these challenges, the system holds benefits for policy makers and service planners and uses a simple software application that is user-friendly and generally compatible with available resources.

CONCLUSION
Notwithstanding the challenges, SASS enables the generation, analysis and dissemination of non-financial descriptive data at provincial government levels informing policy, service planning, and practice. In particular, the system provides an additional source of information for better prediction of emerging trends and treatment needs.

P008 - The SACENDU Project: Monitoring alcohol and drug abuse trends in South Africa

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BACKGROUND
SACENDU Project is an alcohol and other drug (AOD) sentinel surveillance system that monitors trends in AOD use and associated consequences on a six-monthly basis from specialist treatment centres in six regional sites in South Africa. This paper will focus on findings from data collected between July and December 2009 and compare them to findings of the first half of 2009 and previous years.

OBJECTIVES
To identify changes in the nature and extent of AOD abuse in South Africa.

METHODS
Data were collected on admissions for drug abuse treatment from 61 treatment centres, using a one-page form. A total of 8217 forms were collected and data were analyzed using SPSS statistical package.

RESULTS
Alcohol remains the dominant substance of abuse across all sites. Treatment admissions for cocaine-related problems increased slightly, except in three sites. Proportions of cannabis abuse increased in three sites and decreased in one site. Cannabis remained most common primary drug for persons younger than 20 years across all sites. Heroin admissions remained fairly stable in four sites and declined significantly in one of the sites. Heroin is smoked, but 15% of patients reported injecting it. Proportions of Black/African patients increased in three sites and proportions of female patients remain low. Treatment admissions for methamphetamine (MA) were low except in WC where MA remained the most common primary drug reported by a third of patients. An increase of 10% was noticed in Eastern Cape (EC) in this period.

CONCLUSION
These findings highlighted that a broad range of globally abused substances is present in South Africa and that the burden of illicit substances is increasing. Further research is needed to explore whether stigma affects usage/non-usage of drug treatment by women. Government need to ensure that treatment centres in EC have capacity to respond to the increase in MA use.
P009 - The impact of national health insurance on the behaviour of providers and patients in two districts of Ghana

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BACKGROUND
Prepayments and risk pooling through social health insurance has been advocated by WHO and other international development organisations. Social health insurance is seen as a mechanism that helps mobilise resources for health, pool risk, and provide more equitable access to health services for the poor. Hence Ghana implemented the National Health Insurance Scheme (NHIS).

OBJECTIVE
The study explored the behaviour of providers in the treatment of the insured and uninsured under the NHIS.

METHOD
The study took place in Bolgatanga (urban) and Builsa (rural) districts in Ghana. Data was collected through exit interviews (200) with insured and uninsured patients, in-depth interviews (15) with providers and insurance managers, and focus group discussions (8) with community members.

RESULTS
The NHIS is operative, promoted access for insured and mobilised revenue for providers. Both insured and uninsured were satisfied with care. But delay in reimbursement was the core problem leading to providers preferring clients making instant payments. Some insured reported verbal abuse, long waiting times, not being physically examined and discrimination in favour of the affluent. Less of uninsured were utilising facilities and visit only in critical conditions. This is a result of the increased cost of health services under the NHIS.

CONCLUSION
The NHIS is beneficial, but urgency required in streamlining the reimbursement, clear policy for identifying the core poor to be registered into the NHIS and improving capacity of facilities and personnel for provision of quality care.

P010 - Learners’ perspectives of health promoting schools in the Western Cape

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BACKGROUND
The development of health promoting schools in South Africa started in 1994 and is mainly focused on primary schools. Since 2008, three high schools in the Western Cape have been involved in a process to develop themselves as health promoting schools.

OBJECTIVE
To obtain learners’ perspectives of their particular school as a health promoting setting; this comprises five areas based on the Ottawa Charter: (1) the development of healthy skills of learners, teachers and parents; (2) healthy school policies; (3) a healthy physical and psychosocial environment; (4) healthy links with the parents and the community; and (5) appropriate support services.

METHODS
In May 2010, a cross sectional survey was conducted among 350 learners (16-20 years) from these three high schools. Participants filled out the Health Promoting Schools Monitoring Tool using Personally Digital Assistants. Data were analysed using SPSS to obtain descriptive and inferential statistics.

RESULTS
The results demonstrate that, although most learners in each school state that their school has been introduced to the health promoting school concept, their perspectives of their school as a health promoting setting vary. Many learners perceived their schools as having few health promoting programmes and policies, little community involvement, or health services at the school.

CONCLUSION
The Health Promoting Schools Monitoring Tool could be useful for as a valuable addition to school monitoring. It enables the education authorities to identify problems the schools may need to address to be healthy environments for learning.
**P011 - Pilot health promoting hospital in the Capricorn District, Limpopo Province**

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**OBJECTIVE**

The aim was to transform a rural hospital in the Limpopo Province into a health promoting hospital according to standards developed by WHO-Europe. Main objectives comprised process and outcome evaluations related to hospital staff empowerment, job satisfaction and turnover, and HIV/AIDS-related occupational health and safety.

**METHOD**

The project was designed as an intervention study, using principles of emancipatory action research and based on the Precede-Proceed model for health education and promotion. Activities were guided by a comprehensive needs assessment among hospital staff and patients, complemented by hospital self-assessment, intervention mapping and program design. The vision was spread through empowerment workshops, promoting leadership skills and advocating healthy lifestyles. Activities were organized through hospital board meetings and sustainability achieved by associating the project with a quality assurance program. The community was involved through a stakeholder forum and by organizing joint health education and promotion activities with hospital staff.

**RESULTS**

Commitment to health promotion was created among hospital staff and shared planning and decision-making resulted in staff empowerment. HIV/AIDS knowledge increased but indicated the need for improving infection control. Job satisfaction remained unchanged, but turnover rates declined, although turnover intent was significantly higher at follow-up (P < 0.05).

**CONCLUSION**

The hospital was successfully transformed into a health promoting hospital by integrating the health promoting concept, values and standards in the hospital structure and culture. Organizational transformation resulted in a health promoting environment, but the impact on staff retention remains unclear.

**P012 - Comparative analysis of the incentive strategies to motivate and retain health workers: Findings from South Africa, Tanzania and Malawi**

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**BACKGROUND**

Financial incentives are the most commonly used strategies across low and middle-income countries in the last decade. However, there is limited body of literature on assessing the impact of these incentives to recruit, retain and motivate health workers in sub-Saharan Africa.

**OBJECTIVE**

To provide cross-cutting analysis and lessons learned on a multi-country project to inform future design of incentive strategies to motivate and retain health workers.

**METHOD**

Case studies using both qualitative and quantitative methodologies were conducted in South Africa, Malawi and Tanzania. Cross-cutting analysis was done to determine the importance of financial incentives on the motivation and retention.

**RESULTS**

A common feature in all three countries was the assumption that financial incentives are key for building motivation and retention; however, this project found that financial incentives were not completely effective. Financial incentives may be effective in addressing short-term recruitment needs but it is uncertain what their long-term impact is. Financial incentives produced losers and winners, certain health professionals benefited while others did not and this caused divisions between the different cadres of health workers. In embarking on boosting financial incentives, caution should be taken on what is being incentivized. Where financial incentives are conditional on activity, quality, certain services and team work may be de-incentivised. Incentive initiatives were also conducted in an atmosphere of poor relations between government and health professional cadres demonstrated through strikes and continued migration. Weak communication and coordination led to high degree of anticipation and unrealistic expectations. In all three countries, emphasis has been on financial incentives, non-financial incentives were not given equal attention as critical components of a package.

**CONCLUSION**

Even the most well-intentioned incentive strategy can fail because of improper implementation. There is no uniform approach regarding which incentives may work better than others. It is further arguable as to whether targeted incentives work better than those that are not. Failure to communicate and coordinate implementation undermined the management of expectations around feasible change. For financial incentives to work better, they need to be part of a broader-based package.
P013 - Morbidity and mortality patterns among the under-5 children admitted to district hospitals in the Eastern Cape, 2000-2004

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INTRODUCTION
The evaluation and improvement of the quality of health care services begins with the knowledge about the trends and causes of diseases.

PURPOSE
To describe the morbidity and mortality patterns for the under-5 year old children who were admitted in 11 district hospitals in Eastern Cape Province from 2000 to 2004.

METHODS
Descriptive study where a multi-stage sampling technique was used to select 11 district hospitals. There were 25,122 causes of paediatric ward admissions (2000 to 2004) among under-5 children from ward register were reviewed and ICD-10 coded.

FINDINGS
Pre-transitional causes were the leading causes of morbidity (68.4%) and mortality (74.2%) especially diarrhoeal, lower respiratory tract infections and protein-energy malnutrition. Non-communicable diseases (8% morbidity and 4.2% mortality) and injuries (10% morbidity and 4.4% mortality) appeared to be of less public health concern among the under-5 children. Forty three percent (43.4%) died within 24 hours of admissions and 23.7% died on arrival. Influential variables for morbidity and mortality were region (Eastern), age (infants), year admitted and broad classification of the diseases (group I causes). There was a constant increase in morbidity and mortality which was observed during studied period.

CONCLUSION
Pre-transitional causes (especially diarrhoeal, lower respiratory tract infections and protein energy malnutrition) were of public health concern among the under-5 children and their magnitude has increased over the years studied.

P014 - Power of multipathy in public health

S Dutta

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BACKGROUND
India is a country of different medical system e.g. Allopathy (Modern), Ayurveda (Indian system of medicine), Homeopathy, Unani, Siddha etc. There is a popular belief that medicine of other systems are safe, having no side effects, except allopathy. So, it is common among Indians to take medicines of different systems at a time, without knowing its synergistic or adverse effect.

OBJECTIVE
Keeping this in mind, this study was conducted to assess the prevalence of Multipathy practice.
Method: 168 OPD patients who came for follow up randomly chosen and interviewed by specific questionnaires in Goa Ayurveda College.

RESULTS
It shows that 95.6% patients were taking medicine from both Allopath & Ayurveda, suffering from chronic systemic diseases like Diabetes Mellitus, Hypertension etc. for the same purpose. Patients of Renal stones, Hemorrhoids, Various skin disorders, Psycho-somatic disorders etc. took only Ayurveda medicine, having no other systemic disorders.

CONCLUSION
Mixopathy is a common practice in Indian society, especially for non curable diseases. Patients, suffering from Diabetes mellitus, Hypertension, are searching for alternate therapy and thus victims of multipathy mainly. Keeping in mind the possible adverse effect of multipathy intense pharmaco-vigilance is needed to record any adverse effect of it and intense research is needed to use multipathy as integrative approach to health care, if possible.
P015 - The use of condom for prevention of HIV infection among older persons in Nigeria

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BACKGROUND/SIGNIFICANCE
As HIV/AIDS continues to pose a public health challenge globally, the pandemic is without boarders. It affects all the age groups including the geriatrics, this subgroup are neglected and should receive priority SRH intervention. However, condom use among this population is not known. This study examined the use of condom among older persons in Nigeria.

METHODOLOGY
The study was cross-sectional in design. A multi-stage sampling procedure was used to randomly select 400 respondents in four locations in Nigeria. A pre-tested questionnaire, developed, using information from 10 FGDs was used. The FGD data were analyzed thematically, while the questionnaire data were analyzed using descriptive and chi-square statistics.

FINDINGS
Slightly more than half (50.5%) were males, while 49.5% were females. Twenty-five percent of the participants had extra-marital sex since they attained the geriatric age. However, among this subgroup that had extra-marital sex, only few (6.8%) used a condom. There was no significant difference between gender and condom use, hence more males (5.3%) than females (1.5%) used a condom during the last episode of extramarital sex (p<0.05). Low level of condom use was the view condom is not worthwhile (34.5%) and the opinion (50.0%) it was not designed for geriatrics. There was probability assumption among the FGD participants that sex at elderly could not lead to pregnancy and the assertion that condom is relatively new technology. On the other hand, majority (60.3%) preferred patronizing traditional healers while few (10.3%) believed herbs/concussion could prevent HIV/AIDS. Similarly, majority (89.3%) did nothing to avoid infection/pregnancy during sex; while few (5.8%) had confidence in herbal medicine.

CONCLUSION
As older persons continued to engage in risky sexual activities, without urgent measure, development efforts will be in jeopardy. Investing in aged is one of the most cost-effective interventions in the achievement of MDGs.

P016 - Development of the HealthKick intervention: Kick-starting diabetes prevention through nutrition and physical activity in primary schools

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BACKGROUND
The HealthKick intervention was developed as part of a study that aimed to address diabetes risk factors in Grade 4-6 learners in primary schools within disadvantaged, low-income settings in the Western Cape, South Africa. South Africa has a complex mix of over- and under-nutrition, and concerning levels of inactivity in children.

OBJECTIVE
To kick start diabetes prevention through nutrition and physical activity in primary schools.

METHODS
Intervention mapping was used to prioritise key environmental and behavioural outcomes regarding nutrition and physical activity. The intervention mapping process and formative evaluation led to the development of HealthKick goals to guide the intervention in terms of learners’ behaviour. HealthKick is currently being implemented in 16 schools, eight of which are classified as co-implementation, and eight as self-implementation schools.

RESULTS
The main components of the HealthKick intervention are the ‘toolkit’, action planning (a self-assessment and goal-setting process) and a curriculum component aligned with Life Orientation for Grade 4-6 learners for co-implementation schools. The toolkit comprises a resource pack with information on nutrition, physical activity, chronic diseases of lifestyle and school policy and environment; a container with basic physical activity equipment; and a resource guide listing available resources to address nutrition and physical activity in the school environment. Self-implementation schools received ‘Tips for Healthy Schools’ and the resource guide.

CONCLUSIONS
HealthKick, which aims to apply best practice for school-based nutrition and physical activity interventions, is novel within these types of settings in South Africa and may have an impact on policy and practice.
P017 - Decomposing socio-economic inequalities in health among older population in India: Evidences from Indian Human Development Survey

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BACKGROUND
The proportion of older population (60 plus) has increased from 6 percent in 1950 to 8 percent in 2001, which is further expected to increase to 20 percent by 2050. Ageing is not a crisis in India as yet, but we need to reckon such a situation fifty years from now.

NEED FOR THE STUDY
The issue of socioeconomic status in aged population is by far the most overwhelmingly significant risk factor for health and wellbeing. Disparity in socio-economic condition creates greater health inequalities among elderly which has been given less attention till date.

DATA AND METHODS
This paper used data from 60th round National Sample Survey Organization (2004) and Indian Human Development Survey (2005). Bivariate and Multivariate analysis are used to find the covariates of elderly health status. Socio-economic inequality in health status is computed based on concentration index proposed by Wagstaff (1999) and further concentration index has been decomposed to find the pathways of the emergence of socio-economic inequality.

RESULTS
Results from the Multivariate analysis show noticeable effect of household economic status, religion caste and gender on disease burden among older population. Concentration index and Decomposition analysis reveals that volume of inequality is explained by four social-economic variables (wealth, religion, caste, and gender).

CONCLUSION
The evidences are obvious to show that socio-economic disparity is critical factor for health inequality among aged population in India. Findings of the present paper are critical to health policy of elderly.

P018 - Living environment and health conditions of selected cities in India: Prioritizing key issues for National Urban Health Mission

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BACKGROUND
The concept of Healthy city aims to improve the physical, mental, social and environmental well-being of people who live and work in urban areas. Making healthy and sustainable cities is the prime objective of the National Urban Health Mission (NUHM). However, this need prioritizing key issues, strategies and guidelines for the programme of action.

OBJECTIVE
The present paper throws light on the living and health situation of major cities in India giving emphasis on slums with the contention of helping policy makers in prioritizing key issues.

DATA AND METHODS
The data set used for the study is the recently published National Family Health Survey III which, for the first time, gave detailed information of slum and non slum population of eight cities.

RESULTS
It is evident from the paper that some of the major cities of this country are not having cent percent basic amenities like pucca house, safe drinking water, improved sanitation facilities, and electricity. The demographic and health conditions are far from the goals set in population policy 2000 and health policy 2002. Chennai’s drinking water problem, Delhi’s poor health performance and Nagpur’s disease prevalence and poor household environment need special thrust. Despite supposed proximity of the urban people to urban health facilities, their access to them is limited. Institutional delivery in government health facility is too low in almost all the eight cities. More than half of the people are not using government health facilities. This is on account of their being ineffective outreach and weak referral system.

CONCLUSION
NUHM needs to point out demographically weak performing cities in a similar fashion as it has been done for high focused states in National Rural Health Mission. Urban India has to go a long way for making its cities ‘healthy’.
P019 - Advocacy for Choice of Termination of Pregnancy (CTOP) in South Africa: Review of achievements and barriers

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The aim of this paper is to review the achievements and barriers in the area of Termination of Pregnancy (TOP) in South Africa and what is needed to maintain momentum and take it forward. TOP was illegal in South Africa until 1975 when the restrictive Abortion and Sterilisation Act was passed. Following this there were approximately 800 legal and 200 000 illegal abortions per year.

There was an increase in TOP activism in the early 90’s. A lobby group known as Reproductive Rights Alliance was formed, a Women’s Health Policy Conference was held and a survey of hospital admissions of incomplete abortions conducted. Following the election of the democratic government in 1994 the old Act was repealed and the CTOP Act of 1996 was passed. An epidemiological study in 1994 estimated 425 deaths due to abortion per year and the 2004 Confidential Enquiry into Maternal Deaths investigated 101 abortion-related deaths in a 3 year period, which is regarded as a considerable reduction.

Despite this progressive law, there have been numerous barriers to access, such as obstructive providers and policy makers. The Amendment Act in 2004 was introduced to increase access to services but was taken to the Constitutional Court (CC) because of inadequate community participation. The CC allowed 18 months to inform the community. This was done and the Act passed.

In 1998 advocacy groups formed to promote medical termination of pregnancy (MTOP). The medication for MTOP was registered by the MCC in 2001 and it is presently available in the private sector but not in the public health sector. Current TOP legislation continues to be challenged by anti-choice groups in SA.

What we require in South Africa in 2010 is a strong advocacy group to meet the many onslaughts and barriers. This may be part of the function of the Global Doctors for Choice that has recently been formed.

P020 - Evaluation of the 2009/10 Cape Town District Diarrhoeal Disease Season interventions: Outcome and knowledge gained

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BACKGROUND
The incidence of diarrhoeal disease (DD) peaks between November and May, with most cases occurring between February and April on an annual basis in the Western Cape province. In 2009 the DD season plan included a greater focus on environmental health (EH), sanitation and refuse removal. Health promotion activities took place at health facilities, communities, schools and educare centres. Two new facility-based interventions were the Rotavirus vaccine and Zinc therapy and there was an expansion of beds at a number of hospitals. Sub-district coordinating committees provided governance and oversight, and reported on a monthly basis to the DD Season Coordinating Structure. The aim of this study is to determine whether there has been a reduction in the incidence of new cases, mortality and morbidity of diarrhoeal disease.

METHODS
Routine headcount data collected during the DD season (October to May) since 2006 at primary health care (PHC) facilities was used to quantitatively measure the impact of this multi-component intervention. Official population estimates were used to calculate and track incidence rates and hospital data provided information on the number of admissions and deaths due to gastroenteritis.

RESULTS
Overall there was a 28% decrease in the absolute number of cases reported at PHC facilities in the district compared to last season. The reduction in the rate of disease for cases without dehydration was 26% and 25% for those with dehydration. Despite the measles outbreak, hospitals reported an 11% reduction in the number of admissions compared to last season.

CONCLUSION
A number of interventions at all levels of care, including community-based services, are likely to have contributed to the reduction in DD case load. Areas for improvement are: ongoing improved maintenance of water and sanitation in informal settlements, the uninterrupted supply of Rotavirus vaccine, improved clinical governance at the sub-district level and improving the current surveillance systems.
P021 - Need assessment on training of health personnel on Tuberculosis Direct Observe Treatment Strategy (DOT’S) in Otjozondjupa Region

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INTRODUCTION
Tuberculosis is one of the challenging communicable diseases globally. Namibia is reported as one of the countries with the highest prevalence of TB epidemic in the world for e.g. 748 cases per 100,000 populations (annual TB Report 2005/2006). However TB treatment is available at health facilities, it remains a major public health concern and a challenge. How equipped are the health workers in Otjozondjupa region to face this challenge?

METHODS
A probability study design was followed and both quantities approaches applied. All health care workers (physicians and nurses) as well as administrative personnel of Otjozondjupa region included in the need assessment on training needs in Tuberculosis direct observed Treatment Strategy DOT’S approach.

RESULTS
Majority of physicians interviewed demonstrated knowledge in DOTS strategy, but lacking in how MDR-TB is managed, whereas nurses (32%) were trained in TB case management (11%) in diagnostic skills as well as guidelines/policies. Administrative personnel (90%) stated that they did not have training in TB. It is worry some to, note that majority of health workers and administrative personnel were not trained in DOT’S approach.

CONCLUSION
Although TB is curable, prevention remains the key. It is imperative that all health workers should be equipped with knowledge and skills in TB DOT’S and enough TB coordinates be deployed within these communities where TB prevalence is high.

P022 - What do health committees need to become effective structures for community participation?

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Community participation is widely regarded as an important element in realising a well-functioning primary healthcare. In South Africa, community participation has been formalised through the establishment of community health committees (HCS). They are intended to be the link between the community and the local clinic, to ensure that the needs of the community are addressed and to foster co-operative governance. The potential positive impact of HCs in advancing the right to health has been documented in recent research. This paper presents the results of qualitative and quantitative research targeting all HCs in the Cape Town Metro district. It aimed at identifying capacity development needs of and barriers to the functioning of HCs. The research found huge disparities in the level of functionality among committees. It identified sustainability of HCs as a key-challenge. The following factors were identified as barriers: lack of clarity on role of HCs, high turn-over of members, insufficient funds, problematic relationship with facility manager and ward councillor, and insufficient skills. The research process also highlighted the potential for conflict and dissatisfaction to undermine the intent of progressive policies on HCs where commitment from senior health managers to meaningful community participation was seen as lacking. The paper recommends that legislative clarity on the role of HCs is urgently needed. In addition, the following recommendations are presented: increased funding allocation, implementation of a training and capacity-building programme, establishment of guidelines and support on how to establish and sustain HCs, and promotion of co-operation with facility managers and ward councillors.
P023 - Assessment of impact of memory box work in promoting psychological and social well being of OVC in rural Kwa Zulu Natal and Limpopo

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BACKGROUND
Several studies show that severely stretched and weakened coping mechanisms of OVC are usually a result of grief and loss that has not been adequately dealt with. Memory box work is one of the approaches used to help build their confidence and self-worth.

OBJECTIVE
To explore the impact of Memory Box Programs in enhancing psychological and social wellbeing of OVC.

METHOD
Case studies were done to 8 OVC who were enrolled in a memory box program run by Community Based Organisations in Kwa Zulu Natal and Limpopo. They were followed up for periods ranging from 12 to 18 months. The project documented their progression from severe mental and emotional distress to the point of near full recovery.

RESULTS
Memory box programs help OVC to develop and reconstruct their family life trees. Support groups for OVC are an integral component of efforts to improve their psychological and social wellbeing. Well trained and supported memory box facilitators who work with homogeneous manageable groups of OVC (8-12) tend to spend more quality time with the children and thus gain their trust and cooperation. Psycho-social camps, individual and group counselling sessions are essential approaches in memory box work. Addressing children's needs is part of memory box work.

CONCLUSION
OVC who have adequately dealt with their emotions, grief and loss tend to cope better in their lives. Memory box work goes further to help children meet their physical, emotional, social, cognitive and spiritual needs which are vital for their functioning and well-being.

P024 - Access to emergency and surgical care in Sub-Saharan Africa: The infrastructure gap

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BACKGROUND
Increasing attention is being placed on making access to emergency and surgical care more available in low-income countries. While most literature focuses on workforce issues, it is critical to recognise the infrastructure gap that prevents the ability of health systems make emergency and surgical care a reality.

OBJECTIVE
To review key barriers to the provision of emergency and surgical care in sub-Saharan Africa.

METHOD
Secondary data analysis based on data from the Demographic and Health Surveys from five countries – Ghana, Kenya, Rwanda, Tanzania, and Uganda – for hospitals and health centres in these six areas: basic infrastructure, equipment, medicine storage capability, infection control, education, and quality systems.

RESULTS
The percentage of hospitals with dependable running water and electricity ranged from 22% to 46%; those with components necessary for providing 24-hour emergency care ranged from 19% to 50%. For storage of medicines, only 18% to 41% of facilities had unexpired drugs and current inventories. Availability of infection control items and proper disposal of hazardous waste was generally poor (less than 50%) across all facilities. As few as 14% of hospitals (and as high as 76%) across these countries had training and supervision in place.

CONCLUSION
No hospital in these surveys had enough infrastructure to carry out what has been deemed essential by the World Health Organization for the provision of emergency and essential surgical care. These countries may be representative of other low-income countries in sub-Saharan Africa and suggest that increased attention to building up the infrastructure within health systems is warranted.
P025 - Conducting prospective cohort studies on chronic non-communicable diseases in urban and rural communities in South Africa: Possibilities and challenges

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Prospective Cohort studies can provide rich epidemiological insight into the determinants of chronic non-communicable diseases in human populations. Indeed, among observational study designs, prospective cohort studies stand out for their ability to measure incidence and describe the natural history of health conditions. However, they are under-utilized in Public Health research in South Africa.

This presentation will discuss the importance of the prospective cohort study design and highlight the unique contribution it can make to understanding the context-specific causes of increasing chronic non-communicable diseases in South Africa. It will explore how population-based cohorts can be established and surmise strategies through which cohorts can be maintained in rural and urban communities in South Africa. It will further argue for improved cooperation among researchers initiating population-based cohorts to optimize available resources for scientific inquiry, and call for the implementation of cohort registers.

P026 - Audit of maternal deaths using longitudinal data – Case of RUFIFI HDSS

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BACKGROUND
Developing countries account for 99% of maternal deaths hence in the interest of UN to reduce maternal mortality ratio by three fourths by 2015.

OBJECTIVE
Explore the causes and risk factors associated with maternal mortality in rural Tanzania.

METHOD
Secondary analysis based on longitudinal data from Rufiji HDSS was used to study the risk factors and causes of maternal death. Data for 2002-2006 was used. A total of 26,427 women aged 15-49 years were included in the study; 64 died and there were 15,548 live births. Cox proportional regression was used to assess the risk factors associated with maternal deaths.

RESULTS
Maternal mortality ratio was 412 per 100,000 live births. Main causes of death were haemorrhage (28%), eclampsia (19%) and puerperal sepsis (8%). Maternal age and marital status were associated with maternal mortality. Increased risk of 154% for maternal death was found for women aged 30-39 versus 15-19 years. Married women had a protective effect of 62% over unmarried ones. Findings were statistically significant at 5% level.

CONCLUSION
Haemorrhage and eclampsia were the leading causes of maternal mortality. This indicates the need for better antenatal and obstetric care, particularly for women over thirty years of age.
P027 - Association of childhood tuberculosis with indoor air pollution

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BACKGROUND
Indoor air pollution has been associated with increased risk for lung diseases. The number of cigarette pack years has been associated with the risk of acquisition and development of TB in adults. Passive smoke and other air pollutants exposures are associated with a 1 to 5 fold increased risk of acquisition of childhood tuberculosis as determined by questionnaires about the use of biofuels in cooking, heating and lighting in households. No studies to date have measured the exposure of indoor pollutant levels directly.

AIM
This study aims to investigate the association between exposure to indoor air pollutant level and childhood tuberculosis by quantifying pollutant levels.

METHOD
A case controlled study households of children 14 years and younger with and without culture confirmed PTB will be undertaken. Five hundred and thirty four will serve as a pollutant to optimise the study methodology. Environmental assessment of the children's homes will be conducted using walkthrough checklist and indoor monitoring of air pollutants (particulate matter, sulphur dioxide, nitrogen dioxide and metals) for a 24 hour period at least three times in each household.

STATISTICAL ANALYSIS
Statistical models, such as logistic regression, will be used to determine the association between PTB as an outcome variable and indoor pollution levels as independent variables. Covariates, such as socioeconomic status, crowding, etc. will be factored in.

HYPOTHESIS AND EXPECTED FINDINGS
We expect that the level of indoor pollutants will be directly related to the risk of acquisition of TB as a result of direct injury of the respiratory epithelia by air pollutants. This allows easy entry of TB bacillus.

CONCLUSION
The outcomes of this study will include understanding the dose-response relationship of PTB and indoor pollutant levels in homes. This will in turn highlight some mechanisms that maybe useful in understanding the disease.

P028 - Telling the whole story - need for diverse methods in community-based research

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The paper attempts to highlight the complexities involved in community-based action research and the experience of using diverse research methodologies, especially through the involvement of all stakeholders, for comprehensive understanding of processes, effect, outcomes and impact in a developing country context.

The paper illustrates this through the case study of the Reduction of Low Birth Weight Project in Jharkhand, India - a study that aims to evaluate the effectiveness of community level interventions in improving related maternal and child health outcomes, in a context with mandated public health services.

The project used diverse research methods across its lifecycle – innovative health resource mapping for formative research, innovative community based monitoring tools for concurrent evaluation, a quantitative design for endline evaluation, and a qualitative methodology for to understand the lifecycle of the project, stakeholder mapping, the evolution of the intervention processes and interrelationships amongst them, intended and unintended outcomes and the impact of external factors on the project.

The paper highlights how community-based action research is impacted by political factors and implementation realities, in an overall context of research capacity gaps in underdeveloped regions; and makes a strong case for diverse methods, and therefore, multi-disciplinary analyses to gain a comprehensive understanding of health as a complex social, economic, political and physiological phenomenon.
P029 - The political-economy of undernutrition - a qualitative inquiry into rising anemia levels in a tribal community

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BACKGROUND
Despite economic growth, hunger and undernutrition continue to plague India. Nearly a third of Indian children are born undernourished and by age three almost 46 percent are underweight. Women's health and nutritional status is also among the worst in the world. Over 40 percent of women have low BMI, calorie intakes are inadequate, multiple micronutrient deficiencies are very common and anemia levels are extremely high with over 50 percent of pregnant and lactating women suffering from anemia. Despite various efforts to address anemia through government and civil-society interventions, data from the state of Jharkhand in India reported increase in anemia levels over the past 5 years.

OBJECTIVE
To explore the causes, trends and patterns of rising anemia levels in a tribal community in Jharkhand.

METHOD
Qualitative research was used as a follow up to a baseline-endline evaluation of a quasi-experimental study - Reduction of Low Birth Weight Project - to explore causes behind the negative trends in anemia in the concerned tribal population. Data was collected through in-depth interviews with identified stakeholders from the community and the health system. For reference, quantitative data from the National Family Health Survey-3 (2005-06), and the baseline (2003) and endline (2008) data from the Reduction of Low Birth Weight Project were used to trace anemia levels in the population.

RESULTS
The qualitative study offered possible explanations for increasing anemia levels, locating it in the broader political economy of food security, forest rights and tribal development issues.

CONCLUSION
The causes behind reported statistical data needs multi-disciplinary analyses of issues to gain a comprehensive understanding of health as a complex social, economic, political and physiological phenomenon of health and nutrition. In developing policies and programmes, the entire macrocosm needs to be considered as a whole, and as a dynamic system with complex inter-relationships among its components.

P030 - Tolerability of HIV post exposure prophylaxis among Child Rape survivors in the Mthatha area of South Africa

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INTRODUCTION
Child rape is one of the most conspicuous forms of violence, has reached epidemic proportions in South Africa. In this context relating to the provision of HIV post exposure prophylaxis to sexual abuse survivors have emerged as a key concern.

OBJECTIVES
To determine the prevalence of drug adherence rate among child rape survivors in Mthatha area of South Africa.

METHODS
This retrospective study included all 1546 child victims of sexual assault between the age group 1 and 18 years, who attended the Sinawe Centre during from January 2002 to December 2007 for medico-legal assessment and management.

RESULT
There were 936 children (60.54%) qualified for PEP provision and 610 (39.46%) children were not being fulfilled the PEP criteria, of this 38 (2.46%) tested HIV positive at presentation and 562 (36.35%) delayed (>72 hour) reporting. Of this PEP qualified, 298 (31.83%) children discontinue the treatment after first week and the rate of drug defaulters rich 76.39% during second week followed by 88.99% at the end of third week. Only 103 (11.01%) complete the full 28-day PEP course. Majority of the victims 398 (42.52%) were between the age of 11 and 15 years. Most of the perpetrators were single and known to the victims.

CONCLUSION
There is a high drug defaulter rate during the second week of HIV Post Exposure Prophylaxis and delayed reporting rate among child rape survivors makes ineffectiveness of HIV PEP at Mthatha area of South Africa.
P031 - Alcohol and ART: A literature review

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BACKGROUND
Sub-Saharan Africa is the region of the world which bears the greatest weight of the global AIDS epidemic. A recent positive development in some parts of the region is the substantial scale-up in the provision of antiretroviral therapy (ART). However, with the increase in ART roll out comes the need for continued understanding of factors which could impact ART uptake and ART adherence. Many studies, a vast majority of which were conducted outside sub-Saharan Africa, have implicated alcohol in ART uptake and ART adherence.

OBJECTIVE
To review studies conducted to-date in sub-Saharan Africa, on the role of alcohol in ART uptake and ART adherence, and to discuss potential mediators and moderators underlying these relationships.

METHOD
A keyword search was used to retrieve published articles from major scientific databases (e.g. PubMed Central) and internet search engines (e.g. GoogleScholar).

RESULTS
Overall, there are very few sub-Saharan African studies which have set out to evaluate the role of alcohol in ART uptake and ART adherence. However, as a secondary aim, there are a number of qualitative and quantitative studies which speak to alcohol’s role in ART uptake and ART adherence.

CONCLUSION
Policy and program implications stemming from the review will be discussed, in addition to pointing out areas in need for further research as it relates to alcohol and ART uptake and adherence.

P032 - Vesico vaginal fistula compounds the burden of HIV/AIDS among women in Kenya

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BACKGROUND
This is the 21st century yet women in Africa continue to bear the brunt of Obstetric Fistulas. This scenario is compounded by HIV infection. Every year, half a million women die during pregnancy and child birth. Those who survive suffer devastating and debilitating impact. The high incidence rate of Obstetric Fistula in low socio-economic settings is an indicator of the existing enormous gap between populations with or without access to health care.

MATERIALS AND METHODS
In a period of two years, community sensitization, and patient screening was done in Nairobi, Coast and Eastern regions. Surgical outreach clinics were then organized in provincial hospitals pooling patients for assessment and appropriate management. Prior to surgical intervention, patients received free HIV counselling and testing in addition to VVF basic information.

RESULTS
Out of 200 patients operated, 88% of them healed with no complication. 12% of participants tested HIV positive. Majority of Patients who came within 1-6 months healed quickly compared to those who had lived longer with the fistula. Surgical failures were seen among patients who reported a history of previous surgical interventions and in cases where the fistulas were multiple.

CONCLUSION
HIV/AIDS compound the fistula problem in Africa. Skilled birth attendance, education of the girl child is key to prevention of HIV/AIDS and fistula in this setting.
P033 - Prevention intervention in bars and taverns in Tshwane: Implementation of the brief intervention component

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INTRODUCTION
The purpose of the study is to implement an HIV prevention intervention to reduce sexual risk behavior associated with alcohol use among patrons in drinking venues in Tshwane. The intervention program consists of three components which are delivered by servers, peer educators and brief interventionist. This presentation will focus on the brief intervention component.

METHOD
Counselors who received training in alcohol dependency and HIV risk reduction counseling visited two bars every weekend for 12 months to provide brief intervention to bar patrons through a technique called motivational interviewing. During the venue visits health promotional materials related to HIV/AIDS and responsible alcohol drinking were provided to bar patrons. Counselors' completed a self reporting form after each venue visit.

RESULTS
During the 12 month intervention period 25 patrons used the counselors' services. The service was not initially used until the counselors had established rapport with the patrons at the venue.

CONCLUSION
It is feasible to implement counseling activities in bar settings in Tshwane.

P034 - The association of psychiatric symptoms and impulsivity with organophosphate pesticide exposure amongst South African farm workers

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BACKGROUND
The study aimed to determine whether low-dose long-term occupational exposure to organophosphate (OP) pesticides causes psychiatric impairment in adult farm workers in the Western Cape, South Africa.

OBJECTIVE
To test three models hypothesised as possible causal pathways between chronic OP exposure and depression, impulsivity and suicide.

METHODS
Secondary data analysis of a cross sectional study conducted in 2002 was used. The sample included 817 adult farm workers from 56 farms. Participants were screened for depression, impulsivity and suicidal ideation using the General Health Questionnaire (GHQ-28), Brief Symptom Inventory (BSI), Barratt's scale of Impulsivity (BIS-11) and Beck's Scale for Suicidal Ideation (SSI). Three models of the relationship between OP exposure, depression, impulsivity and suicide were tested using structural equation modelling.

RESULTS
Of the participants, 17% were depressed, 19% were impulsive and 3% demonstrated suicidal ideation. In the final models, long term OP exposure significantly and negatively influenced depression ($\beta=-0.122$, t=-2.003, p<0.05); depression significantly and positively influenced suicidality ($\beta=0.154$, t=4.471, p<0.001); there was no association between OP exposure and impulsivity. When modelling depression and impulsivity together, OP exposure significantly and negatively influenced both depression and impulsivity. Depression and suicide, and impulsivity and suicide were significantly and positively associated. Risk factors included age, female gender, lower socioeconomic status and past OP toxicity.

CONCLUSIONS
This study does not provide strong support for the main study hypothesis that OP exposure causes psychiatric impairment. However several risk factors were highlighted and these findings may have implications for South African farming work practices.
P035 - Health care experiences of men who sleep with men (MSM) from the Johannesburg Inner City

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INTRODUCTION
By gathering information from a volunteer sample of men who have sex with men (MSM), the Health and HIV risk assessment of MSM in the Johannesburg inner city study aimed to discover decisions and behaviours that influence their health decision-making and health-seeking behaviour.

METHOD
Eleven in-depth interviews were conducted by three interviewers using a semi-structured interview guide asking questions on demographics, health-seeking behaviour, sexual orientations and behaviour, knowledge of HIV/AIDS and community support.

Thematic analysis was done. The theme on access to health care focussed on general access to and experiences with healthcare.

RESULTS
One man preferred private doctors due to perceived frequent drug shortages and incompetence of facility staff.

Whilst most men preferred a men's clinic and felt uncomfortable with female clinicians, 2 men had positive experiences with female healthcare workers.

Five men frequented the community health centre (CHC) because they could easily access condoms. Two men indicated having negative experiences at the CHC and moved to a primary healthcare facility where they found the services to be much better.

One man was told: what are you doing here? You thought you are going to have a baby. Or did you come to have an abortion. Another man shared his traumatic experience of having his HIV results disclosed in the waiting area.

CONCLUSION
The recurrent reasons for expressing little desire or not wanting to go to healthcare facilities at all are discomfort in being attended to by a female healthcare worker and the healthcare worker's lack of interpersonal skills when consulting MSM.

P036 - What men who have sex with men recommend to improve public health care service delivery

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INTRODUCTION
By gathering information from a volunteer sample of men who have sex with men (MSM), the Health and HIV risk assessment of MSM in the Johannesburg inner city study aimed to discover decisions and behaviours that influence their health decision-making and health-seeking behaviour particularly as far as HIV and their sexual health was concerned.

METHOD
Eleven in-depth interviews were conducted by three interviewers using a semi-structured interview guide asking questions on demographics, health-seeking behaviour, sexual orientations and behaviour, knowledge of HIV/AIDS and community support. In addition to this, MSM were asked for their opinions on and suggestions for improving health service delivery to them.

RESULTS
Two recommendations were given by majority of the men i.e. the (re)training of healthcare workers on etiquette and interaction with male homosexual clients presenting with rectal sexually transmitted infections and the introduction of information education communication material directed towards MSM.

Other recommendations included having MSM friendly clinics with male staff and regular support groups. Another recommendation was that prickings for HIV and blood draws for CD4 counts be done in all the consultation rooms so that people in the waiting room cannot recognise what services other people in the clinic were accessing.

CONCLUSION
Healthcare systems need to be accessible and user-friendly to everybody especially to facilitate congruency with efforts to combat pandemics like HIV. It is imperative to include MSM when planning health prevention programmes. The most logical way to design and implement an effective MSM prevention programme or health care policy is to include MSM all the phases.
**P037 - Learners as activists for healthy schools and communities**

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Young people's participation in matters which affect their lives, in the school and the community, is important for their personal and interpersonal development and for the development of civic praxis. In this poster we show how, through their engagement in school-community health issues in a Health Promoting School (HPS) project, learners for three secondary schools on the Cape Flats, develop civic praxis. The HPS project in these schools is coordinated by a multi-disciplinary team from the University of the Western Cape and includes activities to improve learners’ leadership skills in order to address issues related to TB and HIV in the school and community.

At a learner leadership camp in December 2009 learners decided to organise three interschool events to raise awareness of the TB and HIV problem in their community. In 2010, in collaboration with their teachers and other adults, learners organised, volunteered and participated in events to raise awareness about TB and HIV and attracted the involvement of more learners, teachers and parents/community members.

This poster uses visual imagery and narratives to describe these events. The first event depicts a TB/HIV awareness march in the community surrounding the schools. The second activity describes an interschool soccer tournament, Kick TB, which became an event to celebrate positive aspects of community life. The third event is a talent show showcasing learners' stage productions depicting the influence of TB and HIV in the community. Learner views and impressions of the events run as a theme throughout the presentation.

**P038 - A rapid appraisal of the available biostatisticians and statisticians within the health related institutions in South Africa**

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**BACKGROUND**
The National Department of Health has identified biostatistics as a scarce skill within the health system of South Africa; it was identified that epidemiological data is streamlined to NDoH without further analysis to inform decision making, hence the need to undertake an audit to produce evidence on the extent of their scarcity. This study will inform a training intervention plan.

**METHODOLOGY**
A descriptive quantitative method was used. The human resource departments of health research institutions and universities were requested to complete the tool on the number of statisticians/biostatisticians according to their demographic characteristics. Data was analysed in epi-info 2002 software to produce descriptive statistics.

**RESULTS**
Of 884 identified statisticians, only 1.7% (15) specialised in biostatistics and other areas of specialisation were skewed to mathematical statistics. Only 0.3% of the statisticians worked in government hospitals, 3% in research institutions, 16% are distributed amongst various universities while majority (88%) of the statisticians are located at Statistics SA. Levels of qualifications revealed that majority (51%) and (75%) who holds master and doctoral degrees respectively are whites. About 51% of all the statisticians are males.

**CONCLUSION AND RECOMMENDATIONS**
Findings show, that there is a need for the Departments of Health and Education to embark on a programme that will increase the intake and outputs of statisticians, especially biostatisticians. The study also demonstrates the need to balance the intake of students at doctoral and masters level in order to address the racial gap in this field.
P039 - A review of human resource distribution of academic health complexes in South Africa: A case study of Polokwane/ Mankweng Hospital Complex

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INTRODUCTION
The capacity of academic health complexes to fulfil their mandate of teaching, health research and provision of health services has not been given adequate attention in SA. The National Health Act of 2003 made provision for the creation of AHCs in SA, however this has not been fully implemented since there is still lack of coherent human resource plans in AHCs. This is evident through the current challenge to ensure equitable distribution of health professionals across AHCs.

METHODS
This was a descriptive quantitative study that aimed at reviewing the human resource distribution of AHCs using Polokwane/Mankweng hospital complex as a model. The HR department was requested to provide a spreadsheet of filled and vacant post for nursing, allied health and clinical professionals. Data was collated and analysed in excel to identify the frequencies of professional post filled. Vacancy rates were calculated to determine the extent of shortages of health professionals.

RESULTS
The results reflected a vacancy rate of 70.38% thus only 256 of the 817 clinical professional posts were filled at Polokwane/Mankweng hospital complex. The vacancy rate for allied health at Polokwane campus was 46.07% while Mankweng campus reflected a vacancy rate of 32.14%. For the nursing professionals, the results revealed a vacancy rate of 57% and 51% at Polokwane and Mankweng campuses respectively.

CONCLUSION
The NDoH need a human resource strategy that will determine the number of health professionals to be trained and the intake of medical students in order to address HR challenges of AHCs in SA.

P040 - Tracing recruited pregnant women for enrolment in a peri -urban setting study - experience of good start III project

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BACKGROUND
Good Start III is a randomized controlled trial implementing an integrated community based intervention package for improving child and maternal health in Umlazi. Data collectors describe their experiences of tracing participants for enrolment.

METHODS
Community Health Workers (CHWs) do door to door recruitment of pregnant women. They introduce the study, screen, and request women to participate in the study. Information on each woman, giving a verbal consent, are recorded on a recruitment form (i.e. cluster number, participant’s home address, date of birth, age, expected delivery date, personal and relatives’ contact cellphone numbers). A profile of each recruited pregnant woman is created on a web- based information system (WBIS). Schedules for enrolment to sign the informed consent forms (ICF) are generated automatically by the WBIS. Daily enrolment per data collector is about seven participants.

RESULTS
From June 2008 to date, we enrolled 2558 pregnant women. Weekends are the best for enrolling employed and schooling women. Despite screening, recruitment of participants visiting Umlazi for a short period to access antenatal care or delivery service does occur. Pregnant teenagers are very mobile and may live in more than three different homes, therefore, participant’s home address is not helpful. Some participants report false pregnancies to entice ‘husbands to be’ to pay lobola. The residence of many participants in informal settlements is dependent on job opportunities. Participants are usually not at home beginning and month end. Conflicts at household level force many participants to make emergency relocation. Contact cellphone numbers have assisted in tracing participant, however, the frequency of changing SIM cards has posed a challenge.

CONCLUSION
Clear ICFs, streamlining recruitment / enrolment processes and using a reliable information system may not address the in peri-urban settings dynamics.
P041 - Relationship between somatotype and dietary intake of rural South African children aged 6 to 13 years: Ellisras Longitudinal Study

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OBJECTIVE
The aim of this study was to investigate the relationship between somatotype and dietary intake of Ellisras rural children aged 6 to 13 years.

METHODS
Data were used from 773 children (400 boys, 373 girls), aged 6-13 years, participating in the Ellisras Longitudinal Study. The Heath-Carter method of somatotyping was used. Dietary intake was measured using the 24h recall method. The recommended daily dietary allowance according to the Food and Agriculture Organization (FAO) was used as cut-off points for high and low dietary intake.

RESULTS
In general, Ellisras children had lower dietary intake levels as set out by FAO and fell in the mesomorphic endomorph and ectomorphic mesomorph category. The prevalence of severe under nutrition was 9.2% with the majority of children classified as mild under nutrition (38.7%). The prevalence of low Polyunsaturated fat was high for boys (66.3%) compared to girls (65.3%) though not significant. A linear regression analysis revealed that monounsaturated fat intake is significantly related to BMI and the balance ectomorphy.

CONCLUSIONS
There is an association between balance ectomorphy, BMI total fat, Monounsaturated fat and Polyunsaturated fat. Future research should clarify how healthy are these children and how healthy is their lifestyle with respect to diet, physical activity, smoking behavior and alcohol consumption over time.

P042 - Experiences of HIV/AIDS home-based caregivers in Vhembe district of the Limpopo Province, South Africa

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The growing HIV and AIDS pandemic continue to make serious impact on all countries throughout the world, but the impact is even greater in developing countries. Home-based care is becoming a dominant programme in HIV and AIDS treatment and support in South Africa.

The purpose of the study was to explore and describe the experiences of HIV/AIDS home-based caregivers in the Vhembe district of Limpopo Province. A qualitative research design which was exploratory, descriptive and contextual was executed with a sample of purposively selected participants who provided home-based care to people living with HIV/AIDS in the Vhembe district of Limpopo Province. Data saturation occurred after in-depth interviews with fifteen participants. In-depth individual interviews and field notes were also used during data collection.

The findings reveal that HIV/AIDS home-based caregivers express pain and despair when caring for HIV/AIDS patients. The theme was supported by the following categories and subcategories: problems related to stigma when caring for patients at their homes; stress, burnout, frustration and feelings of helplessness when caring for patients. Recommendations based on the findings of the study were described.

The researchers discovered that the findings of the study highlighted the needs of the HIV/AIDS home-based caregivers that were often not attended to because they were overwhelmingly masked and superseded by the care that should be provided to HIV/AIDS patients at their homes.
P043 - Current smoking behavior among rural South African children: Ellisras Longitudinal Study

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OBJECTIVES
To explore smoking behavior, habit and believes of tobacco use among rural South African children aged 11 to 18 years.

METHOD
A total of 1654 subjects (854 boys and 800 girls), aged 11 to 18 years, who were part of the Ellisras Longitudinal Study completed the questionnaire. The questionnaire was based on questions used in the Birth-To-Ten Study, the Amsterdam Growth and Health Longitudinal Study and the Global Youth Tobacco Study.

RESULTS
The prevalence of tobacco used in the Ellisras rural children ranged from 1.5 to 21.2% for boys and 0 to 2.2% for girls in cigarette and pipe use. The prevalence use of snuff was slightly high for girls (ranged from 0 to 6.7%) than for boys (0 to 4.0%). Only 5.7% of the boys hide their use of tobacco while none was recorded for girls. Almost 20% of Ellisras rural children admire TV stars smoking cigarette. Grand parents influence 4.0% of the children to use tobacco products while only 0.4% of the influence emanate from the uncle and aunt.

CONCLUSION
There is a promise in differentiating among gender in the tobacco product usage in these children. This behavior may be affected by cultural norms and adult behavior. This patterns in smoking uptake, attitude and habits need to be confirmed prospectively.

P044 - Human rights: Towards community responsibility in public health

T Mashologu-Kuse

The constant struggle for the acknowledgement and redefinition of one’s rights, a product of the 1994 new political dispensation, is something ‘alien’ for the majority of South Africans. The thrust of this paper is about the need for the South African society to acknowledge the relationship between human rights and responsibilities, and how these can negatively affect the social aspects of public health, if not acknowledged and addressed. These rights are embraced in the new constitution of the Republic of South Africa, Act No. 118 of 1996 promulgated on the 18th December, 1996 and founded on the values of human dignity, equality before the law as well as the rights and freedoms of every South African citizen.

Two interlocking frameworks that underpin this paper, the Bill of Rights (1996/7) and the Community Education Model (Weyers, 2002) are offered as a theory context to present a ‘case’ of how the community can find a ‘balance’ between rights and responsibilities so that public health services are not adversely affected. The paper further indicates how the community can participate in this drive of human rights education and how to inculcate a culture of human rights within our communities in a responsible manner that does not encroach on the rights of others!
P045 - Community based maternal, neonatal and child health services and nutrition

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INTRODUCTION
The National Department of Health through the United Nations Children’s Fund commissioned Health System Trust (HST) to support the implementation of improvements in the quality of care to maternal, neonatal and child health and nutrition (MNCH&N) services in 7 districts. HST applied the life cycle approach wherein service providers and communities were empowered to identify packages appropriate for pregnancy, delivery, postnatal care and infancy and childhood.

METHOD
In scaling up community based MNCH&N services district were supported to develop community MNCH&N implementation plan, train, mentor, coach and provide on-site post training support to 1250 Community Health Workers (CHWs), support CHWs to conduct small discussion groups and social mobilisation workshops, mentor CHW group leaders to support and monitor other CHWs and provide CHWs with Home base care Kits.

RESULTS
Community MNCH&N implementation plans developed, 1580 CHWs trained and provided with data collection sheets (process on to translate into Zulu and Xhosa) and supported. HST Social Mobilisation Technical Advisor presented the Social Mobilisation Strategy as well as orientating district staff on the Guide for Conducting Community Dialogues.

CONCLUSION
The training and support provided to CHWs enabled them to collate, on monthly basis, and submit data on their activities to facilities. Through meetings there has planning for social mobilisation and community dialogues to address challenges that contributed to underperformance in specific PMCTC indicators and to bring men abroad.

P046 - Improving health literacy in Mpumalanga Province: A preventive and promotive strategy

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INTRODUCTION
The PHC approach encourage governments to ensure full community participation through effective propagation of relevant information, increased health literacy, development of institutional arrangements through which individuals, families and communities can assume responsibility for their health and well being. To achieve this, the Mpumalanga Department of Health and Social Development commissioned Health Systems Trust to empower 13 Community-Based Organisations (CBOs) and have them registered as Non-Profit Organisations (NPOs).

METHOD
Through training, there has been strengthening of community support structures and networks in 3 districts, in 66 PHC Facilities (10 of which were ART accredited sites). Project Coordinators and CBO-EXCO were selected and orientated leading to improved communication with clinic staff. M&E processes were streamlined and administrative tools were developed. In addition, there has been promotion of HIV, STI and TB treatment literacy and treatment adherence and the reduction in the transmission of HIV.

RESULTS
CBO-EXCO members trained on applied Project Management, CBOs registered as NPOs, Community support groups established and supported by the volunteers, people on treatment had adherence support, Community Resources Centres established and food gardens established. As part of this project, 3 Community Based Organisation Training Trainer’s Manual developed.

CONCLUSION
Through this project there was collaboration and integration of activities between Clinic staff and ALP’s during DOH campaigns as well as between other organisations serving the community. The Department of Social Development has recognised and registered 5 CBOs as NPOs.
P047 - Using action research to develop and implement a district-based human resource information system

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The personnel information system used by all national and provincial public health services in South Africa is PERSAL (Personnel Salaries) which is linked to a shared mainframe computer system to manage personnel and financial data. Herbst et al. (2002) found that the main weakness of PERSAL as an information system is that its primary function is to manage salary payments which dominate the use of the system to the detriment of the accuracy of the non-salary information in the system. It has also been found that there is an over-reliance on the PERSAL system and a misconception that it provides all the information required for human resource management (Mathews, 2005).

STUDY OBJECTIVES
To describe and assess the existing information system of human resource management
To identify the information requirements for a human resource management information system at district, provincial and national level
To develop practices and tools in information management for Human Resource Management
To develop a monitoring framework for Human Resource Management

METHODOLOGY
An interpretative research approach using action research was used to conduct the study in two provinces in South Africa. Qualitative techniques was used to collect the data and the model is outlined by Susman and Evered (1978) as a five phase cyclical approach which required firstly the establishment of a client-system infrastructure or research environment and then five identifiable phases: diagnosing, action planning, action taking, evaluating, and specifying learning.

P048 - ‘The Ignored Killer’: The Challenges of implementing tuberculosis care and control programmes in South Africa

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BACKGROUND
South Africa has one of the highest TB prevalence rates in the world. Though global funding for TB care and control by Global Health Initiatives (GHIs)/donors has notably increased, TB morbidity and mortality rates are still high. This paper describes the challenges of TB control programmes in Eastern Cape, South Africa.

METHODS
This paper arises out of a broader study on the impact of GHIs on the South African health system. Data were collected through document analysis and individual interviews. Participants were purposively selected from government, donors and recipient NGOs. Data analysis was an ongoing process using interpretive description.

FINDINGS
Procurement and supply chain management, infrastructure, human resources and insufficient funding were major bottlenecks in EC’s TB care and control. Irregular drug supply interrupted TB treatment and adherence. HIV receives larger shares of GHI/donor funding and better NGO support than TB. TB and HIV programmes have parallel management, but TB heavily relies on HIV funds. Increased patient numbers and limited space present infection control challenges in health facilities: 4 nurses shared one consultation room in a facility with high MDR cases. Health care workers (HCWs) also expressed fears of TB infection, particularly MDR, resulting in high staff mobility. Respiratory mask use was inconsistent with limited or no stock. Providers also expressed concern over re-using masks repeatedly for long periods and use of surgical masks rather than respirators. Both HCWs and the general public had more knowledge of HIV than TB.

CONCLUSION
More efforts have to be put into strengthening health systems to ensure effective outcomes for TB care and control. Health promotion programmes on TB are essential for HCWs and the general public.
P049 - Street mechanics in Polokwane: Waste generation, disposal and potential environmental health impact.

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INTRODUCTION
Street mechanics refers to people who repair motors cars in the open along the streets. They belong to a group of informal businesses that violate municipal bylaws by operating in the city without obtaining the necessary permission from the municipality.

OBJECTIVES
To describe street mechanics and identify their waste generation, waste disposal methods and their potential health impact on the environment.

METHODS
An observational method was used to observe where they worked, the type of repairs they performed, the type of waste they generated and the methods they used to dispose the waste. This was followed by review of relevant literature on environmental health impact.

RESULTS
Street mechanics operate along the streets in the vicinity of motor spares dealers. They operate as radiator specialists, auto-dismantlers, auto-engine reconditioning, panelbeaters, radiator specialists and car wash operators. They generate both solid and liquid waste such as oil filters, used oil and lubricants, radiator fluids, brake pads, seals, gaskets, hydrochloric acid, detergents and tyres. Solid waste is collected in a municipal waste bin if available, left on the street, piled somewhere at the corner while liquid waste is left in containers, allowed to run into municipal drains or just allowed to drain on to the street.

CONCLUSIONS
Street mechanics generate solid and liquid waste and dispose them improperly. These waste cause land and water pollution which negatively affect public health. The municipality should implement measures to regulate the operations of street mechanics to promote public health.

P050 - Assessment of challenges to monitoring and evaluation in Johannesburg inner-city primary health care sites

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BACKGROUND
High quality programme data is essential to providing quality health care services. In Inner-city Johannesburg the Reproductive Health and HIV Research Unit supports 14 primary health care facilities run by the City of Johannesburg and Gauteng Department of Health. One aspect of support is Monitoring & Evaluation of health care services. Facilities collect headcount and service delivery data using a paper-based register called GDH 1.1. Each month, facility managers collate data and submit a Monthly Input Form. Managers expressed difficulties using this tool.

METHODS
To assess the difficulties with the GDH 1.1 tool, self-administered questionnaires were completed by three facility managers. The questionnaires assessed topics including how time-consuming is collecting and reporting data, data quality, training and support, and roles and responsibilities.

RESULTS
The major findings of the survey were:
1. Facility managers found that preparing the Monthly Input Form was very time consuming. On a scale from 1 to 5 (1=terrible and 5=excellent) they rated the time it takes to prepare reports at an average of 2.0.
2. Task shifting of data tasks does not happen in facilities. 100 percent of respondents said that nurses do the majority of collection, collating, and reporting work, while administrative staff do little of this work.

CONCLUSION
In response to the survey results, the RHRU M&E team developed an Excel spreadsheet that automatically collates the monthly reports. The team trained administration clerks to use the tool, easing the burden on nurses and managers. The spreadsheet is currently being piloted and will be evaluated after six months.
P051 - Capacities that public health managers need: Listening to managers in two sub-saharan countries

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CONTEXT
Public Health managers play a key role in decentralized health systems in sub-Saharan Africa but are seldom exposed to health management in their professional training. Capacity building of practising health professionals is an important step towards strengthening health systems. Managing health systems in developing country contexts requires a wide range of competences, not least of which is acting as “change agents” in health sector reform in health departments and through nongovernmental organisations.

SETTING
The Masters in Public Health programme offered through distance learning by the School of Public Health, University of the Western Cape has been offered since 1994. Ten years later (2004) it expanded its reach to over 17 countries in Africa, with the majority of students from sub-Saharan Africa. As part of the School’s curriculum evaluation process, a needs review of the self-reported capacity requirements of public health managers was undertaken. Participants play diverse roles in the health systems. Providing education which is relevant to these needs is a priority of the programme. Doing so without disrupting the health services is part of the challenge.

OBJECTIVES
To understand the competences and attributes regarded as necessary by health managers in the Namibian and Zambian health services who are studying with or graduated from the SOPH; to compare these findings with the current offerings of the SOPH curriculum.

DESIGN
A qualitative study undertaken through interviews and focus group discussions with current students and graduates in Namibia and Zambia in 2009, analysed through thematic content analysis.

MAIN OUTCOMES
Current roles played by public health managers, motivations for undertaking the MPH course, competences needed for roles in developing country health systems, challenges faced, valued aspects and gaps in current MPH curriculum. Themes arising from interviews and focus group discussions.

P052 - Down referral data collection tool pilot for the six primary health care facilities in the Johannesburg inner-city

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BACKGROUND
The Department of Health, City of Johannesburg and Reproductive Health and HIV Research Unit, implemented a down referral (DR) programme for ARV management in September 2007. In the DR model, patients are initiated on ARVs and once stable they are referred to a site closer to their home or work. In 2009, clinic facility managers identified a need for a standardized tool to manage DR data which would address the lack of standardization, incompleteness, and unreliability of the data.

METHODS
Focus group discussions were conducted with data capturers to establish data collection and reporting requirements. A data collection tool (Excel spreadsheet) was designed to reduce the time required to collate data, standardize data collection, improve data quality, and reduce calculation errors. The tool was piloted for 10 months at six DR facilities. The pilot was evaluated using 12 self-administered questionnaires completed by data capturers, nurses and facility managers.

RESULTS
Respondents rated aspects of the project on a Likert scale from 1 to 5. The surveys showed that:
- User-friendliness improved by 38% (Before 2.89-After 4.00)
- Satisfaction with data capturing time improved by 120% (Before 1.78-After 3.91)
- Satisfaction with time to collate monthly reports improved by 76% (Before 2.22- After 3.91)
- Data Quality (self-reported) improved by 39% (Before 3.0- After 4.18)

CONCLUSION
Challenges like computer viruses, and laptop chargers not working were resolved by manual completion of the tool. The pilot showed that involving the end-users in development can produce a data management system that improves data quality and saves time.
P053 - Networking for children’s rights at local municipal level in KZ222

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Disability Action Research Team (DART)

BACKGROUND
In 2006 the lack of coordination of child-centred initiatives in the uMngeni Local Municipality (KZ222) lead to the formation of a network of stakeholders for vulnerable children in Howick, based on the CINDI model.

OBJECTIVES
Set up a network (including a directory) of stakeholders for vulnerable children in KZ 222 (CHUMA)
Network with stakeholders, involving Non-Governmental Organisations, Community Based Organisations and Government structures including uMngeni Local Advisory Council on Children
Acquire information on children’s rights, resources and share these
Develop an integrated plan with guidelines in terms of specific needs (when child is neglected, is from a child headed household, needs a Foster Home, does not go to school, is sexually abused, is disabled etc)

METHODS
Regular 3-hour monthly meetings held at St Luke's Anglican Church hall in Howick.
Voluntary involvement of stakeholders, informal membership encouraged and horizontal networking in-between meetings.
CHUMA members are encouraged to take responsibilities for the monthly meetings.
Voluntary facilitation by co-ordinator mainly by email and text messaging.

RESULTS
Relevant presentations at meetings
Formation of interest groups
Workshops on childcare, counselling, human trafficking and child
Attendance at bi-monthly ULACC meetings at local municipality.

CONCLUSION
One does not need a formal structure to set up a network for vulnerable children at local municipal level.

P054 - Contraceptive knowledge, attitudes, behaviour and practices among high school girls in Mthatha, South Africa

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BACKGROUND
Most adolescents engage in risky sexual activity without contraceptive protection. Lacks of comprehensive reproductive health education services force adolescents to make poorly informed decisions that may have profound negative effects on their lives and makes them vulnerable to various complications like sexually transmitted infections including HIV, unwanted pregnancy and unsafe abortion.

OBJECTIVE
To study the prevalence of contraception use among high school girls in the area of Mthatha as well as to estimate the effect of contraception and reproductive health knowledge on teenage pregnancy.

MATERIAL AND METHOD
This is a cross sectional descriptive study conducted among high school girls in Mthatha area during the year 2009.

RESULTS
The prevalence of contraception use among high school girls in Mthatha area of South Africa is 37.77% and the rate were much higher among pregnant (65.67%) compare to non-pregnant (33.62%). Condoms were the method of choice of contraception among high school girls. The rate of unprotected sexual intercourse was 27.3% among these high school girls. High school girls who had reproductive and sex education from parents and school had had low prevalence of pregnancy where as from friends had had high prevalence of pregnancy. There was statistically significant negative correlations between mandatory reproductive and sex education and teenage pregnancy (r = -0.420, p= 0.046, OR=2.601; 95% CI=1.768-3.826).

CONCLUSION
There is high prevalence of contraception practice among high school girls in Mthatha area of South Africa. Pregnant high school girls have higher contraceptive and reproductive health knowledge compare to non-pregnant counterpart.
P055 - Prevalence of teenage pregnancy among high school girls in Mthatha, South Africa

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BACKGROUND
Teenage pregnancy constitutes an important health and social problem in South Africa. Despite the decreasing trend of fertility rate in the last two decades, teenage pregnancy in South Africa has reached an alarming level and it negatively impacts on various aspects of social well being.

OBJECTIVE
To determine the prevalence of teenage pregnancy and to describe the socio-demographic and economic circumstances surrounding teenage pregnancy.

MATERIALS & METHODS
This is a cross sectional descriptive study of teenage pregnancies conducted among high school teenagers in the Mthatha area of South Africa.

RESULT
A total of 1293 teenage girls from Grade 8 to Grade 12 responded from seven randomly selected high schools in the area of Mthatha. The percentage of pregnant teenagers was 10.8%. The prevalence had increased from 2.3% among the 14-15 years age group to 47.3% in the above 19 years age group. There were 38.45% pregnant teenager had abortion and out of them 30.2% teenagers had had a backstreet/illegal abortion. A significant correlation was found between poverty, public schools and teenage pregnancy in this study.

CONCLUSION
There is a high prevalence of teenage pregnancy among high school learners in the Mthatha area of South Africa. Poor socio-economic family conditions, lack of contraceptive use, early sexual maturation, multiple sexual partners and substance abuse were the common factors associated with teenage pregnancy.

P056 - Association between blood pressure, body mass index and physical activity in a rural population residing in Dikgale Demographic Surveillance Site (DSS) in South Africa

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OBJECTIVE OF THE STUDY
To determine the association between physical activity, body mass index and blood pressure in a rural population.

Study design: Cross sectional study
Subjects: A random sample of 310 subjects (82 men and 228 women) between the ages 15-65 years participating in the study.

METHODS
Blood pressure was monitored using the Omron electronic blood pressure equipment (Omron M5-1). Stature was taken with subjects standing bare-foot in the anatomical position using a Stadiometer to the nearest 0.1 cm (Ros & Marfell-Jones, 1991). Body Mass (kg): An electronic scale was used to measure weight to the nearest 0.1 kg. BMI was also calculated using the formula kg/m2 (Bray & Gray, 1988). Waist and hip circumferences were also measured with a steel tape. Physical activity was measured using pedometer (New Lifestyle NL 2000) to calculate the average of step per day for a period of seven days the subject has walked.

RESULTS AND CONCLUSION
Body mass index only correlated diastolic blood pressure and physical activity in 41-60 year old individuals after we have we control for sex and age. Systolic blood pressure also correlated with physical activity in the younger group (14-20.9 years). With the 21-40.9 yrs and 61yrs and above, no association between BMI, blood pressure and physical activity. Therefore it seems that physical activity has no effect on blood pressure when you get old and that BMI has no effect blood pressure in young group.
P057 - An evaluation of an electronic monitoring and evaluation solution for CCG Programmes

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INTRODUCTION
The utilization of HIT has been proposed as a way to provide quality healthcare services to all South Africans, especially to those who live in the rural areas. The e-Mum electronic M&E solution can efficiently and effectively direct information both downward, upward and has the ability to measure the standard of CCG performance regarding their achievements and success in improving community-based services for a range of conditions and diseases, particularly chronic diseases. Thus a Formative Evaluation was undertaken on the utilization of the electronic solution for the management of CCG programmes in three provincial settings- KwaZulu-Natal, Western Cape and Limpopo.

METHOD
A structured questionnaire with a few open-ended questions was used to interview 60 CCGs on the e-Mum electronic solution and 60 CCGs who were not.

RESULTS
According to the CCGs, although there were challenges experienced with the electronic solution, the most important aspects of the utilisation of the electronic solution were reduction in paper work, ability to capture information properly and review data.

CONCLUSION
Findings point to the fact that there is a need for an electronic solution as CCGs are able to collect and track, access information on their clients faster, save time when doing home visits, keep their records confidential, and reduce amount of paper work they carry and work with.

P058 - Time analysis of community care workers’ activities in providing treatment and adherence support to TB, HIV and dual infected patients

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INTRODUCTION
Community care workers (CCWs) are core to primary health care services to TB, HIV and dual infected patients, in particular in low-income communities.

OBJECTIVE
This study aimed to provide detailed information on CCWs duties, i.e. activity content and time spent per activity, in providing treatment and adherence support to TB and/or HIV infected patients.

METHODS
Three primary health care facilities were purposively selected where CCWs are employed as part of the health care services. A total of 16 CCWs (average 33% across sites) voluntarily consented to participate. Each of them were accompanied by a researcher with a stop watch and recording sheet who recorded their activities and time spent on routine facility and community activities.

RESULTS
In two sites the CCWs performed community activities only whilst in one site they performed both clinic and community activities. The community activities comprised treatment adherence support visits to clients; on average they visited 4 clients per day, and spent 4 minutes walking to clients and 7 minutes conducting the visit. Regarding their clinic activities, the CCWs spent on average 101 minutes per day in contact with the clients and 93 minutes on other activities, such as acting as translators, updating registers and filing folders.

CONCLUSION
This study provides evidence that CCWs are indispensable in providing primary health care to TB and HIV clients. The management and remuneration of CCWs should reflect the important part that they play in helping clients to manage their illness.
P059 - Analysis of free basic water implementation strategy in relation to HIV/AIDS in South Africa: Review of studies done in three African countries

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Access to safe water improves public health gains to People Living with HIV/AIDS (PLWHA). PLWHA need a certain volume of potable water to take medicine, drinking, bathing, washing and environmental hygiene. The purpose of the review is to analyse free basic water supply of 6000ℓ per month to poor households in relation to the volume of water needed to care for PLWHA. The review is based on the exploratory studies done in South Africa, Botswana and Tanzania where a total of 245 households with PLWHA were involved. Reports of these studies showed that a minimum of 80 to a maximum of 200ℓ per day is needed per day to care for PLWHA in the household depending on the severity of the patient. When calculating the volume of water to be available per month, about 4800-6000ℓ is needed to care for one patient living with HIV/AIDS versus 6000ℓ free basic water provided for the entire household. The 6000ℓbaseline for free basic water supply is questionable for 8 people in the household where PLWHA could be found as stipulated by free basic water implementation strategy. Provision of 6000ℓto the poor households could also have an impact in the health of PLWHA and the carers in terms of environmental health and increased disease burden. Further research is recommended on the experience of HIV/AIDS carers dependent on the access to 6000 ℓ of water to care for PLWHA versus the actual volume of water used in households.

P060 - Socio-cultural factors that influence young women’s vulnerability to HIV infection

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This study assesses the perceptions of young females at Tshino village on their perceived factors that influence their vulnerability to HIV infection. The study was carried out in Tshino, a rural community in the Limpopo Province of South Africa. An interview guide was used to conduct brainstorming sessions. For the purpose of data collection, four groups were formed and each group was interviewed separately over a period of four days. The discussions covered the following variables: the meaning of HIV and AIDS, the meaning of culture, The Vhavenda cultural practices, how culture can influence the spread of HIV, how the Vhavenda culture can be used to fight the spread of HIV and AIDS, how youth can protect themselves against HIV infection and again explored what ABC strategy mean for the youth.

Data collected were analyzed descriptively by using the Tesch’s method of descriptive analysis. The results showed that the respondents perceive that the following cultural practices still influence young people’s vulnerability to HIV infection: rites of passage, sex for money, peer pressure, lack of parental advice, abuse of substances, ignorance and gender violence. Based on the results, the study concludes that several cultural practices should be taken into consideration for the success of any programme designed for the prevention of HIV/AIDS.
P061 - An assessment of factors influencing levels of patient satisfaction in Kouga primary health care facilities in Cacadu district in 2009

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INTRODUCTION
The Patient Satisfaction Survey tool (PSS) is routinely used within the Department of Health to assess patients’ satisfaction with their experience of the primary health care (PHC) system. It aims to inform continuous health system improvement. The researchers used the PSS to assess the satisfaction levels of patients in 12 PHC facilities in the Kouga sub-district.

METHODS
Utilising convenience sampling, patients aged 18 years and older, were surveyed across purposively selected PHC facilities in Kouga between 16 and 20 November 2009. A total of 939 respondents were sampled and 836 agreed to complete the questionnaire. A subsequent review of the 2009 data was conducted using SPSS descriptive statistics to explore factors influencing patient satisfaction.

RESULTS
Additional statistical analysis of PSS data can yield a more nuanced understanding of factors affecting patient satisfaction. Gender influenced patient satisfaction with females being more satisfied within the domains relating to Empathy, Referral and Tangibles. Patients who perceived their health status as being poor, had higher satisfaction levels within the domains of Assurance and Reliability. Population groups differed with Coloured patients being more satisfied than African patients in the domains of Empathy, Health Promotion, Reliability, Service Standards and Tangibles. Perception of income levels influenced domains of Empathy, Health Promotion, Service Standards and Tangibles.

CONCLUSION
Demographic variables appear to influence aspects of patient satisfaction. Additional qualitative research will enable a more holistic understanding of the relationship between these variables and the health system. The PSS can benefit from methodological changes and additional statistical analysis.

P062 - Hepatitis B vaccination policies and coverage for nurses working at public and private hospitals in Tshwane, South Africa

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BACKGROUND AND AIM
Hepatitis B virus (HBV) is the major cause of hepatitis in South Africa (SA), with an estimated 4 million carriers. It is transmitted by infected blood and other body fluids, placing health care workers (HCWs) at high risk of infection. The SA Department of Health strongly recommends that all HCWs be vaccinated against HBV, but studies have shown that uptake of the vaccine is sub-optimal. This study aimed to estimate HB vaccination coverage levels among nurses, and describe the demographics and characteristics of the HB vaccination policies associated with different levels of coverage, at private and public hospitals in Tshwane.

METHODS
This was a questionnaire-based cross-sectional study on 300 randomly selected nurses and 12 chief infection control officers (CICOs) from 13 hospitals (6 public and 7 private) in Tshwane performing high risk procedures. CICOs were asked questions about HB vaccination policies and coverage, while nurses were asked about demographics, HB vaccination status, and the HB vaccination policies of their institutions.

RESULTS
The response rate was 84.3% (253/300) for nurses, and 75% (9/12) for CICOs. Of the nurses, 68.0% (172/253) were vaccinated, and logistic regression analysis found that those statistically significantly most likely to be vaccinated were: 30 years and younger (odds ratio [OR]=2.9; 95% CI: 1.1–7.6); employed in private hospitals (OR=3.0; 95% CI: 1.2-7.3); and graduated after 1990 (OR=2.6; 95% CI: 1.1-6.2). Also, logistic regression analysis found only one statistically significant policy-related predictor for vaccination uptake, which was compulsory HB vaccination (OR=3.1; 95% CI: 1.5–6.6).

CONCLUSION
There is a need for a national policy on HB vaccination of HCWs which should include compulsory vaccination, to increase the vaccination coverage level amongst nurses.
P063 - An investigation of HIV risk behaviour among clients presenting for voluntary counselling and testing (VCT) service in Moshi Tanzania

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BACKGROUND
HIV infection prevention and control remains a major method for combating HIV/AIDS and most importantly targeting on behaviour change through effective intervention strategies. In Tanzania VCT has being the main focus of service provision emphasising on preventive behaviour because of high risks and transmission rate of HIV infection.

OBJECTIVE
To determine whether there is a difference in stated HIV related behavioural preferences amongst VCT clients in Moshi from different backgrounds.

METHOD
Analysis of prospective data collected from clients (aged ≥13 years) presenting for VCT services at a community-based AIDS service organisation (KIWAKKUKI) Moshi Tanzania from May 2007 to June 2008. Data on sociodemographic characteristics, reasons for testing, sexual behaviours and symptoms were collected. HIV sero-positivity was identified by multivariate analysis.

RESULTS
Of 1186 clients, 639 (54%) were females and 137 (11.6%) were HIV sero-positive; The HIV sero-positivity was twice that in women as in men (69.3% compared to 30.6%).
Reasons for testing included illness, sex partner died and pre marriage were statistically significantly more important reasons for testing associated with HIV for both men and women. Age and symptoms perceived to be HIV related were other significant factors significantly associated with HIV in both men and women (p<0.001). However, the number of lifetime sexual partners was statistically significant among women (OR 2.96, 95%CI 1.5-2.39; p<0.001) but not men (p=0.768).

CONCLUSION
There are significant differences in HIV risk behaviour among our study population and more interesting by gender. In order to influence preventive behaviour towards HIV infection, behaviour change communication should be developed and implemented in this study population.

P064 - Progressivity and determinants of out of pocket health care financing in Zambia

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BACKGROUND
Out of pocket is a significant way of paying for health care in Sub-Saharan Africa. This paper assessed the progressivity and determinants of out of pocket health care payments in Zambia. The work provides important insights useful to inform health care financing polices in Zambia and other African countries.

METHODS
Based on data from the Zambia Living Conditions Monitoring Survey (LCMS), conducted in 1998, 2004 and 2006 Kakwani index of progressivity were estimated with Lorenz and concentration curves. Dominance tests were also done to establish the statistical significance of dominance. The same data was also used to estimate factors determining incidence and magnitude of out of pocket payments using logistic and Tobit regressions respectively.

FINDINGS
Results show that out of pocket payments were progressive in 1998 and 2006, Kπ= 0.0366 and 0.0171 respectively while they were regressive in 2004(Kπ= -0.0799). Dominance tests were also significant. Living in rural area was associated with less likelihood of incurring out of pocket payments but only in 2006. Households with more members and belonging to high socio-economic categories were more likely to incur out of pocket payments and consequently larger amounts out of pocket compared to smaller households and belonging to lower socio-economic categories respectively.

CONCLUSION
There is need to uphold the user-fe fee abolition policy in Zambia and if possible extend this to urban areas and beyond primary health care in rural areas. More equitable health care financing mechanisms should also be sought in Zambia as opposed to regressive out of pocket payments.
P065 - The effectiveness of traffic calming on pedestrian injuries and motor vehicle collisions in two areas of the eThekwini municipality: A before-and-after study

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BACKGROUND
Motor vehicle collisions, injuries, and deaths including those of pedestrians add medical and economic costs to the overburdened South African health system. The victims of these collisions are often schoolchildren. In 2001, the eThekwini Municipality based on statistics from their Transport Authority, introduced traffic calming on roads around schools to reduce motor vehicle collisions.

OBJECTIVE
The objective of this study was to evaluate the effectiveness of the traffic calming intervention on the number and severity of pedestrian injuries and motor vehicle collisions.

METHOD
The evaluation used an observational interrupted time-series study design. Collision data in roads forming the route to school were recorded two years prior and two years following the implementation of traffic calming. Collision data for the intervention year was excluded. A non-probability convenience sample of 19 schools with 39 roads in Chatsworth and 15 schools with 24 roads in KwaMashu was selected.

RESULTS
In Chatsworth, the median annual vehicle-pedestrian collision rate decreased from 1.41 to 0.96 (p=0.007) and in KwaMashu from 2.35 to 1.40 (p<0.001) collisions per kilometre of road per year. There was a 1.60% reduction in the median number of fatal or serious vehicle-pedestrian collisions after the traffic calming in Chatsworth (p=0.03) while in KwaMashu, although the number of collisions decreased, the median number increased by 8.97% (p=0.07).

CONCLUSION
Traffic calming has been shown to be effective in reducing the number of vehicle-pedestrian collisions. However, there is a need for further research by conducting a controlled before and after or experimental study to verify these findings.

P066 - Where does blood go? An experience at a regional hospital in KZN

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INTRODUCTION
The use of blood and blood products is an expensive but essential resource in healthcare that contributes substantially to hospital expenditure. In South Africa there are no comprehensive reports on who uses blood products, why it is being used, where it is most likely to be used and whether it is being used appropriately. The purpose of this study is to describe the utilization, wastage and costs of blood products in the management of patients in various clinical disciplines at a regional hospital in KwaZulu Natal from April 2006 to March 2007 in order to guide appropriate policies and practice.

METHODS
This Health Systems Research utilises an observational, descriptive cross sectional study design. Data was extracted from the South African National Blood Service database and relevant variables were appropriately summarised.

RESULTS
Blood products made up a minimum of 6.5% (R62) of cost per patient day. A large proportion (29%) of the overall cost of products could not be traced to a department due to missing data. The Departments contributing most to overall cost are Gynaecology (19%), Medicine (16%), and Surgical (9%). The product that contributes the most to overall cost is Red Cell Concentrate (45%). Departments with comparatively more wastage are Orthopaedics, Surgery and Gynaecology.

CONCLUSION
This study provided valuable baseline information on priority disciplines (Gynaecology, Medicine and Surgery) as well as products (Red Cell Concentrate). The hospital manager was then able to direct a more detailed audit of blood products in order to contain costs. Incomplete data and a lack of integrated management systems have been identified as major limitations to tracing blood utilization.
P067 - A prospective investigation of the data transfer processes in primary health care facilities in Region F, Johannesburg

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INTRODUCTION
Health facilities supported by the Reproductive Health and HIV Research Unit (RHRU) have many data relay points in their data reporting systems. This increases the probability of reporting errors. A baseline assessment was conducted at three facilities which found that clinics' reporting processes are not accurate or reliable. All sites displayed gaps in accountability and reliability of data collection, collation and submission.

The aim of this study thus is to gain understandings of data transfer systems by investigating the processes of data collection, collation and reporting at 14 sites.

OBJECTIVE
Identifying data relay points, timelines and assess training requirements and standard operating procedures needs, whilst investigating staff knowledge, attitudes and perception (KAP) around staff reporting systems.

METHOD
A mixed method, cross-sectional study design will be employed to obtain information on current data processes, by using a structured questionnaire which asks questions on job role, data collection processes, understanding of data collection, resources, training, support and job satisfaction.

RESULTS
Results will include a critical path analysis of each sites data processes, challenges and strengths of each process, staff and researcher recommendations to RHRU and each site. Results will be available at the time of conference presentation.

CONCLUSION
Study outcomes will provide recommendations on improving data processes. Site critical pathways data will facilitate the identification of ideal and non-ideal pathways. The KAP outcomes will insight recommendations on training and support needs. These results would be of further benefit to other health facilities and/or organizations which require similar data processes in monitoring and evaluation.

P068 - Risk factors associated with TB incidence in an adult population from poorly resourced South African urban communities with high TB prevalence

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BACKGROUND
Tuberculosis (TB) persists as a serious global public health problem of a magnitude requiring urgent attention. There is little or no comparable data on the association between host and environmental related factors and TB incidence in regions of South Africa.

OBJECTIVE
To investigate risk factors associated with incident TB in one region of South Africa.

METHODS
3493 TB-free participants were recruited, and baseline data collected at the beginning of 2003 in the Lung Health Study in Ravensmead and Uitsig (R/U), South Africa. The TB register was used to identify new cases among the 3493 participants between 2003 and 2007.

RESULTS
The incidence of TB in the study population was 632 per 100 000. Cohabiting, OR= 2.09 (95% CI= 1.05 - 4.17), smoking, OR= 2.19 (95% CI= 1.48 - 4.14), and history of imprisonment OR= 1.88 (95% CI= 1.09 - 3.23) were all statistically associated with TB incidence in multiple logistic regression models. The combined PAF for these three factors was 53.2%.

CONCLUSIONS
Cigarette smoking was one of the most important predictors of TB incidence, and the proportion of smokers in this population was relatively high. TB control and prevention strategies need to focus on interventions which will reduce or limit the impact of TB risk factors.
P069 - An evaluation of a mobile clinic in providing sexual and reproductive health services in region F, Johannesburg

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BACKGROUND
Literature has shown that decentralisation of health care services through a mobile unit increases access for “hard to reach” populations i.e. sex workers, illegal immigrants and individuals with low health seeking behaviour. Lack of legal documentation; health system constraints i.e. long waiting times and negative patient perceptions i.e. fear of discrimination hinder service utilisation. In an inner city programme, a mobile clinic was implemented in November 2009 to deliver sexual and reproductive health incl. HCT to men, foreign immigrants and sex workers. An evaluation was conducted to assess the quality and coverage of services offered via mobile services.

METHODS
An exploratory mixed method design was used consisting of 1) exit interviews with clients, 2) non participant observation, 3) focus group discussions with health care providers and 4) in depth interviews with programme managers. Data was analyzed using STATA version 10 and ATLAS version 5.2.

RESULTS
Clients interviewed consisted of 42.5% (85/200) females and 57.5% (115/200) males; age range between 18-58 years (mean age 29.7 years; S.D=7.8). HCT was the most commonly accessed service (83%; n=167/200) whilst other services accessed were family planning (8%; n=16/200); STI screening and referral for TB treatment (7%; n=15/200). Motives for seeking mobile services were short/no queues, friendly staff and convenience in accessing holistic care on their “door step”.

CONCLUSION
Implementation of mobile units to deliver HCT is an effective strategy for creating an entry point to further health care, particularly for male clients. By decentralizing services it has eliminated barriers to access, but further planning is required to ensure regular and sustainable outreach activities.

P070 - Climate change in South Africa: Health and health related effects

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INTRODUCTION
International concern about the health impacts of climate change due to greenhouse gas emissions arising from the activities of growing populations and increased industrial production is growing. Developed countries have contributed most to emissions, but climate change effects will be most severe in developing countries, which lack the capacity to adapt or mitigate these impacts. The aim of this study was to review the available evidence of the effects of climate change focusing on health systems effects in South Africa.

METHOD
This was a systematic review of the literature and available secondary data. Literature searches were conducted in the fields of health, agriculture, environment, water resources, fuel production and climate change. Online search engines and journals were used to identify relevant references, which were used if deemed appropriate and authoritative.

RESULTS
South Africa is signatory to international agreements relating to climate change, but this commitment does not feature significantly in government policies. The health effects of climate change in South Africa will arise from water shortages, decreased crop yields and changing patterns of infectious diseases. Food insecurity may result and increase the risk of severe malnutrition. Warmer weather may foster the diseases spread such as malaria and diarrhoea and create epidemics in populated sub-tropical areas such as KwaZulu Natal.

CONCLUSION
The profound impacts of climate change on health systems have not been widely acknowledged at a government level. Increased commitment from government, parastatals and private sector to reduce greenhouse gas emissions is needed. Appropriate policy and new mitigation initiatives should urgently be developed.
P071 - Development of the Vanguard demonstration site for RHD screening among school–aged learners in the Western Cape

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BACKGROUND
In South Africa (SA), anecdotal information suggests that rheumatic heart disease (RHD) is still the leading cause of acquired heart disease in children and young adults. Recent data on the prevalence of RHD in school-aged learners remain scanty with two earlier studies suggesting an estimate around 7/1000; however this figure is thought to be an underestimation given that the screening was performed using auscultation, which is less-sensitive than echocardiography.

OBJECTIVE
We aimed to develop, as part of the ASAP Programme, an Echocardiography-based RHD Screening programme for learners within the Vanguard Community of the Western Cape. Outcomes included determining the prevalence of RHD, monitoring the disease progression in screen-positive participants referred for appropriate follow-up and, evaluating the cost-effectiveness of such a programme.

METHOD
We present the issues involved in establishing the demonstration site, the lessons learned and the ongoing challenges facing the research team having screened in excess of one thousand participants to date. In brief, we detail our experience in five areas: (1) Engaging the community on a number of levels; (2) Completing a situational analysis and gathering background data, including establishing the sampling frame and the random sampling procedure; (3) The consent process and getting learner participation; (4) On-site Data Collection and Management (5) Post-screening responsibilities and continued community involvement.

CONCLUSION
We conclude that screening for RHD is feasible in the community setting using schools as the sampling frame. We believe that our experience will serve as a meaningful resource for other similar research programmes.

P072 - From audit to action plans to implementation: How supportive are planning processes at sub district level? The perspective of a sub district manager

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INTRODUCTION
Health information is an essential management tool to deliver effective services. It need not be in the form of routine data; regular periodic audits are an attractive alternative that can have the added advantage of engaging facility and sub district managers in a quality improvement process. In one of the 8 sub districts of Cape Town we explored the potential of participatory HAST audits for quality improvement at a local level from the perspective of the sub management team.

METHOD
In October 2009 fifteen public primary care facilities were audited using locally developed HAST evaluation tools. Facility and sub district staff participated in a day-long training workshop and then did facility visits for data collection. They then attended a structured workshop at which they interacted with facility results and sub district aggregates. They identified and prioritised key programmatic weaknesses and developed action plans. In August 2010 the sub district management team engaged in a reflective analysis on the use of these plans and the extent to which their implementation had been monitored.

RESULTS AND CONCLUSIONS
The use of routine health information for management is well-established in the sub district with a strong ‘plan, do and review’ process. The periodic HAST audit is a priority programmatic activity in the sub district, but could be supported by a more conscience linking of the audit action plans to other operational plans within the facility and sub district.
P073 - Poor attendance of physiotherapy treatment by stroke out-patients in Mthatha general hospital in 2007

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BACKGROUND
Stroke is a major cause of disability in the world and its long term effects require good adherence to physiotherapy treatment protocols as an outpatient to ensure optimal rehabilitation in order to reduce the burden of care in the health service and the society. Superficial analysis of data from the Physiotherapy Department revealed that there is poor attendance of physiotherapy treatment by stroke outpatients in Mthatha General Hospital (MGH) and this has a negative effect on outcomes and health care costs.

PURPOSE
To identify factors that influence poor attendance of physiotherapy treatment by stroke out-patients in Mthatha General Hospital.

METHODS
An observational descriptive study was conducted. A sample of 103 patients was randomly selected from a total population of 139; however, 85 patients participated in the study. The response rate was 82.5%. Data collection was done using structured interviews and a scientific statistical tool was used for data analysis.

RESULTS
Out of 94% of patients that were given appointments to come as outpatients, the majority (86%) did not attend physiotherapy until discharge. The major factors that influenced poor attendance were emigration to another area (36%) and long distance from MGH (29%).

CONCLUSION
The major factor influencing poor attendance of physiotherapy was that most patients lived far from MGH where there was physiotherapy and those patients did not have money to come to MGH physiotherapy department as required by the physiotherapists.

RECOMMENDATIONS
Physiotherapy services should be made available at clinics and Health Centers proximal to where people live.

P074 - Disability and human rights toolkit as a best practice methodological approach for realising human rights of people with disabilities

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BACKGROUND
Approximately 5% of the South African population have varying forms of disability. Although South Africa has ratified international treaties, established various policies and guidelines and recognised the right to non-discrimination on the basis of disability in the Constitution, the rights of people with disabilities are frequently violated in domestic, community and employment contexts.

RATIONALE
Epilepsy South Africa (Western Cape) has identified the need for people with disabilities to access their rights and redress violations.

AIMS
To explore the knowledge and understanding of Disability and Human Rights amongst People with Disabilities in order to develop methodologies to equip this group with skills to realise their rights.

METHOD
Seven focus group discussions (FGDs) and two in-depth interviews were used for data collection.

FINDINGS
The findings indicate a lack of knowledge on human rights processes and a lack of skills necessary to address rights violations. The research process also identified the inadequacy of existing research tools to collect this information from people with disabilities, prompting the design of new methods by Epilepsy South Africa for data collection. The findings are being used to develop new learning materials for people with disabilities in order to bridge the gap between knowledge and understanding of disability rights and the skills needed to access rights and redress violations.

CONCLUSIONS
Civil society organisations have the capacity to develop new approaches to promoting rights for persons with disabilities and for the collection of information relevant to their work thereby bridging the gap between policy and practice.
P075 - Community health workers’ implementation of comprehensive primary health care through inter-sectoral action: Is it a pipedream?

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BACKGROUND
Addressing the growing disparities within health care has increased the effort internationally to revitalize the practice of primary health care (PHC) within health systems. In the effort by developing countries to meet the Millennium Development Goals and the global community’s rethinking on strengthening PHC to support efforts to meet these targets, this study is relevant. In implementing PHC, South Africa has a history of utilizing community health workers (CHWs) as a means of providing health services to poor communities.

OBJECTIVE
To examine the extent to which the services provided by CHWs in Gauteng Province, are contributing towards comprehensive primary health care (CPHC) focusing on inter-sectoral action as one of the strategies to provide this service.

METHODS
This qualitative study employed a comparative case study design, contrasting the experiences of 3 different community health worker organizations. Multiple qualitative methods were used (key informant interviews; focus group discussions; participant observations; and network maps), including in-depth interviews with policy-makers involved in the CHW sector. A triangulation of these methods assisted the in-depth understanding of the difficulties of implementing inter-sectoral action in a complex policy environment.

RESULTS
Preliminary findings highlight the complex nature of inter-sectoral collaboration as they are played out in the different levels of government and local community structures. They illustrate the experiences of CHWs (and patients) in their attempt to facilitate inter-sectoral action in the quest to provide CPHC services. South Africa’s mission to improve access to care and to address the growing disparities in health has led to the current process of revising its health policies; including the revision of the policy regarding CHWs. Interviews with policy-makers indicate that the current policy on its own is not adequate.

CONCLUSION /FINDINGS
provide insight into the role of this workforce and the need for an enabling environment in CPHC with the view of informing policy. It contributes to the growing body of knowledge with regards to the variety of CPHC models that exist in various countries so as to learn from the models and the experiences thereof.

P076 - Malawi Public Health Association works to improve sanitation in local communities

Y Nyasulu

Malawi Public Health Association

The most active Regional branch of the Malawi Public Health Association (MPHA) is located in the northern city of Mzuzu. In 2008 this regional branch of MPHA started implementing a small water and sanitation demonstration project in the underserved ward of Masasa with support from CPHA’s SOPHA program.

Masasa is one of the sixteen wards of the city of Mzuzu and is a rapidly growing and unplanned suburban neighbourhood located in the hills that surround the city. With a total population of approximately 1500 inhabitants who have migrated to Mzuzu from surrounding rural areas, Masasa is one of the Mzuzu poorest neighbourhoods characterized by limited access to safe water and poor sanitation facilities. There are regular reports of cholera cases in the neighbourhood, particularly during the rainy season.

SOPHA Program provide support to MPHA to undertake the project to provide portable water by installing new taps as well as new demonstration pit latrines at local schools and village headman’s houses.
P077 - Using the Management, Economic, Social and Human Resources (MESH) to measure and monitor district health functionality

M Nyawo
Health Systems Trust

BACKGROUND
The Management, Economic, Social and Human Resources (MESH) monitoring tool is an infrastructure which is built to assist the district Health management team in identifying factors that has an impact on Primary Health Care (PHC) and the health district performance.

OBJECTIVES
To assist Ethekwini Metro to identify and monitor factors that influences the district health performance and use the results to inform district health plan.

METHODS
The MESH tool comprised of both qualitative and quantitative questionnaire. Qualitative data was collected using a semi structured interview questionnaire comprised of four components i.e. Management; economic; social cohesion and community mobilisation and human resources. A rating system was used to analyse qualitative data. The District Quarterly Reporting System tool was used to collect and analyse quantitative district health performance data for the period 2007/2008 and 2008/2009 extracted from the District health information systems and other sources.

RESULTS
The district score rating indicated an insignificant increase from a baseline of 3.0 in 2007/2008 to 3.2 in 2008/2009. This was due to poor performance score in social cohesion, management capacity and human resource which resulted to a low PHC supervision rate of < 100% and Primary Health Care utilisation rate of below national norm of 3.0 visits. The tuberculosis cure rate remains below 60% over the two financial years due to poor community based interventions.

CONCLUSION
An improvement in the district management capacity, community participation and human resource management will have a direct influence in improving capacity of the health systems and consequently good health outcomes.

P078 - Predictors of loss to follow-up among stable HIV patients: Results of a down referral file audit

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BACKGROUND
As anti-retroviral therapy (ART) initiation sites become increasingly congested, “down referral” (DR) provides patients with care closer to their homes or work. In the DR model, patients receive ART at a tertiary care site until they are stable, then they continue treatment at a primary health care facility. This model aims to reduce loss-to-follow-up (LTFU) and decongest initiation sites.

METHODS
A file audit of patients down referred since November 2007 was conducted from June-September 2009. 3,361 files were reviewed. The audit identified patients who defaulted from treatment, and these patients were contacted by patient follow up workers. After follow-up the patients were classified as retained or LTFU. T-tests and Chi-squared were performed to determine associations between independent variables (gender, age, baseline CD4, time on ART) and LTFU.

RESULTS
Males were on average 3.23 years older than females (mean age M=40.49, F=37.26, p = 0.000). Males had slightly higher odds of LTFU (OR 1.15, p=0.453) but this association was not statistically significant. The time that patients received treatment at initiation sites before down referral was not associated with LTFU. Lower CD4 count at ART initiation was significantly associated with LTFU – the mean baseline CD4 among LTFU patients was 87.5 compared to 119.7 among patients retained in care (p=0.281).

CONCLUSIONS
The causes of LTFU among patients who are stable on ART have not been widely explored. The association between low baseline CD4 count and later defaulting may be related to health-care-seeking behaviors. Confounding factors will be examined and a complete regression model developed.

Public Health Association of South Africa 2010 Conference - POSTERS
P079 - Exploring the value of visual and audio diary keeping for people living with TB and HIV: A qualitative study

W Odendaal, S Lewis, M Tomlinson, H Hausler, Y Mtshizana

INTRODUCTION
Central to quality care for HIV-positive patients with and without tuberculosis (TB) is an understanding of their experiences of illness and treatment.

OBJECTIVE
To reflect on the results and value of diary-keeping as an approach to understanding the realities of people living with HIV and TB.

METHODS
Five participants were purposively selected: one person being prepared for antiretroviral treatment (ART); one on ART, and three on both ART and TB treatment. Participants were supplied with either a disposable camera or digital audio-recorder and asked to use these to record their everyday experiences over six months. The visual-participants shared the meaning of their photos in semi-structured conversations. The audio-participants were visited bi-weekly to collect their recordings, followed by unstructured conversations. All research conversations were audio-recorded and analysed thematically.

RESULTS
Through their photos and recordings, participants described a renewed vigour for life following the realisation that quality of life was possible despite their illness. This realisation, together with visits from community care workers, appeared to be core reasons for adherence to treatment. However, they also described their fear of dying; their need for emotional support; and their experiences of ART side effects. The audio-diary keeping was reported as a therapeutic experience.

CONCLUSIONS
Diary keeping is a potentially powerful approach to understanding how the wider experiences of people living with HIV and TB impact on their treatment adherence. The approach may help to tailor care strategies and support to patients in coping with the trauma of their illness.

P080 - Effects of information and communication technology (ICT) via videotape instructions on primary-school pupils achievement in social studies in Owerri Nigeria

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Learning is an activity which starts at birth and continues throughout lifetime and in classrooms. Facilities and personnel are employed to provide education for classroom-learning, which aims at preparing students to contribute meaningfully to the society they live. However, empirical studies in Nigeria involving video-taped instructional strategy have been limited to the teaching and learning of science-based subjects. This study therefore, determined the effect of video-tape instruction on teaching of social studies in Nigeria Primary Schools.

Total of 102 students in two intact classes were study participants. Three null hypotheses were formulated/tested. Four instruments namely: video-tape recorder of lesson used for the study, pupils’ attitudinal scale, the social studies achievement test (SSAT); and Teachers’ Guide for conventional teaching were used.

There was significant effect of treatment on students’ achievement. Also there was significant effect of treatment on student’s achievement in social studies. (F(1,97)=145.474, P<.05).

There was significant effect of treatment on attitude of pupils to social studies (F(1,97)=127.877, P<.05).

However, there was no significant effect of gender on pupil academic achievement in primary social studies (F(1,97)=0.839, P>.05). There was no significant effect of gender on pupils’ attitude to social studies (F(1,97)=0.640, P>.05). There was no significant 2-way interaction effect of treatment and gender on pupils’ attitude (F(1,97) = 2.041; P>.05).

Government should equip public primary schools with necessary hard/software facilities, school teachers should be encouraged to uptake this challenge also learn how to use it through in-service training. Moreover, seasonal educationists should develop video instrumental packages to be used in schools.
P081- Traditional drugs an emerging trend in African sexual medicine: The implication to safe-sex practices among the geriatrics in Nigeria

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Traditional Medicine's (TM) response to healthcare delivery in Nigeria cannot be overemphasized. Despite orthodox medicine relegation, its efficacy is not clinically documented and TM as sexual remedy has limited attention.

This study examined TM as emerging trend in Nigerian sexual medicine. The study was descriptive/cross-sectional in design and adopted quantitative and qualitative data-collection methods. Using multi-stage sampling technique, comprised 400-geriatrics. Focus Group Discussions (FGDs) and questionnaires data were analysed thematically and descriptively.

More (50.5%) were males. Many (20.5%) under herbal concoction had extra-marital sex without condom-use; (5.8%) used herbal products for STD prevention. Few (3.0%) used herbs; concoction (6.3%) to increase performance; (1.3%) suggested concoction would improve sexual health. While TM (23.0%) and drug-use (4.3%) treat sexual dysfunction, most (60.3%) postulated traditional healers; herb-use (10.3%) and drug-use (17.3%) provide prevention/treatment against STDs/HIV/AIDS. Overwhelmingly, FGD participants believed TM's efficacy than contraceptive-use: Hence, Magun helps in disease-detection/prevention, vis-à-vis Ale/Erii-in; Ajidewe/Agunmu are for erection. While Ale is male-ejaculation and sperm production, Aseje/Afaatoo enhance multiple rounds, Agbo/Ogbolo and Tude boost performance.

Most Nigerian geriatrics used herbal medicine for sexual enhancement; these products are yet to undergo clinical evaluation. Therefore, there is need to support clinical investigation in the claim for geriatric sexual improvement.

P082 - An audit of Home and Community-Based Care (HCBC) organisations in South Africa

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INTRODUCTION
The Home and Community-Based Care sector has emerged as a way of providing cost-effective and compassionate care to those living with HIV and AIDS as well as other chronic conditions in South Africa. The Departments of Health and Social Development, who oversee this sector, needed empirical information to improve services. They commissioned a national audit of community based organisations offering such services to provide information on their number, nature, location and operating environment.

METHOD
A telephonic audit of consolidated databases was conducted to solicit information from about 6,500 organisations countrywide, of which 2,001 fully participated. Quantitative and descriptive data was captured into a web-based database and then analysed to explore issues such as registration information, spacial distribution, activities and challenges.

RESULTS
A web-based database was established allowing for easy updating and analysis. Most organisations targeted orphans and vulnerable children, people living with HIV and vulnerable households. Their activities focused on home visiting, referrals, material support, psychosocial support, prevention programmes and running support groups. The majority of the organisations offered four or more services to between 101 and 500 beneficiaries. At least 60% in all provinces, except in the Northern Cape were funded. Many organisations did not have formal office space, computer equipment or funds for paying community care giver stipends. The majority (56%) of the organisations (1,824) were situated in Limpopo.

CONCLUSION
A web-based database of home and community based organisations proved a useful tool both to capture, analyse and provide information on HCBC services.
P083 - Malaria treatment seeking behaviour and access to artemisinin combination therapy: A cross-sectional household survey: Lagos, Nigeria

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INTRODUCTION
In 2004, artemisinin combination therapies (ACTs) became the recommended first-line drugs for treating uncomplicated malaria in Nigeria because of resistance of malaria to chloroquine (CQ) and sulphadoxine pyrimethamine (SP).

OBJECTIVE
To describe the malaria treatment-seeking behaviour and explore factors influencing treatment options for malaria in a Lagos suburb.

METHODS
A cross-sectional survey of 422 randomly selected households was conducted in Mushin Local Government of Lagos State, Nigeria in December 2009. Households where at least one individual had a history of fever/malaria in the last four weeks preceding the day of interview were eligible for inclusion in the study. Both descriptive measures and the multinomial logistic regression were used to analyze the data and present the findings.

RESULTS
Most treatments for malaria occurred at household level (35.11%) and by the purchase of medicines from drug stores without prescription (25.42%). The most commonly used antimalarials were SP (34.23%) and CQ (11.01%). Only about 7% used an ACT for treating malaria. About 23% of the respondents had heard of ACTs and only 4% knew ACTs were the currently recommended first-line medication for treating uncomplicated malaria. The factors that were found to influence the choice of treatment are wealth index, household head level of education, and household size.

CONCLUSION
Efforts should be made towards improving the awareness of the current malaria treatment policy in Nigeria. In addition, steps need to be taken to ensure that the policy is implemented and that effective medications for malaria treatment reach the people who need it.

P084 - Uptake of E-learning to improve maternal child health

G Omoni

BACKGROUND
The use of an e-learning resource, which focuses on delivering an individualised learning approach, creates a learning environment where the user is more likely to utilise, retain and comprehend information. Overall, e-learning makes use of information and communication technology to provide innovative ways to learn; a factor which is particularly important in low-resourced settings where cost cutting is highly desired. The program aims at enhancing the ability of student midwives to use and appreciate e-learning; develop skills, knowledge in partogram.

MATERIAL AND METHODS
An ethnography survey was done to assess acceptability of e-learning. Lecturers were also trained on the use of e-learning module, after which focus group discussions were conducted among the student population in Nairobi and Aga Khan Universities. A standardized tool was used to collect information on social demographics while an interview guide was used to collect information regarding partogram and e-learning. Quantitative Data management was done using SPSS while qualitative data was analyzed using NVIVO7.

RESULTS
A total of 186 participants were enrolled for study over a two month period. E-learning as a mode of skills transfer was well accepted by 95%. Majority of participants 84% expressed the fact that partograph was well covered in class but its application in clinical settings was very poor.

CONCLUSION
E-learning was well accepted among midwives and students in institutions of high learning in the Kenya.
Background of the study: Female genital schistosomiasis (FGS) is an epidemiological risk factor for squamous cell atypia and cervical disease in a longitudinal cohort of young women in KZN. Female genital schistosomiasis (FGS) is an epidemiological risk factor for squamous cell atypia and genital disease in a longitudinal cohort of young women in KZN.

Objective: To determine if female genital schistosomiasis (FGS) is associated with current human papilloma virus (HPV) and squamous cell atypia in young women, and if increasing awareness for early diagnosis and treatment of schistosomiasis will decrease the severity and prevalence of FGS and related cytopathology in young women.

Method: The study is nested in a clinical study of FGS in 2500 young women, of which 1650 young, sexually active women aged 16 to 20 years will be included in this study. Subject to consent being given by the women, Pap smears, and cervico-vaginal lavage specimens will be collected from all participants. The Pap smears will be examined for cytopathology, schistosomiasis and other co-infections. Information obtained from the questionnaires administered to participants pertaining to their family life, social life, water contact, treatment for schistosomiasis, health seeking behavior, obstetric and gynaecological history will be used to investigate the epidemiological risk factors for squamous cell atypia of the cervix with special reference to FGS.

Possible benefits of the study: It may be hypothesized that HPV may attain easy access to deeper genital cell layers in women with genital schistosomiasis through the friable and eroded epithelium or through broken blood vessels during coitus, creating direct points of contact between the virus and the receptive cells of the woman. In young female populations at risk of HIV, HPV and FGS, the age limitations of the National Cervical Screening Guidelines will be evaluated, since currently women are screened at the age of 30 in the public health sector. Women under this age, despite being sexually active are not routinely screened in South Africa (Gaym, Mashego et al. 2007). The planned study aims to explore the risk factors for squamous cell atypia and genital schistosomiasis. It will explore the usefulness of the Pap smear for the diagnosis of FGS. The study will be performed on young women at an age where anti-schistosomal treatment may be more efficient, before gynaecological lesions become chronic.

Conclusion: The findings are anticipated to contribute to a reduction of the global burden of female genital schistosomiasis and cervical cancer through improved knowledge about the prevention of gynaecological lesions through early treatment in resource-poor settings. The findings could influence policies on mass-treatment of schistosomiasis and cervical screening in younger females.
P087 - Quality of cause of death data for South Africa: Is there a problem?

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BACKGROUND
A review of the quality of cause of death (COD) data from 115 WHO member countries, categorised South Africa as having a low quality of cause of death data as more than 20% of deaths were ill-defined deaths and less than 70% of deaths were registered. This paper aims to report on the quality of cause of death information for 2007 in South Africa.

METHOD
The 2007 cause of death database provided by StatSA was analysed, using the new NBD list, to identify the proportion of deaths identified as ill defined deaths. This database includes information about the method of ascertainment of the cause of death as well as the place of occurrence of the death, province, age and gender.

RESULTS
Of the 601144 deaths reported in 2007, 83210 (13.8%) deaths were due to ill-defined natural causes; most occurring outside of hospital. A high proportion of ill defined deaths were reported for 1 - 4 year olds (18.1%) and 5 - 14 year olds (18.5%). Over 12% of infant deaths were ill-defined - Limpopo having the highest proportion (16.3%), followed by the Western Cape (15.5%). A further 5.0% of deaths were due to injuries of undetermined cause.

CONCLUSION AND RECOMMENDATIONS
We identified less than 20% ill defined deaths showing improvements have been made. There is still, however, a need to identify ways to reduce the number of deaths coded as ill defined, improve the quality of medical certification of COD, improve coding of underlying COD and extend access to health services.

P88 - Women’s secretive alcohol dependence and access to treatment

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BACKGROUND
There is a paucity of research documenting women’s undisclosed drinking. This study explored the discursive accounts of women’s alcoholic drinking, treatment history and barriers in accessing alcohol misuse treatment.

OBJECTIVE
The goals of this dissertation are to explore women’s addiction history; explore women’s treatment history (or lack thereof); identify barriers and nature of barriers that limit women’s access to alcohol misuse treatment; identify the reasons for women not accessing treatment, and to interpret women’s experiences of treatment per se.

METHOD
A Human Scientific Approach was adopted to examine and interpret how women’s drinking is socially constructed. A social constructionist approach was utilised to access and construct meaning from the discourses and themes emanating from the women’s narratives of their experience with alcohol and their attempts at rehabilitation. Ten women were interviewed using the life story (narrative) interview method.

RESULTS
The findings illustrate two major discourses namely, secret drinking and inaccessibility of appropriate treatment facilities for women alcoholics. This means that women feel forced to drink secretly because of the stigma associated with women drinking heavily. The stigma they experience translates into barriers (mostly internal barriers) to seeking institutionalised treatment. This makes it easier for them to seek alternative treatment such as an anonymous fellowship, like Alcoholics Anonymous. Other discourses signify the importance of problem identification and treatment readiness. This means that if the alcoholic realises what the real problem is causing her to use alcohol as an escape or as a coping strategy, she will be more willing to address the underlying problem.

CONCLUSIONS
Recommendations are made focusing on micro and macro-level intervention strategies such as access to treatment, public health campaigns and policies to improve the quality of life of women recovering from alcohol addiction.
P89 - Have injury mortality rates in South Africa always been so high?

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**INTRODUCTION**  
Current estimates indicate that South Africa has a high injury burden, with homicide being eight times the global rate and road traffic injuries (RTI) double the global average. The question remains whether injury mortality rates have always been high and whether there are any differences in the rates and leading causes of death for specific population- and age groups.

**METHOD**  
Unidentified unit record cause of death data (ICD-9 and ICD-10) were obtained from the national statistical office since 1968 including population groups assigned during the Apartheid-era, age and sex. The high proportion of undetermined causes limited the analysis to the 1970’s and 1980’s. Age standardised rates were calculated for whites, coloureds and Indians since data for Blacks are incomplete. The ratio of homicide to suicide were analysed by population group.

**RESULTS**  
The cause of death profile differed by population group. High RTI mortality rates indicate a definite “accident-hump” in young white and Indian males, consistent with developed countries. Homicide rates for whites and Indians were similar to current global rates, while rates for coloureds were significantly higher. At 6-10 homicides for every suicide, the ratio for coloureds and Blacks was constant until 1980, after which it increased sharply.

**CONCLUSION**  
Differences by population group may be due to socio-economic status, but extremely high homicide rates among Blacks and Coloureds in the 70’s and 80’s may reflect the impact of structural violence during the Apartheid-era. The analysis highlights the failure of current vital statistics to provide good quality injury statistics.

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P90 - The effectiveness of the WHO treatment guidelines for severe malnutrition (10-steps) in the management of malnourished children who are HIV positive: A pilot study in two rural hospitals of South Africa

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**BACKGROUND**  
Malnutrition is a significant cause of morbidity and mortality amongst children in developing countries worldwide. The high case fatality rate for severe malnutrition in some Eastern Cape district hospitals is being attributed to HIV infection rather than to mismanagement. There is a paucity of scientific research on the extent to which the clinical stage of HIV infection may influence the effectiveness of WHO guidelines, which is otherwise effective in the case management of severe malnutrition.

**OBJECTIVES**  
To determine whether being HIV positive makes a difference in outcome (case fatality rate, rate of weight gain, and length of stay) in children with severe malnutrition treated according to the WHO guidelines for severe malnutrition.

**METHODS**  
Data was collected from children under five years of age with severe malnutrition admitted to two regional hospitals in the Eastern Cape Province known to be successfully implementing the WHO guidelines for the management of severe malnutrition. Counselling services was provided to parents before and after blood test. Two broad groups were formed: group A (HIV+) and group B (HIV-). Group A was further divided into 4 categories based on the clinical staging of HIV infection as recommended by WHO for infants and children. Records were reviewed to collect case fatality rates including observations on the implementation of WHO guidelines.

**FINDINGS**  
A total of 204 children have already been recruited to participate in the study. Data is being analysed. Few challenges were identified in both hospitals that needed to be addressed during the study.
P91 - The need for exploring household, social and sectoral impact of road traffic collisions in South Africa

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BACKGROUND
Globally 1.2 million people die from road traffic accidents every year. The combined economic cost of collisions in middle and low income countries amounts up to hundred billion dollars per year, which is more than what these countries receive in aid money. It is estimated that globally, by 2020 road traffic collisions will rank third as contributor in global burden of disease. 99% of DALYs lost per year are from low and middle income countries. Yet it has been demonstrated that significant reductions in collisions is possible through sustained multisectoral, multilevel preventive interventions.

OBJECTIVE
To conduct a literature search on the household, social, sectoral and economic cost of road traffic collisions in South Africa, that will provide an evidence base for targeted preventive interventions in South Africa

METHODS
A systematic search of literature on the household, social, sectoral and economic impact of road traffic collisions in South Africa was done.

FINDINGS
Literature on the burden of injuries in South Africa is available but literature on the impact of collisions in households, society and different sectors is scarce.

CONCLUSION
There is an urgent need for road traffic collision research in South Africa to furnish evidence for prioritising road traffic collisions as a Public Health concern that is amenable to all levels of prevention if the projected 80% increase in collisions in low and middle income countries is to be averted.

P92 - “Don’t worry everything we talk about is confidential”:
Perceptions and interpretations of confidentiality

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INTRODUCTION
Discretion is essential to create trust between health workers and HIV positive patients. However, confidentiality is a multi-level concept that is complex and often needs to be clarified to health workers and patients. As a consequence of poor privacy practices, patients may be reluctant to give health workers information they need to provide good care.

OBJECTIVES
The objectives include: 1) to define, describe and explore confidentiality from the perspective of health workers and HIV positive patients in the West Coast region; 2) to observe and understand the complexities associated with levels of confidentiality and their impact on patients’ needs to seek health care.

METHODOLOGY
This study takes up an ethnographic approach which includes extended one-to-one interviews with patients and participant-observation of patients’ interaction with health workers. Focus group discussions and interviews with health workers were also conducted. Field notes and transcriptions of interviews were analysed using Atlas.ti software.

RESULTS
Patients state that current confidentiality practices create mistrust of the health care system and have given rise to feelings of discrimination, stigmatisation and perceived breach of privacy. Observations suggest that many levels of confidentiality exist and have resulted in suspicions, accusations and law suit threats of health workers by others.

CONCLUSION
Various definitions of confidentiality exist. Clarification and emphasis of organisations’ definitions and protocols need to be articulated to their health workers and patients. Awareness of confidentiality levels along with adherence of confidentiality guidelines outlined by DOH and Health Professions Council of South Africa need to be further explored in the West Coast health setting.
P93 - Predictors of smokeless tobacco use among a population of black South African adolescents

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OBJECTIVES
To determine the pattern of smokeless tobacco (ST) use among black/African adolescents and to determine factors associated with exclusive ST use as opposed to concurrent use of ST and cigarettes.

METHODS
This is a secondary analysis of baseline data collected in 2005 as part of an intervention study for prevention of adolescent tobacco use. Data was obtained from self-administered questionnaires completed by a representative sample of 8th-graders, from 21 randomly selected public secondary schools in the Limpopo Province. Current analysis included only participants who self-identified as black/Africans and were not exclusive cigarette smokers (n=1,744). Taking account of the cluster sampling design used, statistical analysis included multivariable-adjusted multinomial logistic regression.

RESULTS
Of the respondents, 12.6% used ST and 51.4% of ST users were also concurrently smoking cigarettes. Compared to none tobacco users, ST users were more likely to be adolescents who were depression vulnerable (OR=2.0; 95%CI=1.6-2.6) and had household members who use ST (2.8; 1.8-4.2). Exclusive snuff use was more likely among females and those who have many friends using ST. Dual tobacco products users were more likely those who also binge-drink and smokes dagga, have no school rules against smoking and had lower cigarette-offer refusal self-efficacy.

CONCLUSION
This study’s findings highlight the need for universal prevention strategy directed at determinants of multiple health-risk behaviours. Potential interventions for tobacco use prevention include creating a tobacco-free environment both at home and in school, and providing lifeskills to improve stress management and social resistant skills to refuse peers’ offer to use tobacco.

P94 - Assessing the ARV initiations at PHC in the eThekwini North and West Sub district, KwaZulu Natal

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MatCH (Maternal Adolescent and Child Health)

INTRODUCTION
On the 01 April 2010, the KwaZulu Natal Department of Health embarked on an initiative to capacitate several Primary Health Care (PHC) facilities to initiate patients on Antiretroviral treatment (ART). This public health initiative is characterised by the assessment of the PHC as an initiating site for the provision of antiretrovirals namely the first line regimen i.e. Regimen Ta and Tb.

OBJECTIVE
MatCH (Maternal Adolescent and Child Health) supported several PHCs with training, establishing a moving team comprising of a doctor, pharmacist, dietician, and pharmacist assistant and monitoring and evaluation.

METHOD
Several PHCs within the eThekwini north and west sub district were assessed on the following:
1. Patients eligibility criteria:
   a. CD below 200 µl, Pregnant women, WHO clinical staging, Patient’s location i.e. residing near the PHC
   b. Training of site staff
   c. Patients defaulting on clinic visits
   d. Monitoring patients accessing the programme.

RESULTS
Training and review of the clinical chart ensured that patient’s clinical details were completed.
75% patients were initiated and 25% defaulted.
33% patients were referred for TB screening or treatment.
17% patients defaulted on the two week follow up after ARV initiation.
25% patients initiated recorded a CD4 count below 100µl.

CONCLUSIONS
Monitoring eligible patients at the CHC reduces unnecessary utilisation of resources at the PHC. Patients were inadequately screened for TB, resulting in improper identification for initiation.
P95 - Assessing a wellness programme by reviewing quality of care indicators at 2 public health facilities, in KwaZulu-Natal

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MatCH (Maternal Adolescent and Child Health)

INTRODUCTION
Reviewing the performance of indicators within a health programme is important as it demonstrates the progress achieved.

OBJECTIVE
An output level evaluation was conducted of clients accessing the wellness programme at two public health facilities in KwaZulu Natal.

METHODS
The key quality of care indicators used in this exercise was:
- Number of clients counselled and tested (CT) who received CD4 results within 3 months
- Of those who received CD4 result number Eligible for ART
- Of those eligible Number Initiated on ART
- Of those who were ineligible number retested after 6 months.

Individually who accessed only counseling and testing services were followed during a twelve month period. Clients receiving HIV and CD4 results were documented in the CT registers. Patients were traced if they did not return to the clinic after initial CT.

RESULTS
833 clients returned to the clinic within three months to receive their CD4 results. 48% had CD4 counts below 200µl and were eligible for Antiretroviral (ARV) treatment. 82% clients were actually initiated on ARVs. 48% of those who were ineligible returned at 6 months for CD4 testing and 21% became eligible for ARVs at six months. 12% returned at twelve months for retesting.

Patients who are not eligible for ARVs are not returning to the clinic.

CONCLUSION
More emphasis has to be provided on the importance of CD4 testing when one is HIV positive. An intervention is required to ensure more clients return for six and twelve months counseling.

P96 - Assessing waiting times in complex tertiary trauma and emergency units

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INTRODUCTION
A standardised methodology to assess waiting times in out-patient settings has been developed. Whether that methodology could be used in large tertiary trauma and emergency units was uncertain, as their services are provided in far more complex ways. Firstly emergency units do not have an opening and closing time and are demand driven. Secondly patients are directly attended to many times by the same service provider but they are not passively waiting between those services, but are instead being actively monitored. Thirdly many staff may attend to one patient at the same time. Fourthly a staff member may attend to several patients at virtually the same time, hopping from one patient to another. Fifthly patients may obtain a service without being present e.g. escorts supply clerical information. Sixthly discharge from the unit is often dependent on availability of inpatient beds.

METHODS
A standardised outpatient survey methodology was modified to accommodate the above complexities and yet ensure that waiting times were validly measured.

RESULTS
The modified survey was successfully implanted in 3 tertiary trauma and emergency units. Major causes of high waiting times found in these units were overworked staff, insufficient senior clinical staff, prolonged retention of patients in the unit and logjams due to lack of inpatient beds.

CONCLUSION
A modified outpatient waiting time survey methodology is able to validly measure waiting times in complex tertiary trauma and emergency units, making the routine implementation of standardised waiting time surveys easily possible in all health care settings.
P97 - Heroin use disorders and HIV/AIDS – An approach to management within the South African context

M Santos
Foundation for Professional Development

BACKGROUND
As the number of heroin users grow; concerns are rising with regard to this group’s vulnerability to HIV infection, especially within the context of an established and growing HIV/AIDS epidemic in South Africa. Despite a growing evidence of an association between heroin users’ use of supplementary intervention services and intervention outcomes, intervention programmes generally fail to meet international research based intervention standards.

METHODS
This study delved into the insights of ten South African heroin use disorder specialists, and synthesised the findings with the results of an inferential and content analysis study relating to forty long-term voluntary abstinent heroin dependents.

RESULTS
In terms of theory and practice, findings of the study suggest that the field of heroin use disorder intervention in South Africa remains fragmented and transitional. Specifically, few strategic public health care policies that address these complexities have been implemented in South Africa.

CONCLUSION
Although many interventions and procedures have begun to be integrated routinely into clinical practice within the South African context, pragmatic and evidence-based public health policies and interventions designed to reduce the harmful consequences associated with heroin use and HIV/AIDS need to be implemented within the South African context.

P98 - Knowledge and practices regarding the prevention of hepatitis B virus infections, in final year college student nurses in Gauteng Province

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BACKGROUND AND AIM
Hepatitis B infection is a serious blood-borne disease caused by the hepatitis B virus (HBV) which attacks the liver, and is the leading cause of liver cancer and cirrhosis of the liver. HBV can be transmitted through exposure to infected blood and human secretions through needle stick / sharps injuries and splashes. Thus nurses are at high risk for HBV infection. The aim of the study was to investigate the knowledge and practices regarding the prevention of hepatitis B virus infection, in final year college student nurses in Gauteng Province.

METHODS
A cross-sectional quantitative survey of 350 final year nursing students was conducted in three Gauteng Province nursing colleges, using an anonymous self administered questionnaire. The data were analysed using SPSS.

RESULTS
The response rate to the questionnaire was 89.1% (312/350). The majority of respondents were female (86.8% [270/311]), while 59.6% (184/309) were below 31 years of age. Good knowledge scores were obtained by 87.4% (271/310), while 78.7% (244/310) practiced good compliance with universal precautions (UP), and 65% (202/311) were vaccinated, with 38.6% (78/202) having received all 3 doses. College A students scored statistically significantly higher for knowledge (mean=4.7; p<0.001), and UP compliance (mean=14.7; p<0.001) than College B (4.3 and 13.5 respectively) and College C (3.9 and 11.5 respectively). Also, College A students were statistically significantly more likely to be vaccinated (90.9%; p<0.001) than College B (29.3%) and College C (15.6%).

CONCLUSION
The curricula and vaccination policies of the colleges need to be examined in a separate study, so that whatever they are doing right at College A can be replicated in the other 2 colleges to improve knowledge and practices regarding HBV prevention and control.
P99 - Translating research in to practice: The implementation of options for Health, Western Cape

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BACKGROUND
Over one year, lay ARV adherence counsellors delivered an intervention aimed at reducing sexual risk behaviour and increasing ARV adherence among people on ART in Cape Town. Counsellors delivered the intervention to less than 20% of patients most of the time, and few sessions focused on sexual risk behaviour.

OBJECTIVE
To determine the factors affecting the implementation of Options for Health: Western Cape.

METHOD
Semi-structured, in-depth interviews were conducted with 15 of 31 counsellors. Interviews were audio-recorded in English or Xhosa and, where necessary, transcripts were translated into English. Thematic analysis was used to identify the key factors affecting counsellors’ use of Options.

RESULTS
Structural barriers included a shortage of dedicated counselling rooms, time pressure as a result of high patient loads and patient resistance to counselling. Some counsellors expressed difficulty in integrating the Options counselling model into their existing practice. Others revealed an understanding of Options limited to particular types of non-adherence; as a result they missed opportunities to deliver the intervention. Despite not always using Options, counsellors reported using aspects of the model as it suited their needs.

CONCLUSION
Under the constraints associated with the clinic environment, counsellors were seen to have developed a ‘theory of practice’ of their own and had incorporated the Options model in to their practice in unanticipated ways. The process evaluation also revealed weaknesses in the current adherence counselling system that need to be addressed for the service to be of greater value to patients and the provincial ARV treatment programme.

P100 - What happens between HIV diagnosis and the initiation of antiretroviral therapy? Assessing the effectiveness of care for people living with HIV in the public primary care service in South Africa

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INTRODUCTION
In South Africa the scale up of HIV testing and counselling and antiretroviral therapy has been carefully managed in response to national directives and has been supported by operational research published in the academic literature. However the care of people diagnosed positive but not yet eligible for antiretroviral therapy has been neglected and has fallen by default to the general public primary care services: there is a lack of proposed models of care; extra resources have not been made available and HIV programme managers have not supported scale up service delivery. We set out to investigate the access, availability of key resources, capacity and quality and continuity of care for HIV positive clients prior to starting ART.

METHODS
In May 2009 we collected data on nonART services for HIV positive clients from 126 (94%) public primary level facilities in Cape Town as part of the bi-annual HAST evaluations.

RESULTS
Table 1 shows a sample of results.

DISCUSSION
Our evaluation shows a break in the continuum of care between VCT and ART likely to contribute to the late presentation and initiation on ART despite the high VCT uptake. The weakest areas in the package of nonART care for HIV positive clients is missed opportunities in positive prevention. NonART care is the missing link in the continuum of care for HIV positive clients from VCT and PMTCT through to ART. Only then will the key programme objectives of provision of positive prevention and timeous access to ART be possible.

Table 1.

<table>
<thead>
<tr>
<th>Evaluation Domain</th>
<th>Indicator</th>
<th>Proportion, (n)</th>
</tr>
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<tbody>
<tr>
<td>Access</td>
<td>% Positive VCT clients who were clinically staged and had a CD4 count done</td>
<td>48.5% (629)</td>
</tr>
<tr>
<td></td>
<td>% Clinical staff who were trained in nonART care</td>
<td>38.0% (1296)</td>
</tr>
<tr>
<td>Availability of resources</td>
<td>% Facilities with stockouts of cotrimoxazole</td>
<td>8.3% (128)</td>
</tr>
<tr>
<td>Quality of care</td>
<td>% Clients who have had a Pap smear (women only)</td>
<td>37.9% (749)</td>
</tr>
<tr>
<td></td>
<td>% Clients who had their contraceptive needs assessed (men and women) at their last visit</td>
<td>25.3% (1029)</td>
</tr>
<tr>
<td></td>
<td>% Clients who had a symptomatic TB screen done (and appropriate follow up if necessary) at their last visit</td>
<td>54.9% (993)</td>
</tr>
<tr>
<td></td>
<td>% Clients who had a symptomatic STI screen done (and appropriate follow up if necessary) at their last visit</td>
<td>52.3% (1058)</td>
</tr>
<tr>
<td>Continuity of care</td>
<td>% Clients who are eligible for ARVs who are referred appropriately</td>
<td>74.3%</td>
</tr>
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P101 - A community based approach to empowering communities and improving microbial water quality and health

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Poor source and point-of-use water quality, as discovered in this study, and its subsequent lack of correlation to health outcomes viz. diarrhoea and vomiting encouraged the introduction of management interventions at a community level.

The water quality variables measured were total coliforms, E. coli, conductivity, turbidity, pH, and total and residual chlorine. Microbial and physio-chemical data were analysed together with an existing epidemiological database from a related study to investigate links among microbial quality of drinking water, household demographics, health outcomes, socio-economic status, hygiene and sanitation practices.

Results showed that source and point-of-use water supplied by community tankers were unsafe for human consumption. Point-of-use water supplied by ground tanks was unsafe for human consumption. Open top water storage containers impacted negatively on the microbial quality of drinking water and the presence of children aged 0-5 years of age influenced the poor microbial quality of drinking water. Where hygiene and sanitation education were provided to communities there was a higher incidence of diarrhoea and vomiting.

The management interventions to address the findings of this study are discussed. eThekwini Municipality management have agreed upon initiating an associated study to identify the source of contamination of community tanker water. An associated study will also be conducted in which the cleanliness and washing patterns of community tankers are monitored. All tankers will be subjected to routine quality assessments and random water quality tests. The Municipality is planning to purchase community tankers which will be used solely for the purpose of transporting treated drinking water.

A newly developed community based approach to improving water quality and health is explained. The fact that ground tank-supplied households, which had the better water quality, comprised members that presented with higher rates of diarrhoea was indicative of poor uptake of the hygiene program which was previously implemented in these areas. To address this issue as well as the poor quality of point-of-use water a new Cleanliness and Hand Washing campaign will be initiated and piloted in two peri-urban areas in Durban. This campaign encompasses a community-based approach in which trainers from eThekwini Municipality will inform community members on health education, proper hygiene and sanitation practices. Those participants who are observed to practice what is taught, show leadership, maturity and understanding of key concepts will be placed in a peer education program which will train them to become peer educators on hygiene and sanitation practices in their communities. These peer educators will receive rewards and recognition and if they achieve outstanding results they could be offered permanent positions as trainers or bursaries to study further from associated organisations who will partner in this activity. This approach has a two fold benefit. Firstly it could assist in solving the problem of poor uptake since members of the actual community will pioneer and sustain the program. Secondly, peer educators that are selected are likely to be unemployed members of the community. This program will allow them to serve their community, get experience in training/ facilitating, occupy them and improve their socio-economic status. The possibility of being a peer educator in the community is likely to drive more of the population to pay attention and adhere to proper sanitation and hygiene practices, since it will be associated with respect, rewards and recognition within communities.

Remedial interventions aim to: improve the microbial quality of drinking water at the source and point-of-use and to improve health outcomes of communities (viz. diarrhoea and vomiting). It also aims to empower and encourage community members to get involved in the upliftment and improvement of the sanitary environments of their communities.

In order to reduce water-associated illness, provision of safe and adequate amounts of water, hygiene and sanitation education and education on water-use behaviour should be provided as a package. Hygiene education was provided to households in this study, in conjunction with improved water supply and sanitation, but did not necessarily improve household hygiene practices. This discrepancy between education and practice warrants the implementation and investigation of further interventions which encourage and empower communities members to be the at the helm of change which they wish to see.
P102 - Prevalence of urinary incontinence among Medunsa female population

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BACKGROUND
Urinary incontinence (UI) involves a sudden involuntary leakage of urine during movement, such as when exercising, sneezing, laughing or coughing. It is a common problem in females and has been associated with significant physical morbidity, loss of independence, decreased quality of life and decreased participation in social and domestic activities.

PURPOSE
To determine the Prevalence of UI among the female staff of the University of Limpopo Medunsa Campus.

METHOD
The research study was approached quantitatively, cross-sectional as it seeks to determine prevalence. 145 women participated. Data was collected using a questionnaire to assess prevalence, impact on quality of life and medical intervention. SPSS 17.0 statistical tool was used to analyse the data and graphical and frequency tables were used to analyse the data.

RESULTS
Of the 145 participants, 32% reported to have UI. Risk factors associated with UI included age, race, and diabetes mellitus and increased BMI. Only 30% of the women with UI reported that the leakage of urine was impacting their life and only 28% reported a decreased quality of life. Majority (87%) of the women with urinary incontinence did not consult for this problem, citing that it was not a serious problem and 20% thought it is natural. 98% of participants with UI were not referred for Physiotherapy and only 4% knew the physiotherapists' role in this condition.

CONCLUSION
There is a significant prevalence of stress incontinence among women, with a significant impact and decrease of quality of life. There is a need for serious intervention to improve quality of life of women at this institution.

P103 - Effect of intestinal helminth infection on mycobacterial immune responses in children in a high-burden TB setting

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BACKGROUND
M.tb protection is associated with an enhanced Th1 cell mediated immune response that theoretically are down regulated by Th2 immune responses associated with helminth infection

OBJECTIVE
Examine helminth infection effect on mycobacterial immune responses in children (6/12 to 15yrs) from 3 high TB burden communities in the Western Cape.

METHOD
Tuberculosis household contact tracing study, with matched enrolment and inclusion of HIV positive children from a community ART clinic. Demographics, TB exposure, and M.tb infection status (tuberculin skin tests (positive ≥10 mm) and Quantiferon-Gold-in-tube (QFT) assay) were documented. Ascaris lumbricoides specific IgE was used as a proxy for helminth infection.

RESULTS
Of 236 children included, 125(53%) were exposed to TB; 99(42%) were TST positive, and 101(43%) were QFN positive (Kappa agreement 86%, p<0.001). Helminth infection was present in 60(25%). TB exposure was associated with a positive TST (OR 1.59, 95%CI 0.91–2.77, p=0.08). After stratification, the helminth uninfected group were twice as likely to have a positive TST (OR 2.25, 95%CI 1.17–4.38, p=0.009) than the helminth infected (OR 0.57, 95%CI 0.18–1.83, p=0.29). Logistic regression modelling showed an increased risk for TST conversion if the contact is the primary caregiver (OR 3.08, 95%CI 1.07–8.79, p=0.036), but a reduced risk for helminth infected (OR 0.29, 95%CI 0.15–0.97, p=0.04) and children under 5(OR 0.26, 95%CI 0.15–0.82, p=0.015).

QFT positivity and helminth infection (n=24, 24%) OR 0.86 95%CI 0.45 – 1.62 p=0.61) were not associated overall, but children under 5 shows a possible association (n=2, 6% OR 0.28 95%CI 0.03 – 1.36 p=0.08).

CONCLUSION
Findings suggest that helminth infection might affect the immune response to M.tb and the interpretation of M.tb infection screening results, especially in young children.
P104 - A cancer information service in the rural communities of the Eastern Cape Province: Challenges

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BACKGROUND
A project was established to provide counseling and information to newly diagnosed and previously diagnosed cancer patients, families and friends at cancer treatment centres using the available human and material resources through collaboration with CANSA and the Eastern Cape Department of Health.

METHODS
Four rural hospitals in the province were selected for piloting a cancer information service. Oncology trained nurses were recruited as counselors. Space for private one-on-one interaction between counselor and patient/relative was identified in each hospital. A training workshop was held for counselors. Aside from providing cancer information resources based on materials developed by health communication experts, inputs and skills building exercises in counseling were given. Thereafter, site visits and regular communication were used to monitor and support the project. A final workshop was held to review the project.

RESULTS
After the first year, 2 sites had successfully established the cancer information service whereas the other 2 sites were struggling due to environmental constraints and the requirements of routine responsibilities. All participants perceived that there was insufficient recognition of oncology services, a lack of support from other hospital personnel, especially doctors and that some patients do not fully believe in the biomedical model.

CONCLUSIONS
Collaboration of skills and co-operation yielded some results with minimal expenditure. However, the challenge is balance between routine responsibility by counselors and dedicated time to run the service. Successful sites resulted from a combination of personal commitment and enabling environment.

P105 - A model for evaluating outcomes of integrated voluntary counseling and testing programs at primary health care facilities

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Reproductive health research unit, University of Witwatersrand

INTRODUCTION
Given the importance of HIV counseling and testing services in HIV prevention and treatment strategies, evaluation activities are essential to determining the sustainability and quality assurance of service delivery. A comprehensive model for evaluating VCT services was developed to assess the Reproductive Health and HIV Research Unit’s (RHRU) VCT program at Esselen St. Clinic, notably a flagship of integrated service delivery in Johannesburg. The aim of the outcome evaluation was to measure the performance and capacity of the primary health care clinic to deliver comprehensive VCT.

METHODS
The evaluation model draws from the World Health Organization’s health systems framework (stewardship, resource creation, service delivery, financing, good health, responsiveness, fair financial contributions, coverage, quality, efficiency and equity) and previously published manuals. The methodology included quantitative tools: facility mapping, monitoring reports, patient flow analysis, client satisfaction survey, and staff questionnaire. The qualitative components included focus-group discussions with staff and in-depth interviews with management.

RESULTS
This VCT program evaluation model is more comprehensive than previously reported methodology. The limitations of it are that it is based on assumptions of the target population size, it does not address most-at-risk population specific needs, and lacks aspects on cost-effectiveness and equity. Such an evaluation would also benefit integration of the Wagner chronic care model as a framework for assessment. Nonetheless, this model does address gaps in VCT program evaluation models, such as assessing stewardship structures, monitoring and evaluation systems, coverage, responsiveness and health status.

CONCLUSION
The model provides useful information on system function strengths and weaknesses to insight key action areas to improve integrated VCT programs.
P106 - An outcome evaluation of a Primary Health Care model for Voluntary Counseling and Testing in the inner city of Johannesburg

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1 Reproductive Health Research Unit of the University of Witwatersrand, South Africa

BACKGROUND
In 2003, the Reproductive Health and Research Unit (RHRU) established a Counseling and Testing Program across 14 primary health care sites in Region F, Johannesburg to support the national anti-retroviral program and comprehensive, integrated HIV care. Evaluating activities of programs is important to determine effectiveness, sustainability and quality. A flagship in integrated service delivery, the VCT programme at Esselen St Clinic was evaluated (March-May 2010) to identify gaps in planning, provision and management.

METHODS
A mixed method approach was utilized. The methods included review of monitoring data (2006-2009), patient flow analysis (PFA), client satisfaction surveys and self-administered staff questionnaires, key informant interviews and focus group discussions with health care providers and management in addition to organizational mapping techniques.

RESULTS
PFA identified VCT as the primary reason for visiting the clinic among 25% of all clients (n=258, 58% males). The total number of VCT clients increased from 493 to 1811 (January 2006 - December 2009), particularly in non-HIV priority programmes. Linear regression has shown a slight decrease in HIV incidence (by 0.06 units, p>0.05). Waiting time for clients accessing VCT was shorter than those accessing other services (15.6% vs. 57%). Quality of care was perceived positive among clients however waiting time was a concern amongst working clients.

CONCLUSION
The VCT programme at Esselen St. clinic has increased access to health care in Region F, likely influenced by integration of services and provider-initiated counseling and testing. Stewardship requires improvement but findings highlight successes of the VCT program thereby serving as a landmark for strengthening South Africa’s counseling and testing service delivery.

P107 - Monitoring of HIV prevention programs implemented by ‘loveLife’ in South Africa

J Soomar, J Smith

loveLife

BACKGROUND
loveLife is an NGO which promotes healthy, HIV-free living among 12-19 year old South African youth. The organization goal is to reduce the rate of new HIV infection in youth, in order to reduce the overall prevalence of HIV in South Africa. loveLife reaches youth through media and a mobile social network combined with community-based interventions, allowing youth to participate in various programmatic activities. The large scale of the program and its diverse activities require an efficient monitoring system to measure project implementation progress.

METHOD
The program activities are implemented from 917 community hubs by approximately 1200 peer mobilisors and 7000 youth volunteers annually. From the hubs more than 800 000 youth are reached per year in approximately 6594 schools. Additionally, a variety of events like loveLife sporting events, youth festivals and dialogues between parents and children reach almost a million youth annually. HIV prevention among vulnerable youth is addressed through a network of 500 grandmothers (goGogetters) and the organization supports the department of health in establishing youth-friendly services at clinics. Furthermore, activities are supported by a national call centre including help-lines for parents and youth. Data is collected by the implementers through a paper-based system and captured by a national capturing unit.

RESULTS & CONCLUSION
Through the development and implementation of this system we learned that the support of management, the creation of a monitoring culture, the selection of simple and limited indicators as well as uncomplicated monitoring systems and procedures are key to ensure effective monitoring of loveLife’s varied activities.
P108 - A creative interactive approach to learning about TB and HIV: A resource for developing life skills in Grade 8

P Struthers, E Rooth, T Sylvester, A Christoffels

University of the Western Cape, Cape Town

The tuberculosis (TB) epidemic is closely associated with the HIV/AIDS epidemic in South Africa. In some communities in Cape Town the prevalence of TB is as high as 1:1000 people. While there is ‘AIDS fatigue’ amongst many learners and teachers in the education sector leading to a reluctance to focus on HIV/AIDS, there is an interest in learning more about TB and through this to learn more about HIV/AIDS. The University of the Western Cape is currently involved in the development of a resource for the Life Orientation curriculum that focuses on TB and HIV for grade 8 learners. In addition to providing information on TB and HIV, the material addresses the broad psychosocial learning needs of the learners including issues of self-esteem, management of stress, and addressing stigma related to TB and HIV. The resource will include a book for the learners, a handbook for the teachers and an interactive DVD. This poster will describe and illustrate the process of developing this resource which included the extensive participation of teachers and learners from three urban and one rural secondary school.

P109 - Home-based HIV counseling and testing in a rural community in South Africa: An intervention reaching more women than men

H Tabana, R Naik, W Zembe, W Binza, T Doherty, D Jackson

1South African Medical Research Council, 2University of the Western Cape, School of Public Health

BACKGROUND
Low uptake of facility-based HIV counseling and testing in South Africa has hindered treatment and prevention efforts. Barriers to HIV testing include transport, stigma, and stock outs of HIV test kits. Home-based HCT (HBHCT) may increase testing uptake. This analysis reports preliminary results on gender differences in a HBHCT intervention.

METHODS
A home-based HCT intervention is being implemented as part of a randomized controlled trial comparing home-based versus facility-based HCT in a rural community in KwaZulu-Natal. Eleven lay trained counselors offer HIV testing to clients within their own households. Data is collected on cell phones and transmitted via GPRS into a central database.

RESULTS
A total of 2746 people have been approached, 1952 (71%) females and 794 (29%) males, with 2350 (74%) accepting an HIV test. Of those tested, 74% were women. 234 (29%) males refused to test compared to 19% (359/1952) of females (OR 0.62, 95% CI 0.52-0.75). The most prevalent reasons for refusal were ‘not ready to know status’ (37%) followed by ‘status already known’ (35%). However, there were notable differences by gender. Twenty-five percent of females who refused testing reported that they already knew their status compared to 11% of males. Similar proportions of females compared to males refused testing because they were ‘not ready’, 19% versus 18% respectively.

CONCLUSION
Acceptance of HBHCT in this rural district is encouraging. However, the intervention appears to be reaching far more females than males. Innovative outreach strategies specifically targeting men may further enhance uptake of HBHCT.
P110 - Aqueous phase concentration and temperature as variables controlling the volatilisation of methyl-tert-butyl ether (MTBE)

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Division of Pharmaceutical Chemistry, Faculty of Pharmacy, Rhodes University

BACKGROUND
Methyl-tert-butyl ether (MTBE) is an industrial organic solvent and an oxygenated additive in hydrocarbon fuels. Leakage from storage tanks and discharge of industrial effluents are sources of environmental contamination. Volatilisation of MTBE from water is important with respect to human exposure to MTBE and making the relevant environmental health decisions. Henry’s law constant (H) is often used to characterise volatilisation of organic compounds. It depends on temperature and the aqueous phase concentration of MTBE (C_L). Influence of both parameters on H has not yet been studied in detail for MTBE.

OBJECTIVE
Determine the dependence of H of MTBE on temperature and C_L.

METHOD
H was measured at the initial C_L values from 7.5 to 5000.0 mg/L between 30 and 50 ºC using the CombiPal autosampler and the 3800 Varian GC. At equilibrium, the gas phase concentrations of MTBE were first determined chromatographically, thereafter C_L and H were calculated from the mass balance of the known total MTBE amount.

RESULTS
C_L values ranged from 5.26 ± 0.02 to 4610 ± 4 mg/L, while H ranged from 0.037 ± 0.002 to 0.153 ± 0.004. H increased with increasing temperature, and varied as a function of C_L (p-value < 0.0023 in all cases at 5 % level of significance in the Kruskal-Wallis ANOVA by ranks). Formation of hydrogen bonds by MTBE in the aqueous phase could explain the observed dependence.

CONCLUSIONS
The average H can be used inside the intervals of C_L and temperature to make environmental health decisions.

P111 - Looking beyond ‘lifestyles’ factors: A broad approach to prevention of non-communicable diseases in peri-urban setting

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University of Western Cape

Over the years non-communicable diseases (NCDs) have increased in developing countries, and this is exacerbated by the growth in urbanisation. There is a plethora of factors influencing this increase namely the availability of cheap unhealthy foods and the limited scope for physical activity. In addition socio-economic constraints, cultural beliefs and practices have also been demonstrated to fuel the problem of NCDs. This study aimed to examine the experiences and perceptions of people migrating from rural to urban areas in Cape Town and the impact these have had on the risk factors of NCDs.

METHODS
The setting is an impoverished peri-urban township with a NCDs prevention program that includes weekly health clubs. A qualitative approach was adopted, using a purposive sample of club members and non-club members. Methods were used were in-depth interviews, participatory reflection and action groups and focus group discussions.

RESULTS
Significant changes in respondents’ eating patterns and levels of physical activity were described, with accompanying increase in obesity. This was due to both socio-economic and environmental constraints. However, the respondents were not concerned about these changes. Despite many hardships, they were pleased with their new urban lifestyle. Furthermore, they approved of their weight gain as culturally it signified dignity and respect. Those attending health clubs found them both informative and socially and emotionally supportive.

CONCLUSION
The study highlighted the complexity of the risk factors of non-communicable diseases, and the importance of developing prevention strategies that extend beyond the traditional lifestyle approach that focus on diet and exercise.
P112 - A qualitative assessment of the Soul City OneLove campaign: Multiple concurrent partnerships, transactional and intergenerational sex amongst young women in South Africa

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INTRODUCTION AND OBJECTIVES
Soul City launched the OneLove campaign in January 2009. The campaign aims to contribute towards the reduction of HIV incidence by decreasing multiple concurrent sexual partnerships (MCP) and its determinants. One determinant of MCP is transactional sex, with young women who live in poor communities having sex for financial gain, potentially putting themselves at risk for HIV. A midway evaluation was conducted to assess the progress of the campaign within the first year of its launch. Objectives included: to explore how the OneLove message was received amongst young women and to understand knowledge gained and self-reported behaviour change around transactional and intergenerational sex, as well as multiple partnerships.

METHODS
A qualitative evaluation using 10 focus groups with males and females in separate groups was conducted. Data were transcribed verbatim and analysed thematically using ATLAS.ti.

RESULTS
Focus group discussions with young women revealed that they were aware of, and understood the messaging of the OneLove multimedia campaign. They reported having made informed decisions around their relationships and avoiding transactional and multiple relationships. They also reported learning about constructive income generating activities. However, poverty and alcohol use continue to play a critical role in the display of risky behaviours by young females.

CONCLUSIONS
OneLove has had some success in reaching young females in terms of transactional and intergenerational sex, and MCP. These findings suggest that the campaign is well under way in reaching young women and promoting positive behaviour change. Future mass communication for HIV prevention needs to address structural factors associated with transactional sexual relationships.

P113 - The impact of the child support grant on the dietary diversity of children in South Africa

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INTRODUCTION
Child Dietary Diversity (DD) measures the quality of children’s diets. Dietary diversity is associated with nutrient adequacy and nutritional status. It increases with income and wealth. The Child Support Grant (CSG), is intended to reduce child poverty. We present results from a cohort study that followed 760 mother-infant pairs for up to three years across three sites in South Africa assessing the impact of the CSG on child health outcomes. This paper reports on the association between CSG receipt and dietary diversity.

METHODS
Dietary diversity was measured by 7 day recall of forty four food items within nine food groups. Two scores were used to measure dietary diversity compared with CSG receipt and timing of CSG receipt (less than 6 months vs greater than 6 months of age).

RESULTS
The mean age of children at data collection was 22 months. A significant association exists between CSG receipt and DD for certain food groups. For the >3day and 7 day consumption score, DD association with CSG receipt was significant for Soya Proteins and Legumes (p< 0.03). For CSG-Early versus Late receipt, the >3day score was significant for vitamin A rich fruit and vegetables (p< 0.01), snacks (p< 0.00) and commercial baby foods (p<0.05).

CONCLUSIONS
CSG receipt is positively associated with Dietary Diversity, especially for Soya Proteins, Legumes and Vitamin A rich fruits and vegetables. It is concerning that grant receipt is associated with greater consumption of snacks.
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