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L01 - ADOLESCENTS PERCEPTIONS OF THE ONSET OF THEIR CIGARETTE SMOKING BEHAVIOUR AND THE FACTORS THAT MAINTAIN THEIR HABIT

N Arendse
Medical Research Council (MRC), Cape Town, South Africa

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. 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’.

CONCLUSIONS
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.

L02 - THE IMPOVERISHING AND CATASTROPHIC EFFECTS OF OUT-OF-POCKET PAYMENT FOR HEALTH CARE IN SOUTH AFRICA

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INTRODUCTION
Out-of-pocket (OOP) payment is still a major health financing mechanism in African countries including South Africa. Traditional poverty assessments do not reflect the impact of out-of-pocket payments on households. Such payments reduce household’s consumption of other basic goods. In South Africa, OOP payments account for about 15% of total health care financing. As an objective, the paper uses standard methodologies to examine household expenditure for health care in South Africa, measuring the extent of impoverishment and the distribution of catastrophic OOP health care payments.

METHODS
We use data from the Income and Expenditure Survey (IES 2005/06). The difference in poverty before and after health care payments measures the impoverishing effect. The recent World Bank’s $1.25/day and $2.50/day and national poverty lines were used. The Foster-Greer-Thorbecke indices as well as the Pen’s parade were also used. Households making catastrophic payments are identified as those spending more than 10% (40%) of total (non-food) household expenditure on OOP payments for health care.

FINDINGS
Between 200,000 and 300,000 individuals representing about 0.5% of South Africans are impoverished as a result of out-of-pocket health care payments annually. This is greater amongst rural dwellers and the uninsured. Similarly, over 50,000 South Africans annually make health care payments in excess of 10% of their resources. As a result of health care payments, the non-poor are further pushed into poverty and there is a deepening of the poverty of those already poor. The impoverishment and catastrophic effects are heightened by the absence of adequate financial protection.
L03 - HEALTH FINANCING AND BENEFIT INCIDENCE IN SOUTH AFRICA: IMPLICATIONS FOR THE CURRENT HEALTH INSURANCE POLICY DEBATES

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INTRODUCTION

How health care is financed has important implications for whether South Africa achieves the MDGs. Cross-subsidisation from the better off to the poor, where people receive health care on the basis of need and pay according to ability to pay, is an important means to achieve these goals. This presentation will show the distribution of the burden of health financing across socio-economic quintiles, and compare this with the monetary value of health service benefits received and the relative need for care. As a result the presentation will evaluate the extent of income and risk cross-subsidies in the health system.

METHODS

The Income and Expenditure Survey (2005/2006) and a specifically commissioned nationally representative household survey (SACBIA 2008; n=4800) are used for the analyses. Financing incidence extracts households’ contribution to tax, health insurance and out-of-pocket payments. The ratio of health payments to household consumption is used to assess fairness. Utilization rates of various health services multiplied by the unit cost are used to calculate benefit incidence. The need for care is based on self-assessed health status.

FINDINGS

Health care financing in South Africa is strongly progressive, with the wealthier paying a higher proportion of their income. While this is positive, benefit incidence and assessment of relative need demonstrate that cross-subsidies are low, and people pay for what they use. These findings reveal the extent of inequity in health care financing and have important implications for current policy debates and the need to move towards a broader mandatory insurance in South Africa.

L04 - IDENTIFYING ROLES AND COMPETENCIES OF DISTRICT AND SUB-DISTRICT PHARMACISTS: CASE STUDY FROM CAPE TOWN

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INTRODUCTION

The shift in health care delivery in South Africa to a primary health care approach based on the district health system has implications for human resource development as district and sub-district pharmacists were appointed to manage pharmaceutical services in the health district. This study aimed to define the roles and competencies of district and sub-distRICT pharmacists in Cape Town.

METHODOLOGY

A participatory action research approach was used to partner with relevant stakeholders with responsibility for public sector primary level pharmaceutical services in Cape Town - including Metro District Health Services and the City of Cape Town. Interviews with key informants and a series of workshops attended by pharmacists and health managers took place in Cape Town during 2008 and findings were triangulated with published and grey literature.

RESULTS

A list of “roles” of district and sub-district pharmacists was developed which included:

Planning, management, co-ordination and monitoring of medicines, human resources, budget and pharmacies:

Advise on professional, legal and technical aspects of pharmaceuticals
Participation in quality assurance and clinical governance
Participation in research related to medicines and pharmaceutical services

The “competencies” identified to perform these roles were classified into four competency clusters: Management; Health system/Public health; Professional pharmacy practice; and Personal and interpersonal competencies.

CONCLUSIONS

This research provides valuable information on a key member of the healthcare team that could be used to identify the training and development needs of pharmacists.
L05 - TRACKING TOBACCO ATTRIBUTABLE DEATHS IN SOUTH AFRICA, 1999-2006

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OBJECTIVE
The question “Was the deceased a smoker five years ago?” was introduced on the South African death notification form in 1998. Data for the period 1999-2006 are analysed to assess the trend in tobacco attributable deaths.

METHODS
Using a proportional case-control approach, the prevalence of smoking among those who died of specific causes was used to estimate the relative risk of tobacco related mortality. Cases comprised deaths from causes known (from other studies) to be causally associated with smoking, and controls comprised deaths from medical conditions expected to be unrelated to smoking, excluding external causes, and diseases strongly related to alcohol consumption.

RESULTS
Out of 4 million deaths, 56% had information recorded about smoking status. The highest OR was for lung cancer (OR 4.09, 95% CI 3.89-4.29) followed by other upper aerodigestive cancer (OR 3.44, 95% CI 3.18-3.73). Significantly increased risks were found for deaths from tuberculosis (OR 1.33, 95% CI 1.31-1.35), chronic obstructive pulmonary disease (COPD) (OR 2.17, 95% CI 2.11-2.23), and degenerative artery disease including ischaemic heart disease (OR 1.63, 95% CI 1.58-1.68).

CONCLUSION
The introduction of the smoking question on the death certificate provided SA with an important tool to measure tobacco attributable mortality directly and monitor the prevalence of smoking, albeit retrospectively. The sizable burden attributed tobacco indicates the need for further efforts to reduce smoking. The tobacco related questions need to be maintained in the revised death notification while the extent of bias needs further investigation.

L06 - IMPACT OF GLOBAL HEALTH INITIATIVES (GHIS) ON THE HEALTH WORKFORCE IN BURUNDI

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BACKGROUND
Burundi’s health system was weakened by a long-lasting civil war and has subsequently faced severe economic constraints and massive brain drain. Humanitarian aid, mainly prevailing during the war, was replaced by GHIs activities from 2002 (GAVI, the Global Fund and the World Bank Multisectoral AIDS Program). The study aimed to understand the impact of GHIs on the health system in Burundi, with a special focus on human resources for health (HRH).

METHODS
Qualitative and quantitative data were collected in Burundi between January and May 2009, from 14 facilities in 3 provinces and from national and provincial levels.

RESULTS
GHIs have contributed to capacity building in HRH, but in a selective way and general working conditions have seen little recent improvement. GHIs have contributed to multidisciplinary HR trainings, but in sectors specific to GHIs’ focal diseases, though some have expanded to health system strengthening. Organisational structure has undermined the integration of GHIs and Governments programmes, creating parallel supervision, monitoring and evaluation and supply systems, thus increasing the workload. This has also led to distinct groups of patients, HRH and program managers, and to poor service delivery.

CONCLUSIONS
Special attention should be given to HRH as the core of the health system. Improving the efficiency of GHI funding requires health workforce strengthening. Through revising HRH policies, training curricula and salaries. Pooling donors’ funds for such initiatives could be highly efficient, as proposed recently in high-level fora, but the performance and the quality of HRH should be comprehensively and independently assessed in parallel.
L07 - LESSONS LEARNT FROM PANDEMIC INFLUENZA H1N1 2009 IN THE WESTERN CAPE

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INTRODUCTION
The “swine flu” or pandemic influenza H1N1 (2009) has been one of the major health events of the year. While milder than expected when it was first recognised it elicited most of the reactions typically associated with any significant epidemic.

METHODOLOGY
This is a personal perspective of the pandemic in the Western Cape and will briefly describe some responses to the pandemic, on the part of the media, the health authorities and public health and infectious disease specialists, hospital management, both private and public, educational institutions, students and parents and health workers.

RESULTS
The response tended to be reactive but in hindsight, reasonably appropriate albeit a little delayed. We were prepared to some extent because of the guidelines and protocols developed for the Avian flu pandemic. WHO kept us reasonable well informed of the progress of the pandemic and produced useful updated guidelines. About a third of the population seems to have had flu like symptoms since August which are likely to be the result of the pandemic virus. We had relative few deaths and the ICUs were more overstretched than usual for a few weeks, but the populous in the province has escaped relatively unscathed. If we hadn’t heard of the pandemic, except of the deaths in pregnant women, we would not have known that something unusual was happening.

CONCLUSIONS AND RECOMMENDATION
The first wave of the 2009 flu pandemic has been a useful and interesting exercise in the Western Cape. Some of the challenges facing the City of Cape Town and the Province in preparing for a possible second wave will be outlined.


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BACKGROUND
South Africa (SA), an upper middle income country, spent 7.7% of the Gross Domestic Product on health in 2005. Although health expenditure is comparable to other middle income countries, SA has adverse health outcomes and faces the HIV/AIDS epidemic. Equitable and efficient financing of the public health sector is required to make optimal use of limited resources.

METHODS
A cross sectional study of all institutions in SA related to the public health sector was conducted from 1 April 2003 to 31 March 2007. Two primary databases from the SA National Department of Health were used for the health expenditure review, the financial management system and basic accounting system.

RESULTS
The total public health sector expenditure increased from R30.4 billion in 2003/2004 to R43.7 billion (real value) in 2006/2007; increase of 43.5%. Despite the level of spending, disparities exist with inequitable distribution of resources between provinces. In 2004/2005 Gauteng, SA’s wealthiest province, spent 22.0% of the total expenditure compared to the Northern Cape with 2.4%. Spending on primary health care (PHC) has risen by 47% and 32% respectively in PHC facilities and district hospitals in 2006/2007, compared to 2003/2004. However, approximately 36.8% of the resources are allocated to secondary and tertiary hospitals compared to 26.4% on PHC facilities and district hospitals.

CONCLUSIONS
Resources are available to meet the health needs of South Africans. Despite improvements, inequitable distribution of resources exists between regions and levels of care. Progressive legislation and the reallocation of resources is required to improve health care delivery.
L09 - FINANCING EQUITABLE ACCESS TO ART IN SOUTH AFRICA

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INTRODUCTION
The South African government’s intention to provide antiretroviral treatment by 2011 for those in need, will lead to over 3 million being on ART by 2020. Overall funding levels in the public health sector have been relatively stagnant until recently, despite large increases in the burden of disease. This study documents the costs of meeting this commitment to ART as well as the investments needed in our public health care system to make this achievement both affordable and sustainable.

METHODS
The costing includes both variable and fixed direct healthcare costs required to increase the capacity of the healthcare system. Markov modeling and Kaplan-meier survival models were used to estimate the long-term costs of care. Estimates of need are from the ASSA2003 lite model. Modeling of the resource requirements for an adequately funded health system is primarily based on utilisation rates for different services and the unit costs of different services, specified as cost per visit and cost per inpatient day.

FINDINGS
Key results from this study indicate that: The costs of providing equitable access to ART require over a quarter of current public health resources on average between 2010 and 2020. By 2020, resource needs would exceed 40% of those currently available, suggesting serious concerns regarding affordability and sustainability. Both access to ART as well as general improvements in quality of care and access to services could be funded by increasing health expenditure on the public health sector from 3 to 5% of GDP.

L10 - DEFINING THE GAP BETWEEN POLICY AND PRACTICE: THE EXPERIENCE OF REHABILITATION PROFESSIONALS WITHIN THE SOUTH AFRICAN PUBLIC HEALTH SECTOR

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BACKGROUND
The provision of rehabilitation services has received little attention within the context of health sector reforms in SA. Biomedical and clinical research agendas dominate the rehabilitation professions, with limited evidence from a health systems approach. This paper examines the human resources component of the National Rehabilitation Policy in South Africa which was formulated to improve access to rehabilitation services within the public health sector.

METHODS
Qualitative methodology using a case study design was used to understand the alignment of policy to practice and identify integration challenges as experienced by those providing rehabilitation services. The target groups were managers of rehabilitation services at the three levels of SA’s public health system. Four sources of data were used to ensure rigor and reduce bias.

RESULTS
The findings reveal that not only is there a widening gap between policy and practice, but also a shift away from policy intentions. Resistance to integration, problems with professional identity and capacity constraints hindered the implementation of an integrated rehabilitation service, within a defined district. Evidence of management failures demonstrate that lack of ‘implementation capacity’, is a critical explanatory variable for rehabilitation professionals in managing change.

CONCLUSION
Policies and professional norms and standards that aim to guide human resources in health are not coherent. These directly influence human resource performance, and have served to highlight the social and institutional phenomena impacting on service delivery. Improving public sector performance therefore requires a critical analysis of the institutional context within which policies are introduced in SA.
L11 - SPERM CHROMATIN INTEGRITY OF A DDT EXPOSED SOUTH AFRICAN POPULATION LIVING IN A MALARIA AREA

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INTRODUCTION
The Stockholm Convention has banned a dozen of chemicals known as persistent organic pollutants (POPs), a family of man-made chemicals which includes the organochlorine pesticide, DDT (1,1,1-trichloro-2,2-bis(chlorodiphenyl)ethane). DDT is however is still used in some developing countries to combat malaria (Millinium Development Goal 6). Several reports have indicated that DDT and its main metabolite DDE, are not only toxic but may behave as endocrine disruptors and, as such, may impair wildlife and human fertility and general health. There is mounting evidence that deteriorated semen quality can be associated with increased serum concentration of DDT and its metabolites in several populations worldwide. However, there are limited and contradictory epidemiological data on whether DDT can also damage sperm DNA.

METHODS
This cross-sectional study involved 209 young males recruited in an endemic malaria area (Limpopo Province, South Africa) where DDT is sprayed annually. DDT and DDE levels were measured in plasma. The flow cytometric sperm chromatin structure assay (SCSA) and Anilin Blue (AB) methods were used to assess sperm DNA/chromatin integrity.

RESULTS
The lipid adjusted p,p'-DDT (mean±SD) concentration was 109.2±106.6 μg/g lipid whereas the p,p'-DDE concentration was 246.2±218.5 μg/g lipid, the highest blood levels measured so far in a reproductive toxicology human survey. The results point to a weak association between DDT/DDE plasma concentration and the incidence of sperm with chromatin defects

CONCLUSIONS
The results suggest that non-occupational environmental DDT exposure might have a negative impact on the sperm chromatin integrity of young South Africans.

L12 - EPIDEMIOLOGY OF UNINTENTIONAL DROWNING IN SOUTH AFRICA (RSA): 2001-2005

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INTRODUCTION
The dearth of drowning data is a problem that faces epidemiologists, policy makers and legislators alike. In South Africa 2730 drowning were reported to the National Injury Mortality Surveillance System between 2001-2005.

METHODS
The study is a five year retrospective investigation of drowning deaths for six RSA cities between 2001 and 2005. The NIMSS produces and disseminates descriptive epidemiological information on deaths due to non-natural causes that, in terms of RSA legislation, are subject to medico-legal investigation. The NIMSS has full coverage for Pretoria, Johannesburg, Cape Town Durban Port Elizabeth and East London from January 2001 to December 2005.

RESULTS
Overall, the most common occurrence of drowning were found between the ages 0-4 years. The ratio of male to female deaths was 3.6:1. Nearly 80% of drowning victims were male with the largest percentage of male victims found in the 15-29 age category. Most drowning occurred in sea, lake, rivers or dams while one -quarter occurred in and around the home. Drowning most likely occurred between 12h00 and 16h00, over weekends and during the summer months November to February. A significant association was established between drowning and alcohol consumption. In 42% of cases victims were alcohol positive and in 36% of cases they were above the legal limit for drivers of 0.05g/100dl.

CONCLUSION
The profile of drowning deaths in this serves as an entry port for indulgence in further investigations that may yield evidence through which policy, practice and legislation may be informed.
L13 - REPRODUCTIVE HEALTH EFFECTS DUE TO PESTICIDE EXPOSURE IN BOYS IN THE WESTERN CAPE PROVINCE, SOUTH AFRICA

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BACKGROUND
Many contemporary agricultural pesticides are hormonally active and associated with declining male reproductive health. Agricultural pesticide use in the Western Cape is substantial. The aim of this study was to investigate the reproductive health effects due to environmental pesticides exposure on boys in the rural Western Cape.

METHODS
An analytical cross-sectional study of 269 boys residing in three rural agricultural areas and neighbouring non-agricultural areas were conducted. Tests included a questionnaire with items on demographic information, medical history, environmental exposure history, exposures at birth and phyto-estrogen intake, a physical examination determining sexual maturity and growth status and blood reproductive hormone measurements. The environmental exposure history included participant’s lifetime residence on farms and information on their exposure to agricultural pesticides.

RESULTS
The exposed (65.1%) - boys who lived on farms- and control groups (34.9%) were comparable with respect to median age, general health, and phyto-oestrogen intake, but differed according to the median household income (R1800 vs R2500, respectively). Baseline hormones (higher or lower than the laboratory normal range for age) were generally high in both groups with abnormal LH, FSH and oestradiol levels higher, and testosterone levels lower in the exposed group. Height, weight and BMI measurements below the 25th or 50th percentile for age were high in both groups but were significantly higher (p < 0.05) in the exposed group. More detailed analysis and multivariate regression analysis are underway.

CONCLUSION
The results suggest that environmental pesticides exposure is associated with adverse reproductive and developmental effects in boys.

L14 - THE JOINT INFORMATION MANAGEMENT INITIATIVE (JIMI): IMPROVING DATA MANAGEMENT IN THE WESTERN CAPE PROVINCE, SOUTH AFRICA

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BACKGROUND
Standardised data management practices and processes are vital for the reporting of good quality data, and for informing health planning and resource allocation. A prior study of information management (IM) practices in the Western Cape Province highlighted deficiencies in data management, and variation in IM capacities at District level. The aim of this paper is to present the process of establishing a joint initiative between two health programmes in the Western Cape Department of Health, and the development of a set of tools for improving data management.

METHODS
Since 2007 the JIMI team, consisting of public health specialists and IM staff conducted a series of workshops and meetings to determine which tools and processes would be most applicable to the local setting. Theoretical frameworks were used to guide the development of the multi-component JIMI intervention.

RESULTS
The JIMI team conducted a series of workshops involving representatives from all regions. Draft tools, which were developed based on input and feedback from the regions, were revised following each meeting. Standardised data collection and collation tools; simplified data definitions; standard operating procedures for data management at facility, sub-district, and district level; and support materials (reference manual, change control forms, policies) were developed. Training requirements were assessed and training modules created based on these needs.

CONCLUSION
JIMI provides a model of IM systems strengthening, and demonstrates that by using theoretical frameworks, it is possible to develop an innovative and tailored IM strategy that supports monitoring and evaluation of public sector health data.
L15 - POLICY INTERVENTIONS TO IMPROVE HEALTH WORKER RETENTION IN RURAL AREAS: BASELINE RESULTS FROM THE CREHS COHORT STUDY

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OBJECTIVES
Redressing the maldistribution of human resources between urban and rural areas is a health system priority in South Africa. The aim of this project is to support the identification of effective policy interventions that will improve the recruitment and retention of nurses in rural areas by investigating the attitudes, values, preferences and career choices of a cohort of nursing graduates.

METHODS
377 final year professional nursing students from Gauteng and the North West provinces were recruited into the cohort. Baseline data collection with the students included a self-administered questionnaire, a discrete choice experiment, experimental economic games and focus group discussions with selected students.

RESULTS
The cohort members are predominantly female and single with a mean age of 31.0 years. The nursing students’ early career preferences and their attitudes towards working in rural areas will be presented. Of concern was that only 39.9% described nursing as their first career choice. The experimental economic games suggested that South African nurses are less altruistic towards patients than similar cohorts in Thailand and Kenya. In the discrete choice experiment, the most important policy interventions to attract nurses to rural areas were a 30% rural allowance and providing preferential access to specialisation opportunities. The likely impact of different combinations of policy packages was also modelled.

CONCLUSIONS
This study provides information on nurses’ sensitivity to various incentives and the relative effectiveness of different policy interventions to alter their geographical distribution. Longer term follow up will allow comparison between these baseline findings and nurses’ actual choices.

L16 - EVALUATION OF COMMUNITY BASED GROWTH MONITORING IN RURAL DISTRICTS OF KWAZULU-NATAL AND THE EASTERN CAPE

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INTRODUCTION
Establishing and strengthening sustainable growth monitoring practices at health facilities and in communities is a focus area of the Integrated Nutrition Programme of the Department of Health. Health Systems Trust implemented community-based growth monitoring activities in rural districts in KwaZulu-Natal and the Eastern Cape and commissioned an evaluation of this project.

METHODS
Growth monitoring and nutrition education activities were observed at five community-based growth monitoring sites for each of three sub-districts (Jozini, Phongola and Nyandeni). Caregivers (n=186) attending the growth monitoring sites were interviewed. Project volunteers’ (n=45) knowledge on infant and young child nutrition and growth monitoring was assessed by questionnaire.

RESULTS
Half of the 15 growth monitoring sites were at a crèche. Weighing methods were inconsistent and the steps of growth monitoring were not always followed through. There was a referral system between the growth monitoring site and the local clinic. Nutrition education to caregivers was observed at half of the sites. Project volunteers were mostly females (87%), 38 ± 10 years old, and 27% had matric/grade 12. There was a high turn-over of project volunteers. Their nutrition knowledge varied. Forty-six percent of project volunteers and 38% of caregivers could correctly identify the growth curve of a healthy growing child.

CONCLUSIONS
Areas that need strengthening include the selection, training and supervision of project volunteers doing community-based growth monitoring. The strengths and limitations of the project identified by this study are valuable to HST, Department of Health and other NGOs who wish to implement similar projects.
L17 - CHARACTERISTICS OF RANDOMIZED CONTROLLED TRIALS OF MALARIA PREVENTION AND TREATMENT IN AFRICA

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INTRODUCTION
The Pan African Clinical Trials Registry (www.pactr.org) provides a platform to prospectively register African trials and will in time contain a comprehensive database of completed trials. This study aimed to describe randomized controlled trials (RCTs) of malaria prevention and treatment conducted in Africa, and analyze their geographical and temporal distribution and clinical characteristics.

METHODS
Systematic searches of electronic databases (Medline, Embase, CENTRAL, LILACS) were run in 2007 to identify abstracts of all published malaria RCTs; African trials were identified by applying a geographic search filter. A random sample of abstracts (N = 173) was further analyzed and full text articles obtained for all RCTs and possible RCTs. Data was extracted by two independent investigators and differences resolved with a third investigator.

RESULTS
We obtained 1814 records describing malaria trials. The first trial took place in 1948 and globally the number of malaria trials has increased over time. Half (943) were reports of trials conducted in Africa with the highest number in Kenya, Tanzania and Nigeria. From the random sample we identified 74 abstracts as definitely RCT (42.8%; 48 (27.7%) as not randomized, and for 51 abstracts (29.5%) it was not possible to clearly determine eligibility without the full-text. After obtaining full-texts, we identified 99 RCTs. We will present our analysis on types of interventions, trial participants and clinical characteristics.

CONCLUSIONS
This retrospective analysis of African malaria trials provides useful information for researchers and policy-makers when planning trials. In future, the PACTR will allow regular updating of this trial cohort.

L18 - ETHIOPIA'S PROGRESS TOWARDS THE MILLENNIUM DEVELOPMENT GOALS (MDGS) FOR HIV/AIDS

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OBJECTIVE
The objective of the study is to project HIV/AIDS incidence and prevalence in Ethiopia for the year 2015 based on 2005 Ethiopian Demographic and Health Survey data (EDHS 2005) and other relevant data sets obtained from various research institutions with a view to assess the impact of HIV/AIDS and poverty on the likelihood of meeting Goal 6, Target 7 of the millennium development goals (MDGs).

METHODS
Econometric and bio-statistical analyses are performed based on descriptive, cross-sectional (2005) and longitudinal (1980 to 2015) data sets. The methods of study are mostly quantitative (descriptive statistics, graphical methods, multiple linear regression including time series analyses). A few qualitative methods have been employed to supplement results of econometric and multivariate data analysis. HIV/AIDS incidence and prevalence rates for the years 1980 to 2015 have been estimated and projected. Multivariate analyses are done using various socio-economic, demographic and health related variables affecting economic and health conditions in Ethiopia.

VARIABLES
For the years 1996 to 2005, the impact of the HIV/AIDS epidemic on the Ethiopian GDP is estimated using predictor variables such as infant mortality rate, observed HIV/AIDS incidence, population size, dependency rate, health sector expenditure, gross national investment, life expectancy and others dropped by the elimination process. The effects of economic and health indicators (GDP, infant mortality rates, AIDS cases, health sector expenditures and crude birth rate) on life expectancy have been also analysed separately.

RESULTS AND CONCLUSION
Based on EDHS 2005, the prevalence of HIV/AIDS among the adult Ethiopian population is estimated to be 1.5 % for 2005 (ranging 0.9 - 5%) and projected to be 3% (ranging 2.8 - 3.8%) for 2015. It is also projected that new infection will be observed up until 2015 that will further exacerbate the prevailing vicious circle of poverty in the country. As a result, Ethiopia will not be able to meet the MDGs for HIV/AIDS by the year 2015 unless drastic measures are taken to improve the intervention levels, the quality of health services and the poverty in areas severely affected by the epidemic. The study has also shown that the factors most responsible for the observed failure to meet the MDGs is the absence of effective strategy on how to address the lack of basic health services and the abject poverty among the general population. Thus, there is a dire need for coherent and clear strategy in which the spread of HIV/AIDS can be curbed more effectively. HIV/AIDS programs must be integrated with poverty eradication and education. Further recommendation is made for implementation of government-led participatory monitoring and evaluation as well as SMART intervention programmes funded adequately by the national government along with empowering the people most severely affected by the spread of HIV/AIDS, poverty and illiteracy.
L19 - THE INFLUENCE OF PARENTAL SOCIALIZATION ON ADOLESCENT ALCOHOL USE IN A DISTRICT OF KWAZULU-NATAL, SOUTH AFRICA

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BACKGROUND
The high prevalence of alcohol use among South African youth is a cause of concern. Little attention is paid to parental influence on adolescent alcohol use. The aim of this study is to investigate the influence of parental socialization on adolescents’ alcohol use.

METHODS
A cross-sectional, self-administered survey was conducted among 704 adolescent learners between ages 16 to 18 years old. Frequencies were calculated; Chi-square and logistic regression analyses explored associations between adolescents’ alcohol use, perceptions of parental drinking, communication and alcohol use house rules.

RESULTS
Parents were perceived by 51% and peers by 34% to be influential regarding drinking. 54% had consumed alcohol before, 13% of parents offered them their first drink. Alcohol use initiation was as early as 13 years. Males were more likely to use alcohol than females, p < 0.001 (OR = 2.052). Binge drinking was reported by 23% of males and 9% of females. Between 23-27% of parents seemed aware of their adolescents’ alcohol use. 84% of mothers communicated about risks and 37% about safer drinking practices. Adolescents who reported seeing their parents drunk were more likely to use alcohol (p < 0.001). More than 40% of parents consented to adolescents’ use of alcohol but 70% did disapprove of drinking with peers. Logistic regression analyses indicated that house rules and parental drinking significantly predict adolescent alcohol use.

CONCLUSION
Parental influence and more so parental alcohol use played a significant role in adolescent alcohol use. Public health interventions need to include parents as a significant target group in adolescent alcohol use prevention interventions.

L20 - EQUITY-ORIENTED POLICIES IN PUBLIC HOSPITALS: HOW LOCAL LEVEL POWER AND ORGANISATIONAL CULTURE DETERMINE IMPLEMENTATION

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INTRODUCTION
This presentation examines the implementation of two equity-oriented policies: the Uniform Patient Fee Schedule (UPFS) and Patients’ Rights Charter (PRC). The exemptions built into the UPFS, coupled with the graduated fee levels, are important measures supporting equitable financial access to hospitals. The PRC can contribute to equity through the empowerment of patients and by ensuring that all patients are treated with respect, courtesy and dignity. The research documented key influences over the implementation, including the exercise of power by managers and frontline implementers, as well as trust in managers and organisational culture.

METHODS
The presentation draws on detailed case study research conducted in two South African district hospitals, one in North West Province and the other in the Western Cape. The methodology included surveys of organisational trust and culture in both hospitals and approximately 200 semi-structured interviews with provincial and hospital managers, health workers, non-clinical hospital staff members, patients and hospital board members.

FINDINGS
The presentation will describe, firstly, how seemingly unimportant frontline implementers reacted to policies that threaten their interests and shaped the outcome of policies through their exercise of discretionary power. Secondly, how the meanings attached to policies and the ways in which they are framed by those driving and overseeing implementation influenced both the practices and focus of frontline implementers and the eventual broad trajectory of the policy. Thirdly, how the work environment, management-staff relations and organizational culture created local-level contexts that have to be navigated and negotiated in policy implementation.
L21 - CREATING EXPLORATIVE SPACES FOR YOUTH TO FIND THEIR OWN VOICE. THE UNIQUE ROLE OF THE EXPERIENTIAL EXPRESSION ARTS IN BUILDING SELF LEADERSHIP SKILLS

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BACKGROUND
Research shows that many of the public health interventions in HIV do succeed in building participant knowledge and skills yet changes in behaviour are not taking place as reflected in HIV prevalence rates. It is suggested that a foundation program for youth that builds a sense of self via embodied creativity is essential in enabling alternate life choices.

METHODS
An experiential artmaking programme in movement, visual arts, narrative, sound, improvisation with a strong emphasis on experiential body based learning for building self trust and personal resilience.

The findings of a 6 week pilot experiential art making experience with youth male and female ages 15-17 years in a peri-urban area of Durban suggest that positive value is experienced by youth in achieving the objectives for self-leadership: building self awareness, self value and self trust; building tolerance for personal and social uncertainty, strategies in self support and building skills in self/other interaction.

RESULTS
It is demonstrated that even in a short duration program the unique role of the experiential artmaking explorative space for youth is seen in that they come to see themselves more clearly, consolidate a sense of self and to “know it in them”. Seeing self more clearly enables youth to practice self trust, consolidate self confidence and create a firmer foundation for decision-making. Consolidation of the foundation of a sense of self enables the youth to hold their own in the face of external pressure, realize personal potential and to set and hold future goals as a dominant influence in their lives. The views of the youth themselves substantiate that a firm sense of self enables healthy life choices in the face of external pressures.

CONCLUSIONS
An expressive multimodal arts process can be viewed as instrumental in developing self-leadership i.e. strengthening self esteem and self efficacy and building tolerance for personal and social uncertainty. Practising discernment skills in risk-taking behaviours are precursors in the chain of personal choices leading to preventive HIV/AIDS behaviours to ultimately impact on HIV incidence among the youth.

L22 - EQUITY AND ACCESS WITHIN THE SOUTH AFRICAN HEALTH SYSTEM: A NATIONAL HOUSEHOLD SURVEY

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INTRODUCTION
Although access to health care remains inequitable in South Africa, little is understood about differential patterns of access nationally. Drawing on a recently conducted national household survey, this presentation seeks to identify these patterns and who faces barriers to access, in order to strengthen an equity-oriented agenda.

METHODS
A nationally representative household survey (n=4800), was conducted between May and June 2008, obtaining data on utilisation, whether respondents had chosen not to seek care when they were sick and why, and health care expenditure. Health expenditure was compared to household expenditure to determine affordability. A composite asset index was constructed to determine socio-economic status (SES), and health status was used to measure need. Data was analysed using STATA.10

RESULTS
Socio-economic status is a key barrier. Poor households are paying a disproportional share of out-of-pocket payments. The richest groups make much greater use of the highest level public sector hospitals (especially national central hospitals) than their poorer counterparts. Rural dwellers have a far lower usage of inpatient services and there are large differences in inpatient care across provinces. Generally, barriers appear greatest in North West and Free State, where 16% did not seek care compared to 2.3% in the Western Cape, and in the rural areas with 12.9% not seeking care, compared to 6.7% in formal urban areas.

CONCLUSIONS
Access barriers exist and are inequitable, affecting individuals and households differentially according to SES, province and location. Affordability (fees for health services and transport costs) is clearly a problem.
L23 - DEVELOPING AND IMPLEMENTING AN INTEGRATED AUDIT TOOL FOR CHRONIC DISEASE MANAGEMENT (CDM) AT PRIMARY HEALTH CARE FACILITIES (PHC) IN THE METRO DISTRICT, WESTERN CAPE

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BACKGROUND
The integrated audit tool was built on the foundations of the Cardiovascular Risk Factor audit, which first introduced the concepts of quality improvement. The clinical audit cycle involves implementing targeted interventions based on audit results. Improvements are achieved through repetition of the cycle with an ever increasing aim in the level of quality.

METHODS
A task team consisting of the Provincial CDM program coordinator, a public health registrar, Family Physicians and academics worked on developing the tool and instruction manual over the course of 2008. All standards set were based on the SA National Clinical Guidelines and covered 5 chronic diseases: diabetes, hypertension, asthma, COPD and epilepsy. After being successfully piloted and then presented at a training workshop for facility staff, the audit was undertaken in Metro district CHCs.

RESULTS
Structure: 30 CHCs submitted audit results for a total of 104 chronic care consulting rooms. Although 91 (88%) were equipped with standard BP cuffs and baumanometers, only 51 (49%) had obese cuffs. Out of 30 prep rooms audited, 100% had height charts but only 29 (64%) had tape measures. Folder reviews for clinical processes and outcomes: Out of 300 diabetic folders, on average 73% of diabetic patients received dietary advice but only 40% had their BMI or waist circumference measured annually. 96% of hypertensive chronic visits recorded BP but only 12% of 300 patients had an annual resting ECG. 90% of 300 asthmatics were prescribed inhaled steroids but only 5% were given an annual influenza vaccine. 12% of 267 COPD patients received an influenza vaccine and 57% of 293 epileptics were counselled about their medication.

CONCLUSIONS
The audit provides a snapshot on quality of care in Metro CHCs regarding CDM structure and processes. Despite the attempt to do so, accurately assessing intermediate patient outcomes is work in progress.

L24 - OCCUPATIONAL EXPOSURES AND CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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AIM
The purpose of this study was to determine the contribution of occupational exposures to the burden of Chronic Obstructive Pulmonary Disease (COPD) among a sample of hospital based patients.

METHOD
Cases (n = 110) with specialist physician diagnosed COPD from the three public sector specialist respiratory clinics in KZN and controls (n = 102) from other non-respiratory chronic ailment specialist clinics at the same institutions were selected. An interviewer administered questionnaire and exposure history was obtained for each participant. In addition, a valid lung function test was obtained for each case. Data was analysed using STATA.

RESULTS
The preliminary study results are presented. 75% of cases reported exposure to dusts, 69% to chemicals, and 56.% to both dusts and chemicals. In bivariate analyses cough was significantly associated with chemicals as well as with years of chemical exposure (OR 3.1 (95% CI 1.2-7.8) and 3.0 (95% CI 1.2-7.6) respectively). In multivariate analyses, chemical exposure was significantly associated with cough with an OR of 2.9 and 95% CI 1.1 - 7.9. We did not find any association between exposure and effect on FEV1 or FEV1 percent predicted. Analysis is ongoing and will be complete by July 2009.

DISCUSSION/CONCLUSION
This is one of the first studies looking at occupational contribution to COPD in a hospital setting. The preliminary analysis of our data suggests that particular types of occupational exposures (eg chemicals) increase the risk for the development of COPD, adjusting for important confounders such as history of smoking or past history of TB. The association with other exposures is not as convincing, but this is probably due to the sample size. Assessing the occupational component of the total burden of COPD can better inform prevention strategies designed to reduce the morbidity and mortality associated with COPD. This study adds to the body of evidence linking COPD to occupational exposures.
L25 - HOMICIDE PATTERNS IN THE WESTERN CAPE

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BACKGROUND
Homicide rates in South Africa are very high, with Cape Town having the highest rates amongst major South African cities. Little is known about the epidemiology of homicide in the country. Mortality surveillance in the Western Cape has provided an opportunity to describe and contrast the patterns of homicide by age, gender and geographic area.

METHODS
The City of Cape Town Health Department routinely collects death notifications from the local Home Affairs offices and information about the manner of death for unnatural deaths are collected directly from the local mortuaries. The surveillance system has been expanded to other districts in the Western Cape. The age and sex homicide rates in the Cape Town metropole, a semi-rural area (Cape Winelands and Overberg), a peri-urban informal settlement (Khayelitsha) and a formal suburb in Cape Town (Mitchells Plain) are compared using population estimates based on the ASSA2003 model.

RESULTS
Homicide rates in all four areas were very high compared with global rates. Rates in Khayelitsha were almost double those in the other areas. Males had much higher homicide rates than females. Females in the semi-rural areas had higher rates than those in the metropole. The age-specific homicide rates amongst males differed between the metro and the semi-rural areas, with a younger peak evident in the metro. Forty percent of homicides in the metro were firearm related compared with only 4% in the semi-rural areas.

CONCLUSIONS
The pattern of homicide differs by sub-district in the Western Cape which should be taken into account in order to target interventions appropriately.

L26 - EXPLORING THE PSYCHOSOCIAL WELL-BEING OF TEENAGERS AFFECTED BY HIV/AIDS

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INTRODUCTION
Dealing with HIV/AIDS at the level of households and families is a reality that many teenagers in Africa have to face. Whilst estimates about the numbers of orphans abound, there is still a dearth of current research evidence on psychosocial well-being of African teenagers and on their socio-psychological needs. This paper focuses on the exploration of an in-depth understanding of the psychosocial well-being of the teenaged orphans affected by HIV and AIDS in KwaZulu Natal, South Africa.

METHOD
This qualitative exploratory study employed narrative work called oral history. In-depth interviews were conducted among 13-15 year old teenagers in the Mtubatuba region in KwaZulu Natal in order to elicit perspectives, reflections, and observations from orphans whose parent are currently infected with HIV or died of AIDS. A three-dimensional space approach to narrative analysis was employed to analyze data gathered from the research participants. Atlas.ti software was used to aid in data analysis.

RESULTS
The analysis revealed important issues including the changes experienced by orphans when the parent died; coping with orphanhood; description of the psychosocial needs; and description of available psychosocial support. Breaking from school to take care for the sick parent and loss of inheritance were revealed amongst the challenges experience by orphaned teenagers.

CONCLUSION
Findings demonstrate the type of challenges and psychosocial needs that teenagers confront at social, economic and emotional level. Findings also indicate the role that social and material assistance (e.g. the provision of food) plays to the fulfillment of the psychosocial well-being of the teenagers.
L27 - THE EFFECT ON INCIDENCE OF DIARRHOEA OF LEVELS OF WATER, SANITATION AND HYGIENE IN DURBAN, SOUTH AFRICA

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INTRODUCTION
Unsafe water supply, poor sanitation and inadequate hygiene (WSH) are key risk factors for diarrhoeal disease. Scenarios were developed by Prüss et al. comparing different levels of water supply, sanitation and hygiene and the environmental faecal-oral pathogen load of each scenario.

METHODS
Using similar scenarios, data from a cohort study of a WSH intervention conducted in Durban, South Africa of 1 337 households were divided according to different levels of WSH. Crude and adjusted incidence rate ratios were calculated to compare the various WSH scenarios.

RESULTS
Incidence rate ratios were compared to a reference scenario, adjusting for household poverty index and employment status, number of children under the age of 5, use of toilet by children under 12, household having a telephone, radio and refrigerator and exposure to the municipality WSH intervention. Households fitting scenario Vc (improved water supply with basic sanitation) had a 29% decreased incidence of diarrhoea (95% CI: 0.03-0.70) and scenario IV (improved water supply and sanitation) had a 33% decreased incidence of diarrhoea (95% CI: 0.42–1.62) compared to the reference category with unimproved water supply and basic sanitation. Household with home access to drinking water (IRateR: 0.67; 95% CI: 0.36-1.24) had an even lower incidence of diarrhoea.

CONCLUSIONS
Categorisation of households according to WSH levels showed a decrease in the adjusted incidence rate of diarrhoea across most categories of improved WSH. However these decreases were not significant and discrepancies occurred in some categories. This could be related to the small sample size of some categories. However the scenarios used do not seem to account fully for variations in diarrhoea incidence.

L28 - A STUDY EXPLORING THE APPLICABILITY AND THE CULTURAL APPROPRIATENESS OF A COUNSELLING BOOKLET WHICH IS PART OF A COMMUNITY-BASED HEALTH PACKAGE IN UMLAZI, KWAZULU NATAL

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INTRODUCTION
In order to increase our knowledge of the problems associated with the cultural and social barriers to feeding and caring, this study sets out to explore the viewpoints of different community stakeholders by taking into account the value they place on appropriate infant feeding and caring practices, by means of assessing the understanding and cultural appropriateness of the messages contained in a counselling booklet that is part of a community-based package in the poor urban setting of Umlazi, KwaZulu-Natal.

METHODOLOGY
This study employed a mixture of qualitative methods - focus groups and individual interviews. A purposive sample of participants was chosen. Five categories of participants were chosen to partake in the focus group interviews, namely, professionals from the MRC in Kwazulu-Natal, pregnant women, non-pregnant women, older women and men.

RESULTS
The results revealed HIV stigma, family decision making, and cultural norms surrounding infant feeding hampered mothers’ efforts to implement practices that would decrease the risk for infant infection. Methodological aspects and programmatic implications were discussed.

CONCLUSION
The paper tries to demonstrate that no matter what a woman’s choice, feeding and caring practices for a newborn are very challenging. There are many factors which drive many mothers to feed and care for their infants in ways that may increase the risk of HIV transmission. Counselling services must therefore to a greater extent recognize the cultural position of feeding and caring practices. Lessons learned: PMTCT programs should involve the entire society through education and mobilization that extend beyond the pregnant woman. This will encourage community acceptance of those who are HIV-positive and will facilitate the prevention of infant infections through breastfeeding.
L29 - USING A WEB BASED INFORMATION SYSTEM TO MANAGE THE IMPLEMENTATION OF A RANDOMISED CONTROLLED TRIAL

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OBJECTIVE
To monitor, supervise and manage a large cluster randomised controlled trial implementing an integrated community-based intervention package for improving child and maternal health in Umlazi. Consenting participants should be enrolled, receive antenatal and postnatal visits, and have interviews as scheduled. All these processes require coordination, hence the need for automated management and information system.

METHODS
Project staff in collaboration with a mobile researcher (Clyral) developed a web portal - Good Start Management Console (GSMC) to cater for the project’s logistical, operational and reporting requirements. The system allows CHWs to use basic mobile phones to conduct electronic questionnaires during each participant visit. Information on enrolment, birth events and exit interview is also captured via low cost mobile phones. All this information is uploaded on GSMC. Project CHWs supervisors, administrator, data quality controller, manager and principle investigators can login to see the current status of each participant at any time.

RESULTS
Weekly meetings held with CHWs and data collectors are informed by the wealth of information managed by the GSMC. Completed, missed and upcoming activities are recorded, making planning easier. Cluster performance is updated daily. Visit schedules are automatically generated by the system and printed for each CHW. As visits take place and are captured in the field, the web-based portal is updated automatically to reflect a near real-time view of the progress on the ground. Reported births from data collectors trigger scheduling of postnatal visits and notifications to supervisors.

CONCLUSION
GSMC functions as a centralized data access point; together with mobile phones which provide a direct link to field activities; the system serves as a powerful project management tool.

L30 - RESULTS FROM A MULTI-CENTRE CLUSTER-RANDOMISED BEHAVIOUR INTERVENTION TRIAL PROMISE EBF: EXCLUSIVE BREASTFEEDING PROMOTION IN SUB-SAHARAN AFRICA

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BACKGROUND
Exclusive breastfeeding for the first six months is an effective child survival strategy. The PROMISE-EBF trial (Clinicaltrials.gov: NCT00397150) in sub-Saharan Africa assessed the effect of individual breastfeeding counselling by peer-counsellors. We report preliminary results of one primary outcome: exclusive breastfeeding rates at 12 weeks of age based on 24-hour dietary recalls.

METHODS
PROMISE-EBF is a multi-centre community cluster-randomised trial in three African countries, Burkina Faso, Uganda, and South Africa. In each country 24-34 clusters were randomised (12-17 intervention and 12-17 control, >800 mother-infant pairs/country). Eligibility criteria: pregnant women residing in and intending to continue living in the study areas who consented to study participation. Infants with severe illness preventing breastfeeding were excluded. Five peer visits, from antenatal visit through 10-16 weeks after birth of the infant, were scheduled for mothers in intervention clusters. Control clusters received standard care. Data collection (2006-2008) was by independent interviewers via a series of five home visits to determine feeding patterns, infant morbidity, anthropometry and survival. All analyses adjusted for cluster effects and site.

RESULTS
Exclusive breastfeeding rates at 12 weeks of age (24 hour recall) increased in Burkina Faso, Uganda and South Africa. Preliminary results in the intervention and control groups were: 83.5% and 35.7% in Burkina Faso (Prevalence Ratio (PR) 2.34; 95%CI 1.31-4.16), 87.2% and 49.4% in Uganda (PR 1.78; 95%CI 1.60-1.98), and 12.2% and 6.4% in South Africa (PR 1.69; 95%CI 1.08-2.65), respectively.

CONCLUSION
Preliminary results suggest a positive effect of peer-counselling on exclusive breastfeeding rates, with large country differences observed.
L31 - EVALUATING CERVICAL SCREENING IN THE JOHANNESBURG METRO DISTRICT: RECOMMENDATIONS FOR IMPROVING THE PROGRAMME

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INTRODUCTION
Cervical cancer is a significant cause of morbidity and mortality particularly in the developing world, due to the lack of effective population screening programmes. The goal of the South African policy is to screen 70% of women nationally within ten years of initiating the programme. But to reduce cervical cancer incidence, we also need to ensure that women with abnormal Pap smears are treated, which remains a challenge. Current data is needed to inform service delivery.

AIM
To assess the cervical screening programme in Johannesburg Metro District, specifically screening coverage, and referral for treatment in women with abnormal Pap smears

METHODOLOGY
Secondary analysis of data in the District Health Information System was done; and registers at a sample of primary health care clinics and their referral colposcopy services were evaluated from April 2007 – March 2008. Descriptive statistics were employed to analyse the data.

RESULTS
Screening coverage for the district was 6.3% for 2008 and 35.8% cumulatively from 2000-2008, with significant variation between sub-districts. A high proportion (19%) of smears are done in women under 30 years.

Of 615 women with abnormal Pap smears requiring further treatment, 57% were informed of their results and referred, 40% had appointments for colposcopy, and only 28% attended these appointments. Women experienced long waiting times for appointments (up to 18 months), and there was inadequate client tracing.

CONCLUSION
Cervical screening coverage remains below target, and the treatment rate for abnormal smears is low. This study provides information to make improvements that must occur if we are to reduce cervical cancer incidence.

L32 - EMOTIONAL ABUSE AMONG YOUNG RURAL SOUTH AFRICAN WOMEN: ASSOCIATIONS WITH ADVERSE HEALTH OUTCOMES

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BACKGROUND
Emotional abuse by an intimate partner is a form of gender-based violence (GBV) and is often experienced with sexual and physical abuse. Estimates for emotional abuse by a partner ranges from 22.5% to 51.4%. The impact of GBV on health outcomes has been widely reported but this measure has been driven by strong focus on physical and sexual violence. It is yet unclear if emotional abuse alone has any association with health outcomes.

METHODS
Between 2002-2003, women aged 15-26 years from 70 villages were recruited to participate in a cluster randomized controlled trial of an HIV behavioural intervention, Stepping Stones. A questionnaire was administered at baseline and blood was collected for HIV and HSV2 testing. Associations between emotional abuse and each health outcome were estimated for women who had experienced emotional abuse compared to women who experienced physical and/or sexual abuse and to women who had no experience of abuse.

RESULTS
Two hundred and six women (15.4%) experienced only emotional abuse. When comparing women who experienced emotional abuse to women who experienced physical and/or sexual abuse, there was a significant association found between emotional abuse and psychological distress, suicidality and a having positive HIV test. A significant association was also found between emotional abuse and suicidality when comparing women who suffered from emotional abuse with those who had no experience of abuse. Women who experienced emotional abuse ever in their lifetime had a higher odds of having a positive HIV test when compared to women who had no experience of abuse ever.

CONCLUSION
This study has shown that there were significant associations between some health outcomes and the experience of emotional abuse. Women who report emotional abuse within a partnership should be carefully managed especially in terms mental health outcomes with screening for suicidal tendencies. The causal pathway between emotional abuse and HIV needs to be further investigated so that potential intervention strategies can be considered.
L33 - PREVALENCE OF CHILD RAPE IN THE MTHATHA AREA OF SOUTH AFRICA

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INTRODUCTION
Child rape is increasing at shocking rates in South Africa. Sexual violence against children, including the raping of infants, has increased dramatically over the past decade. The female born in South Africa has a greater chance of being raped in her lifetime than learning how to read. Child rape is one of the most conspicuous forms of violence, has reached epidemic proportions in South Africa

OBJECTIVES
The main objective of the study was to determine the prevalence of Child rape in Mthatha area of South Africa as well as to find out the perpetrators relation to rape victim.

METHODS
This is a retrospective and descriptive study. There were 1985 victims of sexual assault between the age group 1 and 20 years, who attended the Sinawe Centre during the 7-year (2002-2008) study period. Sinawe Centre is the only unit in this area which deals with cases of sexual assaults.

RESULT
Nineteen hundred and eighty five cases of Child sexual assaults (rape) were reported in last 7-years (2002-2008). Increase in Child rape by two-times from 46 per 100,000 (year 2002) to 100 per 100,000 (year 2008) has recorded over the period of 7 years. In 2002, 184 (9.26%) child rape cases were registered, and in 2008, 401 (20.20%) cases. Most of the perpetrators 1583 (79.75%) were known to the victims, of this 982 (49.47%) by neighborhoods person, 440 (22.17%) by family members and 161 (8.11%) by boyfriends. Majority of the victims 799 (40.25%) were between the age of 11 and 15 years. Most of the child rapes were had associated physical injury on genital organ and majority of them the perpetrators were single.

CONCLUSION
There is a high prevalence of Child rape by known perpetrator in Mthatha area of South Africa.

L34 - EXPERIENCES OF A COMMUNITY BASED REFERRAL NETWORK PROVIDING INTEGRATED CARE FOR PATIENTS WITH TB AND HIV IN OKHAHLAMBA MUNICIPALITY, KWAZULU-NATAL

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INTRODUCTION
TB and HIV pose a serious threat to the health of many people in South Africa. Despite initiatives for prevention, testing and treatment for both diseases, many people remain in ignorance of their status, or do not adhere to their treatment regimens. Many of the problems arise from social issues, located at household and community level, and thus demand a response at these levels, rather than at the health facilities.

This paper describes some outcomes of a community level referral network (RN) established in partnership with the Department of Health, in Okhahlamba Municipality, to improve the care of patients infected with TB and HIV.

METHOD
Data was sourced from interviews with patients of the RN members and from a survey of the RN members themselves.

RESULTS
The pathway to improved care and adherence to treatment are often complex and influenced by many factors. The RN members are skilled at negotiating these pathways with patients. They are also well placed to promote adherence, as they have access to households. Their task is however, not without problems. There are mixed perceptions about integration of TB and HIV services among RN members. A good partnership with the health facilities has been established in many instances. A plan for sustaining the network has been made.

CONCLUSIONS
The establishment of the RN has led to improved care at household and community level for patients with TB and HIV in Okhahlamba Municipality.
L35 - MEASURING INDICATORS OF CHILD HEALTH AT COMMUNITY LEVEL IN SOUTH AFRICA, USING THE LOT QUALITY ASSURANCE SAMPLING (LQAS) METHODOLOGY

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INTRODUCTION
Integrated Management of Childhood Illness (IMCI) is an important strategy used to improve child health in South Africa that. Measuring how the three components of IMCI, namely facility based training, strengthening the health system, and the household and community component improve child health, is a key question for health managers.

METHOD
This paper will describe how Lot Quality Assurance Sampling was used in a number of sites to reliably measure child health indicators at community level through partnerships between the Department of Health and various non-governmental organizations.

RESULTS
Results from these community based surveys show that the LQAS methodology is an efficient and participatory way to measure child health indicators. An example will be given comparing certain indicators before and after a 4 year Child Survival Project. The use of the methodology for monitoring will also be discussed.

CONCLUSIONS
The advantages of using LQAS for community based surveys of child health include: The methodology has been adapted to sample, capture and analysis data simply. Data can be disaggregated to sub-units (eg municipalities within a district), which allows identification of areas where a specific intervention may need attention, which can lead to responsive programming. Monitoring of progress towards targets is possible without a full survey being undertaken. Reliable community based data gives a better reflection of child health in communities than facility based data.

L36 - EQUITY IN HEALTH FINANCING: A REVIEW OF HEALTH CARE FINANCING SYSTEMS IN FOUR ORGANIZATION OF ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD) COUNTRIES (CANADA, MEXICO, REPUBLIC OF KOREA AND THE UNITED KINGDOM)

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BACKGROUND
Health financing mechanisms in various countries are being re-structured to offer financial risk protection. Financial risk protection is the main objective of universal coverage defined as access for all to appropriate promotive, preventative, curative and rehabilitative services at an affordable cost. Under universal coverage everyone has equal access to health care based on relative need irrespective of ability to pay, social status and geographical location.

AIM
To undertake a comparative analysis of selected OECD countries with universal coverage to derive lessons that could inform the development of a national health insurance system in South Africa.

METHODS
Empirical evidence sourced through an extensive review of published literature from print and electronic sources. OECD countries selected because of availability of quality data, includes a range of countries in different continents and health systems with lengthy history of universal coverage. Data sourced from OECD Health Data 2008 dataset. Kutzin’s conceptual framework was the analytical tool for critical analysis of evidence based on OECD data. The functionality of health systems was analysed in terms of equity, sustainability, efficiency and feasibility.

RESULTS
Findings from the analysis show that publicly funded (primarily tax-funded) systems have lower out-of-pocket expenditures and offer greater financial risk protection. Systems with a single risk pool and a single payer are administratively efficient. Allocating health resources based on a needs-based allocation formula is more equitable than historical budgeting. Capitation provider payment is more efficient than fee-for-service. A purchaser-provider split improves efficiency.
**L37 - RISKS TO CHILD SAFETY IN CRÈCHES (VLAKFONTEIN AND BROADLANDS PARK, SOUTH AFRICA)**

**INTRODUCTION**
Risks to injury are a daily occurrence in children’s lives; such injury may prove fatal and result in death. In an attempt to create awareness around the possible risks to child safety, the study aimed to elicit stakeholder, parent and principal perceptions of the most common and glaring risk factors that could affect children within the crèche environment.

**METHODS**
Crèches in Vlakfontein and Broadlands Park in Johannesburg and Cape Town respectively were the sites for data collection. The fieldwork information consisting of interviews and questionnaires indicated the prevalence of possible risks to child safety. The data was analysed using thematic content analysis.

**RESULTS**
Majority of the respondents identified risk factors that could impact on children within the crèche as well as the outside playing area. Such risks involved poisoning, burns, falls, lack of supervision, amongst others. The perceptions of injury were multifaceted and environmental risks were perceived to be greater than individual action. Findings indicated that certain factors are definite risks within crèches.

**CONCLUSIONS**
Child injury prevention methods and safety promotion action in these communities are suggested.

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**L38 - MOBILISING COMMUNITY HEALTH WORKERS FOR HIV/AIDS IN SOUTH AFRICA: A SUSTAINABLE RESPONSE TO THE HUMAN RESOURCE CRISIS?**

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**BACKGROUND**
One of the consequences of a massive investment in antiretroviral access and other AIDS programmes has been the rapid emergence of large numbers of community health workers (CHWs) in the health system of South Africa. Rather than constituting a deliberate policy from the top, however, this phenomenon has grown incrementally and organically from the bottom, and is in the main, still poorly understood and characterised. This paper reviews the state of CHWs in South Africa and identifies themes related to future sustainability.

**METHODS**
A national mapping exercise of numbers, types and management systems of CHWs in the nine provinces of South Africa, and in-depth interviews with CHWs employed through state-funded mechanisms in the HIV services of one province, Free State.

**RESULTS**
Government funded or linked initiatives employ close to 40,000 CHWs in the health system, through a large number of non-governmental intermediaries. CHWs are almost as numerically significant as the main front-line providers of the public health system, professional nurses. More than half CHWs (55%) are involved in HIV/AIDS and TB-related activities (predominantly care and counselling), while one-third (33%) are categorised as generalist home and community based carers. There appears to be a trend from HIV/TB specific towards more multi-purpose workers.

**CONCLUSIONS**
The response to HIV in South Africa has become highly dependent on CHWs. However, the deployment of CHWs is not a simple solution to the human resource crisis and comes with numerous challenges that need to be addressed if they are to become a durable and effective component of the national health system.
L39 - SOCIO-DEMOGRAPHIC AND SOCIO-ECONOMIC FACTORS ASSOCIATED WITH THE UPTAKE OF VCT IN RURAL SOUTH AFRICAN COMMUNITY

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BACKGROUND
This paper aims to describe associations between socio-demographic and socio-economic factors and knowledge of HIV status among rural community living in KwaZulu-Natal, South Africa.

METHODS
A population-based cross-sectional study using quantitative techniques of data collection was conducted in October 2008. 5821 individuals aged 18 years and above, residing in Sisonke sub-district (Umzimkhulu), were recruited from 16 purposively selected clusters. Data was collected on previous voluntary counseling and HIV testing (VCT) uptake history, and explanatory variables. Logistic regression was performed to determine the factors associated with the uptake of VCT among rural population.

RESULTS
Overall VCT uptake among the community was 32%. VCT uptake was lower among males than females (adjusted OR = 0.27; 95% CI, 0.24-0.32). The median age of the sample population was 38 years, but median age for those who tested (31yrs) was far lower than non tested ones (44yrs). Utilization of VCT was seven-fold higher (adj. OR = 6.88; 95% CI, 5.69-8.32) for age group 25-34yrs than age group 50 and above. VCT was higher among the individual with elementary education (adjusted OR = 1.48; 95% CI, 1.07-2.06) and completed high school and above (adjusted OR = 1.68; 95% CI, 1.18-2.39) as compared to none. Owning television, radio and refrigerator significantly decrease VCT uptake, while owning a telephone/ cell phone increases VCT uptake (adj. OR = 1.55, 95% CI, 1.32-1.80).

CONCLUSION
In this rural community the VCT uptake was low, especially among males, higher age group and lower education level. Targeted community interventions are needed to increase VCT uptake among members with lower education, older and/or male.

L40 - TRENDS AND DETERMINANTS OF SEXUAL BEHAVIOUR AMONG YOUNG ADULTS IN THE CAPE METROPOLITAN AREA USING THE CAPE AREA PANEL STUDY

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HIV/AIDS continues to attract much attention from researchers as it is a matter of particular concern for young people. Increasingly there has been a major outcry especially among international donor agencies that despite widespread HIV/AIDS campaigns in South Africa behaviour change has not been realized. Given the fact that in South Africa HIV/AIDS is fuelled by heterosexual intercourse, it is therefore imperative to monitor trends in sexual behaviour among young adults in order to be able to assess the impact and to monitor those sexual behaviours that fuel the epidemic.

METHODOLOGY
This study uses the Cape Area Panel Study (CAPS) to observe trends in sexual behaviour among 4752 young adults aged 14-22 in the Cape Town Metropolitan between the years 2002 and 2005. In addition to observing the trends the study determines the predictors of risky sexual behaviour among young adults using logistic regression.

RESULTS
The study reveals that condom use is extremely high among all population groups, except among Coloured males - condom use declined between 2002 and 2005. The study also reveals that the percentage of young adults engaging in risky sexual behaviour has declined from 2002.

CONCLUSION
Early sexual onset determines risky sexual behaviour later in life. It is imperative therefore that in order to equip young adults to act in a sexually responsible manner later in life, protective factors such as family involvement, schooling, peer influence and self esteem must be strengthened before sexual onset. Thus early intervention programs are necessary in the fight against HIV/AIDS.
L41 - PARLIAMENTARY COMMITTEE EXPERIENCES IN PROMOTING THE RIGHT TO HEALTH IN EAST AND SOUTHERN AFRICA

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BACKGROUND
Parliaments can play a key role in promoting the right to health.

AIM
To describe the roles and experiences of parliamentarians from South and East Africa concerning parliamentary oversight, developing legislation and understanding of human rights.

METHODS
A semi-structured questionnaire administered to 20 respondents from ten countries attending a meeting of the Southern and Eastern African Parliamentary Alliance of Committees on Health in September 2008.

RESULTS
Parliamentary committees' legislative work is rarely framed in terms of the right to health. Knowledge of the application of international human rights laws to the right to health was limited. Parliamentarians were more likely to be familiar with intellectual property rights and with the Abuja Declaration than with the substantive content of the right to health.

Nonetheless, parliamentary debates on health policies were frequently based on human rights claims aiming to influence resource allocation in favour of vulnerable groups, with strong participation from civil society. Although parliamentarians were aware of the resource limitations constraints, they were not familiar with the concept of progressive realisation as a mechanism to make rationing and priority-setting decision more transparent and defensible within a rights framework.

CONCLUSIONS
Human Rights conventions impose regulatory and programmatic obligations on governments, which require parliamentary oversight. Important gains could result if work around progressive realisation was able to integrate resource allocation decisions within a rights framework. The survey highlights the importance of building capacity amongst parliamentarians to use rights-based analyses in their parliamentary roles to advance the right to health in the region.

L42 - HEALTH SYSTEMS ASSESSMENT OF DECENTRALISED TREATMENT OF MDR TB IN RURAL AREAS OF KWAZULU-NATAL

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INTRODUCTION
Until recently, MDR TB patients in KZN province were managed by a central TB referral hospital, but the growing case load, poor treatment outcomes and evidence of nosocomial spread have prompted the KZN Department of Health to develop a decentralised model for the treatment of drug-resistant TB. This model is being implemented at four pilot sites where patients will are treated as inpatients or in the community. This project needs to be evaluated.

AIM
To determine the impact of the decentralised model of treatment by comparing the treatment outcomes of decentralised management of MDR-TB patients with those of patients managed at a specialist centralised hospital.

To determine health systems performance in the decentralised model of treatment.

METHOD
To determine if health systems performance is effective and supports the care of the individual MDR TB patient five components of effectiveness have been identified. These components are availability and capacity, physical and financial accessibility, continuity and quality of care and impact. Tracer indicators have been identified for each component of effectiveness. These will be used to develop a health systems index from which the magnitude of the association between health system factors and clinical/treatment outcomes can be determined.

RESULTS AND DISCUSSION
Initial analysis of the health system at each of the four sites suggests that each site is unique, faces different challenges and has unique strengths. Awareness of the possible obstacles to the programme and how these were overcome will inform the rollout of the decentralised MDR-TB treatment programme to the rest of KwaZulu-Natal and South Africa.
**L43 - POVERTY AND COMMON MENTAL DISORDERS IN LOW AND MIDDLE-INCOME COUNTRIES: A SYSTEMATIC REVIEW**

**OBJECTIVES**
We conducted a systematic review of the epidemiological literature to determine the association between poverty and common mental disorders (CMD) among adults in low and middle-income countries (LMIC).

**METHODS**
Electronic searches of bibliographic databases (MEDLINE, Econlit and PsycInfo), hand-searches of key academic journals and scans of references of relevant articles were systematically conducted. All observational and intervention studies published between 1990 and 2008 were included in this review. Data were extracted and study quality was assessed by 2 reviewers for each study. Meta analysis was not possible for this review.

**RESULTS**
Most of the 115 studies reported positive associations between a range of poverty dimensions and CMD, across a variety of settings. However, while variables such as education, food insecurity, housing, social class, socio-economic status and financial stress exhibit a relatively consistent and strong association with CMD, others such as income, employment and particularly household per capita expenditure are more equivocal. The small number of longitudinal studies precluded us from drawing conclusions regarding causality.

**CONCLUSIONS**
Despite the heterogeneity of methods, instrumentation, study settings and populations, there is a clear trend indicating that a variety of poverty dimensions are associated with CMD in LMIC. Poverty and CMD appear to interact in a negative cycle that is complex, dynamic and multi-dimensional. This implies that health and development policies need to promote interventions that address this cycle from varying points of departure. Longitudinal studies are needed to explore causality and the mechanisms of the relationship between poverty and mental ill-health.

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**L44 - THE MEDICAL USE OF CANNABIS FOR REDUCING MORBIDITY AND MORTALITY IN PATIENTS WITH HIV/AIDS – A SYSTEMATIC REVIEW**

**BACKGROUND**
The use of cannabis (marijuana) as a medicine is a hotly contested issue. In contrast, synthetic cannabinoids with altered pharmacological effects, are marketed as medicines, albeit under strict controls. There has been much anecdotal and some scientific evidence to suggest that smoked or ingested cannabis has some health benefits in patients with HIV/AIDS.

**OBJECTIVES**
This systematic review aims to: Assess whether cannabis (in its natural or artificially produced form), either smoked or ingested, decreases the morbidity or mortality of patients infected with HIV. Summarise the various standpoints on the use of cannabis and cannabinoids in patients with HIV/AIDS. Objectively assess the studies that have examined this issue.

**METHODS**
In accordance with a registered Cochrane protocol (CD005175), evidence was sought in the form of randomised controlled trials of any cannabis or cannabinoid intervention, in any form, and administered by any route, in adults with HIV or AIDS.

**RESULTS**
Five randomized controlled trials investigating the use of cannabis or cannabinoids in HIV were identified. Meta-analysis was not possible as the outcomes and methods were heterogeneous. There is some evidence for a beneficial effect of a synthetic cannabinoid, dronabinol, and smoked cannabis in the management of AIDS-associated anorexia. Smoked cannabis was shown to reduce neuropathic pain from HIV-associated sensory neuropathy. Neither smoked cannabis nor oral dronabinol had any short-term effects on measures of HIV morbidity (HIV RNA levels, CD4 or CD8 cell counts), nor did they result in any clinically-significant interactions with the protease inhibitors indinavir and nelfinavir.

**CONCLUSIONS**
While the results of available trials (not all of which have been rigorously designed and implemented) do point to potential positive effects of cannabis or cannabinoids, whether these are sufficient to justify a wide-ranging revisiting of medicines regulatory practice remains unclear.
L45 - THE ROLE OF POVERTY IN PATIENT ADHERENCE TO TB TREATMENT

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BACKGROUND
Poverty has long been recognized as one of the factors predisposing to TB and is increasingly recognized as undermining the outcomes of patients on TB treatment. In addition, TB has been shown to push affected households into further poverty, resulting in a circular relationship that conventional methods of treatment and patients support fail to break. This study investigated the effect of TB on patients’ household economies and the impact of poverty on their ability to complete treatment.

METHODS
A survey of patients on TB treatment was conducted in a random sample of clinics in two districts of KwaZulu-Natal.

RESULTS
Over 50% of patients described their household financial status as poor or extremely poor, and a similar percentage said that their having TB had had a major detrimental impact on their household economies. Lack of money was significantly associated with difficulty in accessing the clinic (p = 0.008). Patients with higher socioeconomic status were significantly less likely to stop taking treatment for any period than those with a lower status (p=0.005). The coverage of current methods of supporting patients was small.

CONCLUSIONS
For patients with TB in KwaZulu-Natal, TB impacts negatively on their household finances and this further exacerbates the financial constraints they experience in accessing the clinic for treatment. If the Millennium Development Goals relating to poverty and TB are to be achieved, new methods should be employed to support patients with TB so as to minimize the financial barriers they face in completing treatment.

L46 - EXPERIENCES OF USING CELLPHONES IN DATA COLLECTION IN A LARGE SCALE PROJECT

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BACKGROUND
Cellphones are used for data collection in a large cluster randomised controlled trial implementing an integrated community-based intervention package for improving child and maternal health in Umhlazi. We describe our experiences in using the cellphones as a tool for data collection for this project.

METHODS
A large questionnaire (256 entries), the consent and delivery information forms were uploaded on the data collectors’ Nokia 5000 cellphone by Clyral (web based research software developer). Collecting information from each participant takes about 30 minutes. Each data collector can do 15 enrollments or 30 delivery information or conduct 10 interviews per day. Completed surveys are uploaded on the computer within 2 seconds after completion. Reports on surveys completed are submitted daily. Surveys are checked daily by the data quality manager and any errors identified are rectified. Reports on upcoming participants for data collections are updated daily and are used for planning.

RESULTS
All data collectors are able to use the cellphone effectively. Between November 2008 to July 2009 data was collected on more than 1020 women and their newborn babies. Despite collecting a huge amount of data all cellphones are still in a working order. Reports for scheduling work and work performance for each data collector are made available and used for daily planning.

CONCLUSION
Using cellphones for data collection minimizes data loss and reduce workload i.e. photocopying and filing. Relevant daily updated reports allow timeous planning. Daily data quality checks improve data quality; and monitoring staff performance and project output are made easier.
L47 - AN EPIDEMIOLOGICAL STUDY OF NATURAL DEATHS IN LIMPOPO

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AIM
To establish the epidemiological and demographic profiles of natural deaths in Limpopo province.

METHOD
Data was captured from records of deaths kept by the Statistics South Africa from the 1st of January 2000 to the 31st of December 2005 excluding unnatural deaths.

FINDINGS
There were 228,626 natural deaths during the study period. The gender distribution was 48% males and 52% females. The mean age of death for the population has decreased from 50.11 (95%CI: 49.82-50.41) in 2000 to 45.10 (95%CI: 44.88-45.33) in 2005. The crude mortality rate has increased from 7.2 per 1000 in 2001 to 9.5 per 1000 in 2005. The highest numbers of deaths are at the age group 30-44 years which contributed to 23% of all deaths. Infectious and parasitic diseases, respiratory tuberculosis as well as diarrhoea and gastroenteritis presumed infectious in origin are the major causes of death for males and females. Amongst the top 10 causes of death are combinations of infectious and parasitic, non-communicable diseases and ill defined causes. This finding suggests a double burden of disease.

CONCLUSION
Deaths are on the increase and claims the lives of the young persons in the population. The age of death is on the decline, caused by mainly ill-defined causes, parasitic and infectious diseases as well as non-communicable and perinatal conditions. This trend mirrors the HIV epidemic, and calls for further intensification of preventive, promotive and treatment programmes.

L48 - COMMUNITY INTERVENTION TO CHANGE DRINKING BEHAVIOUR IN PREGNANT WOMEN: A FIRST STEP IN A RESEARCHER/COMMUNITY PARTNERSHIP

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PURPOSE AND GOALS
South Africa has the highest measured fetal alcohol syndrome rates in the world (>40 cases per 1000 of school-entry children in targeted towns). The intervention study aimed to test the possibility of reducing alcohol intake by administering Brief Interventions (BI) to pregnant women attending pre-natal care services in a rural district in the Western Cape Province, South Africa as a first step in developing sustainable programmes.

METHODS/ DESIGN
A pragmatic cluster randomized trial was followed. Pregnant women attending 8 clinics were screened for hazardous and harmful drinking using the Alcohol Use Disorders Identification Test (AUDIT). The 194 eligible women (<20 weeks pregnant) were randomized to two groups. The intervention group (IG) received 4 Brief Intervention (BI) interviews during pregnancy. The control group (CG) received written material only.

RESULTS
Baseline AUDIT zone levels showed that the majority of women (70%) need simple advice and education on the risks of alcohol use while the rest of the group (30%) need more intensive and ongoing monitoring, BI interviewing and in some cases referral to a specialist. The IG had significantly reduced their alcohol intake, as indicated by their AUDIT scores.

IMPLICATIONS FOR COMMUNITY PREVENTION
The importance of screening for pre-natal alcohol consumption and the beneficial impact of BIs on the reduction of alcohol use during the pre-natal period was illustrated. Discussions are under way between key stakeholders to incorporate these findings into a sustainable programme with community buy-in. Important stakeholders already involved are the departments of health and social welfare, employers, schools and concerned community members.
L49 - HIV PREVENTION IN SCHOOLS: WHO ARE THE PEER EDUCATORS?

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INTRODUCTION
Peer education is increasingly being used in South Africa as a method to reduce HIV transmission among young people. However, the mechanism is poorly understood, as are the characteristics that define those who choose or are chosen to be peer educators. This study aimed to explore similarities and differences between peer educators before training, and their classmates, in a selection of schools using peer education approaches in the Western Cape.

METHODS
Fifteen schools were selected who had adopted peer education programmes as part of a HIV prevention initiative in the Western Cape. A total of 2339 pupils were surveyed and comparisons were made between socio-demographic characteristics, key skills, school experience and sexual behaviour of peer educators (n=295) and their classmates (n=2044).

RESULTS
On most of the socio-demographic variables, school experiences and aspirations there were no significant differences between peer educators and their classmates. However, peer educators were more likely to have access to basic resources such as electricity (97.9% vs 94.1%, p=0.003) and transport such as a bicycle (41.9% vs 32.5%, p=0.002) and a car (50.2% vs 40.8%, p=0.005) and had higher mean goal orientation scores (3.27 vs 3.15, p=<0.0001) than their classmates. There were no significant differences between peer educators and their classmates in terms of sexual debut or use of condoms at last sex.

CONCLUSIONS
The findings from the study provide an opportunity to look at peer education in more depth and highlight important issues about the way in which peer educators are selected and the theoretical foundations of this selection process.

L50 - ADDRESSING THE COMPOUNDING FACTORS WITHIN FEMALES’ REPRODUCTIVE HEALTH AND SEXUAL HEALTH TOWARDS THE PREVENTION OF HIV AND AIDS

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BACKGROUND
The prevalence of Human Immune Deficiency Virus and Acquired Deficiency Syndrome (HIV and AIDS) is sustained at unmanageable levels in South Africa. Five million and seven hundred people are living with HIV and AIDS. Almost one in five adults is infected. Fifty-five percent of the people living with HIV/AIDS are females (SABC news July 2008).

PURPOSE
Purpose of the study was to explore and describe compounding factors in the females’ reproductive and sexual health environment that lead to the sustained surge of reproductive and sexual health problems (HIV and AIDS) in a community in a settlement area near a township in Pretoria.

METHOD
Qualitative, explorative, descriptive and contextual method was used. Focus group interviews were done. Females who were attending the primary health clinic in the settlement area and health care providers in the primary health clinic who are offering reproductive health were included by using purposeful sampling. Tesch’s data analysis method was used. Ethical principles were observed.

RESULTS AND RECOMMENDATIONS
The results revealed that the environment the females practice reproductive and sexual health in lacks the support to enable females to prevent HIV and AIDS. The community is formed by diverse cultures, nuclear types of families, literacy problems and absence of support networks. Furthermore there is prevailing gender based power in sexual relationship that affect safer sex practices. It was recommended that a community based reproductive health care programme that promote cooperate decision making be developed to ensure the creation of cultural and social support networks. These need to respond to reproductive health challenges in this community to enhance HIV and AIDS prevention.
L51 - PROMOTION OF GENDER EQUALITY BY IMPROVING WOMEN’S REPRODUCTIVE HEALTH THROUGH RIGHTS-BASED APPROACH IN PRIMARY HEALTH CARE SETTINGS: A CASE OF JIJENGE!: WOMEN EMPOWERMENT INITIATIVE IN MWANZA TANZANIA

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INTRODUCTION
Women in Tanzania continue to have fewer rights, lower education and health status, less income and decision-making. Gender inequalities are institutionalized right from early ages in childhood. Traditions and practices such as female genital mutilation, polygamy, and increased work load on women coupled by unfriendly health service providers and poor infrastructure have affected women’s reproductive health consequently increased risk of maternal mortality and morbidity.

METHODS
A baseline survey to set benchmarks and end of project survey to assess intervention milestones attained were conducted. Participatory methodologies deployed engaging existing community structures to mobilize on gender, human rights and sexual and reproductive health. Council health management teams’ capacity was built to mainstream gender in district health plans and health service providers trained to deliver quality gender sensitive reproductive health services.

RESULTS
Maternal and child health service utilisation increased by 54% between 2006 and 2008; proportion of clients reporting on satisfaction of maternal and child health services increased from 57% during baseline to 84% during end of project evaluation. There has been institutionalization of community by-laws that govern gender-based violence incidences. Partnerships created with Council Health Management Teams and the concept is integrated into district health plans. Qualitative findings indicate cultural behaviours that discriminate women are on the decline.

CONCLUSION
Promotion of gender sensitive rights based approach in primary health care and community mobilisation on reproductive health and human rights have increased equity in uptake of reproductive health services. Women are empowered and become more proactive in making decisions on their health.

L52 - THE EXTENT OF USE OF LEAD-BASED PAINT ON PLAYGROUND EQUIPMENT IN PUBLIC CHILDREN’S PARKS IN JOHANNESBURG, EKURHULENI & TSHWANE

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STUDY OBJECTIVE
To determine the extent of use of lead-based paint in public playgrounds in the South African municipalities of Johannesburg, Tshwane and Ekurhuleni.

METHODS
Forty-nine public parks were selected for study from the municipalities of Johannesburg, Ekurhuleni and Tshwane in Gauteng. Lead levels in paint on playground equipment were measured in situ using a handheld Thermo Scientific NITON® XLP 700 Series x-ray fluorescence (XRF) analyzer.

RESULTS
Playground lead levels ranged from “too low to detect” to 10.4 mg/cm². The mean and median lead concentrations were 1.9 and 0.9 mg/cm² respectively. Forty-eight percent of lead paint measurements exceeded the internationally accepted reference level of 1 mg/cm², and in 96% of parks lead-based paint was found. In the majority (83%) of parks paint was observed to be peeling or flaking from playground equipment, increasing the risk of lead contamination of the surrounding environment.

CONCLUSION
This study has shown that lead-based paint is widely used in public children’s playgrounds in the three study municipalities, and most likely throughout South Africa. While cases of lead poisoning arising from the ingestion of paint from playground equipment have not been reported in South Africa, it has occurred elsewhere. In line with the precautionary principle in environmental health, it is advised that local authorities and park managers act to ensure that children’s parks become lead-free zones.
L53 - THE IMPLICATIONS OF ALTERNATIVE MANDATORY
HEALTH INSURANCE SYSTEMS FOR SOUTH AFRICA

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INTRODUCTION AND OBJECTIVES

There has been considerable debate since the 1980s about introducing some form of mandatory health insurance in South Africa. The ANC committed itself at its Polokwane Policy Conference in December 2007, and once again in its 2009 election manifesto, to introducing a National Health Insurance (NHI). It is unclear at this stage what precise form the NHI will take and there is already considerable pressure from key stakeholders which could influence the ultimate design of the NHI.

This objective of this research, which is part of the SHIELD (Strategies for Health Insurance for Equity in Less Developed countries) project, is to estimate the resource requirements for implementing a mandatory health insurance and to assess its potential impact on health system equity, affordability and sustainability.

METHODS

A range of alternative mandatory health insurance scenarios are considered, each with a number of sub-scenarios relating to specific population coverage, benefit package and other design aspects. These are compared with the scenario of the status quo persisting.

A spreadsheet model has been developed to estimate resource requirements, with key input data including:
Population by specific age-sex groups
Health service utilisation rates for different age-sex groups and different types of services
Unit costs / fee levels for different types of services.

This is complemented by analysis of the 2005/06 Income and Expenditure Household Survey using STATA software, to estimate the magnitude of mandatory health insurance contributions required to fund each scenario and the health system equity impact.

L54 - EVALUATION OF THE TERMINATION OF PREGNANCY SERVICES OF THE JOHANNESBURG METRO DISTRICT IN THE GAUTENG PROVINCE

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INTRODUCTION

In 2006, 83913 legal abortions were done across South Africa. Thirty-nine percent (32464) of the country’s abortions were in Gauteng. High patient volumes and scarcity of staff result in lengthy waiting times. This can jeopardise the safety of abortions if performed in the latter part of legislated gestation. Minimal analysis was done on district data. Johannesburg was an ideal location to evaluate the abortion services.

AIM

To evaluate the current termination of pregnancy services(TOP) in the Johannesburg Metro District.

METHODOLOGY

A retrospective review of the Johannesburg Metro DHIS data was done from January 2006 to July 2008. Also, descriptive cross-sectional study questioned TOP clients and staff employed at the clinics in a week in November 2008. All public TOP facilities in Johannesburg Metro District were included, amounting to 112 participants and 9 health professionals. The study was also replicated in another province (results not yet available).

RESULTS

The DHIS data reflects a decreasing number of TOPs across age groups. Minors are 18% of total clients. A facility reported 40% of clients below 18 years. An unequal distribution of TOPs among health facilities, 2 clinics were performing 60% of total district cases. Forty percent of participants waited more than three weeks for appointments; hence 53% had procedures well over 9 week’s gestation. All nurses reported not coping, and 78% requested more debriefing. Twenty-two percent nurses were uncomfortable performing TOPs.

CONCLUSION

DHIS data showed that fewer abortions were done in 2008 than 2006. The knowledge of the CTOP Act remains poor after 12 years since enactment. The study highlights the challenging conditions that health professionals are exposed to and warrants urgent attention.
**L55 - PATIENT EXPERIENCES WITH ANTIRETROVIRAL THERAPY (ART) PROGRAMME IN KWAZULU-NATAL, SOUTH AFRICA**

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**BACKGROUND**

Studies of adherence among antiretroviral therapy (ART) patients in African countries have shown that most patients initially maintain the high levels of adherence required to receive full benefits from the therapy. This study examined the experiences of ART patients in taking their medications; to identify strategies which worked for them to remain on ART programme and to understand why former ART patients stopped taking their medications.

**DESIGN/METHODS**

This study was implemented in five rural and urban accredited hospitals in KZN that rolled out antiretrovirals (ARVs) in 2004. 172 persons comprised of three types of patients were interviewed: those with a TB history (n=62), those without a history of TB (n=58), and those (n=52) who had dropped out the ART programme. Conversations were recorded, transcribed in isiZulu, and translated into English for analysis.

**RESULTS**

Patients showed that they understood what they needed to do to remain on ARVs. Although some patients experienced improved health once they began the programme, there were difficult social and economical experiences which had a negative impact on their adherence.

**CONCLUSION**

These results suggest that for ART programmes, it will be just as important to understand their patients’ social and economic situations and to promote the conditions necessary for remaining in the programme. We also suggest that ART programmes include attrition rates in their reporting process and their periodic programmes evaluations.

**L56 - THE INFLUENCE OF HELMINTHS ON IMMUNE RESPONSES TO HIV**

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In South Africa, co-infection with HIV and intestinal parasites is a major challenge in disadvantaged communities who live in densely populated under serviced urban informal settlements. This pilot cross sectional study evaluates the immunological effects of co-infection with Ascaris lumbricoides and Trichuris trichiura on the immune response to HIV.

The profile of lymphocyte phenotypes, viral loads, eosinophils, activation markers, expression of the nuclear proliferation antigen-Ki67, activation regulator antigen CTLA-4 were analysed using flow cytometry in HIV positive and negative subgroups with or without helminth infection. The type-1, type-2 and inflammatory cytokines were analysed using multiplex technology to determine the impact of helminths on the profile types expressed. These were correlated with immune responses to HIV. Non parametric statistics were used to describe differences in the variables between the subgroups.

The presence of helminth stool eggs and high Ascaris IgE (egg+/IgE+) was associated with reduction in all lymphocyte populations; frequent eosinophilia; highly activated profile and antigen specific proliferative hyporesponsiveness; impaired type 1 cytokine responses in unstimulated and antigen stimulated cells; and increased TNF levels. In HIV infected individuals, the egg+/IgE+ helminth infection status was associated with low CD4+ counts and higher viral loads. A strong negative correlation was observed between viral loads, CD4+ and CD8+ cells in this subgroup.

Subgroups with high IgE (egg+/IgE+ and egg+/IgE+) had elevated Th markers and were associated with lower CD4+ counts and higher viral loads in the HIV+ group. The inverse correlation between viral load and CD4+ counts found in all the HIV+ participants was strongest in these two subgroups. The high IgE and HIV co-infected subgroups presented a more activated profile compared to low IgE responders. Individuals with parasite eggs in stool and low Ascaris IgE (egg+/IgE-) presented a modified Th profile. This subgroup had high absolute numbers of all lymphocyte subsets in both HIV and HIV+ groups with higher CD4+ counts in the HIV and lower viral load in the HIV+ groups as well as higher interferon gamma, lower IL-4 and higher IL-10. In conclusion, the results suggest that helminth infections may be associated with deleterious effects on the immune responses to HIV in certain groups of susceptible individuals.
L57 - DEVELOPING SECONDARY SCHOOLS AS HEALTH PROMOTING SCHOOLS FOR THE PREVENTION OF HIV AND TB: A COLLABORATIVE APPROACH

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This paper reports on the first year of a five year project in Cape Town, South Africa, to develop secondary schools as health promoting schools to address TB and HIV. The health promoting schools approach is based on the Ottawa Charter for health promotion (WHO, 1986). The project is in a poor socio-economic community in Cape Town. The project team includes members of UWC Community and Health Science Faculty and Faculty of Education as well as the Western Cape Department of Health.

Three secondary schools are involved in the pilot phase, involving approximately 4000 learners as well as the teachers and some parents. The process has included a situational analysis and needs assessment which was undertaken using different participatory approaches with learners, teachers and parents determining the priorities for the particular schools. Participants identified what already existed within their school and the community that contributed to their health and what was still needed to make their school a health promoting school. One of the activities involved learners participating in a 4-day leadership camp run by the project team and other organisations working with youth and gender issues, to develop skills related to self-esteem, teambuilding and empowerment. A network has been formed between the three schools as well as with relevant stakeholders including school governing body members, Departments of Education and Health, local clinic, NGOs, academics and researchers.

The paper will discuss the successes and challenges related to building health promoting secondary schools and will present future plans.

L58 - SOCIO-ECONOMIC FACTORS DETERMINING THE OCCURRENCE OF SEXUALLY TRANSMITTED INFECTIONS AMONG LEARNERS IN SENIOR SECONDARY SCHOOL OF THE LUSIKISIKI EDUCATIONAL DISTRICT OF THE EASTERN CAPE PROVINCE

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BACKGROUND
STIs 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 STIs rate among the learners of Senior Secondary School in the Eastern Cape Province.

METHODS
This study was conducted among learners in Senior Secondary School using a cross-sectional design. Out of the total of 488, a sample size of n = 150 learners was drawn using simple random procedure. A self-administered questionnaire structured to collect data. The SPSS version 14 statistical package was used to analyze data.

RESULTS
The response rate was 99%; and their mean age was 18.8 years (standard deviation = 1.7). Females formed 65.1%; about 18.8% of the respondents lived with persons other than their biological parents; and 55% of those they lived with were unemployed. Among the participants 85.9% reported that they had sex before; and 39.6% reported that they contracted STIs and; only 12.8% informed their partners that they were infected with STIs. During the recent sexual intercourse only 36.2% reported that they used condom and 63.8% believed that a condom can prevent STI. Of all of them 35.6% believed that medication can cure STIs; and 36.2% had more than one sex partner. 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 the target learners. Therefore; School Health Promotion programs should take into cognizance youths’ contextual perceptions, values and practices in the prevention of STIs.
L59 - REDUCING THE RISK OF ALCOHOL EXPOSED PREGNANCIES IN THE WESTERN CAPE: A RANDOMISED CONTROLLED TRIAL EVALUATING MOTIVATIONAL INTERVIEWING AND LIFE SKILLS TRAINING

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BACKGROUND
A critical need has been identified in the Western Cape to introduce strategies to reduce the number of alcohol exposed pregnancies in order to prevent FAS. Both motivational interviewing and life skills training have been shown to be effective in other settings.

METHODS
A randomised controlled trial was conducted in high risk areas of the Western Cape. A total of 199 non-pregnant women who were at risk for an alcohol exposed pregnancy were recruited into the study. Participants were randomised to receive motivational interviewing sessions and information (MI group, n=85), life skills training and information (LS group, n=29) or information only (control group, n=85). Participants were followed up at 3 months to determine their alcohol use, contraceptive use and risk for an alcohol exposed pregnancy.

RESULTS
There were statistically significant declines in alcohol exposed pregnancy risk in the MI group, life skills group and the control group at 3 month follow up compared to baseline with the MI group showing the largest decline in risk of 45.6%. The MI group fared significantly better than the control group on 2 measures viz reduction in AUDIT scores and reduction in ineffective contraceptive use. No statistically significant differences were found between the LS group and control on any of the measures.

CONCLUSION
Motivational interviewing appears to be effective in reducing the risk for alcohol exposed pregnancies in high risk settings in South Africa. Further follow up of the 3 groups is required to determine if the results are maintained over time.

L60 - MALARIA CONTROL IN SOUTH AFRICA: BEYOND MDG 6

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One of the targets for MDG Goal 6 is to halt malaria by 2015 and begin to reverse the incidence of the disease. The WHO urges countries to tackle malaria using the key strategies of prevention with Indoor Residual Spraying (IRS) and rapid treatment with effective anti-malarial medicines. This paper therefore highlights the progress South Africa has made on MDG Goal 6 and outlines prospects for the future. South Africa has managed to sustain it’s average IRS coverage to above 80% for the past 10 years. The country has switched its treatment policy from mono-therapy to combination treatment, with approximately 100% of patients having access to anti-malarials and effective diagnostics, in endemic areas. Through these key interventions South Africa has reduced its malaria morbidity by 88% and mortality by 96% in 2008 compared to the year 2000- MDG declaration year. South Africa is therefore moving beyond MDG goal 6 and has committed itself to completely eliminating malaria-zero local transmission by 2015. This goal will face the following challenges: late presentation of malaria cases, poor surveillance - disease and entomological data, coupled with cross border movement of malaria infected persons: on average, 70% in Mpumalanga, 20% in Limpopo and 10% in KZN. Entomological & parasitological surveillance - through active case detection using microscopy, enhanced health promotion, prevention of re-introduction of malaria through border areas and strengthening human resource capacity are the major interventions needed to be considered for South Africa to achieve the 2015 goal of malaria elimination.
L61 - COUNTRY EXPERIENCES WITH INTEGRATING PROGRAMMES FOR THE PREVENTION AND CONTROL OF NEGLECTED TROPICAL DISEASES

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In recent years, substantial funds have been committed to the control of neglected tropical diseases and significant progress has been made in reducing the burden of disease in a number of countries. Five of these diseases (lymphatic filariasis, onchocerciasis, soil transmitted helminths, trachoma and schistosomiasis) can be successfully controlled by the large scale treatment of at risk populations once or twice a year. A challenge has been to integrate these disease specific interventions and expand coverage to all those in need with limited resources. A number of countries are now integrating these programmes. However, successful integration requires level of planning collaboration and cooperation that does not always exist in countries with high disease prevalence. International, national, district and community stakeholders were interviewed in Togo, Uganda, Nigeria, Senegal and Niger in order to document their experiences with integration and identify critical success factors and challenges to achieving the perceived benefits of integration. The extent of integration of policy, organization and activities at each level is explored and results clearly show that, although integration of activities at community level is achievable, integration of policy, organization and capacity at a national level is lacking. A failure of international partners to integrate activities largely determines that extent of integration at a national level.

L62 - THE EVALUATION OF A SMOKING CESSATION INTERVENTION FOR PREGNANT WOMEN

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INTRODUCTION
One particular subgroup of South African women, namely disadvantaged coloured women, has been found to maintain remarkably high smoking rates during pregnancy of around 47%. The purpose of this study was to evaluate the impact of a smoking cessation intervention on pregnant women from this high-risk group. The intervention was implemented as part of routine care in four public sector antenatal clinics in Cape Town.

METHODS
The study used a quasi-experimental design, where the smoking cessation rates of women exposed to the intervention were compared to those of a comparison group of women from the same communities, attending the same clinics, but in the previous year. The comparison group received usual care, whilst the intervention group was offered self help quit materials in the context of brief motivational counselling by midwives and peer educators. Self reports changes in smoking behaviour were validated by testing urine samples for cotinine.

RESULTS
The comparison and intervention group were equivalent on key demographic variables, self reported smoking behaviour and cotinine profile. The difference in quitting between the two groups was 7.6% (95%CI: 4.6% - 10.7%, p 0.001.) Quitters in the intervention group came from all categories of smokers: from light to heavy smokers. Qualitative data indicated that the peer educators were the most appreciated aspect of the programme.

CONCLUSION
A smoking cessation intervention, which was based on best practice guidelines and adapted to suit local conditions and the characteristics of this particular high-risk group, proved to be modestly effective.
**L63 - LEAD EXPOSURE AND THE ONSET OF PUBERTY: BIRTH TO TWENTY COHORT**

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**INTRODUCTION**

One of the consequences of lead exposure is the potential to cause pubertal delay. However this has not been widely researched. The objective of this study is to determine the association between lead exposure and pubertal development in girls in Johannesburg.

**METHODS**

The Birth to Twenty (BTT) Study, a birth cohort study in Johannesburg-Soweto that commenced in 1990 included 1 682 girls. At 13 years venous blood samples for lead analyses were taken from 725 Black female participants; however only 712 participants had menarche data, 684 and 682 participants had pubic hair and breast staging, respectively. A structured questionnaire was interviewer-administered. Pubertal measurement was based on age of menarche and self reported Tanner staging for pubic hair and breast development.

**RESULTS**

The mean blood lead level was 4.9 \( \mu \text{g/dl} \). 50% had blood lead levels < 5 and 49 % were \( \geq 5 \mu \text{g/dl} \). One percent (1%) had blood lead levels greater than 10 \( \mu \text{g/dl} \). The average age of menarche was 12.7 years. At 13 years 4% and 7% had reached tanner stage 5 for pubic hair and breast development, respectively. Trends in all three aspects of pubertal development in association with lead levels showed that as lead levels increased there was a significant delay in puberty (p <0.001). Further analysis showed that anthropometric measures were not significant confounders for the association.

**CONCLUSION**

This study has demonstrated that the higher the blood lead level, the more likely a delay in the onset of puberty will occur even after adjustment confounders. The majority of blood lead levels in this study were lower than the WHO action level of 10 \( \mu \text{g/dl} \), indicating that low lead levels have a significant impact on health.

**L64 - LOT QUALITY ASSURANCE SAMPLING AS A MANAGEMENT TOOL**

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**INTRODUCTION**

A clinical audit is “a quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and the implementation of change.” It is a performance measure for hospital managers. Resource constraints are given as reasons not to conduct inpatient reviews. The purpose of the study is to measure of the quality of inpatient care during a three-month period in 2008 at a regional hospital in KwaZulu Natal using a record review.

**METHOD**

Lot Quality Assurance Sampling, a rapid epidemiological assessment technique was used. The lots consisted of the hospitals 11 wards. Nineteen randomly selected in-patient records were obtained from each ward. The KwaZulu-Natal Health Department quality of inpatient care data collection tool was completed by the hospital’s quality assurance Officer with data from the inpatient records. The number of charts meeting the criteria for each quality assurance indicator was used to calculate the hospitals average coverage for that indicator. Wards not meeting this were considered substandard, and specific priority areas were identified for intervention.

**RESULTS**

Record-keeping by doctors was found to be substandard in four wards. Areas identified for intervention were illegible doctor’s signatures, inadequate history taking, recording of basic examinations and assessment. Two of the wards were deficient in indicators documenting nursing procedures with vital signs not being recorded as prescribed. Recording details of patients and their families was poorly done by the administration in all of the 11 wards.

**CONCLUSION**

Rapid epidemiological assessment techniques can provide health information more rapidly, simply and at less cost than the standard data collection methods and yet still yield reliable results. Both wards and indicators that were below the hospital average were identified as well as where interventions could be implemented to improve the quality of inpatient documentation.
L65 - INTERPRETING OFFICIAL CAUSE OF DEATH DATA ON THE TRENDS IN CHILDHOOD MORTALITY IN SOUTH AFRICA

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BACKGROUND
The target for Millennium Development Goal 4 is to reduce child mortality by 2015 by two-thirds of the rate in 1990. The accurate measurement and monitoring of mortality in young children is proving a challenge for less developed countries. In South Africa, there has been a sustained increase in the number of child deaths registered. This study investigates the age and causes of childhood deaths for the period 1997-2006 for further insight into the reasons for the observed increase.

METHODS
The Stats SA cause of death data from death notifications for 1997-2006 and the ASSA2003 model projections for the number of births and population estimates are utilized.

RESULTS
There was a 92% increase in reported deaths. The infant deaths show most of the increase has occurred in the late and post neonatal periods. Trends in the causes of death show substantial increase due to infectious diseases.

CONCLUSIONS
The fact there has been a substantial increase due to infectious diseases in children under-five cannot rule out that the increase in numbers reflects an increase in childhood mortality rates. Although the trend in reported deaths under the age of 15 increased from 1998 to 2006, it is impossible to interpret how much of the increase is due to an increase in the number of deaths and how much from increasing death registration.

L66 - CRITICAL LEARNINGS AND LESSONS FROM TRAINING COMMUNITY HEALTH GOVERNANCE STRUCTURES

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Health Governance appears to mean different things to different people. Each one’s understanding is no doubt influenced by and based on their own encounters with a variety of related concepts like cooperative governance, corporate governance, health governance and others.

This paper, after briefly developing and offering the phrase Community Health Governance Structures and sketching the legislative framework within which such structures operate, brings some learnings gleaned from training activities in the field.

Fascinating discoveries, told from both sides of the spectrum (community representatives and health delivery structures), are shared about a number of key issues influencing perceptions and practice of community involvement in some clinic committees and hospital boards. These discoveries are used to formulate recommendations for strengthening community participation in health governance structures in the country.
L67 - UNDERSTANDING WHY PATIENTS DROP OUT OF ART PROGRAMMES: IMPROVING THE PROVISION OF CHRONIC CARE FOR ART PATIENTS

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BACKGROUND AND OBJECTIVES
Much health research in developed countries has focused on supply side measures to ensure successful treatment outcomes with less attention to patient experience of chronic illness. Yet without sufficient understanding of patient experience, their adaptation to chronic illness, regular engagement with health system, ensuring patients stay on treatment programme and make lifestyle changes is all the more difficult. The aim of the study is to investigate the experiences of people on ART in public sector sites and their relationships to treatment outcome and remaining within treatment programmes. This study is in process of analyzing data.

METHODS
Two primary health care centers in Gauteng Province providing an ARV service have been chosen for this study. The study population were twenty three people who have initiated ART treatment through public sector sites in Gauteng Province. These individuals have been purposefully recruited and interviewed in depth on several occasions. The interviews explored their illness narrative, medicine taking as well as their coping and self management strategies.

PRELIMINARY FINDINGS AND CONCLUSIONS
Support from family is a significant factor that enabled these people to remain in the treatment programme, whilst conflict within households, poor relations with the workers and no financial support were significant factors in enabling the patients to drop out of the treatment programme. Without support patients experienced a sense of isolation thus compromising patients’ ability to remain on treatment programme.

L68 - DATA CHALLENGES IN MONITORING PROGRESS AROUND MATERNAL, NEWBORN AND CHILD SURVIVAL

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BACKGROUND
South Africa has been identified by the Countdown to 2015 initiative as one of the 68 priority countries with a high burden of maternal and child mortality and one of the 10 countries with the least progress in achieving the Millennium Development Goal (MDG) target 4. However little is known about the differentials between the provinces.

METHODS
A framework based on the continuum of care developed for the Countdown to 2015 initiative, using evidence presented in the 2003 and 2005 Lancet series on child and neonatal survival has been used to select 22 appropriate indicators. Data sources to provide information on trends in maternal and child mortality rates, nutrition status of children and coverage of key high impact maternal, newborn and child survival interventions were collated and considered.

RESULTS
Variations were observed between data sources for most indicators. Despite uncertainty in the data, all sources suggest that by 2005, the 9 provinces were not on track to meet MDGs 4 and 5 in terms of maternal and child survival. Some data gaps and inconsistencies were identified regarding progress on the interventions. However available data suggests that coverage of the interventions differed by province and only 5 of the 22 interventions tracked are reaching 80%.

CONCLUSION
The paper recommends improvements in the health information system to monitor progress on these important indicators.
L69 - COMBINED EXPOSURE OF CHEMICALS AND NOISE ON HEARING IN THE RUBBER INDUSTRY: A CASE STUDY

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BACKGROUND
This study presents data concerning hearing impairment at an industrial site in the city of Durban, one of the most industrialized cities in South Africa. The main purpose was to examine how exposure to particular chemicals may contribute to hearing difficulties. The relationship between occupational exposure to chemicals and hearing impairment has been suggested only lately. The main reason for this assertion is that hearing loss was mainly attributed to physical noise. Chemical exposure was not considered to be a source of hearing loss.

METHODS
The research conducted was a cross-sectional exploratory field study and the sample population were in there natural environment. (Gravetter and Forzano, 2003:118 and Babbie 2007:102). The sample population in the selected rubber factory was split into three sections. One section of the sample population were workers only exposed to physical noise, the second population was workers only exposed to chemicals and the third population was workers exposed to both physical noise and chemicals. The study was undertaken in its natural setting (Mouton, 2005:157).

RESULTS
There was a slightly increased risk associated with joint exposure to chemicals and noise but this was non significant. There may be the presence of healthy worker effect where the seriously affected are not in the sample as they may have left the workforce.

CONCLUSIONS
Workers exposed to both chemicals and noise are at a higher risk of suffering from hearing loss. This is attributed to the ototoxic chemicals used by workers in the rubber industry.

L70 - PREDICTORS OF ADOLESCENTS AND YOUNG ADULTS’ SMOKING BEHAVIOUR IN METROPOLITAN CAPE TOWN, SOUTH AFRICA: EVIDENCE FROM CAPE AREA PANEL STUDY

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The negative health implications of smoking have been documented in past studies, and increasing smoking behaviour among young adults is of a public health concern. Smoking has implications for future prevalence of non-communicable diseases which is one of the targets of the Millennium Development Goals. Western Cape, housing Cape Town, has been designated a Province with high prevalence of smoking.

This study uses publicly released Cape Area Panel Study datasets collected in 2002 and 2005. Simple descriptive statistics, Chi-Square test of association and logistics regression models were employed for the analysis, while STATA is the analytical package used for the analysis.

The results reveal that about one-quarter of the respondents reportedly smoked cigarettes in past month, in 2002 (26%), while the proportion increased to 36% in 2005. Consistent with the clustering of risk behaviours, smoking, drinking and drug use were found to be significantly inter-related (P<0.01). At the bivariate level, there is no significant association between cigarette smoking and incidence of respiratory problem at both waves. The results of the binary logistic regression suggest that sex of the respondents and their population group, including peer and environmental characteristics are important factors to target for preventative uptake intervention and cessation promotion programmes.

Both personal and environmental factors are important for successful intervention programmes. Efforts at raising positive adult and peer role models should be put in place as far as the fight against young adults’ smoking behaviour is concerned, most especially because of the present and future attendant health problems.
L71 - ELEVATED MERCURY EXPOSURE IN COMMUNITIES LIVING ALONGSIDE THE INANDA DAM, SOUTH AFRICA

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INTRODUCTION
Mercury is a toxic heavy metal. Human exposure to mercury has been associated with impaired neurological development, including impacts on cognitive thinking, memory attention and fine motor. In 1990, concerns were raised over mercury pollution incident emanating from the former mercury processing plant in KwaZulu-Natal. Mercury waste was reported to have been discharged into the Mngceweni River, situated in close proximity to the plant. The Mngceweni River joins the uMgeni River, which in turn flows into the Inanda Dam, along the banks of which several villages are located. The aim of the study was to assess human exposure to mercury in communities living in close proximity to the Inanda Dam.

METHODS
To determine environmental concentrations of mercury, 37 sediment samples were collected along a path from the Mngceweni River to the uMgeni River, and culminating in the Inanda Dam. Ten fish samples were collected from the Inanda Dam for mercury content analysis. To assess human mercury exposure, hair samples were collected from 86 study participants residing in three randomly selected villages, situated alongside the Inanda Dam.

RESULTS
The study results showed that fifty percent of the fish samples and 17% of hair samples had mercury concentrations that exceeded guideline levels of the World Health Organization. Mercury concentration in 62% of the river sediment samples collected in close proximity to the former mercury processing plant, exceeded the level at which remedial action is required.

CONCLUSIONS
Further research is required to investigate human health implications of mercury exposure in this setting.

L72 - WHAT DOES GLOBAL HEALTH INITIATIVES (GHIS) FINANCING FOR HIV DO TO HEALTH EQUITY IN SOUTH AFRICA?

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BACKGROUND
Overall GHI funding is a minimal percentage of all health-related expenditure in South Africa. However, GHIs’ spending on HIV and AIDS is probably around a quarter of comparable government expenditure. Government’s ability to replace such funds is limited, and it faces significant challenges in meeting health equity goals and the growing HIV treatment demands of South Africa.

METHODS
This paper arises out of a broader study that aims to understand the impact of GHIs on the South African health system. Data collection involves document analysis and individual interviews at national level, with further research planned for selected provincial and district levels. The paper reflects preliminary work at national level.

RESULTS
South Africa supports nearly 700,000 patients on antiretroviral treatment (ART) as part of its regular health budget. Two GHIs fund ART in South Africa: PEPFAR and the Global Fund. Global Fund monies are channelled through provincial or national government and allocated accordingly. PEPFAR – whose 2008 treatment allocation was roughly three quarters of the National Department of Health’s HIV and AIDS 2007/8 budget – directly funds both government and non-government organizations. The study has found little coordination between GHIs and government in ensuring GHI projects do not only supplement existing structures.

CONCLUSIONS
GHIs could help the government plan its resource distribution to ensure comprehensive health services in poorly resourced areas. Sustainability of GHI financed projects is of concern, as government will struggle to continue such expenditure. Addressing these issues will involve consistent coordination and communication between government and GHIs.
L73 - RISK BEHAVIOUR TRENDS FOR NON-COMMUNICABLE CHRONIC DISEASES IN THE TRANSITION TO ADULTHOOD FROM SADHS CONDUCTED IN 1998 AND 2003

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OBJECTIVE
To assess the prevalence and pattern of non-communicable chronic disease (NCD) risk factors in adolescents and young adults aged 15-24 years from two South African Demographic Health Surveys (SADHS).

METHODS
The adult survey was administered to 3,892 and 2,369 participants, aged 15-24 years, in 1998 and 2003, respectively. The surveys used multi-stage sampling to select approximately 11,000 households to represent the national adult population. Males comprised 47%, and African participants, 82-88%. Risk factors assessed included tobacco and alcohol use, dietary intake, physical inactivity, overweight/obesity and blood pressure (BP). Logistic regression analyses identified variables independently associated with risk factors.

RESULTS
Risk factor prevalence was similar in 1998 and 2003 with high rates of smoking (23-24%) and excessive alcohol use (16-17%) in males and overweight/obesity (29%) in females. Although lower than in their counterparts, rates of smoking (6-7%) and excessive alcohol use (6%) also remained unchanged for females as did overweight/obesity (10-11%) for males. Additionally, rates differed among males and females for BP ≥ 140/90 mmHg (7-8% vs. 4%) and physical inactivity (30% vs. 46%). Odds for smoking, excessive alcohol intake, overweight/obesity, raised BP and physical inactivity were significantly higher in 20-24 year olds compared to 15-19 year olds. Urban residents had higher odds for smoking, overweight/obesity, physical inactivity and salt intake compared to their rural counterparts.

CONCLUSION
Unless effective interventions are introduced to reduce high rates of risk factors in adolescents and young adults, this may soon translate into an epidemic of cardiovascular and other NCD.

L74 - DUAL PROTECTION, CONTRACEPTIVE USE AND HIV RISK AMONG A SAMPLE OF SOUTH AFRICAN MALE AND FEMALE STUDENTS

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BACKGROUND
Youth is sub-Saharan Africa countries are constantly facing diverse reproductive health problems today. The most important among these reproductive health problems are Sexually Transmitted Infections (STIs) including HIV/AIDS, sexual violence and coercion, teenage pregnancy and unwanted pregnancy.

METHODS
The aim of this study was to investigate dual protection, contraceptive use and HIV risk in a sample of South African male and female university students. The final sample included only participants who reported to ever have had sexual intercourse (n=386, 94.6% of the 408 surveyed; 190 men, 49.2% and 196 women, 50.8%; median age 22 years).

RESULTS
Indicate that 71% were protected from both pregnancy and sexually transmitted infections the last time they had sexual intercourse, 8.8% using dual methods and 61.8% using a condom alone; 11.4% were protected from pregnancy only through the use of a non-barrier contraceptive, while 21.1% of the participants used no method at all. In multivariate analysis, higher education of the father, being married or in a steady relationship, multiple (casual and steady) sex partnership, having had a sexually transmitted infection, pregnancy risk experienced and higher HIV risk perception were predictors of dual protection (condom use alone or with non-barrier methods).

CONCLUSION
Dual method use is low in this population and the use of contraceptive methods that offer protection against pregnancy and STIs/HIV is encouraged.
L75 - PROCESS OF CHANGE: PREGNANT WOMEN’S RESPONSE TO A CULTURALLY SPECIFIC SMOKING CESSATION INTERVENTION AND ITS ROLE IN CHANGING SMOKING BEHAVIOUR

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BACKGROUND
Cognitive behavioural interventions consisting of brief individual counselling and the provision of self-help material specifically designed for pregnancy has been documented as the most effective type of smoking cessation intervention for pregnancy. Brief motivational interviewing has also been found to be effective for smoking cessation.

AIM
To describe the cognitive, emotional and behavioural responses of pregnant women towards a smoking cessation intervention during the course of their pregnancy

DESIGN
In-depth interviews were conducted with women to explore their thoughts and feelings about the intervention and their response to it. Women were selected when they visited the clinic for their first antenatal visit. Women were purposively selected with the help of peer counsellors (PC’s) to represent the variation in smoking behaviour. Thirteen women were interviewed and ten were followed up.

ANALYSIS
Interviews were tape recorded and transcribed verbatim. Data was analysed using a content analysis approach. Interviews were coded using the OpenCode software and main categories and themes describing women’s thoughts and feelings about the intervention were developed.

FINDINGS
Of the thirteen women five had managed to quit, two had cut down and three battled to quit. Three women could not be found for follow-up. All women reportedly found the intervention useful and rated the peer counsellor highest. Analysis of the categories developed from the interviews resulted in four themes: Understanding reality, Embracing change, Holding nothing back and Turning hopelessness into passion.

L76 - CARE FOR THE CARE WORKERS: FACTORS IMPACTING ON WELLNESS AND WELFARE OF HOME BASED COMMUNITY CARE WORKERS IN UMKHANYAKUDE DISTRICT

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BACKGROUND
The role of community care workers is essential for ensuring access to health services. However, despite the high level of appreciation of the Community Care Workers by the communities their rights and safety continue to be violated.

METHODS
This study was a qualitative evaluative survey that collected information on the working conditions, workload, remuneration, and treatment of community care workers.

RESULTS
The main finding revealed that care worker actually can increase multi-dimensional poverty. The average stipend of R500 is below minimum wage and payment is irregularly sometimes after only three months.

The exploitation of these workers is being committed under the guise of volunteerism, especially of women as 96% of the care workers are women. The factors that were found to impact on the wellness and wellbeing of community care workers included the following: Long working hours, lack of health risk insurance against exposure to communicable diseases and lack of professional support including psychological counseling. In addition, they lack community support and face hostility from professionals at facilities. Furthermore they suffer significant discord among their families due to the time they spend looking after other people rather than their families.

CONCLUSION
The exploitation of care workers is in direct conflict with MDG 3. This conflict with MDG 3 leads to a vicious-cycle with other goals, such as MDG 6, where health is also impacted. Policies and process should be adopted not just in South Africa, but across SADC to place care workers as cadres within the health sector.
L77 - QUALITY OF TUBERCULOSIS MICROSCOPY IN KWAZULU-NATAL

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BACKGROUND
TB microscopy is a neglected component of the tuberculosis control programme. Ziehl-Neelsen staining is an efficient TB diagnostic tool. However, incorrect results have negative implications for patient treatment and cost effectiveness of TB control. Quality control of TB microscopy services ensure that laboratories produce results that are accurate, reliable and reproducible.

METHODS
Laboratory proficiency test results from the KwaZulu-Natal (KZN) reference laboratory (2001 to 2004) and the National Health Laboratory Services (NHLS) (2006) were analysed. Key informant interviews assessed the role proficiency testing is perceived to play in quality improvement.

RESULTS
Tertiary level health facilities failed to achieve an acceptable level of TB microscopy performance. The quality of microscopy in urban (94%) and rural (92%) district level laboratories are similar, but both scored below the 95% level from 2001 to 2004. There was significant (p<0.01) improvement in both urban (97%) and rural (98%) microscopy performance in 2006, although none of the nine laboratory regions achieved 95% for the KZN panel whereas all had overall scores above 95% for the NHLS panel. Laboratory performance by quarter varied from 87% to 96%, but only four of the eleven quarters assessed scored an acceptable level. The overall annual scores ranged from 89% (2002) to 98% (2006), but the overall annual scores only achieved the acceptable level in two of the five years studied.

CONCLUSIONS
Improved TB microscopy requires more staff training and increased human resources. Blinded proficiency testing is needed and the results of quality assurance should inform management action at problem laboratories timeously.

L78 - HUMAN CAPACITY DEVELOPMENT TO ADDRESS HIV&AIDS IN SOUTH AFRICA

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A challenge across South Africa is to integrate new HIV activities into existing health programs and into activities of other sectors. The response to scaling up services has been to provide protocols and training. While essential, this is inadequate, as it does not consider human resource and health system management challenges of addressing roles and responsibilities, skills and supervision and “softer” management, morale and motivation, nor the role of other sectors in addressing HIV/AIDS.

Funded by PEPFAR through the US Centers for Disease Control, this capacity development project has developed innovative, inter-disciplinary and inter-sectoral interventions to empower public sector managers and health, education and community workers to provide comprehensive and integrated HIV and AIDS services. This program includes ten (10) individual projects with a focus on human-capacity development using a variety of methodologies. Examples include participatory development of standards, management tools to improve capacity to manage HIV & AIDS programs, a community approach to youth prevention using sports and secondary schools, fostering collaboration between formal and traditional health sectors and development of web-based resources to assist clinicians in the treatment of those with HIV.

HIV and AIDS require a comprehensive approach with a view beyond the health sector. Consistent with this challenge, these projects demonstrate a multi-sectoral approach by targeting a variety of professionals including: community health workers, human resource managers, rural physicians, nurses, teachers, traditional healers and midwives. This presentation will summarize the rationale for this project, describe the activities undertaken, and reflect on the challenges of implementing multi-sectoral initiatives.
L79 - RISK REDUCTION EDUCATION WITHIN HIV CARE AND TREATMENT PROGRAMMES: CHALLENGES TO PRIMARY LEVEL CARE SETTINGS IN SOUTH AFRICA

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INTRODUCTION
Positive prevention is a critical component of general HIV prevention strategies. With increased availability of ART in primary level care health facilities, challenges to providing effective and on-going risk reduction education to HIV positive patients become more pertinent.

METHODS
This qualitative study aimed to describe the successes and challenges of positive prevention education to ART patients and patients in HIV care at one peri-urban and one rural primary level care facility in KwaZulu-Natal. Data was collected through 39 semi-structured interviews with people living with HIV (PLHIV) - 27 of who were on ART and 12 in HIV care, and 10 key informant interviews with health workers in these two facilities. Thematic, content analysis was used.

RESULTS
The majority of PLHIV understood the importance of practicing safe sex, but the interviews revealed a number of scenarios where condoms were not used. PLHIV reported the need for more sexual risk reduction education which emphasizes condom negotiation skills, that is delivered within a more empathetic patient-health care provider relationship and continuity of care. Health workers explained that human resource constraints and concomitant heavy workloads and time pressures, hinder effective risk reduction education.

CONCLUSION
Health workers at a primary health care level need to be trained to provide a more holistic management of HIV patients that extends beyond clinical care to include sexual risk reduction education that is framed within a patient centered approach.

L80 - GENETIC EPIDEMIOLOGY OF RESPIRATORY DISEASE: A SOUTH AFRICAN PERSPECTIVE

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BACKGROUND
The convergence of public health and genetics holds the possibility of improved understanding of the etiology, prevention and management of asthma. Although the field of genetic epidemiology is progressing rapidly internationally, our work is the only attempt to investigate the gene environment effect with asthma in sub-Saharan Africa. This indicates the paucity of information and skills in this area of research on the sub continent.

METHODS
The South Durban Health study (2004-2005) collected repeated respiratory measures (questionnaire data and lung function tests) and genomic DNA from a cohort of 317 randomly selected 9-11 year old children. Glutathione-S-Transferase gene polymorphisms (GSTM1 and GSTP1) were analyzed. Air pollutants such as SO2, NO, NO2 and PM10 were monitored continuously for the duration of the study.

RESULTS
The frequency of the GSTM1null and the GSTP1 AG+GG genotypes conferred with similar ethnic groups worldwide. The frequency of GSTP1 AG+GG was significantly higher in children with persistent asthma (p=0.03) as compared to the wild type. Generalized linear models indicated that respiratory response to air pollutants was modified by GSTM1null and GSTP1 AG+GG.

DISCUSSION
The heightened allergic airway response in children with polymorphic genotypes may be attributed to their decreased capacity to protect themselves from oxidative stress. Studies such as ours, although preliminary, are important. With increasing industrialization, genetically vulnerable populations are at increased risk to environmental exposures. It is imperative include genetic epidemiology in respiratory health risk assessments and risk management decisions.
L81 - HIV, TRANSACTIONAL SEX AND EXPERIENCES OF SEXUAL COERCION AMONG MEN WHO HAVE SEX WITH MEN (MSM) IN THE JOHANNESBURG/ETHEKWINI MEN’S STUDY (JEMS)

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BACKGROUND AND OBJECTIVES
The Johannesburg/eThekwini Men’s Study (JEMS) was conducted to: provide information on HIV among men who have sex with men (MSM); describe HIV risk factors, and review information on programmes and services available to MSM.

METHOD
Transactional sex and sexual coercion were explored in 18 focus group discussions (156 MSM), and a survey conducted among 285 MSM in Johannesburg and Durban, using respondent-driven sampling. Survey participants were interviewed and provided finger-prick blood specimens for HIV testing in a laboratory.

RESULTS
Focus group participants reported links between bisexual behaviour and transactional sex, and some mentioned experiences of sexual violence. Survey participants had an HIV prevalence of 43.6% (95% confidence interval [CI]: 37.6% – 49.6%). Of survey participants, 29.1% reported having given, and 42.6% reported having received, money, goods, or favours in exchange for sex in the past year.

Many survey participants reported having been made to have sex with someone against their will (36.2%) or having made someone else have sex with them against the person’s will (28.5%) at some stage in the past. In the past year, 22.4% reported having sex against their will, while 20.0% reported making someone else have sex against the person’s will. HIV-positive participants were more likely to have been made to have sex against their will (relative risk [RR] 1.58; 95% CI 1.16 – 2.16).

CONCLUSION
These findings demonstrate the heightened risk of HIV infection among MSM who have experienced sexual coercion. Interventions are needed to address intimate partner violence generally, and sexual coercion specifically.

L82 - OCCUPATIONAL CONTACT DERMATITIS: A COMPENSATION PROCESS GONE WRONG

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BACKGROUND
Contact dermatitis is a common occupational disease with a significant impact on earnings and quality of life. Contact dermatitis is compensable in South Africa but claims are often not submitted or processed timeously. In South Africa there is an underreporting of cases. Little is know about the industries or agents causing occupational contact dermatitis.

AIMS
To describe the industries and agents associated with these cases seen at the NIOH Contact Dermatitis Clinic from January 2005-January 2008. To determine the financial loses consequent on developing the condition. To evaluate compensation outcomes in these cases.

METHODS
A cross sectional study. Review of clinical records to ascertain agents and industries. A telephonic interview of these patients to establish financial loses and impact on employment statutes. A review of the Compensation Commissions’ records of claimants to determine compensation outcomes.

RESULTS
A total of 131 cases were reviewed. Preliminary results show 67% of cases were occupationally related contact dermatitis. Irritant contact dermatitis (45%) was the most common diagnosis. Nickel was the most common allergen (11 cases.) Exposure to epoxy resins, cleaning materials, metal cutting oils and gloves were the most common exposures. Claims were submitted to the compensation commission, of these only 39% could be accounted for.

CONCLUSION
The prevalence of OCD is not known. The compensation process needs to be evaluated to improve efficiency.
L83 - HEALTH PROMOTION FOR ACUTE RHEUMATIC FEVER: A SCIENTIFIC FRAMEWORK FOR DEVELOPING AN INTERVENTION TARGETING SCHOOL-BASED LEARNERS

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Health Promotion (HP) aims to empower people to control their own health by gaining control over the underlying factors that influence health.

Acute rheumatic fever (ARF) which occurs mainly in children, results in Rheumatic Heart Disease (RHD) in up to 3% of untreated cases. Together, ARF and RHD are the leading cause of acquired heart disease in children in the world. ARF is a disease of poverty that thrives in situations where nutrition, sanitation and health services are inadequate. The ASAP initiative seeks to address the burden of disease in Africa through a multifaceted approach, including awareness-raising.

Few studies have evaluated the effectiveness of HP interventions in ARF. In SA, a previous study amongst caregivers of childhood ARF patients revealed high levels of ignorance about causes and preventative measures. Various models have been suggested for health communication; in this paper, we present a scientific framework for health communication amongst school-based learners in Cape Town, South Africa. Briefly, the first step involves an analysis of the target audience using focus-group methods in order to elicit information as regards learners’ media exposure, values and attitudes, general lifestyle behaviours and knowledge of ARF/RHD. Findings are then incorporated into designing a relevant and effective media-based intervention which is tested using a before-after study design.

This framework presents the first documentation of exploring health communication in the area of ARF/RHD. We are of the opinion that this work serves as a model for other diseases, especially those of severe public health consequence.

L84 - SOCIAL, HEALTH AND NUTRITION PROFILE OF CHILDREN 0-60 MONTHS AND THEIR CAREGIVERS IN RURAL DISTRICTS OF KWAZULU-NATAL AND THE EASTERN CAPE

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INTRODUCTION
Health Systems Trust (HST) implemented a community-based project that fits into the focus areas of the Integrated Nutrition Programme of the Department of Health in rural districts in the Eastern Cape and KwaZulu-Natal. This study determined the socio-demographic profile, health and nutritional status of children and their caregivers in communities targeted for the HST project.

METHODS
Children and their caregivers (n=500) were randomly selected from five clinic catchment areas in each of three districts (Umkhanyakude: sub-district Jozini; Zululand: sub-district Phongola; OR Tambo, sub-district Nyandeni). The caregivers were interviewed by questionnaire. Anthropometric measurements were obtained.

RESULTS
More households in Umkhanyakude (50%) and Zululand (74%) had access to tap water than in OR Tambo (3%). Wood was the main fuel source to cook food in all three districts (>75%). Most households had access to pit toilets in Umkhanyakude (80%) and Zululand (98%); in OR Tambo 65% had no toilet facilities. Social security grants were a main source of income (Umkhanyakude and Phongola 61%; OR Tambo 55%). Many households obtained vegetables from their own garden (Umkhanyakude and Phongola 30%; OR Tambo 70%). Few households reportedly had enough food available at all times (Umkhanyakude and Phongola 25%; OR Tambo 17%). The prevalence of diarrhoea (Umkhanyakude 35%; Phongola 24%; OR Tambo 24%) was high. Stunting in 2-5-y-old children (Umkhanyakude 22%; Phongola 28%; OR Tambo 29.5%), and overweight/obesity among adults (Umkhanyakude 42%; Phongola 60%; OR Tambo 56%) co-existed.

CONCLUSION
Poor social conditions and co-existence of over and undernutrition in these rural communities demonstrate the urgency for the implementation of community-based interventions.
L85 - OCCUPATIONAL RISK FACTORS ASSOCIATED WITH TUBERCULOSIS IN HEALTH CARE WORKERS WORKING IN THE DURBAN SOUTH REGION OF THE ETHEKWINI MUNICIPALITY, KWAZULU-NATAL SOUTH AFRICA

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BACKGROUND
Occupationally acquired Tuberculosis (TB) in health care workers (HCWs) is now a public health concern as TB prevalence and incidence continues to grow in South Africa (SA). Reports of Multi-Drug Resistant and Extensively Drug Resistant TB among HCWs have added to the concern about adequate protection among health care workers (HCWs). Previous studies have shown an increased risk of TB in hospital settings, however little attention has been paid to Primary Health Clinics (PHCs) which are the first point of contact for patients in SA’s health care system.

AIM
The aim of this study is to identify occupational risk factors for TB among HCWs working in Primary Health Clinics in the Durban South Region of the eThekwini Municipality.

METHODS
A cross sectional study consisting of risk assessments of PHCs (n=42) and health interviews of HCWs (n=240) working in the Durban South Region of eThekwini is being completed. The risk assessments involved evaluation of structural, administrative, engineered and personal protective characteristics of PHCs. Interviews with HCWs were conducted to identify individual risk factors and the prevalence of TB. Data analysis will be done using STATA Version 10. Univariate and bivariate analysis will be conducted. Logistic regression models will be developed to determine the relationship of TB in HCWs to workplace and individual exposure variables while controlling for confounders.

RESULTS
The results will be represented with regard to:
- Occupational risk factors in PHCs
- Demographic profiles and TB prevalence among HCWs
- Association between occupational and individual risk factors with TB prevalence in HCWs

L86 - PSYCHOSOCIAL FACTORS ASSOCIATED WITH TOBACCO USE AMONG A POPULATION OF MEDICAL STUDENTS IN PRETORIA, SOUTH AFRICA

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CONTEXT
Tobacco use among medical students is of public health concern, given their role as future role models for healthy lifestyles. This study sought to determine the prevalence and determinants of tobacco use and nicotine dependence in medical students in Pretoria. In particular, this study explored the role of sense of coherence and the students’ perceptions with regards to the availability and adequacy of tobacco control curricula.

METHODS
This cross-sectional analytical study involved undergraduate medical students in their 2nd and 6th year of study at the Universities of Pretoria and Limpopo (MEDUNSA). A six-item Antonovsky’s sense of coherence scale (SOC) was included to measure respondents’ ability to cope with stress. Nicotine dependence was measured using the (DSM-IV).

RESULTS
Prevalence of cigarette smoking in medical students was 17.3%. Only 22% of students felt their training curriculum contained tobacco control (TC) issues. Factors independently associated with the current smoking status were having lower support for TC legislation (OR=-0.49; 95%CI=(0.41-0.59), attaching less importance to being seen as a role model by patients (0.62; 0.41-0.91), having a drinking problem (2.17; 1.28-3.68) and three other factors. Younger age (0.86; 0.77-0.97) and two other factors were independently associated with nicotine dependence.

CONCLUSIONS
This study’s findings suggest that tobacco use is prevalent among medical students and tobacco use is strongly associated with alcohol abuse. In addition to offering tobacco cessation services to these students, these findings highlight the need to institute a curriculum on tobacco control at the universities.
L87 - STRATEGIES OF REDUCING CONSISTANT RELAPSE AND READMISSION OF MENTAL HEALTH CARE USERS (MHCU). A COLLABORATIVE INTERGRATED EARLY INTERVENTION APPROACH (CIEIA)

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BACKGROUND
Outcomes of MHCU are of public health concern due to the substantial impact that these outcomes have on the health system. During the period of March 2007 till March 2009, it was observed that a total of 40 male substance abusers were relapsing and being readmitted in a worse functional state than before and further that they returned before the lapsing of six months in a year.

PURPOSE
The purpose of the initiative is to improve MH outcomes, including reductions in the incidence of illness relapses and the need for constant readmission.

METHODS
In 2008 June the rehabilitation unit noticed the need for an integrated collaborative mental health care system between the hospital and PHC. The year 2009 was planned to address the issue of relapse and readmission reduction through the CIEIA. The Strategy included scheduling bi-monthly MDT meetings with the hospital and PHC, having an operational plan to address the issues surrounding the MHC users’ constant relapse and readmission by encouraging them to access community resources that would assist them use their free time productively. Promoting greater social inclusion and positive attitudes for the users, their care givers and the community at large about MHC, empowering them with strategies to maintain maximum functionality after discharge.

RESULTS
The initiative led to formation of the first MHC rehabilitation collaboration meeting, relationship with SANCA were built and it assisted find community resources for the MHCU to remain productive.

CONCLUSION
The Expected Outcomes are to contribute to reduction in relapse and readmission.

L88 - A BASELINE ASSESSMENT OF CHILD HEALTH/MORBIDITY IN MAKHUDUTHAMAGA, LIMPOPO PROVINCE: LESSONS FROM THE LQAS METHOD

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BACKGROUND AND INTRODUCTION
South Africa launched IMCI in 1998. Like all IMCI programmes, the community component which is a very critical but was not adequately scaled up. Research conducted has demonstrated that the approach has been unable to reach children in remote areas. AMREF designed a community-IMCI project to contribute to reduction of childhood illnesses in Makhuduthamaga sub-district, a rural municipality within Sekhukhune, a priority health district. AMREF presents observations and lessons learnt in applying a global standardised tools for monitoring child health indicators (KPC and LQAS).

METHODS
A cross-sectional descriptive and explorative participatory baseline survey using a KPC (Knowledge, Practice and Coverage) and LQAS (Lot Quality Assurance Sampling) technique among 95 households.

KEY OBSERVATIONS AND LESSONS LEARNT
Application of LQAS method enhanced ownership and participation by key stakeholders. Commitment and availability of BACT (Baseline Assessment Core Team), composed of local area managers is ideally, but not always possible.

Lack of households listing made data collection tedious. AMREF worked with community stakeholders to generate a household list.

The LQAS was useful in identifying the problem but did not tell why the problem exists. This required further qualitative research to makes sense of the numbers. AMREF develop operations research throughout the project life (and a year after implementation) to identify reasons why the problems occurred as well as provide recommendations on programme design and strategies. The process above has made LQAS a key determinant in programme design, strategy and outcomes. LQAS is participatory methodology that facilitates linkages between health facilities, and community structures.
L89 - A PROFILE OF FATAL INJURY RISK FOR OLDER ADULTS IN URBAN SOUTH AFRICA

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BACKGROUND
Injury mortality rates in South Africa, particularly homicide and road traffic injuries are still among the highest in the world. Although South Africa’s population is gradually ageing, the safety of older persons is often neglected in favour of other vulnerable groups such as women and children. The study aims to describe the extent and distribution of fatal injuries occurring in older adults, in the four largest South African metropolitan centres.

METHODS
The study is a register-based cross sectional investigation of causes of injury mortality for adults 60 years and older, as reported in the National Injury Mortality Surveillance System for four cities, for the period 2001 to 2007. Poisson regression was used to assess relative risk estimates among age and population groups, sex and cities. The role of alcohol and time and place of death was also investigated.

RESULTS
Leading causes of death were homicide (20.4%), pedestrian accidents (14.5%) and suicide (11%). Males were found to be at higher risk for most external causes of death, markedly homicide (RR 3.0, 95% CI: 2.6-3.4), suicide (RR 2.5, 95% CI: 2.1-3.0) and pedestrian accidents (RR 2.4, 95% CI: 2.2-2.6). Fatal injury patterns differed among cities and population groups, with Cape Town reporting the highest risk for most external causes of death.

CONCLUSIONS
The study highlights the unique challenges in providing a safe environment for the older population in a developing country. Further investigation is required to assess the association between injury-related mortality and poverty/deprivation and ethnicity among older people, as well as explain geographic variations in injury patterns. Injury-related mortality remains extremely high. Although there was evidence of a declining trend until 2004, there was an increase until 2006. Furthermore, injury mortality rates - particularly homicide and road traffic injuries - are still among the highest in the world, particularly for men.

South Africa’s population is gradually ageing, as indicated by the estimated increase in persons aged 65 and older, from 4.9% in 2001 to 5.4% in 2007.

L90 - RIGHTS TO HEALTH AND HOUSING: EXPLORING THE BUILT ENVIRONMENT IN ETHEKWINI, SOUTH AFRICA DURING AN HIV/AIDS/TB EPIDEMIC

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OBJECTIVES
To explore the influence of housing and the built environment on health. Methods. A cross sectional study used interviews with 26 key informants and a survey instrument evaluating the built environment to explore four lower socio-economic housing typologies: inner-city (Albert Park), informal settlement and government RDP housing (Siyanda and Umlazi), and traditional rural (Umbumbulu) in Ethekwini (population 3.5 million).

RESULTS
Although 80.0% of South Africa’s population qualify for government provision of housing and slum clearance is an eThekwini priority, new RDP houses of 30sqm were overcrowded, and lacked room for expansion. Urban crime prevented improved ventilation through opening windows, and pressure for houses resulted in lack of recreational facilities. The right to water/electricity was recognised but provision was insufficient, and illegal connections dissipated revenue collection. In the outer areas residents complained about having to remove faeces from urine diversion toilets. Formal health services were inadequate to meet the needs of PLWAs in an HIV/AIDS epidemic. Local volunteers provided succour and support, but stigma and denial were prevalent. Access to ARVs was limited and transport was required to access clinic and hospital services. The built environment score for the inner city (81.0%) exceeded that of the RDP housing (67.8%) and the traditional rural area (63.8%) with informal housing (59.7%) the lowest due to lack of access to health services.

CONCLUSION
Despite the Constitution 15 years after the advent of democracy South Africans’ rights to health and housing are still to be realised and the gaps are exacerbated by the HIV/AIDS/TB epidemic.
L91 - STIGMA - A BARRIER TO HIV TESTING DESPITE CUMULATIVE EXPOSURE TO HIV AND AIDS INFORMATION, EDUCATION AND COMMUNICATION STRATEGIES IN RURAL KWAZULU-NATAL (KZN), SOUTH AFRICA (SA)

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OBJECTIVE
Investigating the association between cumulative exposure to information, education and communication (IEC) strategies about HIV, stigma and willingness to test for HIV. Methods. A descriptive cross sectional study was undertaken through a community household survey in rural northern KwaZulu-Natal. A multistage cluster sampling strategy used census enumerator areas and households were systematically sampled around six public NACI clinics. Individuals (15-40 years) were randomly selected and completed a questionnaire. Variables included demographics, IEC exposure, perceptions about stigma, and HIV testing. Using SPSS 15.0 Complex Samples' Analysis a model was developed for respondents testing for HIV.

RESULTS
Of 1294 respondents, males 426 (32.9%), females 868 (67.0%); 784 (60.6%) 15-25y, 510 (39.4%) 26-40y, 41.9% ever tested, and 19.6% were on ARVs. Reasons for not testing included that others would know (42.2%) and think badly of them (41.7%), afraid of family discrimination (31.6%), and partner abandonment (23.3%). As respondents’ exposure to IEC strategies increased from 0-3 exposures (79.6%) to >5 exposures (82.7%), significantly more respondents would not let stigma prevent them testing (p=0.002). In the model for HIV testing: sex, OR 4.07 (2.78, 5.95) (p<0.005), age, OR 1.09 (1.07, 1.12), p<0.005, cumulative exposure to IEC, OR 1.27 (1.08, 1.48) (p=0.003), and interaction between personal stigma score and testing were significant (p=0.03) in that the probability of testing for HIV decreased as perceptions of stigma increased.

CONCLUSION
Despite broad-based community interventions to reduce stigma about HIV, perceptions of stigma remain persistent, and require improved, targeted and ongoing strategies to reduce these negative effects.

L92 - PANDEMIC INFLUENZA A(H1N1) 2009 IN SOUTH AFRICA: THE FIRST 100 CASES

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BACKGROUND
On 17 June 2009 South Africa reported its first laboratory confirmed case of pandemic influenza A(H1N1)2009. Since then the number of cases has risen steadily with a total of 100 cases being confirmed by 14 July 2009. An epidemiological and clinical description of confirmed cases was important in the early phase of the outbreak, to effectively direct response.

METHODS
Data collected via telephonic interviews by the NICD during the initial stages of the A H1N1 influenza pandemic in South Africa was analysed to ascertain demographics, source of infection, risk factors, clinical features and complications. Transmission dynamics and a household secondary attack rate were estimated from time-dependent characteristics.

RESULTS
Of the first 100 laboratory confirmed cases, international travel was documented in 42% with some local transmission occurring in clusters related to a university sporting event and in schools. The majority of patients were male (60%). The most affected age group was in the 20-24 year range. Cough, sore throat, fever and myalgia were the dominant presenting symptoms. Co-morbidity included asthma (7%), heart disease (5%), and pregnancy (3%). Eleven patients were hospitalized, 3 cases with pneumonia, but no deaths were reported. Time from symptom onset to recovery was a mean of 7.9 days (SD 3.9 days, range 2-25 days), including recovery from complications. The mean serial interval for confirmed secondary household cases was 2.19 days (range 1-4, SD 1.22). The household secondary attack rate for all cases (confirmed and suspected) was 17% and the R for this initial stage was estimated to be 1.5.

CONCLUSIONS
The pandemic A(H1N1) virus thus far is characterised by mild to moderate clinical manifestations similar to that observed in seasonal influenza with young adults being mainly affected. The preim R, although consistent with other countries and past influenza pandemics may be conservative as only confirmed cases were used for the calculation. Further work is ongoing to describe further the emerging epidemiology and clinical characteristics of this new virus.
L93 - COMMUNITY-LEVEL PREVENTION IS EFFECTIVE IN REDUCING PREVALENCE OF FETAL ALCOHOL SPECTRUM DISORDERS IN NORTHERN CAPE, SOUTH AFRICA: A MULTICENTRE BEFORE-AFTER STUDY

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OBJECTIVE
To assess the effectiveness of universal community-based interventions to reduce fetal alcohol spectrum disorders (FASD) in areas with high FASD prevalence in South Africa.

METHODS
Changes in the prevalence of FASD, and in maternal knowledge and drinking behaviour, were assessed in De Aar and Upington, Northern Cape, before and after an intensive community-level intervention. Eight community workers implemented educational activities to raise awareness of the risks of maternal drinking and to alter community norms about alcohol use in pregnancy. All children were examined by two dysmorphologists at 9 months and children with evidence of FASD were reassessed at 18 months. Neuropsychometrists evaluated infant neurodevelopment. Structured maternal interviews with FASD cases and matched controls determined patterns of alcohol use and knowledge about FASD.

RESULTS
At baseline, 809 children were evaluated, 751 after intervention. FASD prevalence pre-intervention was 8.9% (72/809) and 5.7% post intervention (43/751; P=0.02). In multivariate logistic regression, controlling for maternal age and ethnicity, FASD prevalence was 0.73 fold lower post-intervention than pre-intervention (95%CI=0.58-0.90; P=0.004). Dysmorphology scores reduced from 4 at baseline (IQR=2-7) to 3 (IQR=1-6; P=0.002). After intervention, a large proportion of women reported having received educational messages, levels of knowledge about alcohol increased and some changes were detected in attitudes to drinking.

CONCLUSIONS
Intensive community-level interventions might reduce the burden of FASD in heavily-affected areas of South Africa, by about 30%. This, the first study ever to document the effectiveness of FASD prevention using clinical outcomes, suggests that community-level services should be implemented in similar settings to reduce this very common, oft neglected, disorder.

L94 - POVERTY AND INEQUALITY AS DETERMINANTS OF HEALTH DISPARITY: IN THE CONTEXT OF AFRICAN MILLENNIUM DEVELOPMENT GOALS

E Worku
University of Cape Town, Health Economics Unit

Many African economies have achieved substantial economic growth over the past recent years, though lots of the Millennium Development Goals (MDGs) of health considerably remain behind off targets. Progress towards to meet many of the health goals by 2015 are threatened by both poverty and inequality which are the most important underlying causes of ill health and health inequality in the region. The aim of this study is to establish the link between poverty, inequality and poor health in African countries and to draw the attention of policy makers with the current economic meltdown, both poverty and inequality will become more heavily concentrated in the region in both absolute and relative terms. Therefore unless there is strong national and international collaboration to combat root causes of poverty and inequality very few, if any, of the MDGs of health will be achieved or may result in far worse health scenarios. The correlation coefficient test, multiple linear regression analysis, and scatter plot graphs were conducted to explore the association between poverty, inequality and ill health outcomes among the 52 states of Africa based on cross-sectional secondary data sets obtained from the UNICEF and UNDP. The study finding shows that poverty is strongly associated with ill health while income inequality is less so. Policies aimed at tackling root causes of poverty through directing more resources towards equitable socioeconomic growth will considerably contribute to reduce variations in health and to achieve the MDGs in African continent.
L95 - DOES SOCIAL SUPPORT AFFECT DEPRESSION IN PATIENTS ON ANTIRETROVIRAL TREATMENT PROGRAM IN RURAL KWAZULU-NATAL, SOUTH AFRICA?

Yeji F, Hirschhorn L, Klipstein-Grobusch K, Barnighausen T

1University of Witwatersrand and Navrongo Health Research Centre, Ghana; 2Harvard Medical School; 3University of Witwatersrand; 4Africa Centre for Health and Population Studies and Harvard School of Public Health

Good and quality social support has been positively associated with mental health and researchers and clinicians are increasingly recognising the important protective role it plays in people living with HIV/AIDS (PLWA).

We investigated whether the mental health (depression) of patients receiving antiretroviral treatment (ART) in a public-sector treatment programme in the rural district of Umkhanyakude, KwaZulu-Natal, South Africa is influenced by social support and strategies to cope with HIV infection. Depression was assessed in a cross-section of 272 patients (mean age 38 years, age range 20-67 years) with the General Health Questionnaire 12 (GHQ12). A GHQ12 score of 4 or higher indicated mental health pathology (depression), while lower scores indicated normal mental health.

We regressed depression on sex, age, marital status, education, household wealth (measured with a principal component (pc) score summarizing information on water source, energy sources, electricity, home ownership, and 27 household assets), social support (measured with two orthogonal pc scores, the first capturing largely questions related to “instrumental social support” and the second capturing largely questions related to “emotional social support”), and 6 strategies to cope with HIV infection. Holding the other variables constant, “instrumental social support” was a significant predictor of mental health pathology (OR = 0.65 P<0.001, 95%CI 0.52 - 0.81). Using avoidance of people as a strategy to cope with HIV increased the odds of depression almost threefold (OR = 2.79 P=0.006, 95%CI 1.34 - 5.82), “trying to keep it from bothering” one reduced it by a factor two (OR = 0.45 P=0.068, 95%CI 0.20 - 1.06). 33% of patients were depressed indicating that depression is very common in patients on ART in rural South Africa. In addition to drug treatment, interventions improving instrumental social support and changes in two (2) particular strategies to cope with HIV infection may be effective in reducing this disease burden among ART patients.

L96 - PUBLIC HEALTH IMPLICATIONS OF GREYWATER RE-USE IN SOUTH AFRICA

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INTRODUCTION

South Africa is a semi-arid country, facing backlogs in sanitation and water service delivery, leading to a dire public health condition in many settlements. Greywater is domestic wastewater without any input from the toilets, and its reuse as is increasingly gaining attention around the globe. However, no greywater reuse guidelines exist in South Africa or SADC region, leading to limited regulatory framework for public health and other policy-decision making. With no proper management system, greywater discharge to soils surfaces can lead to soil property changes, potential contamination of groundwater, breeding of mosquitoes, and pathogenic organisms, i.e. to severe public health risks. Preliminary study of the legislation from the SADC region, along with characterization of the presence of potential pathogens in greywater is presented in this research.

METHODS

Standard methods, as well as published methods were used for enumeration of selected pathogenic organisms from greywater samples from selected donor households in the Eastern Cape. Legislation and water quality guidelines were studied from the public domain sources such as World Health Organization, Food and Agricultural Organization, and the governments of the SADC regions.

RESULTS

Preliminary results of the legislation and existing water quality guidelines provided the baseline for the development of greywater reuse guidelines. Modifications are proposed and will be presented. Concentration of the selected pathogenic organisms will be presented and discussed in this paper, along with epidemiological implications associated from greywater disposal and discharge in the Eastern Cape Province of South Africa.

CONCLUSION

These are preliminary data, and further research will be required.
L97 - EVALUATION OF AN ACUTE HIV INFECTION DIAGNOSIS, BEHAVIOURAL COUNSELLING, AND PARTNER NOTIFICATION PROGRAM IN A PUBLIC HEALTH SERVICE FOR YOUTH, CAPE TOWN, SOUTH AFRICA

1B Zwane, 1B Wolpaw, 2C Mathews, 2Y Mtshizana, 2D Hardie, 2V de Azevedo, 2K Jennings

1South African Medical Research Council, Health Systems Research Unit, Cape Town, South Africa; 2University of Cape Town, School of Public Health and Family Medicine, Cape Town, South Africa; 3University of Cape Town, Department of Virology, Cape Town, South Africa; 4Cape Town City Health Department, Cape Town, South Africa

BACKGROUND

Individuals with early HIV infection have an elevated potential to transmit HIV and play a disproportionate role in the growth of the epidemic. Routine identification and counselling of individuals during acute stage infection (AHI) could decrease transmission behaviour during this key epidemiological period.

METHODS

The study is being conducted in Khayelitsha, South Africa in a public youth (<26 years) clinic that serves a high risk group (11% HIV positive). Over a 10-month period, STI and VCT clients over the age of 18 years with negative or discordant HIV antibody test results at the clinic were eligible. Participants submitted blood for an HIV-1 DNA PCR test, and answered questions about sexual risk behaviour. Acute infection was defined as PCR positive, and negative or weakly reactive on 3rd generation HIV ELISA. We identified and diagnosed cases of AHI.

RESULTS

Of 847 participants (63.4% female), 30.1% reported two or more sexual partners during the past 2 months, 46.8% believed one or more of their partners had other sexual partners, and 66.9% did not use a condom at last sex. Of 322 STI patients and 515 VCT clients we identified 2 male and 3 female with AHI giving a total prevalence of 0.59% (95% CI: 0.19%-1.4%). AHI diagnosis and behavioural counselling was delivered to all five cases.

CONCLUSIONS

Although it is possible to provide routine acute HIV diagnosis and counselling in a South African township clinic, the low AHI prevalence among those testing negative may not justify the cost of the program.
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P001 - CORRELATES OF CONTRACEPTIVE USE IN SOUTHERN AFRICA: ANALYSIS OF LESOTHO DEMOGRAPHIC AND HEALTH SURVEY (LDHS), 2004

L Ahuejere
Statistics South Africa

CONTEXT
The issue of contraceptive use, its determinants and availability of varieties are presently a concern to the government of Lesotho. This is so because they are very important components of any successful family planning programs.

METHODS
The study uses the Lesotho Demographic and Health Survey (LDHS), 2004 data set to examine the role and pattern of three groups of variables (individual, fertility and contextual variables) in determining contraceptive use among women aged 15-49 years in Lesotho. Based on the Cost-Benefit theoretical model, analyses are done at three levels. These are the univariate, bivariate and multivariate levels. The logistic regression technique is used at the multivariate level.

RESULTS
All background characteristics at the bivariate level are found to have a strong significant association and hence a relationship with the use of contraceptive. This however is with the exception of sex of household head, which is only significant when controlling for marital status and age.
At the multivariate level, women educational level, her partner’s educational attainment and number of children have the highest odd ratio of contraceptive use and hence, the highest power of critical predictions. They are also highly significant in each model. The stepwise regression shows that addition of new group of variables (fertility and contextual variables), brought about changes in ratio values although very small. It also maintained the same pattern of predictions with the other models to the use of contraceptive.

CONCLUSION
This study concludes that factors found to be associated with contraceptive use should be considered by the Lesotho government in its family planning programmes, especially those concerning contraceptives as this will bring about increase in use and hence, increase in contraceptive prevalence in the country.

P002 - RACIAL DIFFERENCES IN THE REPORTING OF SELF-ASSESSED HEALTH STATUS (SAH) IN SOUTH AFRICA

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University of KwaZulu-Natal (Westville)

South Africa’s population is characterised by large differences in health, with vast inequalities between citizens observed in a number of tested health indicators, self-assessed health status (SAH) among them. Amongst racial groups, White citizens generally report higher levels of SAH than Black ones while the responses of Indian and Coloured persons fall somewhere in between the two. This pattern is usually attributed to the continued association between race and socioeconomic status, a product of South Africa’s long history of inequality and official racial discrimination.

Recent empirical work conducted elsewhere, however, casts doubt on the validity of the assumption that SAH can be directly compared across members of different groups. In light of these concerns and the challenges which they pose to the interpretation of the results of current South African empirical work, this paper investigates possible systematic racial differences in South Africans’ perceptions and reporting of SAH.

Using data from the Health Module of the Human Science Research Council’s nationally representative South African Social Attitudes Survey (2007), this study explores racial differences in a series of aspects related to the reporting of SAH, including respondents’ assessments of their health in a number of domains and attitudes to a number of health-related areas (e.g. reference group effects, perceptions of main influences on health etc.).

The analysis reveals a number of differences when compared to the usual racialised pattern observed. After speculating on the sources of these differences and discussing them, the possible implications of these findings for policymaking were identified.
P003 - A PROCESS EVALUATION OF A SCHOOL HEALTH SELF-ASSESSMENT PROGRAMME

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BACKGROUND
In South Africa currently we have a dual burden of nutrition related conditions i.e. malnutrition associated with stunting, underweight and micro-nutrient deficiencies and over-nutrition (overweight) affecting children aged 1-9 years. This raises concerns regarding the nutrition transition and the development of chronic diseases. These two conditions are generally associated with urbanisation and resultant changes in diet and lifestyle. The HealthKick programme is a holistic, multi-component programme aims to reach children, their parents and teachers, and to improve the school environment and surrounding community via different channels, e.g. developing curricula focusing on healthy eating and optimal physical activity and training teachers to implement it. This study aims to evaluate the process of implementation of the HealthKick diabetes prevention programme in schools, which aims to kick-start diabetes prevention through nutrition and physical activity.

METHODS
A qualitative approach will be adopted to best determine the experiences of the participants and the underlying factors involved. I will be using 2 of the three most common qualitative research methods namely, in-depth interviews and focus groups, utilising interview schedules.

RESULTS
(This study is still in progress) The first round of assessments showed a great need for school interventions targeting healthy lifestyles, but a number of barriers were also recognised. The final round of assessments will be completed at the end of August.

CONCLUSION
The results of this study will be used to greatly improve the process of the HealthKick Diabetes Prevention Schools Programme.

P004 - KNOWLEDGE, ATTITUDES AND SEXUAL PRACTICES REGARDING HIV/AIDS AMONG THE ERITREAN MILITARY

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INTRODUCTION
Eritrea is a small country situated in the Horn of Africa with an HIV prevalence of 2.4% among pregnant women in 2005. Approximately 200 000 young, productive members of the population of 5.5 million are mobilised in the army through National Service conscription. Most members of the military are young, sexually active people, a category inclined towards high-risk sexual behaviour putting them at risk of sexually transmitted and HIV infection.

METHODS
A cross-sectional study using a random sample of 836 members of a representative category of the Eritrean army was conducted, utilising a self-completed questionnaire designed to assess knowledge, attitudes, behaviour and perceptions about sexually transmitted infections and HIV/AIDS.

RESULTS
While the survey showed high levels of knowledge and relatively positive attitudes and beliefs about sexually transmitted infections including HIV, some inconsistencies in attitudes were discernible. Some respondents retained misconceptions about protection methods. While most respondents were prepared to undergo voluntary counselling and testing, fewer were prepared to disclose their status and judgemental attitudes existed toward those living with HIV. While condoms appear available and accessible, there needs to be encouragement of regular and consistent use of condoms, particularly with those with more than one partner.

CONCLUSIONS
The Eritrean military has initiated HIV/AIDS education programmes and improved access to condoms. These programmes, however, need to be strengthened especially around attitudes to those infected with HIV. The development and improvement of partnerships between government, non-governmental and international organisations is essential to strengthen the fight against HIV/AIDS in Eritrea.
P005 - ALCOHOL ABUSE IN THE ERITREAN ARMY

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2Military Health Services, Department of Defense, Eritrea

INTRODUCTION
Every year up to 10 000 recruits enrol in the Armed Forces of Eritrea, where they spend two years of military service. New recruits either start consuming alcohol or begin abusing alcohol following recruitment, potentially negatively impacting themselves, the workplace, their colleagues and families. This study aimed to establish baseline information on alcohol consumption patterns among the National Military Service recruits and to understand factors in the working environment which could be associated with alcohol consumption.

METHODS
The study used an observational cross-sectional design measuring the prevalence and patterns of alcohol consumption in the military as well as those risk factors that may be associated with alcohol use among the National Military Service recruits in the Third Operational Zone Eritrean army. A three-stage stratified random sampling method was adopted to select 640 recruits to complete the questionnaire.

RESULTS
The majority of the respondents (70%; 95% CI: 67%-73%) were consuming alcohol compared to pre-recruitment (42%; 95% CI: 38%-50%). There was an increase in heavy drinkers after recruitment (55%; 95% CI: 53% to 59%) compared to pre-recruitment (13%; 95% CI: 10%-16%). Alcohol drinking increased significantly after recruitment by 29%. Alcohol use and abuse was significantly higher among those with an education of greater than grade 12 (92%; 95% CI: 85%-98%). Alcohol consumption was higher among Christians (80%; 95% CI: 76% to 84%) compared to Moslems (48%; 95% CI: 41%-55%). Alcohol abuse rate was higher among respondents who reported that military clubs and nearby bars operated for longer hours (69%; 95% CI: 65%-73%). The presence of regulations was not a significant factor in the reported alcohol use and abuse.

CONCLUSION
This first study examining alcohol consumption in the Eritrean military establishes a baseline about the use and abuse among the National Military Service recruits.

P006 - SOCIAL CULTURAL DIMENSIONS IN OBSTETRIC FISTULA—PREDISPOSING FACTORS AND CONSEQUENCES: STUDY FINDINGS FROM A KENYAN NATIONAL FISTULA CAMP CONTEXT

W Khisa
AMREF Ministry of Medical Services

The incidence of urinary/feacal fistula reflects poor standard of obstetric and gynecological care and health care system of a country and its availability to the population. Fistula occurs mainly due to obstetric causes such as prolonged and obstructed labor, difficult instrumental delivery and other obstetric manipulations, and ruptured uterus.

The objective of the study was to document factors that predisposed women to obstetric fistula and the social & medical implications in women who underwent surgical repair. Data was collected retrospectively from patients operated on Obstetric fistula camp held in Kenyatta National Hospital, Nairobi in August 2008.

The study focused on seventy patients who sought repair for the first time and also repeat surgical cases. Surgical treatment was done on VVF (77%), RVF (16%) or a combination of VVF and RVF (7%). The study comprised 96.8% patients whose fistulae were as a result of obstructed/prolonged labor. The patients' age ranged between 13 - 76 years (mean = 29 years). Height of patients ranged between 128-170cm (mean 153 cm) with 26.2% falling below 150cm; while 32 (45.7%) had complete primary school education and 80% unemployed. Fifty nine (61.4%) were married and received social support from their spouses and only 15% were separated/divorced.

Following diagnoses, less than half (41.4%) were managed through catheterization. Of the proportion divorced, 100% attributed their marital status to development of fistula. Other outcomes included club foot, which was recorded in 31.4%, infertility (28%) and positive screening scores for depression in 73% of the cases. These scores were closely associated with social support after fistula.

The Kenyan sample of fistula patients resonate social demographic characteristics of fistula patients in Africa. However, there seems to be significant dissimilar trend in physical characteristics (greater height and weight) and social support to fistula patients, as most of the patients reported they were still married. The trend in the age group of patients also differs as many patients were noted to have lived with fistula for remarkably long duration of time.

There is need for public education and community mobilization to address obstetric fistula, that majority of the patients present for care late, and that opportunities for social support and reintegration exist because of high rate of marriage among the affected women. Better patient outcomes will be achieved with accessible maternal health services, training local health service providers in surgical skill & technology and mainstreaming psychosocial care in the entire management cycle of the obstetric fistula patients.
P007 - DYING YOUNG IN SOUTH AFRICA: MEN AND HEALTH SEEKING BEHAVIOURS

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Institute for Social and Health Sciences, UNISA

Studies indicate that men have higher mortality rates than women and that males die at a younger age than females. A number of factors have been demonstrated to contribute to this problem. Sub-Saharan men in particular are shown to have the most premature male deaths in the world. A number of South African research studies have documented premature male mortality rates and the years of life lost due to death. However, little research that explores factors contributing to premature male mortality has been documented. Furthermore, the most recent population estimates (2008) have shown that South African males die as early as ages between 20-24 years old. Given this knowledge as well as that traffic related injuries, and intentional and unintentional injuries, self directed and interpersonal violence, poor health-care seeking behaviours, high risk taking behaviours due to held masculine norms, and prevailing HIV/AIDS conditions all contribute to this disaster. The aim of this research was to investigate factors that influence premature male mortality, as well as shed some light into the survivability of males to old age. Forty males aged 16 to 90 year old were recruited from various sites and interviewed. Preliminary analysis was done using qualitative thematic analysis and indicated masculine beliefs as determinants of health seeking and risk taking behaviours contributing to premature male mortality. The findings are interpreted with a framework of masculinity theory and implications of the study discussed.

P008 - TERTIARY EDUCATION STUDENTS’ LEVEL OF HIV KNOWLEDGE AND RISKY BEHAVIOURS AND THEIR SOURCES OF INFORMATION ON HIV: IS LOVELIFE ONE OF THEIR SOURCES OF INFORMATION?

L Letsela, A Silva
University of the Witwatersrand

The aim of this research was to evaluate whether the youth are utilising loveLife services, through linking their reported HIV knowledge and risky behaviours of the youth reporting loveLife to be their source of HIV information with their level of exposure and participation to the programme. Data was gathered through administering open- and close-ended questionnaires to 152 young South African students aged 18 to 25 years old studying at Johannesburg, Braamfontein tertiary institutions. These questionnaires are the demographic questionnaire, Condom attitude scale, the current and previous sexual behaviours, Socio-sexual orientation index (SOI), Self-Efficacy for Protective Sexual Behaviours Scale, HIV/AIDS knowledge and understanding questionnaire, and loveLife exposure, participation and response questionnaire. Statistical techniques of frequency counts, Chi Square tests of associations and Point Biserial correlations were applied to all quantitative data while thematic content analysis applied on qualitative data. Results revealed that students are aware of loveLife services but are not utilising them for various reasons. Respondents had moderate HIV knowledge and increased HIV sexual risk behaviours. However, those utilising loveLife services had high levels of HIV knowledge, and some sexual risk behaviours. Some students felt that loveLife was not relevant to them and thus were not utilising its services. Implications of findings and recommendations for future studies are discussed.
P009 - REASONS FOR NOT USING URINE DIVERSION TOILETS IN ETHEKWINI, KWAZULU NATAL

R Lutchminarayan
eThekwini Municipality, Environmental Health Department, Durban

BACKGROUND
In 2007, an epidemiological survey showed that 214 (16%) of households were not using the urine diversion toilets provided by the eThekwini water sanitation and hygiene project. The aim of this study was to investigate the reasons these households were not using their new toilet.

METHODS
In December 2008, a cross-sectional study was undertaken and a random sample of 54 households not using the urine diversion (UD) toilets were selected to be visited by trained fieldworkers. A closed ended questionnaire and an observational checklist were administered and a hygiene training programme implemented.

RESULTS
Of the 51 (94%) households visited, 18 (35%) were now using the UD toilets, 28 (55%) have never used the toilet whilst 5(10%) used it intermittently. Whilst 18 (35%) used the UD toilet, 30(59%) households used pits and 3(6%) households used the flush toilets. Reasons for not using the UD toilets included structural defects with the toilet, uncomfortable to change practices, fear of emptying the vault and not understanding how the UD works. Residents did not know who to go to when toilets needed repair. Two thirds (34) of households informants reported that members wash their hands always after going to the toilet but only 26 (51%) of households were observed to provide soap and a hand washing facility.

CONCLUSION
Providing toilets to households does not guarantee they will be used. Regular follow up is needed to evaluate usage and reinforce good hygiene practices, which enables change of behaviours and improve the quality of their lives.

P010 - NATIONAL HEALTH RESEARCH DATABASE: INNOVATIVE SOLUTION FOR RESEARCH NEEDS

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Health Systems Trust, Durban, South African National Health Research Directorate Funded Project

OBJECTIVES
National Health Research Database (NHRD) has been created as a web-based search engine and a database containing health research references conducted in South Africa as well as Southern Africa; secondly, it is a tool to be used by Provincial Health Research Committees to receive, store research proposals in order to manage the process of research submissions and provincial approvals needed by researchers.

This initiative is aimed at providing relevant support to National & Provincial Health Research Committees in ensuring effective coordination of health research and to build appropriate health research capacity.

METHODS
Its use is intended for anyone involved in health research. The primary users of NHRD not only include researchers in various institutions, but also managers and policy makers to assist in the provision of information for appropriate decision making. It is now available for accessing by the public from the National Department of Health website and includes links and a user manual available for ease of use. The NHRD now has a Research Application Management System (RAMS) that is intended to further assist in managing the proposals that will be submitted to the Provincial Health Research Committees by researchers. This system is continually refined through consultation with the end-users (PHRCs) as it evolves to be a fully functional RAMS.

CONCLUSION
This innovation as well as refinement of this tool is seen as a solution to knowledge and management of research processes in provinces.

T Motloung
Gauteng Legislature, South Africa

INTRODUCTION
The 2004 ante natal survey results showed an increase in HIV prevalence nationally. In Gauteng the prevalence rate was at 33.1% and this prompted the government to renew its commitment and strategy to curb the acquisition and transmission of HIV infection. HIV and AIDS epidemic is a very complex condition which has a negative socio economic impact in the country and on society at large. The fight against HIV/AIDS needs a more robust and an integrated approach where each stakeholder contributes according to their responsibilities as guided by the Joint strategy and implementation plan of 2007.

PURPOSE
To assess the staff compliment, availability and accessibility of medication and the limitation and challenges of implementing the comprehensive HIV and Aids policy as perceived by the Health Care professionals.

METHODOLOGY
A random sampling of all health facilities which included hospitals, community health centers and clinics at Ekurhuleni was done. Questionnaires were developed according to the objectives of the study, field work which included visits to seven health care facilities where HIV project managers, Primary Health Care nurses, doctors working on the site where interviewed and requested to complete the questionnaire

RESULTS
There were 9 accredited ARV sites and 5 earmarked for down referral sites to start ARV services in September 2008, with an average of 30-40 staff complement, for 3000 to 4000 total average of patients seen in a month. There had never experienced any shortage of medication since initiating ARVs. The primary health care center are not ready to implement the HIV plan based on their level of training and shortage of key support staff like doctors, psychologist, social workers, dieticians including the health care providers. The infrastructure also plays a major role in providing effective and quality care to people infected and affected by HIV.

P012 - A FRAMEWORK FOR UNDERSTANDING GENDER IN THE PUBLIC HEALTH CURRICULUM IN SUB-SAHARAN AFRICA

N Mwaka
School of Health Systems & Public Health, University of Pretoria

INTRODUCTION
Gender is a key variable in the achievement of the Millennium Development Goals. Gender has a profound effect on health, often reflected in dissimilar and inequitable patterns of health risks, and access to and control over health resources and services. A study was carried to investigate how gender was understood and applied in public health curriculum in sub-Saharan Africa.

METHODS
A qualitative research approach utilizing a two-pronged research design was used. Firstly, a document survey identified public health curricula documents in 9 selected schools of public health in sub-Saharan Africa. Secondly, a case-study design with a selection of two of the schools was used to gain a more in-depth understanding of the phenomena. Content analysis was used to sort the data into themes, after which codes were generated for the themed content.

RESULTS
Gender was understood as nature, nurture, culture, context and as a lived experience. However, there were also marginalized views on gender such as men and masculinities, as well as missing discourses such as gender identity, and sexual orientation, which could add value to the understanding of gender and health issues.

CONCLUSION
The most dominant view of gender in public health curricula seemed to be located mainly within a biomedical paradigm. It is recommended that a broader perspective of gender, which draws from the social paradigm and the other marginalized discourses be considered in public health curricula for the achievement of the gender and health related Millennium Development Goals.
P013 - A COMMUNITY-CENTERED COLLABORATIVE INITIATIVE TO TACKLE WATER AND HEALTH IN SELECTED VILLAGES AT VHEMBE DISTRICT OF THE LIMPOPO PROVINCE, SOUTH AFRICA

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PURPOSE
To develop a bi-national, multi-disciplinary program to improve water, sanitation and health in a water-scarce community in Limpopo province, South Africa. The objectives were to demonstrate how photovoice projects can convey community concerns to researchers from a wide range of disciplines, explore and describe the understanding of community members regarding health, water quality and sanitation issues, describe the components of a successful multi-disciplinary international health research project.

BACKGROUND
The University of Venda and the University of Virginia have developed a multi-disciplinary initiative to partner with a community to assess and improve its water and sanitation systems and to monitor water-related health outcomes. Engaged disciplines from both universities include engineering, public health, microbiology, urban planning, environmental science, education, anthropology, and nursing. Integrating disciplines into a research program requires collaborative research design. Innovative, bi-national curricular offerings have emerged from this initiative. Photovoice methodology allowed community members to convey their perceptions in a manner accessible to practitioners from many disciplines.

METHODS
This is a planned five year collaboration between the University of Venda and the University of Virginia. In the first 10 months of the project, research planning workshops, a community selection process, stake-holder meetings, bi-national course offerings, and an initial qualitative research project have substantively engaged students, faculty, and community members in project design. These activities have resulted in a comprehensive community assessment plan that integrates methodologies for collecting data regarding water supply, access, quality, usage, policy issues, and water-related health outcomes. A pilot project, using photovoice methodology and carried out by students from both universities, elicited community members’ ideas about water issues.

RESULTS
Rich data that included census for the village, maps (mental and GIS based), and perceptions and practices related to health, water and sanitation outcomes. It is envisaged the results and the process description will provide for a framework or model for collaborative community centred research initiative in rural based universities.

CONCLUSIONS
A noticeable interest amongst community members to deal with issues of health and water quality was observed. Community members volunteered their time and energy to engage in the initiatives which provided a great capacity building platform. The multi-modal approach to collaborative research offers opportunity for interdisciplinary intervention to community problems which is desirable given that the problems are often multi-faceted and complex, these without losing sight of local traditions, practices and culture.

P014 - THE MATERNAL RISK FACTORS AND EPIDEMIOLOGY OF FETAL ALCOHOL SPECTRUM DISORDER IN THE NORTHERN CAPE PROVINCE OF SOUTH AFRICA

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1University of Stellenbosch, 2Foundation for Alcohol Related Research (FARR); 3University of Cape Town; 4Reproductive Health and HIV Research Unit, University of Witwatersrand, South Africa

Fetal Alcohol Spectrum Disorder (FASD) is the most common preventable birth defect amongst at-risk communities in South Africa. Two populations in the Northern Cape Province were investigated for FASD within school-entry classes during 2001 and 2003. Standard clinical, neurodevelopmental and maternal interview evaluations were undertaken by a team of skilled dysmorphologists, neuropsychometrists and community workers to establish whether learners had stigmata of FASD or were normal. The latter classification was undertaken according to the criteria by Hoyne et al. (2005).

During the studies, 1788 school children from two centres in the Northern Cape were appraised. These represented more than 90% of the school-entry population, of which 49.6% were male, 50.2% were female and 0.2% were unaccounted for. Children were screened for either height and weight or head circumference on or below the 10th centile. One thousand and ninety eight (61.4%) children were screened positive, of which 161 (9%) were deemed to have features associated with fetal alcohol spectrum disorder (FASD). Results show that 53 % of mothers with a FASD child reported drinking heavily before and during pregnancy (>5 drinks per day). The percentage of women who drank moderately (2-5 drinks per day) was 12.5%. There were statistically significant differences between the maternal age, education and weight, socio-economic circumstances, smoking and number of children in mothers with FASD children compared to those with normal outcomes. The very high prevalence of FASD in these communities reflects extremely poor socio-economic circumstances and an urgent need for prevention/intervention activities.

1 University of Venda (SA) and University of Virginia (USA)
P015 - WHAT IS DRIVING THE HIV EPIDEMIC AMONG YOUNG WOMEN IN SOUTH AFRICA?

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INTRODUCTION

Young women in South Africa are reported to have higher HIV prevalence than their male counterparts. This paper explores gendered behaviours and possible drivers of the HIV epidemic among women aged 15-24 years.

METHODS

5708 youth (15 to 24 years) participated in a nationally representative household survey in 2005. Interviews were conducted using questionnaires to collect demographic and behavioural data. Weighted analysis, taking into account the multi-stage cluster sampling strategy, was used. Chi-squared analysis was used for significance testing.

RESULTS

Of the 2381 respondents reporting to be virgins, 56.9% were males. More males reported sexual debut before the age of 15 years when compared to females (11.9% vs. 5.1%; p<0.001).

African females were more likely to have had sex compared to African males (65.6% vs. 58.3%; p<0.001). Even though most females and males “knew of a place nearby where they could get an HIV test”, females were twice as likely to test for HIV (39.5% vs. 15.3%; p<0.001) and get their test result (36.4% vs. 13.9%; p<0.001). More females reported to have one sex partner (94% vs. 72.8%; p<0.001), and not to have used a condom at last sex act compared to their males counterparts (44.3% vs. 27.2%; p<0.001).

CONCLUSION

Even though females reported monogamous sexual relationships, and were more likely to be aware of their HIV status compared to their male counterparts, they still had unprotected sex. The dynamic between females and their male partners with regards to negotiating safe sex needs to be explored.

P016 - THE USE OF TRANSTHEORETICAL MODEL (TTM) TO DETERMINE THE LEVEL OF PHYSICAL ACTIVITY OF HOSPITAL WORKERS IN SOUTH AFRICA

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BACKGROUND

Evidence exist that supports the physiological and psychological benefits associated with regular physical activity. Exercise has been shown to positively affect one’s ability to maintain a healthy body weight through the balance of energy intake and output. It is believed that only 30% of adults participate in leisure-time physical activity and of this, only 10% participate in vigorous physical activity (PA); hence, a great deal of work is needed to identify barriers to physical activity that may affect exercise adherence. Despite all compelling evidence of benefits of PA, initiation and adherence to PA is a problem regardless of whether one is a health worker or not. The Transtheoretical model (TTM) of the stages and processes of change has been used Worldwide to understand how people change problem behaviour such as Physical Inactivity and correctly categorize people according to their readiness to change from being physically inactive to being active. This model (TTM) helps Health Promoters to implement awareness campaigns according to individual’s stage of exercise change. The overall aim of this study is to determine the level of PA of Healthcare workers using Transtheoretical Model at Dr. George Mukhari hospital, South Africa.

METHODS: RESEARCH DESIGN

A quasi-experimental design was used. A total of 200 subjects (both medical and non-medical staff) were randomly selected from the hospital staff. The following parameters were measured: Stage option (Questionnaire), fitness levels(step test), BMI (Electronic scale), attitude and knowledge (Questionnaire). The results were analyzed using SPSS 17.0 version and excel program.

RESULTS

Results show that the majority of participants fall under contemplation (47%), followed by Actors stage (21.9%) (majority 60% of actors exercise 1x/month), Preparers (13.7), Precontemplation(8.7%) and Maintainers (8.2%). Eighty percent (80%) of participants had a low fitness level, 16.5 % had moderate and only 3.5% had high level of physical fitness. Weight distribution of participants ranged from: Normal weight(27%), Overweight(26%) and Obese (47%). There was a positive correlation between age and BMI and Level of fitness. However, there was no correlation between Stage option and Staff level of education (medical and non-medical). Majority of staff do not exercise, even though they are planning to do so in the next 3 months (Contemplators).

CONCLUSION

TTM has succeeded in identifying the stage of PA of healthcare workers (HCW) has enabled the researcher to identify which health promotion strategies to use for different HCW according to their stages of exercise behavior change. It should, therefore, be feasible for the researcher to design programmes that would encourage participants to move from one stage of PA to next level till they eventually participate in PA.
**P017 - MEETING THE MILLENIUM DEVELOPMENT GOALS – THE PAN-AFRICAN CLINICAL TRIALS REGISTRY**

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**INTRODUCTION**

The Pan African Clinical Trial Registry (PACTR), an African initiative and WHO primary registry, is funded by the European and Developing Countries Clinical Trials Partnership. It provides a platform to prospectively register African clinical trials that can be searched online (www.pactr.org).

**OBJECTIVE**

To map registered PACTR trials against the relevant Millennium Development Goals (MDGs).

**METHODS**

PACTR data was analysed in July 2009. We describe how the trials meet MDGs 4. (reduce child mortality), and 6. (combat HIV/AIDS, Malaria and other diseases).

**RESULTS**

Ten trials have been registered: four are single-centred and six are multi-centre trials with sites in 11 African countries. Principal investigators hail from seven countries, four in Africa (Gambia, Kenya, Tanzania, South Africa). Of five HIV/AIDS trials, four focus on prevention and one on treatment. One malaria, one co-morbid TB/HIV and three TB trials investigate treatment.

Four registered PACTR trials explore prevention methods or alternate treatment for Malaria and TB in infants, as well as prevention of mother-to-child transmission of HIV/AIDS, meeting the MDG 4 goal to reduce child mortality. All current PACTR trials evaluate TB, HIV/AIDS or malaria identified in MDG 6. By providing a searchable repository of African trials, the PACTR contributes to the research required to achieve MDGs 4 and 6, allowing this to be monitored.

**CONCLUSION**

Registration of trials on PACTR gives medical personnel, researchers, policymakers, and lay persons free access to an information network on clinical trials conducted in Africa, thus helping implement targets 4 and 6 of the MDGs.

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**P018 - ASSOCIATION BETWEEN POST-WEANING DIETARY PATTERN AT AGE ONE AND GROWTH AT AGE TWO FROM THE BIRTH-TO-TWENTY COHORT STUDY (SOWETO) JOHANNESBURG, SOUTH AFRICA**

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Malnutrition remains the major cause of child mortality and an essential component in child development and future productivity of the child in the world. We explore the possible association between post-weaning dietary patterns at age one and growth at age two living in urban areas in Sub-Saharan Africa. We assess their dietary patterns, factors associated with malnutrition and the prevalence of malnutrition at age one and two. Our specific objective is to inform policy leaders, social departments and other international so as to develop strategies that can be used to optimize infant nutrition in regions with high malnutrition prevalence. We derived data from a Welcome trust funded project carried out in the Birth-to-Twenty Cohort Study in 2000 and 2002 in Soweto, Johannesburg South Africa. We find that there is no association between post-weaning dietary patterns and growth at age two. Other factors that predict growth at age two are growth at year one, birth-weight and race. We also find that infant diet is diverse; however miscellaneous foods (tea, coffee) and sugars are highly consumed by infants. This shows that there is need to improve the underlying and immediate causes of malnutrition.
P019 - ASSESSMENT OF RISK FACTORS ASSOCIATED WITH MATERNAL MORTALITY IN RURAL TANZANIA

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BACKGROUND
Complications of childbirth and pregnancy are leading causes of death among women of reproductive age. Worldwide, developing countries account for ninety-nine percent of maternal deaths. The United Nations’ 5th-MDG is to reduce maternal mortality ratio by three fourths by 2015.

OBJECTIVE
To explore the levels, trends, causes and risk factors associated with maternal mortality as put forward by WHO in rural settings of Tanzania.

METHOD
Secondary data analysis based on the longitudinal database from Rufiji Health and Demographic Surveillance System 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 hazards regression was used to assess the risk factors associated with maternal deaths.

RESULTS
Maternal mortality ratio was 412 per 100 000 live births. The main causes of death were haemorrhage (28%), eclampsia (19%) and puerperal sepsis (8%). Maternal age and marital status were associated with maternal mortality. An 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. These findings were statistically significant at the 5% level.

CONCLUSION
Findings pointed to the fact that haemorrhage and eclampsia are the leading causes of maternal mortality in Tanzania and other developing countries. This indicates the need for better antenatal and obstetric care, particularly for women over thirty years of age.

P020 - CAN SHORT MESSAGE SERVICE IMPROVE TB COMPLIANCE?

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INTRODUCTION
The Prince Cyril Zulu Communicable Disease Centre in Durban is one of the largest TB clinics in South Africa. In 2004, 53% of patients commenced on TB therapy were cured, 65% completed six months of therapy but 30% interrupted treatment. The result is well below the World Health Organization target of curing 85%. Clearly this clinic needs to improve its therapy outcomes. In 2004 approximately 1550 TB patients were collecting TB treatment from the clinic weekly.

The purpose of this pilot study was done to establish whether sending short message service (SMS) to TB clients daily, as reminders to take their TB medication, would improve successful TB therapeutic outcomes.

METHOD
One staff member was employed to schedule the SMS using specialised software from a computer at the clinic. A convenience sample of 200 TB patients who already owned cellular telephones were enrolled in the study. The cost per SMS was 13,8c each. Messages were sent daily at a time suitable to the patient. Patients were no longer issued with a week’s supply of TB medication but received a one month supply. Special messages were sent when reviews were due, or if patients had missed a review, and on completion of their treatment.

RESULTS
The proportion of patients cured who was sent SMS remained the same, but 81% completed six months of therapy.

CONCLUSION
Adherence support in the form of an SMS can improve treatment completion and decrease treatment interruption. The actual cost of SMS was less than R20 per patient.
P021 - FACTORS ASSOCIATED WITH TUBERCULOSIS TREATMENT OUTCOMES AT A TUBERCULOSIS CLINIC IN ETHEKWINI DISTRICT, 2006

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INTRODUCTION
South Africa is one of 22 high burden Tuberculosis (TB) countries. In KwaZulu-Natal, eThekwini district is a TB crisis area with the highest burden of disease, low treatment success rates and a high treatment interruption rate.

One of the objectives of this study is to determine if treatment completers differ from treatment interrupters with regard to socio-demographic profile and disease characteristics. This is an observational cohort study that was conducted in a large, specialized TB clinic. Exposure variables examined were: age, gender, marital status, race, area of residence, employment status, Human Immunodeficiency Virus (HIV) status, site of TB, Directly Observed Therapy (DOT) Supporter, and frequency of DOT supervision.

PRELIMINARY RESULTS
Data on 842 patients were analyzed. 35% of patients were cured, 22% completed treatment, and 24% interrupted treatment. 59% of treatment interruptions occurred during the intensive phase. In crude analysis, age was not significantly associated with treatment outcome. There was a trend towards males being more likely to interrupt (RR = 1.27, 95%CI 0.99-1.61, p = 0.53). Single patients were also more likely to interrupt (RR = 2.02, 95%CI 0.89-4.57, p = 0.06). There was a significant association between unemployment and treatment interruption (RR = 1.46, 95%CI 1.08-1.98, p = 0.014). Multivariate logistic regression analysis will be done to determine which variables remain significantly associated with treatment interruption.

CONCLUSION
There is a high rate of TB treatment interruption in eThekwini Municipality. It is important to identify patients who are at risk of treatment interruption, in order to target preventive intervention.

P022 - REVIEW OF INDICATORS REFLECTING A REDUCTION IN THE TRANSMISSION OF HIV/AIDS IN SOUTH AFRICA

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INTRODUCTION
The purpose of this study was to monitor the social and other impacts of HIV and AIDS in South Africa by reviewing selected indicators reflecting a reduction in the transmission of HIV/AIDS.

METHODOLOGY
The methods used for reviewing, the selected indicators included a systematic search for the most recent data, reviewing the indicators using the most recent data and updating and defining indicators through validation interviews, where necessary, with key informants from selected government departments and parastatal organisations.

RESULTS
Results show that women are more HIV-infected than men and that the differences were more marked in the young age group of 15–24 years. Between 15.5% (RHRU, 2003) and 16.9% (HSRC, 2005) of women aged 15-24 were infected by HIV, while the prevalence for males aged 15 to 49 was between 11.7% (HSRC, 2005) and 16.6% (Dorrington, Bradshaw et al., 2004).

CONCLUSION
Indicators measuring the transmission of HIV have not shown any significant reduction. In fact, population-based surveys have showed relatively high HIV prevalence among young people aged 15–24 years, corroborating the ANC-based sentinel surveillance data.
P023 - TUBERCULOSIS (TB) TREATMENT OUTCOMES IN ADULT TB PATIENTS ATTENDING A RURAL HIV CLINIC IN SOUTH AFRICA (BUSHBUCKRIDGE)

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In rural South Africa, TB is the leading cause of mortality in HIV-infected persons, but there is limited knowledge about predictors of death. This study measures TB treatment outcomes in Rixile clinic and assesses predictors of TB mortality.

Rixile HIV clinic is based in Tintswalo hospital, Acornhoek, Bushbuckridge, Mpumalanga province. This current study uses secondary data collected through a prospective cohort study conducted by PHRU and RADAR from March 2003 to March 2008 on 3 to 6 monthly intervals. Chi-square and logistic regression statistical tests were used to assess predictors of TB Mortality.

TB mortality among study participants was 62.5% during the pre-ARV rollout period and treatment completion was 31.7%. Some 5.8% participants interrupted treatment during the pre-ARV rollout period as compared to 4.5% during the ARV rollout period. TB mortality among study participants was 7.5% during ARV rollout and treatment completion increased to 84.4%. Factors associated with TB mortality were age (p=0.006), sex (p=0.017), BMI (p<0.001), marital status (p=0.004), education (p=0.03), alcoholic beverages consumption (p=0.04), and ARV treatment (p<0.001). However, only age, sex, and ARV treatment were found to predict TB mortality.

The proportion of TB treatment completion was higher and TB mortality was lower during ARV roll-out compared to pre-ARV roll-out. Age of 41 to 75 years, not being on ARV treatment and male sex predicts TB mortality in this population. There is a need to expand ARV treatment and intensify TB care services for older people, particularly males living with HIV in this rural community.

P024 - EVALUATION OF WATER QUALITY IN LAKE MZINGAZI IN RICHARDS BAY

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INTRODUCTION

Lake Mzingazi is the source of domestic water in the Richards Bay area. Uncontrolled human settlement around the lake because of rapid industrialization of the area has the potential to reduce its quality. This study aimed to assess the extent of pollution in Lake Mzingazi and to recommend measures to prevent negative health effects to the people using this water source.

METHODS

The study used secondary data collected by the municipality from 1998 to 2005 and primary data collected in 2006 from 12 sample points in the lake. Samples were analysed by uMhlathuze Water Board Laboratory and the data analysed. An environmental survey was also done around the lake.

RESULTS

Evaluation of data on water quality in Lake Mzingazi can be assessed as satisfactory and suitable for human consumption after the conventional water purification process. However, peaks occurred in pH, turbidity and total phosphates, particularly in late 2000. This is probably related to very high rainfall in November 2000. Higher levels of faecal coliforms in 1998 dropped, following the establishment of a Pollution Control Division. Levels for Chlorophyll remain at safe levels but continue to rise from very low levels in the late 90s, which may be problematic if this trend continues.

CONCLUSIONS

Lake Mzingazi water quality was found to be within allowable limits, in terms of the Department of Water Affairs & Forestry Guidelines: Domestic Water Use. However, problems have occurred because of the lack of sanitation in the informal settlements surrounding the lake, leading to overflowing pit latrines, and the use of commercial fertilisers. The community should take positive action to protect this vital water resource.
**P025 - ADHERENCE TO HIGHLY ACTIVE ANTI RETROVIRAL DRUGS, AMONG HUMAN IMMUNODEFICIENCY VIRUS-POSITIVE ADULTS IN NYANGABWE HOSPITAL, BOTSWANA**

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**BACKGROUND AND OBJECTIVES**

Human immunodeficiency virus / acquired immune deficiency syndrome (HIV/AIDS) remains a serious health problem in Botswana, with a prevalence of 17.3% in the general population, and 37.4% in pregnant women. Despite increasing accessibility of highly active antiretroviral treatment (HAART), there are challenges affecting patient adherence to HAART. Because good adherence is required to reach required drug efficacy, it is important to study those factors that impact on adherence to HAART. The purpose of this study was to measure the frequency of, and identify possible factors for, poor adherence to HAART among HIV/AIDS-positive patients in Nyangabgwe Hospital.

**METHODS**

This was a quantitative cross-sectional study, using a researcher-administered questionnaire for data collection. A random sampling method was used to select 250 patients, 205 of whom consented to participate. Participants were interviewed, and their hospital records were used to collect additional data. Epi-Info Version 6.04 was used to capture and analyze data.

**RESULTS**

The adherence rate by self report was 84.4% (173/205), while the adherence rate by clinician’s assessment was 80% (164/205). Side effects were reported by 65.6% (21/32) of poor adherers as a reason for missing doses. The main factors associated with poor adherence were alcohol use (53.1% (17/32) of poor adherers versus 12.1% (21/173) of adherers) (RR: 4.98; 95% CI: 2.74, 9.06; P= 0.01); and use of traditional medicine (12.5% (4/32) of poor adherers versus 1.75% (3/173) of adherers (RR: 4.04; 95% CI: 1.95, 8.36; P= 0.002).

**CONCLUSION**

Although an adherence rate of 80-85% seems high, this shows that 10-15% of participants did not use HAART optimally. Factors such as side effects, alcohol use and use of traditional medicine impact negatively on adherence to HAART.

**P026 - BUILDING CAPACITY THROUGH TRAINING OF NURSE-MIDWIVES IN COMMUNITY BASED PREVENTION OF MOTHER TO CHILD TRANSMISSION OF HIV (PMTCT) IN THE WESTERN CAPE**

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**BACKGROUND**

The PMTCT policy was adopted in 2008, as apart of the MDGs to reduce the childhood and maternal mortality and improve maternal health. However, this policy faced challenges with its implementation due to shortage of skilled health professionals. Nurses and midwives are a backbone to the health system and are major role players in the delivery of quality health services, especially in the context of maternal and child health services. With HIV and AIDS the most common primary cause of maternal and child deaths in the country, this puts a challenge onto the already depleting MCH health services and to health care providers, the midwives. The overall aim of this study was to build capacity through the training of midwives in the prevention, management and integration of PMTCT into maternal and child health services in the Western Cape. The school of nursing, UWC, developed a training program targeting qualified midwives at primary health care/community health centers and midwives trainees (within undergraduate and postgraduate studies). Midwives implementing PMTCT at primary health care and midwives supervisors are responsible for mentoring the midwifery trainees.

**IMPACT OF TRAINING**

Twelve qualified midwives and midwives supervisor were trained in PMTCT skills and competencies (train the trainer course). The PMTCT skills and competencies were taught to 260 midwives trainees. They have been place at PMTCT outlets under mentorship of midwives and midwives supervisors. 278 pregnant women received HIV counseling and testing and received their result. Those tested HIV positive 130, of them provided with ARV. Seventy eight infant were received ARV prophylaxis, 12 infants were tested for PCR.

**CONCLUSION**

The academic institutions have a major role in implementing policies, such as PMTCT so to impact on MDGS 4 &5.
In bid to increase access to and utilization of HIV/AIDS, malaria and TB services to populations of Northern Uganda affected by more than two decades of war, NUMAT a 5 year USAID project supports over 28 Government ART clinics (15 hospitals and 13 lower health centers). This has increased the uptake of HIV/AIDS services by People Living with HIV/AIDS (PLHAs) and contributed to the millennium development Goal 6 by increasing universal access to ART services. The advent of Anti retro viral therapy (ART) has changed the face of HIV/AIDS from death to a chronic illness if well managed. For the therapy to work well and minimize chances of resistance there needs to be a planned programme for follow up and retention into the programme.

Northern Uganda region has faced a number of challenges that have directly impacted on the success of the ART programme. They include inadequate staffing, shattered infrastructure, irregular medical logistics, the population in transit, stigma, non disclosure of HIV status, food security and poverty among others. At the inception of the project people were still living in IDP camps but currently over 70 percent have moved home. This means PHAs just like other people have to travel long distances to access quality health care services. It has led to drop out of ART programme as the lack of follow up and the distance discourage the Patients. Some drop out due to lack of food and due to stigma associated with the disease or are too weak to move. In a retention study done in May 2009, retention was found to be at 51.1%. Loss to follow up was found at 52.9% at 6months since initiation, 22.2% at 12 months and 24% at 24months (similar to 25% from a study done in Cameroon 2003-2005). Change of patient combination, long distance (more than 10 Km from Health unit), death, and relocation were among the causes of loss to follow up.

NUMAT has employed two interventions to reduce on the dropout rate; Use of expert clients named NSA (net work Support Agents) working at health facilities on specific days of the ART clinics. These are links between PHAs in the community and the health centers. This reduces on the stigma associated with the disease. They are empowered with bicycles to travel to villages to follow up patients who are lost to follow up. There is improved quality of care as community volunteers and Health workers work well hence reducing work load for health workers. There is also improved reporting to ministry, patient follow up and referral. PHA members sensitize the communities using their testimonies to encourage disclosure.

With these interventions, there is tremendous improvement in adherence to ART services. There is reduced drop out, the cases are quickly followed up by these expert clients. There is improved quality of care as community volunteers and Health workers work well hence reducing work load for health workers. There is also improved reporting to ministry, patient follow up and referral. PHA members sensitize the communities using their testimonies to encourage disclosure.

In conclusion, for a good ART programme to work well, prevent developing of resistance and realize the benefit of the much sought ART services there is need to emphasize on close follow up and not just providing the drugs and logistics and training.

In light of the findings of this and other studies, the strategy of hospitalizing patients infected with MDR TB in South Africa is drawn into question.
P029 - INVESTIGATION ON THE USER FRIENDLINESS OF THE SEXUAL REPRODUCTIVE HEALTH SERVICES OFFERED AT BOTSWANA FAMILY WELFARE ASSOCIATION CENTRES, SOUTHERN REGION, BOTSWANA

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INTRODUCTION
Young people constitute a group with specific sexual reproductive health (SRH) needs which have to be met according to their age specifics. In order to meet age specific SRH needs of young people, Botswana offers youth friendly SRH services, yet young people still encounter barriers when seeking services. This study investigated the extent of user friendliness of SRH services at the Southern Region of the Botswana Family Welfare Association Centres.

METHODS
This cross sectional descriptive survey used a sample of convenience of 110 youth aged 15-29. A self administered questionnaire was used to assess their perceptions towards SRH services, the friendliness of health providers, health facility and programme design using a 5-point likert scale.

RESULTS
The overall perception suggested that youth perceive SRH services positively including the health providers’ attitudes. However the referral system was perceived as a barrier with the health facility perceived as being unfriendly. Furthermore, the programme design was rated unfriendly at a rate of 80%. Opening hours were rated 63% as unfriendly and fees for services were perceived as a barrier for accessing services with publicity of the services rated 50% less friendly.

CONCLUSIONS
From this study it can be concluded that whilst the overall youth perception towards the SRH services was positive and youth thought highly of the health providers’ attitudes, most of the characteristics determining friendliness of the services were rated low. A number of weaknesses have to be addressed particularly inconvenient opening hours, publicity of the SRH services and fees for services.

P030 - FEMALE COMMERCIAL SEX WORKERS AND THE FEMALE CONDOM IN HIV/AIDS PREVENTION AND CONTROL IN NIGERIA: A GEOGRAPHICAL PERSPECTIVE

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AIM
One of the primary concerns of the Millennium Development Goals is to combat and reverse the spread of the HIV/AIDS. An estimated three million people in Nigeria live with AIDS, and current research suggests that unprotected sex accounts for about 90 per cent of the infections among adolescent girls, economically disadvantaged women and commercial sex workers who constitute the high risk group. The paper considers more effective and equitable ways to contain the spread of the virus, especially among the socially excluded group of female commercial sex workers in Nigeria.

METHOD
The paper is based on a survey of about 1,500 brothel based commercial sex workers who responded to a questionnaire designed to elicit information on the extent of infection among them, and on current attitudes and measures to control the spread of the pandemic in four major geographical zones of Nigeria selected for the study. Government officials and health representatives were also interviewed on how existing laws protect the rights and welfare of CSWs, and the programmes of government and its development partners to promote the use of female condoms and on other measures to control the AIDS pandemic. Secondary sources were consulted for theoretical and comparative insights on the spatial and behavioral aspects of disease and health, and on the merits and limitations of condom use in Southern Africa and elsewhere. Maps and charts are used where necessary to illustrate spatial variations.

RESULTS
The study confirms that female commercial sex workers suffer discrimination and neglect, and have limited access to information on the new devises and other resources available to reduce and treat HIV infections. It argues that since women appear to be in a subordinate position in sexual relations with men, the female condom, over which the women have greater control, is for them the only safe-sex method available, and should therefore constitute an essential component of any strategy for contraception, microbicide and AIDS prevention. It calls for a well designed and properly targeted government intervention that would subsidize the high cost of female condoms, and promote its accessibility and use among commercial sex workers.

CONCLUSIONS
The paper concludes with some general reflections on the implications of the study for public policy, and on how the geographer can contribute to a better understanding of the spatial incidence and spread of disease, and the optimal and equitable location of health programmes and interventions.

RESUME
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P031 - HIV/AIDS AND SEXUALITY OF PEOPLE WITH DISABILITIES IN SOUTH AFRICA: ARE THEY AT GREATER RISK THAN NON-DISABLED PEOPLE?

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INTRODUCTION
Research has shown that HIV/AIDS educational, testing and clinical programmes are largely inaccessible to individuals with disability. One of the greatest risk factors affecting people with disabilities is a lack of awareness and knowledge about HIV/AIDS and prevention. Given the paucity of data on HIV related knowledge, attitudes and practices within the disabled populations, this broad, descriptive study aimed to examine these different aspects of HIV/AIDS and disability in South Africa.

METHODS
A survey was conducted focusing on six sites that spread across three provinces. A snowball sample of 285 adult people with disabilities (18 years and older) were recruited, covering a range of different disabilities. The data were analysed descriptively including statistical testing and cross tabulations, frequency tables constructed and composite scores computed. A comparative analysis was conducted to highlight similarities and differences between the disabled and general populations, using the South African National HIV Prevalence, HIV Incidence, Behaviour and Communication data from 2005 and 2008.

RESULTS
Compared to the general population, people with disabilities have lower knowledge levels and lack clarity on HIV transmission and prevention. Differences related to the type of disability and sex were noted. The lack of access to services, including HIV/AIDS and Voluntary Counseling and Testing (VCT), and accessible information are all factors that increase the risk of people with disabilities.

CONCLUSIONS
Overall people with disabilities could be at higher risk of HIV infection due to low knowledge rates, lack of access to relevant services and information and engagement in risky sexual behaviour. These results are important to note for developing inclusive services.

P032 - THE ANALYSIS OF STUDENT NURSES’ PERCEPTIONS REGARDING PREGNANCY INTENTIONS IN THE CONTEXT OF HIV/AIDS

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BACKGROUND
Nurses are key health professionals in the struggle against HIV/AIDS. Preparing nursing students to care for HIV-positive women during pregnancy and childbirth effectively is a complex process that involves more than acquisition of scientific knowledge and mastery of psychomotor skills, as nurses must also assess psycho-social needs of patients and families and provide emotional support. The challenge is how to teach these skills to student nurses, and also how nursing students learn to cope with ethical dilemmas, such as reproductive intentions, in the context of HIV/AIDS.

METHODS
Three focus groups were conducted to elicit attitudes and values related to caring for HIV-positive women, perceived social influence for becoming pregnant, values clarification in nursing education curriculum and response to ethical dilemmas in nursing practice. The focus groups were conducted among fourth year nursing students, post-exposure to the midwifery curriculum. Concurrent data collection and analysis was undertaken. Key ideas and emerging themes were identified.

RESULTS
The nursing students’ attitude and perceptions towards HIV/AIDS underlie connotations of overwhelming panic. HIV/AIDS is being regarded as a death sentence, they have not contextualized HIV/AIDS as a long term illness which can be managed. The student nurses perceived social influence for becoming pregnant as family pressure, especially mother-in-law expectations that daughters-in-law should have children. In response to ethical dilemmas in nursing practice, the participants felt comfortable with upholding their professionalism and ethical conduct; however they did discuss being caught up between their own values and professional ones. They suggested that nursing students may be assisted to build their competencies by increasing knowledge on HIV and by fostering their compassion that may increase their willingness to care for people living with HIV/AIDS.

CONCLUSION
Nursing students need to be prepared to provide support for clients regarding difficult health related decisions as a competency of professional nursing practice.
P033 - DEVELOPING A TB FUNDING FRAMEWORK TO PROMOTE EFFICIENT UTILISATION OF RESOURCES TO COMBAT THE DISEASE

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INTRODUCTION
The effectiveness of the health system in addressing the TB epidemic in South Africa is dependent on adequate funding that can be adjusted to respond to the changing nature and extent of TB in this country. Currently, the allocation of funds for TB at various levels is obscure and does not provide a clear basis for costing the current response to the epidemic or planning for future responses.

METHODS
This study was conducted by means of key informant interviews with personnel from the KZN provincial TB directorate and budget control unit. The same participants contributed to the design of the proposed budgetary framework.

RESULTS
TB expenditure is not accurately recorded, and this information is therefore lost.
Facilities are not divided into cost centres which complicates accurate expenditure allocation and analysis.
There is a lack of capacity for financial management at facilities.
Clinics are not operated as true cost centres.
There is no record of TB drug expenditure per facility.
There is no record of TB laboratory tests per facility/province.

CONCLUSION
In order to be able to monitor and evaluate the expenditure on TB in relation to the performance of the programme, it is essential that the budget and expenditure is accurately mapped. The framework presented here is a proposal of how the funds could be allocated and monitored.

P034 - SEXUAL HEALTH PROJECT FOR YOUNG PEOPLE IN THE RURAL AREAS OF THE LIMPOPO PROVINCE, SOUTH AFRICA

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The poster is based on an intervention study that is in progress in the Limpopo Province. The purpose of this poster is to share the methodology used in this intervention project. This is a five-year project with six phases. The first four phases identified the sexual risk behaviours of young people, young people’s views regarding sexuality, sexual health, STIs, HIV and AIDS, and a sexual health programme was developed based on these findings.

The fifth phase is the implementation of the sexual health programme which is developed as a quasi-experiment with four parts. Part 1 was the development of the pretest and posttest, selection and training of the sexual health peer educators. Part 2: implementation of the programme and posttest. Part 3: collection and analysis of data to find out if there has been a change in knowledge and behaviour. Data collection will be through pretest, posttest, observation, focus group discussions, key informant interviews and feedback workshops over a period of three years. Part 4 will be the evaluation of the programme by an external person and dissemination of the findings.

A total of 80 sexual health peer educators have been trained to facilitate the programme and administer the pretests and posttests. Data analysis will be continuous throughout and presented during the feedback workshops that will be conducted yearly. Six months after the last feedback workshop an evaluation of the programme by an external person will be conducted and inputs used to improve the programme.
P035 - ADVERSE OUTCOMES OF PREGNANCY IN POTCHEFSTROOM, SOUTH AFRICA

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BACKGROUND
Adverse outcomes of pregnancy are global health problems that are much more pronounced in developing countries. The risk factors associated with adverse outcomes of pregnancy are multifactorial. In South Africa, the population prevalence and associated risk factors of maternal and perinatal mortality are routinely documented, but there are gaps in the data on other pregnancy adverse outcomes. This study was aimed at determining the prevalence rates and related risk factors of preterm births and pregnancy loss in an urban population in South Africa.

METHODS
The study was a cross-sectional analytical study of women 18 to 49 years of age living in the Potchefstroom municipality. It was conducted from August 2007 to April 2008. Participants were selected using systematic random sampling strategy, and 1210 women participated. An adapted reproductive health questionnaire was used to collect socio-demographic, environmental, occupational and reproductive health data.

RESULTS
Prevalence of pregnancy loss and preterm births were estimated to be 5.8% [95% CI: 4.6% - 7.4%] and 14.3% [95% CI: 12.3% - 16.5%] respectively. Pregnancy loss was associated with White race, psychological stress and working during pregnancy; preterm birth was associated with White, Coloured and Indian race, primary and high school education, stress and chronic disease; and antenatal care use was protective against both pregnancy loss and preterm birth.

CONCLUSION
The prevalence of pregnancy loss found in this study was lower than would be expected in the general South African population; while the preterm birth prevalence, although lower than that of other developing and middle income countries, could be improved. Generally, there are common risk factors for pregnancy loss and for preterm births. Some of the existing evidence on risk factors was supported by the findings of this study. Improvement of surveillance and health information systems for pregnancy loss and preterm births would provide essential information on the burden of these outcomes in South Africa and would subsequently guide policy, research and prioritisation of effective control programmes.

P036 - ASSESSING THE KNOWLEDGE AND ATTITUDES OF MEDICAL STUDENTS AT STELLENBOSCH UNIVERSITY (SU) AND THE UNIVERSITY OF CAPE TOWN (UCT) REGARDING THE MILLENNIUM DEVELOPMENT GOALS (MDGS)

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BACKGROUND
The eight MDGs were formulated at a United Nations millennium summit in 2000 to address current health, social and environmental issues worldwide. Health science students are key players in implementing the MDGs. Knowledge and understanding at university level is an essential step in achieving the goals by 2015. If this step is not fulfilled successfully, it could jeopardize and slow down the process by which these goals will be achieved.

METHODS
The study population included all 5th year MBChB students from SU and UCT. Data was collected in January 2009 using a self-administered questionnaire with non-random purposive sampling. Questionnaires were pooled and 176 completed questionnaires were included for data analysis.

RESULTS
Of the participants, 61.14% said they had previously heard or read about the MDGs. Most (40.21%) had heard about the MDGs through awareness campaigns. The majority (54.86%) claimed to know what the MDGs were but could not name all of the goals. A mean of 3 out of 8 MDGs were identified correctly. Most participants (69.85%) considered MDG implementation in South Africa important but ineffective and most (68.75%) believed that the MDGs will not be achieved on time.

CONCLUSIONS
It was found that the 5th year medical students at SU and UCT were inadequately informed about the MDGs and their importance in South Africa. However, their attitudes were positive in that the majority agreed that the implementation of the MDGs in South Africa is important and that more needs to be done in creating awareness about the MDGs.
P037 - AN EVALUATION OF DETERMINANTS OF ADHERENCE TO ANTIRETROVIRAL THERAPY IN AIDS PATIENTS IN GERT SIBANDE DISTRICT, MPUMALANGA PROVINCE

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INTRODUCTION
An estimated 11.4% of South Africans are infected with HIV. As of 2007, 1.7 million people required antiretroviral therapy (ART) and only 460,000 were reported to be on ART. ART can improve the quality of life and socio-economic status for HIV positive patients. This study aimed at evaluating the role played by the different factors in influencing treatment adherence among HIV patients on ART.

METHODS
The study was conducted in the out-patient ART clinics. The study was approved by the Research and Ethics Committee of the University of Pretoria and the Mpumalanga Department of Health. This was an analytical, cross-sectional study with a sample size of 490. Facility-based patient appointment registers were used as the sampling frame and systematic random sampling done. Data collected through an interview and a record review. The Pearson chi-square test of association and binary logistic regression analysis were used for identifying significant predictors of non-adherence variables.

RESULTS
The response rate was 99.7% and self-reported adherence was 92.54%. The respondents had a median age of 36 years (IQR, 13), 78.87% females, and median duration on ART was 15 months (IQR, 18). The variables that were significantly associated with non-adherence were ‘urban residence’ (OR 0.39 [0.2-0.8]); ‘social support’ (OR 2.74 [1.3-5.7]);

DISCUSSION
There were also some qualitative variables that had a bearing on quality of healthcare services that could explain differences between the rural and urban sites.

P038 - THE EFFECT OF AN EDUCATIONAL INTERVENTION ON CREATING AWARENESS OF DIABETES MELLITUS AMONGST GRADE 11 LEARNERS ATTENDING A MODEL C SCHOOL

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OBJECTIVES
To determine existing levels of knowledge of Diabetes mellitus amongst grade eleven learners attending a model c school in order to establish the effect of educational intervention in promoting awareness of Diabetes mellitus amongst the learners. In addition to provide learners with simple yet pertinent knowledge on the cause, prevention and control of Diabetes mellitus.

INTRODUCTION
It was projected by the World Health Organisation (WHO) that 35 million people would die of a chronic disease such as diabetes mellitus in 2005. Grade eleven scholars were targeted as youth develop independence and freedom of choice during adolescence, eating habits being one of these choices. In addition, according to studies carried out by the WHO, school related interventions such as health education, supportive environments and health services have been proven to be effective in raising awareness of health related issues.

METHOD
Pre intervention questionnaires were completed by 31 grade eleven scholars so as to assess the level of awareness before the educational intervention was implemented. A presentation which highlighted the main aspects associated with diabetes mellitus was carried out which focused on the misconceptions associated with diabetes mellitus. Information leaflets were also distributed to scholars. A post-study was carried out and from the results obtained the extent to which educational intervention influenced the understanding of the cause and prevention of diabetes mellitus was assessed.

RESULTS
All the questions were graded as they were related to aspects governing the understanding of the nature of diabetes mellitus. The mean percentage grade obtained for the post intervention (56%) was greater than the mean obtained for the pre-intervention (44%). The t-test carried out further confirmed that there was a significant difference, at a 99% level of confidence between the mean obtained for pre- and post- intervention.

DISCUSSION
Grade eleven learners are at a stage in life in which beliefs are gained from families and traditions. These account for the many mistaken beliefs associated with leading unhealthy lifestyles, contributing toward the onset of chronic disease in later life. The educational intervention serves to facilitate the elimination of these misconceptions at an early age so as to allow scholars to make the necessary lifestyle changes. The intervention proved to be a success in raising awareness of diabetes mellitus in general, as was displayed by the results.

CONCLUSION
The use of educational intervention targeted at youth is an effective tool in raising awareness of aspects related to diabetes mellitus. This provides a greater chance for the reduction of the prevalence of such diseases in later life for these adolescents.
P039 - THE USE OF PERFORMANCE ENHANCING SUBSTANCES BY ADOLESCENT MALE ATHLETES IN SELECTED JOHANNESBURG BOYS' HIGH SCHOOLS

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KEY TERMS
Performance enhancing substances, doping, male adolescents, athletes, Johannesburg

INTRODUCTION
Performance enhancing substances (PES) use is a major concern currently facing adolescent sport. Research done by Lambert et al. (1998) found that anabolic androgenic steroid use among male adolescents who participated in first team sport in the Gauteng province was 6.37%.

AIM OF STUDY
The aim of this study was to establish the use of PES by adolescent male athletes, in selected Johannesburg boys' high schools.

METHOD
The study design was a cross-sectional study using a self-administered questionnaire. A sample of subjects was obtained from male adolescent high school learners involved in high school sport from Johannesburg boys' high schools. Subjects were invited to volunteer to participate in the study. The questionnaire was completed under examination conditions. Demographic data was analysed using descriptive statistics.

RESULTS
Results indicated that the prevalence of PES use was 30%. The use of human growth hormones was found to be 19%, anabolic androgenic steroids, 15%, and adrenaline, 15%. Most of the respondents (83%) that used PES, started using them when they were over 15 years old. The majority of the respondents (42%) played rugby as their main high school sport.

CONCLUSION
The findings indicate that the use of ergogenic substances in high school sport for performance enhancement is present and this should be addressed.

P040 - SUBSTANCE USE AMONG HIGH SCHOOL LEARNERS IN MANKWENG EDUCATIONAL AREA, LIMPOPO PROVINCE, SOUTH AFRICA

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This study investigated the prevalence of substance among a sample of high school learners in Mankweng educational area. A descriptive study utilizing a self-reported questionnaire was carried out. A total sample of 212 learners participated in the present study. The researcher randomly selected 121 females and 91 males. The mean age for males was 16.26 and (SD = 1.625); and for females the mean was 15.84 and (SD = 1.366).

Participant’s demographic variables were determined by use of a questionnaire, which covered personal characteristics such as age, gender, as well as educational level. Substance use was also measured using the questionnaire developed by the World Health Organisation (WHO). The following items were included: information on lifetime, current and past use of nine substances, namely: tobacco, alcohol, and illicit drugs such as dagga, inhalants, heroin, amphetamines/stimulants, tranquilizers/sedatives, and cocaine.

The results indicated that the use of alcohol (41.3%), tobacco (13.3%), inhalants (9.6%) and dagga (7.5%), in descending order, were the most prevalent substances used. For all substances male had higher prevalence rates than females.

Findings from present study indicated that the prevalence of the use of substances among high school learners is rife. Mental health workers and Policy makers should take notes of the findings while planning preventative strategies for the reduction of substance use among adolescents in the area.
P041 - PREVALENCE OF GANG RAPE IN THE MTHATHA AREA OF SOUTH AFRICA

INTRODUCTION
Gang rape is one of the most conspicuous forms of violence, has reached epidemic proportions in South Africa. It occurs in all spheres of society and all women are potential victims.

OBJECTIVES
To determine the prevalence of gang rapes in the Mthatha area of South Africa.

METHODS
This one-year retrospective study focused on all cases of gang rape reported by complainants 15 years old or older at Sinawe Rape Crisis Center in Umtata General Hospital during January 2008 to November 2008. Recorded details included the age, addresses, number of perpetrators, relation with perpetrator and physical violence.

RESULT
There were 320 cases of rape recorded. Of this, 59 (18.4%) were gang rapes. Majority 28 (47.5%) were between the age of 15 and 20 years. The highest number 26 (44%) were in the area of Mthatha followed by Tsolo 9 (15.25%), Engocobo 9 (15.25%), Libode 7 (11.86%) and Mqanduli 5 (8.47%). In majority 44 (74.6%) of victims had two perpetrators, 9 (15.25%) had three perpetrators, 3 (5.08%) had four perpetrators and remaining each victims of rape had five, six and seven perpetrators. Most of the perpetrators 41 (69.49%) were not know to the victims. There were 15 (4.69%) gang rape cases had associated physical injury such as stab wound, bruise, blunt trauma and fracture. Most of the gang rapes were part of robbery and take place at victim home.

CONCLUSION
There is a high prevalence of gang rape in Mthatha area of South Africa.

P042 - EPIDEMIOLOGY OF CHRONIC NON COMMUNICABLE DISEASES IN A DEVELOPING COUNTRY CONTEXT: A REVIEW

BACKGROUND
Chronic non communicable diseases (NCDs) are increasing globally, with escalating trends in developing countries, which impose more constraints to an already overburdened health care system. Many of these diseases can be prevented by tackling their determinants and associated risk factors.

METHODS
Reviewed selected literature focusing on the epidemiology of NCDs in developing countries.

RESULTS
Cardiovascular diseases, diabetes, cancer and chronic pulmonary diseases are rapidly growing in developing countries. Preventive efforts must take into consideration the growing trend of associated risk factors to these diseases.

CONCLUSIONS
NCDs are becoming more and more common in developing countries where they double the burden of communicable diseases. If the current pattern is retained, the health systems in developing countries will not be capable of supporting the burden of disease as it is not designed for long term care. Prominent causes for CVDs, diabetes, cancer and pulmonary diseases can be prevented by developing efficient strategies that deal seriously with the determinants of these diseases and their risk factors. Although some risk factors, such as age, ethnicity, and gender, obviously cannot be modified, most of the risk is attributable to lifestyle and behavioral patterns, which can be changed.
P043 - EVALUATION OF A SERVICE PROVIDER SHORT COURSE FOR PREVENTION OF FETAL ALCOHOL SYNDROME (FAS)

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BACKGROUND
The Western Cape Province of South Africa has the highest reported rates of FAS in the world. Primary prevention programmes targeted to women at risk of alcohol-exposed pregnancies (AEP) could lead to measurable reductions in the incidence of FAS.

METHODS
In this study, training was offered to all available service providers in the Bergrivier and Swartland municipalities in the West Coast wineland district of the Western Cape Province, South Africa with Cederberg municipality as the control site. This research evaluated the training effectiveness - a before-after evaluation study on service providers and a survey on service users.

RESULTS
The proportion of participants indicating alcohol as harmful to the foetus and specifically identifying its consumption during pregnancy as a risk increased after the trainings (χ² p-value < 0.001). Women in the post intervention survey were 2.13 times more likely to have been given alcohol advice than those in the pre intervention survey (CI: 1.27 to 3.53), more likely to be given general advice on pregnancy care (OR = 1.53; CI = 1.19 to 1.82), more likely to be counselled (OR = 1.3; CI = 1.05 to 1.56) and offered family planning (OR = 1.1; CI = 1.06 to 1.50). Healthcare worker behaviour showed that women attending antenatal care in both pre- and post intervention surveys were more likely to be asked if they consumed alcohol than those not attending (p-value < 0.001).

CONCLUSION
A short training course given to service providers appears to be effective in building service provider capacity to better prevent and/or manage women with or at risk of AEPs.

P044 - PREVALENCE AND CORRELATES OF MENTAL HEALTH PROBLEMS IN UGANDA

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BACKGROUND
Mental disorders are health related conditions that are characterized by alterations in thinking, cognition, mood or behavior associated with distress and or impaired functioning. Mental health problems as a growing burden amounts to huge costs in terms of human misery, disability and economic loss. Further increase in the number of mental patients is likely in view of the increasing aging population, worsening social problems, and civil unrest.

METHODS
Consenting adult individuals (above 15 years) found in households, who are residents in each the 13 districts; the head of the household, the spouse and any other two members were all eligible. Binary Logistic regression model was used to estimate the Odds ratio with 95% confidence intervals (CI).

RESULTS
The mean prevalence of depression was 29.3 percent. Districts from northern Uganda had highest depression prevalence rates. The average lifetime prevalence of attempted suicide was 5.5 percent. Attempted suicide rates were high in districts from northern Uganda. The mean prevalence rate of alcohol use 13.7 percent.

CONCLUSIONS
The finding of the study reveal that life events like sexual abuse in childhood explain a lot about people’s current mental health status. People in Uganda are depressed and drink alcohol not only because of their current conditions but also because of their past experiences like losing parents in childhood, sexually abuse in childhood, physical abuse in childhood and divorce of parents in childhood. Religious leaders and counsellors still have a big role to help Ugandans get over their past experiences and move on.
P045 - TRENDS IN CARDIOVASCULAR MORTALITY – EXPLORATORY ANALYSIS OF STATS SA DATA

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BACKGROUND
Cardiovascular conditions accounted for 16.6% of the burden of disease estimates of mortality in South Africa in 2000. Estimation of the mortality profile is hampered by the high proportion of ill-defined cardiovascular causes of death in South Africa arising from cardiac arrest (a physiological pathway in the process of dying) and heart failure which may indeed be a clinical sign of cardiac problems.

OBJECTIVES
To assess the trends in reported cardiovascular deaths

METHOD
Descriptive analysis of death notification data compiled by statistics South Africa from 1998-2006 by single ICD-10 code and grouped according to the national burden of disease list. Age specific rates were calculated using ASSA2003 population estimates and age standardised using the WHO world standard.

RESULTS
A total of 671,257 cardiovascular deaths were identified, with ill-defined cardiovascular accounting for 26.9%. Of this, 128,351 (19%) had heart failure and 31,306 (4.7%) had cardiac arrest reported as the underlying causes of death. Generally cardiovascular deaths in males was higher than that of female, but hypertensive heart disease and stroke were higher in females and ischaemic heart disease was higher in males. Overall there was a slight increase in cardiovascular mortality rates which peaked in the older ages in the year 2003. Mortality rates from cardiac arrest decline slightly while heart failure rates remain level over the period.

CONCLUSION
Trends in cause specific mortality rates from 1998 onwards suggest little impact of changes in the registration of deaths. The high proportion of heart failure as an underlying cause requires further investigation.

P046 - THE NUMBER OF MOTOR VEHICLE CRASH DEATHS ATTRIBUTABLE TO ALCOHOL-IMPAIRED DRIVING IN SOUTH AFRICA’S FOUR MAJOR CITIES AND ITS COST TO THE ECONOMY BETWEEN 2002 AND 2006

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BACKGROUND
In South Africa (SA) unintentional fatal injuries contribute 5.4% of the National Burden of Disease. 27% of these deaths are related to transport. 51.9% had Blood Alcohol (BAC) levels greater than 0.01g/dl with 91% of them greater than or equal to 0.05g/dl - the legal limit in SA.

OBJECTIVES
• Estimate the number of crash deaths attributable to alcohol impaired driving in SA’s major cities between 2002 and 2006
• Estimate the associated cost to the economy

METHOD
The study population comprises those in the 4 cities between 2002 and 2006. This is a case-series of crash fatalities. BAC data in cases is used to estimate relative risks (RR) for crash fatality from two exposure-fatality models published by Crompton and Zador, respectively.

The source of data is death records due to motor vehicle crash fatalities recorded by the National Injury Mortality Surveillance System (NIMSS). The risk curve of Crompton is applied to the BAC levels of individual crash fatalities and shows a fatality risk curve for SA data. Driver fatalities are categorised by BAC levels and demographic characteristics. Zador’s equations are used to compute relative risks and then category specific attributable proportions (APs) for crash fatalities under the influence of alcohol using AP = 1 – (1 / RR). Multiplying the number of deaths by the AP estimates the number of lives potentially saved if the BAC’s were zero. The Department of Transport estimates of traffic crash costs (inflated to reflect current costs) are applied to the number of preventable deaths to estimate their cost to the economy.

RESULTS
Estimated total number of lives lost due to a BAC more than 0.02 g/m$^3$ is 1108.9 between 2002 and 2006. Using cost data in an urban area, the cost to the economy of preventable deaths in SA’s 4 major cities in SA due to alcohol is R 1.05 Billion over this 5 year period for the 4 cities under consideration.
**P047 - FACTORS INFLUENCING TREATMENT COMPLIANCE IN DIABETIC TYPE 2 PATIENTS AT MOSVOLD HOSPITAL**

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**BACKGROUND**

Effective management of Diabetes Type 2 requires a combination of lifestyle modification and pharmacological interventions and compliance is patient dependant. The patient’s understanding of the disease and the role of treatment are among the factors that influence compliance. Finance and culture especially in low income rural areas also play a role. This study investigates factors that influence treatment compliance in a rural area of KwaZulu-Natal.

**METHODS**

A qualitative study using focus group discussions was undertaken with purposively selected patients attending diabetic clinic at Mosvold hospital during August 2009. Focus group discussions were audio taped and transcribed verbatim. Major and minor themes were identified through content analysis using Nvivo.

**RESULTS**

Initial findings suggest a general understanding of the need for medication. However, a lack of insight into the role for other lifestyle modifications, particularly diet, was expressed. A perception that healthy foods are unaffordable and have to be prepared separately from those of the rest of the family also emerged. Further analysis is underway.

**CONCLUSIONS**

Health education in the clinics concentrates on one aspect of diabetic management, namely medications. Lifestyle management and diet were poorly understood and this could explain the non compliance seen in the diabetic clinic. A concerted drive to rectify this through health education that is culturally sensitive and appropriate to a rural community is imperative to improve outcomes of diabetic patients.

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**P048 - ESTIMATING THE BURDEN OF DISEASE FOR THE WESTERN CAPE, 2006**

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**BACKGROUND**

Cause of death statistics are essential for the prioritization of health services. Despite improvements in vital registration, under-registration and mis-classification of causes still exist. Burden of disease estimates were derived nationally and provincially for 2000 after careful examination of data on the levels and causes of mortality. The aim of this paper is to explore the feasibility of applying the provincial method used previously to develop contemporary burden of disease estimates for 2006 for the Western Cape.

**METHOD**

The demographic and AIDS model, ASSA 2003, was used for estimates of the total number of deaths and those resulting from AIDS. StatsSA cause of death data for 2006 was used for the profile of other natural causes, after adjusting for mis-classification. The injury profile was obtained from the City of Cape Town and two rural districts. Numbers of deaths, age-specific mortality rates and Years of Life Lost (YLL) were estimated.

**RESULTS**

Results indicate that HIV/AIDS is the leading cause of death whilst ischaemic heart disease, diabetes, homicide and stroke were the top 5 leading causes of death.

**CONCLUSION**

The YLLs from these preliminary estimates reiterate the need to focus interventions on HIV and TB, and the prevention of homicide and road traffic fatalities. Chronic diseases of lifestyle contribute significantly to the burden of disease in the Western Cape, indicating that the province is well into the health transition and should address the risk factors that cause them. Additional demographic and epidemiological analysis and modelling are required to enhance these estimates.
**P049 - PILOTING A CANCER INFORMATION SERVICE IN THE RURAL COMMUNITIES OF THE EASTERN CAPE PROVINCE**

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**BACKGROUND**

Communities in the rural former Transkei region have been partners of research with the Medical Research Council for more than 20 years through the population-based cancer registry. Dissemination of information to enable the community to reduce their risk of developing cancer remains a challenge.

**AIMS**

To pilot the establishment of Cancer Information Services in four hospitals in the Eastern Cape.

**METHODS**

Four hospitals in different settings were selected for the pilot (a referral hospital, a peri-urban area, and a rural hospital in north and one in South). Site visits were undertaken to identify space for private one-on-one interaction between counselor and patient/relative, and recruit counselors. The Department of Health and CANSA were approached to become partners in the project.

**RESULTS**

A successful 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. Plans for on-going monitoring and support were developed in the workshop. Each unit should keep a simple register to record information such as number of visits, nature of requests made and phone calls. Two project coordinators are assigned to give support to the counselors by giving them a telephone call once a month and visiting the units once in two months. Monthly reports will be provided to the hospital administrators, project co-ordinators and project leader.

**CONCLUSION**

In conclusion, it is anticipated that providing information support to the newly and previously diagnosed cancer patients will contribute to better awareness of cancer.

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**P050 - THE METABOLIC SYNDROME AND ASSOCIATED RISK FACTORS IN THE JOHANNESBURG HEALTH DISTRICT**

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**BACKGROUND**

The metabolic syndrome (MS) cluster represents the most critical risk factors for the development of a myocardial infarction. These chronic metabolic diseases are a growing cause of death and disability in South Africa. Diabetes prevalence rates (4-6%) are higher than the African average. In 2007, hypertension and hyperlipidaemia prevalence was 5.5% and 3% respectively. Despite South Africa’s growing concerns of poverty, more than 29% of males and 56% of females were classified as overweight (2002).

**AIM**

To determine the MS prevalence and risk factors associated with its development in the Johannesburg Health District with a view to reducing the burden of disease.

**METHODOLOGY**

This was a community based cross sectional survey in Chiawelo, Soweto in the Johannesburg Health District. Stratified randomised cluster sampling was used (sample=288). Residents aged 18 years and older and living in the area for more than five years were included. Analysis of demographic, socio-economic, risk factor, clinical and biochemical parameters would identify the determinants of disease development. The study will run from May 2009 – February 2010.

**RESULTS**

Preliminary results indicate 50% of participants were unemployed but able to work, with 44% of those living on government assistance (p=0.003). Hypertension prevalence was 51%, despite self reported rates at 39%. Twenty nine percent of males were overweight with 12.5% obese. Thirty nine percent of females were overweight with 50% obese (p=0.00).

**CONCLUSIONS**

The burden of chronic diseases has been underestimated in the Johannesburg Health District. Obesity is reaching epidemic proportions, particularly in females. Hyperlipidaemia and hyperglycaemia data will be assessed once the blood results become available.
P051 - TOWARDS STANDARDISING INFORMATION MANAGEMENT PROCESSES AND PRACTICES – THE WESTERN CAPE JOINT INFORMATION MANAGEMENT INITIATIVE (JIMI)

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BACKGROUND
Standardisation of data management activities at all levels of the District Health System is necessary for ensuring the management and reporting of good quality data to higher levels. JIMI is a collaborative effort between the Directorate: Information Management and the Division of District Health Services and Programmes of the Western Cape Department of Health. The aim of this paper is describe the process of developing standard operating procedures (SOPs) for facilities, and sub-district and district Information Management (IM) offices in the Province.

METHODS
Following a rapid appraisal of IM in the Province, a series of workshops, meetings, and visits to the Districts were held to develop a set of tools and SOPs to guide data management activities. The JIMI team drafted the SOPs and distributed these for review by the Districts. Thereafter, workshops were held to finalise them.

RESULTS
Separate SOPs were developed for each IM level in the province. The facility SOP provides details on data collection, collation, reporting and feedback, and the roles and responsibilities of staff; and links the activities to the various JIMI tools. The sub-district and district IM office SOPs provides detailed instructions on data entering, validation, analysis, feedback and reporting.

CONCLUSION
JIMI serves as a model for standardising routine health data management practices within the district health system. Through a participatory process, it is possible to develop SOPs to ensure standardised practices, and to standardise roles and responsibilities of facility and IM staff.

P052 - A SOUTH AFRICAN EXPERIENCE OF TELEMEDICINE TRAINING AT THE UNITED STATES TELECOMMUNICATIONS TRAINING INSTITUTE (USTTI)

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BACKGROUND
The United States Telecommunication Training Institute (USTTI) offers a range of courses in telecommunications and technology and Telehealth Sequence forms part of it. The Telehealth Sequence is extremely popular and is held in USA over a two week period. The need for establishment of these courses was to share knowledge and experience gained whilst building such an effective telecommunication and technology infrastructure. The US Government supports the initiative and commits funding through the United States Agency for International Development (USAID).

DESCRIPTION
One of the founder members, Chairman and champion of these courses offered by USTTI is Ambassador Michael Gardner. The Telemedicine Sequence 1 Training Course consisted of 3 different short courses: (1) Telemedicine and Distance Learning Synopsis; (2) Advance Telemedicine and Distance Learning Applications; (3) Developing a Multiple Site Telemedicine Network. A total of 12 participants representing 8 Nationalities attended. Theory sessions included dissemination of information. Practical sessions included visiting telemedicine sites, tele education, tele consultation, Video conferencing, Ward rounds.

DISCUSSION
The Telehealth sequence was very beneficial because it increased knowledge about telemedicine practices. The course also highlighted the differences between developed and developing countries and the way in which telemedicine is implemented and used. It demonstrated the potential of telemedicine in specialized areas of telemedicine thereby making healthcare accessible. The knowledge gained and opportunity to experience how telemedicine is practiced was phenomenal.

CONCLUSION
It will be most beneficial to have similar courses coordinated and hosted by/in South Africa.
**P053 - SERVICE INTEGRATION, HEALTH SYSTEM REFORM AND HIV IN SUB-SAHARAN AFRICA: WHAT NOW FOR THE ‘SOFTER’ ISSUES?**

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**BACKGROUND**

Health systems research is at a critical point. In sub-Saharan Africa, as in other parts of the world, many countries continue to implement health system reforms alongside efforts to integrate HIV related services and structures into existing health services.

**METHODS**

This commentary focuses on three main areas of interest: health system reformation, human resources and HIV/AIDS, and Relationships in the Health Sector.

**RESULTS**

The central argument is that, as the demand for HIV related services increases, the fundamental questions surrounding health systems responses remain unanswered, even though the ‘softer’ issues may hold some of the answers. A new approach to health systems research is required to understand some of the more subtle changes that are occurring in health systems. We support the notion that health systems research must move beyond a reductionist understanding of health systems reform. This will, in part, require a move away from the current focus on technical issues to the ‘softer’ issues relating to health systems functioning i.e. a shift from ‘hardware’ to ‘software’ issues. In addition, acknowledging health systems as complex social systems, a multi-disciplinary approach is required that uses both quantitative and qualitative methods, including elements of the human factor.

**CONCLUSION**

The limited amount of research around the ‘software’ issues, has not allowed for a full appreciation of the important role the softer human elements can play in the functioning of health systems.

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**P054 - VARIATION AND VARIABILITY OF INEQUITIES: THE DISTRICT HEALTH BAROMETER**

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There is no uncertainty that health inequities in South Africa are vast, or even that these differences tend to increase the smaller the geographic areas considered. However there are substantial challenges in accurately quantifying the scale of these inequities, assessing the direction of trends over time and determining whether gaps are widening or diminishing.

The District Health Barometer has contributed to understanding inequities in the health system, through integration of detailed, disaggregated time series data from sources such as the District Health Information System, National Treasury expenditure data, ETR.net and Statistics SA surveys. The deprivation index, a composite measure of relative deprivation between areas, has been calculated for a series of years, and also expanded to sub-district level in 2007. This facilitates comparison of health indicators according to socio-economic quintiles, or need.

Investigation of data quality is very important in understanding and interpreting the nature and levels of variation and variability in both routine and survey-based data sources. Data quality problems, as well as legitimate differences between health facilities, may result in wide variations in some indicators within the same area, which may be concealed by considering only aggregated data, and result in missed opportunities to correct problems.

While SA strives to achieve the Millennium Development Goals as a country, achieving these goals in the most deprived areas is crucial.
P055 - A RAPID APPRAISAL OF TERMINATION OF PREGNANCY (TOP) SERVICES IN PUBLIC HEALTH FACILITIES IN THE WESTERN CAPE PROVINCE, SOUTH AFRICA

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BACKGROUND
The Choice on Termination of Pregnancy Act of 1996 was enacted to promote a woman’s reproductive right to have an early, safe and legal termination of pregnancy. Provincial guidelines were developed to assist with its implementation. Concerns about the quality of TOP services and increasing service demands prompted an audit of TOP services in the province.

OBJECTIVES
Assess whether facilities adhere to the provincial protocol. Determine TOP service provision challenges and concerns faced by key informants. Review routinely collected TOP data from 2006 to 2008.

METHOD
A cross-sectional study was conducted at 14 randomly selected public sector TOP facilities in the Western Cape. Structured interviews were conducted with the facility manager, TOP provider and a Health Committee representative by 4 provincial staff members. TOP notification data from 2006 to 2008 will be analyzed.

RESULTS (PRELIMINARY RESULTS BASED ON DATA COLLECTED FROM 14 TOP FACILITIES ARE PRESENTED BELOW. FINAL RESULTS WILL BE PRESENTED AT THE CONFERENCE.)
In terms of access, the full range of services is available at 11/14 (78.5%) facilities but not all, such as post-TOP counseling, are routinely implemented. 9/14 (64.3%) providers reported inadequate counseling. The average reported waiting time for a TOP procedure was < 1 week. 8/14 (57.1%) providers reported an on-site drug regimen as per protocol. Regarding human resource challenges, 10/13 facility managers reported that staff had religious or moral objections to being involved in services. Only 6/13 (46.1%) of facility managers indicated a sufficient staff complement and 9/13 (69.2%) had a form of support system available. Inadequate space, equipment and supplies were highlighted by 5 facilities. Clients from outside the facility’s catchment area also place a strain on services.

CONCLUSION
Provincial protocol is being adhered to in some aspects; but the quality of counseling, space constraints and staff capacity and inappropriate drug regimens need to be addressed.

P056 - PERCEPTIONS REGARDING THE EFFECTIVENESS OF THE HUMAN RESOURCE INTERVENTIONS ON THE MOTIVATION AND RETENTION OF HEALTH PROFESSIONALS IN SOUTH AFRICA

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INTRODUCTION
The human resource problems in the health sector have reached crisis proportions in low- and middle- income countries including South Africa. Evidence suggests that African countries need at least 1 million additional health workers in order to offer basic services required to achieve the health Millennium Development Goals. There is also a need to improve the performance and retention of the remaining health workforce; a key challenge is how to best motivate and retain them. There is good international evidence of financial and other incentives to motivate and retain health care professionals, but only a few studies have been conducted in South Africa. This project aimed to evaluate the effectiveness of rural and scarce skills allowances, OSD for nurses and hospital revitalisation on motivation and retention of health professionals in South Africa.

METHODS
Methodologies included: a) key informant interviews with national and provincial policy makers; b) in-depth interviews with CEOs of selected hospitals; and c) in-depth interviews with health professionals. Thematic content analysis, using Atlas.ti (WIN 5.0) is currently in progress to identify dominant themes.

RESULTS
Preliminary findings suggest that although the intentions of the financial incentives (rural and scarce skills allowance; OSD) were good; the implementation was a challenge. As such, there were mixed opinions regarding their effectiveness in motivation and retention of health professionals.

CONCLUSION
The findings will provide policy makers with useful evidence on how best to improve the implementation of the selected human resource interventions and to provide hospital health managers with important recommendations on how best to motivate and retain health care professionals in hospitals.
P057 - PROVISION OF MENTAL HEALTH SERVICES IN SOUTH AFRICAN SUBSTANCE ABUSE TREATMENT FACILITIES: AN AUDIT OF 7 PROVINCES

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INTRODUCTION
To date, South African research has not examined mental health service provision in substance abuse treatment facilities, even though these services improve client retention and treatment outcomes. The aim of this paper is to describe the extent to which substance abuse treatment facilities in several provinces provide clients with mental health services during the course of treatment and to compare mental health service provision in these settings.

METHOD
Cross-sectional surveys of substance abuse treatment facilities were conducted in the provinces of Gauteng and KwaZulu-Natal (KZN) from September 2006 to February 2007 and in the Central and Northern region of the country (comprising the Free State, North West, Northern Cape, Limpopo and Mpumalanga provinces) from October 2007 to February 2008. Data was collected using the Treatment Services Audit Questionnaire. Response rates of 84.0% (N = 45) and 83.0% (N = 14) were obtained for the survey of treatment facilities in Gauteng and KZN provinces and the Central and Northern region, respectively.

RESULTS
Results indicated that few treatment facilities provide clients with access to mental health services. A smaller proportion of facilities offered counselling focused on mental health problems, relative to counselling focused on substance abuse. Less than half of the facilities in Gauteng and KZN conducted psychological evaluations. In comparison, just over half of the facilities in the Central and Northern region conducted psychological evaluations.

Conclusion: Based on the above findings, a number of recommendations are made to increase the provision of mental health services during the course of substance abuse treatment.

P058 - INVESTIGATING ABSENTEEISM AMONG PUPIL NURSES IN THE UTHUNGULU DISTRICT, KWAZULU NATAL

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INTRODUCTION
Shortage of skilled health workers is a problem in South Africa. Absenteeism during nurse training leads to delays in training completion, and to poorly prepared nurses. Absenteeism has been related to poor job satisfaction, stress and burnout, and if it is to be minimized, the underlying causes must be understood. This study investigates factors influencing absenteeism from the perspective of pupil nurses in three training hospitals in KwaZulu-Natal.

METHODS
Data was collected in July 2009. Records of leave taken by pupil nurses were reviewed for the period from March 2008 to March 2009. Self administered questionnaires were completed by all pupil nurses on duty on the day of the study, comprising 189/275 pupil nurses being trained.

RESULTS
Preliminary results show 188/471 (39%) of leave records for pupil nurses were incomplete; nurses were most often absent on Mondays. No pupil nurses stayed in hospital accommodation, and transport to the training hospital was reported to be unreliable, particularly out of hours. Most pupil nurses did not believe that they should work evenings or weekends.

CONCLUSIONS
The extent of absenteeism cannot be accurately assessed because the leave recording system is not functional; this means pupil nurses can complete their course without fulfilling training requirements. Systems for recording absenteeism should be updated urgently if the quality of nurse training is to be maintained. Lack of hospital accommodation and transport problems contribute to absenteeism, and pupil nurses perceive themselves as students rather than part of the workforce and are therefore reluctant to work unsociable hours.
P059 - THE RISE, FALL AND (??) RISE AGAIN OF THE SOUTH AFRICAN DISTRICT HEALTH SYSTEM

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Many health workers look back nostalgically at the pre-2000 heyday of the District Health System (DHS) in South Africa. Anecdotal evidence (along with some hard facts) abound about the vigour and commitment with which the then District Health Management Teams approached their task. Health service delivery seemed poised on the brink of astounding success. But …..!! Such has been the fall that questions have recently been raised whether the very DHS approach is correct for our country. Encouraging signs of renewed commitment to the approach are coming through! Can, and will, DHS arise to regain and then build on its former glory?

This paper argues that a decentralized approach, using the District Health System as a vehicle for Primary Health Care delivery, still offers hope and holds promise for better health service delivery.

International evidence reveals that the lack of management capacity impacts on the ability of health systems to deliver effective health care. Information on managers and district management structures within the South African health system is, however, limited and this has prevented and inhibited managerial workforce planning, monitoring and development.

A national assessment of existing district management structures, competencies and current training programmes was undertaken in order to inform a national strategy and plan to strengthen district management capacity to ensure effective delivery of primary health care in South Africa.

The study, funded by Atlantic Philanthropies, took place under the auspices of the national Department of Health’s District & Development Directorate.

P060 - ASSESSMENT OF WAITING TIMES AT TERTIARY LEVEL HEALTH CARE FACILITIES

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BACKGROUND
The commonest complaint of patients utilising public health services is that they have to endure excessively long waits with the longest waits being experienced at tertiary facilities. Low cost routine waiting time surveys have been successfully conducted at primary level facilities. Service provision within large tertiary facilities is however complex with patients at a single visit typically attending several specialised services points, all of which follow different procedures.

AIM
To modify the methodology used for routine waiting times surveys at primary level facilities to assess tertiary facilities.

METHOD
All outpatient and emergency service points at a tertiary facility were assessed to identify the manner in which the services were provided and the flow between service points. This information was used to modify staff and patient time-tracking forms used at primary level. These forms were then used to track patient and staff movements at each service point they visited or worked at respectively, from their arrival at the facility until their departure.

RESULTS
Total waiting time was high with patients waiting on median for 178 minutes with an inter-quartile range of 92 to 250 minutes. There were large variations in waiting times between clusters of service points. Most of the waiting time could be reduced by re-organising the way in which services were provided. The most important change required was to move from a static appointment system to a dynamic one.

CONCLUSION
Low cost waiting time surveys can be used to routinely monitor and reduce waiting times at tertiary facilities.
P061 - MIDWIVES’ ATTITUDES TOWARD THE IMPLEMENTATION OF A SMOKING CESSATION INTERVENTION AMONG PREGNANT WOMEN IN PUBLIC SECTOR ANTENATAL CLINICS IN CAPE TOWN

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BACKGROUND
Smoking during pregnancy is a serious cause of adverse pregnancy and birth outcomes which is preventable. A study conducted by the Medical Research Council in 1997 found that more coloured women (47%) smoked during pregnancy compared to less than 5% of women from other ethnic/cultural groups. In 2003, a smoking cessation intervention, targeted at this high risk group, was initiated and formative research was conducted with pregnant women, as well as with midwives and doctors, who provide antenatal care. In 2006, the intervention was implemented and evaluated in two maternal obstetrics units and related antenatal clinics in Cape Town. This study involving peer counselling, reports on the attitudes and responses of the midwives involved in the intervention.

METHODS
A qualitative approach was adopted to best explore the responses of registered midwives towards smoking expectant women and the implementation of the intervention at the antenatal clinics. Semi-structured individual interviews and observation of the fieldworkers were utilized to gather information on the level of midwives’ involvement, their engagement towards the women participating and their attitudes to the project’s peer counsellors.

RESULTS
Although the midwives at both sites identified the need for training during the formative evaluation, many excuses were made not to attend training at one site, while participation was good at the other. Preliminary analysis suggests that the senior midwife’s attitude was extremely influential. She was dismissive which resulted in the health-care professionals not following the intervention but rather “ordering” the pregnant smokers to talk to the peer counsellors. The midwives at the other site had a positive approach and interest towards the intervention. The senior midwife took advantage of this empowering opportunity and her colleagues followed with positive outcome.

CONCLUSION
Despite attitudinal differences between the midwives, the intervention was well accepted by health-care professionals. The midwives appreciated the quality time peer counsellors spent with the pregnant smokers and supported them with their almost endless problems.

P062 - INTRODUCING SERVICE QUALITY MEASURES INTO SUBSTANCE ABUSE TREATMENT SERVICES

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OBJECTIVES
The aim of this project is to improve the quality of South African substance abuse treatment services and the integration of HIV services into substance abuse treatment settings. This will be achieved through developing and implementing a system of service quality measures to empirically measure the results achieved in areas such as access to services (including HIV related services such as VCT), quality of HIV and substance abuse services and service outcomes, thereby creating a platform to guide policy and service improvements.

METHODS
This project has five phases. During the first phase, an advisory group was established including relevant stakeholders in the substance abuse and HIV field. This phase focused on developing commitment to pursuing SQM development in substance abuse treatment, establishing the feasibility of developing and implementing service quality measures and improvement mechanisms in South Africa, identifying an initial pool of SQMs to be used in South Africa, and adapting and refining these SQMs through an iterative process. Phase two and three will be the Specification and Pilot-testing phases of the SQM’s in three Provinces. Phase four will be the Implementation of the SQM’s in substance abuse treatment centres more broadly. Phase five will focus on the Dissemination of the findings from phase four.

PROGRESS
Phase one is almost complete with the following domains; effectiveness, efficiency, person-centered, access and quality been identified as important domains. Each domain has several indicators to measure the results achieved within these domains in treatment of substance abuse.
P063 - TELEMEDICINE AS THE IMPLEMENTATION AID FOR MEDICAL PROFESSIONALS IN A ‘DISEASE BURDENED’ SOUTH AFRICA

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BACKGROUND
Telemedicine has been established as an efficient tool in assisting medical practitioners with providing quality health care especially in the underserved, rural and very poor areas in the world. In South Africa manifold responses with regards to Telemedicine has been published. Consequently with all the literature reviewed, it was found that even with the short comings currently in the field of telemedicine more papers have been published with positive feedback of the work done in the specified field.

DISCUSSION
With the various diseases currently in South Africa and Africa telemedicine could be the most effective tool assisting in the alleviation of the medical professional’s long hours, patient medical costs, other expenses currently incurred by patients and professionals.

One of the biggest challenges is to sustain Telemedicine projects. Telemedicine is not being seen as continuous in South Africa, because of numerous problems which arise from educating both patients and professionals about telemedicine, providing network infrastructure for the projects currently instilled to grow, providing high quality training to the medical professionals.

CONCLUSIONS
Improve network infrastructure in the health sector to assist in sustaining telemedicine projects. Telemedicine awareness programs should be initiated to persuade users in the medical field to educate patients this form of assistance and benefits involved.

P064 - TELEMEDICINE TRAINING: A SUNPA EXPERIENCE

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BACKGROUND
Information, communication technologies creates numerous opportunities in all sectors of life. The use of ICT’s in health is often referred to as telemedicine. Telemedicine has been heralded as having the potential to revolutionize the way in which health care is practiced. Although telemedicine has been practiced in South Africa since the 90’s many lessons can be learnt from other developing countries. The Medical Research Council has entered into an agreement under the SA / China Bilateral Agreement with YUNNAN SUNPA. This agreement allows for capacity building in South Africa as well as technology transfer. This paper will describe the telemedicine training experience in China, as well as highlight the observations made of telemedicine best practices in China.

METHODOLOGY
To attend all twenty two theoretical lectures as indicated on the pre course program to obtain knowledge about Chinese Telemedicine practices. Observations will be made at the SUNPA IMAGE TELE TECH and Kunming First People’s Hospital of Yunan Province envisaged sight visits. The observations are crucial as it will be used to draw similarities and identify differences between China and South Africa. This would help in gaining insight as to how to methodically apply knowledge gained whilst implementing Telemedicine in South Africa.

RESULTS
A three week telemedicine training program was designed by YUNNAN SUNPA and all participants were hosted by the Chinese Government. A total of twenty two theoretical lectures were attended which were facilitated by local experts to gain insight into the infrastructure required for Telemedicine, as well as all operational and clinical requirements. Four sites were visited to observe the work flow of the Chinese health facilities.

DISCUSSION
The language and culture creates an enormous barrier for both training and logistical purposes. However the organizers should be commended on the fact that they availed English speaking University students to assist with translations. The Chinese government has invested a considerable amount of fund into ensuring that telemedicine is operational in South Africa. This is done by ensuring that Telemedicine technicians are employed and are available at all telemedicine sites. These telemedicine technicians facilitate all telemedicine consultations, keep records of consultations and are able to attend to all technical trouble shooting. This is key to telemedicine’s success globally.

RECOMMENDATIONS
A local telemedicine training short course is required. This will create awareness about telemedicine in South Africa and also build capacity. It would be advantageous for the Chinese collaborators to be involved in setting this up as well as the implementation thereof.
P065 - LOW-COST TOOL FOR MONITORING DRINKING WATER AND ENVIRONMENTAL WATER QUALITY IN SELECTED PARTS OF SOUTH AFRICA

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INTRODUCTION
Waterborne diseases are a threat to the health of immuno-compromised patients, and can lead to loss of productivity in the work force in South Africa. Monitoring of drinking water quality for potential diseases are still insufficient around the country, and as is the awareness about water quality among the population. Therefore low-cost monitoring tools that can be performed on-site by the local population are of great interest.

METHODS
The H₂S strip test is a low-cost tool for the detection of faecal contamination in water. However, it often suffers from the lack of positive signal at low concentrations of standard indicator organisms. Therefore a modified version of the H₂S strip test was developed, and the correlation with faecal coliform data was evaluated for water samples from the Eastern Cape. Involvement of the members of the local community members in water testing was investigated using the new technique.

RESULTS
Rates of correspondence between the modified version of the H₂S strip test, and concentrations of faecal coliforms ranged from 64 % to 90 % and was directly proportional to faecal coliform concentration. Correlation between the H₂S strip test data and likely causes for faecal contamination was established. Environmental fate of faecal coliforms and the H₂S strip test bacteria was investigated, and the results will be presented. Preliminary community involvement results will also be presented.

CONCLUSION
Data from this study indicate that the modified version of the H₂S strip test could be used for screening of drinking water quality in South Africa.

P066 - CHOLERA OUTBREAK IN LIMPOPO PROVINCE, NOVEMBER 2008 – JUNE 2009

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BACKGROUND
During mid-November 2008, eleven acute watery diarrhoea cases with suspicion of cholera like symptoms were detected at Musina Hospital in Vhembe district – Limpopo Province, South Africa. These cases included eight Zimbabwean and three South African citizens. Laboratory test performed on stool specimens confirmed Vibrio cholerae serogroup O1 Ogawa.

METHODOLOGY
Patient data was captured from line-listings. Epi Info™ version 3.3.2 (2005) software was used to carry out the analysis of data.

FINDINGS
The first week of the epidemic was week 46 of 2008 and eleven cases were reported. The number of cases dramatically increased to 156 during the second week of the epidemic and the outbreak reached a peak during week 3 of 2009 which was the tenth week of the epidemic. Within eight weeks the outbreak spread to all the five districts of Limpopo. Cumulative number of cases reported from five districts was 4634 with an overall case fatality rate of 0.65%. The majority of the cases 55% were females. Children less than five years of age 14.2% were less affected by the disease. About 73.8% of the cases were aged between 0 and 44 years.

DISCUSSION AND CONCLUSION
There was a link between the Zimbabwean and South African cholera outbreak in Limpopo province because the first four weeks of outbreak strictly included a day-to-day admixture of Zimbabweans and South Africans. It was evident that an epidemiological link of infection from one village to another village was highly linked with funeral practices and or handling of dead—person due to diarrhoea and home environment. It was also noticed that several hundred people attend a funeral service but very few showed a clinical picture of cholera. The very low attack rates neither supports contamination of water used for hand washing in common bowl. However, there was no precise data to calculate the attack rate.
P067 - AN INVESTIGATION INTO ANTIRETROVIRAL TREATMENT PRESCRIPTION ERRORS

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BACKGROUND
Prescribing antiretroviral therapy can be complex since the medications have multiple names, abbreviations, dosing strategies, and regimen permutations. This complexity could lead to prescription errors. The aim of this study was to investigate prescription errors in a national database of patients on antiretroviral treatment.

METHODS
The study was a cross-sectional study based on the review of records kept in the database. A pre-tested data extraction form was used to collate data of all prescriptions of uninsured patients who had been receiving their antiretroviral medications from Pharmacy Direct from Jun 2006 until May 2007. Descriptive statistics were used in analyzing the data.

RESULTS
A total of 713 prescriptions of uninsured patients were included in the analysis. Overall, there was an error committed in 27.1% of prescriptions. The majority of errors were about incorrect regimen for the patients (8.6%), followed by incorrect drug (4.6%), omission of a required drug (4.4%), incorrect dose (4.2%), incorrect spelling (3.8%), and incorrect abbreviation (1.5%). The majority of errors (15.6%) were apprehended by pharmacists and did not reach the patients, but about 3% of errors reached the patients.

CONCLUSIONS
There is still a high prevalence of prescription errors in the prescribing of antiretroviral treatment; a sustained, regular training is needed.

P068 - REVIEWING THE SOURCES OF INFORMATION ON THE HEALTH WORKFORCE

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It has been found that there is a need to systematically analyse trends, develop perspectives, define response strategies and develop a coherent plan to address the wide spectrum of issues that impact on the production, retention and distribution of Human Resources in the public health sector. Accurate and valid human resource information is required at all levels for informed planning and decision-making of Human Resources for Health. Public health workforce data have been found to be unreliable and outdated which has led to requiring a development of a Human Resource Information System (HRIS) to provide the required human resource information for planning, management and decision-making. This paper attempts to contribute to the development of a HRIS through reviewing the different sources of information on the Health Workforce.

The paper firstly identifies the different sources of information on the public health workforce at the various levels within the health systems, summarises its coverage, frequency, strengths and weaknesses. Secondly, it illuminates the differences between sources of information when comparing information. The paper continues by stipulating the challenges faced with producing valid, consistent, and complete information on health workforce. The paper concludes with describing the limitations in the capacity to collect, transmit, analyse and use information on the public health workforce.
P069 - ‘GHIS IN AFRICA’: THE EFFECTS OF GLOBAL HEALTH INITIATIVES FUNDING FOR HIV ON THE SOUTH AFRICAN HEALTH SYSTEM

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BACKGROUND
This study reviews country level evidence about the impact of Global Health Initiatives (GHIs) on health systems in South Africa. The study was initiated in response to increases in the amount of GHI funding for specific focal conditions such as TB, HIV and malaria. It seeks to understand how GHIs (like PEPFAR, GFATM) operate in South Africa and their overall effects on the health systems.

METHODS
Data were generated using qualitative research methods including document analysis and individual interviews with 16 participants at national level. Participants were purposefully selected from among key staff of GHIs, government, and recipient NGOs. Data analysis was an ongoing process using interpretive description.

RESULTS
GHIs in South Africa have positively contributed to the mobilisation of HIV funding, rapid scale up of HIV/AIDS programmes and rapid increase of people on ART. Access to ARV medicines has improved health status and quality of life for HIV-infected people. However, workers in the public sector are generally struggling with increased workloads. Competition for available labour by the public sector and the private sector, including GHIs and other donors, as well as by overseas recruitment agents, increases high mobility among more experienced, skilled labour in focal areas such as TB and HIV management. Fragmented implementation, monitoring and evaluation of programmes have resulted in production of many different uncoordinated reports. There is some level of competition amongst GHIs, which view themselves as primarily accountable to their head offices and funding structures.

CONCLUSION
Effectively utilized, GHIs can increase health care coverage and improve access to health care in South Africa.

P070 - INCORPORATING SOCIAL CAPITAL IN KENYAN HEALTH GOVERNANCE

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The pace of health sector reforms in Kenya is picking up pace with high profile donor support (strategic development partners) as well as growing demand locally for quality health care. The argument presented here contends that the existing nature of social capital amongst the various Kenyan publics is a threat to the entrenchment of good governance principles in the health sector as espoused by the strategic development partners. An attempt is made to interrogate the two concepts of good governance and social capital vis-à-vis the current trends of health sector reforms in Kenya. To develop the thesis, an international survey of the literature on good governance and social capital was carried out concurrently with a situational analysis of the Kenyan health care system in order to pinpoint policy implications for future reforms. This was done in order to obtain a theoretical angle to the major concerns of good governance that privilege participation and responsiveness in national health service. The major finding was that abundant stocks of social capital exist amongst the various Kenyan publics; but it is mainly of the bonding and bridging type. There is need for mass civic education to inculcate the third element, that of linking social capital, in order to transcend the limitations of nepotism, tribalism, cronyism and other forms of corruption in the Kenyan health service.
P071 - ESTIMATING THE NEED FOR ART PROVISION FOR EFFECTIVE SCALE UP PLANNING IN TSHWANE, SOUTH AFRICA

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INTRODUCTION
To scale up the provision of Antiretroviral Therapy (ART) effectively, an estimate of the need is required. National and Provincial data is not sufficient to guide a municipality on the scale up efforts. Understanding the gap between current levels of ART provision and the need will contribute to effective scale up planning.

METHODS
Epidemiological assessments to estimate the burden of HIV/AIDS and the number of individuals that require ART was conducted. Secondly, data from ART Clinics in Tshwane provided the number of people currently initiated on ART. Estimates of the service needs were compared to the data collected to identify gaps in current ART provision.

RESULTS
The total number of HIV+ adults (15-49) in Tshwane is estimated at 205,361. The total number of adults in need of ART is estimated at 107,911, with 96,230 in need of first time initiation. Within Tshwane, as of June 2009 there were 1,260 new ART initiations, with a total of 29,576 currently active on ART. This shows an estimated scale up of 98% for new initiation of ART and 73% for active ART overall.

CONCLUSION
There is a wide gap in the provision of ART to those who are in need. ART Clinics are currently only meeting 27% of people in need. However, there is no waiting list at ART Clinics in Tshwane, indicating that many HIV+ individuals may not know their status or their eligibility for ART.

P072 - DEVELOPING A DATA MANAGEMENT STRATEGY FOR COLLECTING DATA IN PUBLIC HEALTH FACILITIES IN THREE RURAL PROVINCES IN SOUTH AFRICA

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BACKGROUND
Data management for HIV and TB services in rural South Africa remains a challenge, due to the fact that the District Health Information System (DHIS) is electronic up to district level, two levels higher than the service delivery point. Consequently, PHC services (particularly TB-HIV integration) is poorly managed, resulting in inadequate treatment solutions.

METHODS
In 2009 AMREF in partnership with the Department of health developed a data management strategy; to strengthen data management in 180 Facilities. Focus group discussions conducted with project managers to collect baseline data, data collection in all supported facilities (180). Participatory analysis of data with department of health officers, development of data collection tools and mentorship programme for facility personnel and Information officers.

RESULTS
The information on the DHIS does not correlate with information at collection point. Health care workers do not use data to improve program quality. There is inadequate human resource to support data collection at facility level, and felt need at facility level (to have data capturers and budget for them at facility level).

CONCLUSION
The pilot study emphasizes the need for a rural data management strategy in order to strengthen rural health systems. It highlights the gap for a best practice model on data collection and Standard Operating Procedure that support DHIS levels lower than District Management. AMREF’s long-term goal is to assist the Department of Health in managing data more effectively to mitigate new infections. Information collected advocates and prioritizes the needs of the community via the communication chain back to the decision makers.
P073 - UPGRADING AND EXPANDING THE CAPE TOWN MORTALITY SURVEILLANCE SYSTEM

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BACKGROUND
Routine mortality surveillance in the Cape Town metropole highlighted vast inequities in health between sub-districts. The Department of Health of the Western Cape embarked on a project to expand this surveillance to the rest of the province.

METHODS
The Cape Town mortality surveillance system was updated to capture cause of death details in text. Links with the Department of Home Affairs (DHA) were formalized and Forensic Pathology Services' electronic administration system data was linked electronically to provide information on the manner of death for injury fatalities. The system was tested in two health districts in 2007 and expanded to include all 6 health districts with training and ongoing support.

RESULTS
Initially thirteen information management staff was trained and 14 attended follow up training. Mortality surveillance data collection was implemented in all districts by April 2007. Only 50 and 65% of deaths recorded by DHA have been captured for 2007/2008. Possibilities for linking electronic mortuary data were explored. Linking using serial number of the death certificate (BI-1663) proved most successful although not complete due to missing data for key variables.

CONCLUSION
The expansion of the system provided an opportunity for improvement by introducing automated coding and classification of cause of death data to full ICD-10 and filling the gap on manner of injury death. Mortality surveillance information is essential for health policymaking it is a huge task to set up and maintain and is duplication of the national vital registration system. Possibilities need to be explored for integration with the national vital registration system.

P074 - 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, 40% 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 56 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 lost 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 less 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.
P075 - THE PROFILE OF OBSTETRIC ICU ADMISSIONS AT A SOUTH AFRICAN PROVINCIAL REFERRAL HOSPITAL

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INTRODUCTION
Admission of critically ill obstetric patients in the intensive care unit (ICU) is a common phenomenon in both developed and/or developing countries. There are different obstetric conditions that result in ICU admissions of pregnant women. Pre-eclampsia/eclampsia and obstetric haemorrhage are the most common conditions admitted in the intensive care unit. Maternal mortality in the ICU is increasingly a rare complication in developed countries but the converse is the case in developing countries.

AIM OF STUDY
To determine the profile of obstetric cases admitted at the intensive care unit (ICU) of the Polokwane provincial referral hospital, South Africa

METHODS
Hospital files of all obstetric patients admitted at the Polokwane provincial referral hospital ICU from January 1st to December 31st, 2008 were retrospectively reviewed. Age, parity, admission diagnosis, length of stay, information on the referring hospitals, and maternal outcomes were analyzed.

RESULTS
There were 21 obstetric ICU admissions during the study period (5.4% of all ICU admissions). The most common reasons for obstetric ICU admissions were pre-eclampsia/eclampsia (33%), obstetric haemorrhage (33%), and anaesthetic complications (14%). The remaining cases (20%) were due to peripartum cardiomyopathy (5%), eclampsia/pulmonary oedema (5%), respiratory distress (5%), and disseminated intravascular coagulation (5%). All 21 (100%) patients were delivered by Caesarean-section. The mean age of the patients was 28 years, mean duration of ICU stay was nine days (range: 0 to 96 days). Seven maternal deaths occurred (33%), and of these, six were referrals from other hospitals (district and regional hospitals). Pre-eclampsia/eclampsia and anaesthetic complications accounted for 2 deaths each accounting for 56% of all deaths.

CONCLUSION
The profile of the obstetric patients admitted at this referral hospital shows that the most common causes of admission were pre-eclampsia/eclampsia, obstetric haemorrhage and anaesthetic complications. It is recommended that improved outreach obstetric specialist support and audit processes be provided to the referring hospitals to improve their initial management of these cases.

P076 - OVC COMMUNITY HEALTH INFORMATION SYSTEM: ACHIEVING THE MDG’S THROUGH ENHANCED COMMUNITY DATA USE

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BACKGROUND
AMREF has implemented a community health information system that contributes to a range of MDG’s by providing up-to-date information on OVC’s. This has enhanced the communities’ approaches to understanding poverty.

METHOD
The method used was part technical - the implementation of an accurate computerised information system - and part mentoring - focused onsite help for organisations to work the system and to understand data.

RESULTS
Key community needs are identified with innovative responses being developed. For example, from October 2008 to August 2009 food has been consistently identified as the largest felt need (MDG 1) representing 24% of the total servicing out of 8 services. This has lead to partnerships being sought to address this issue, such as with farmers unions, representing a local response in line with MDG 8. Second, issues with the quality of implementation were uncovered leading to a refinement of care worker roles. Finally, it is increasingly recognised that the family structures do not support progress to the MDG’s. For example, 70% of OVC live in households without a father. Lack of a stable family is correlated to delinquency in a number of studies (Schonteich, 2002; Berman, 1995). This is likely to lead to viscous cycles with regards health MDG’s 2, 4 and 6.

CONCLUSION
The main challenge now is to maintain this approach to maintaining this community health system. It takes a large amount of time in the field and momentum can be difficult to maintain. Supporting an understanding of mentoring is a continuing priority.
P077 - GROWTH OF HIV EXPOSED AND UNEXPOSED INFANTS: RESULTS FROM A PROSPECTIVE COHORT STUDY IN THREE DIFFERENT SETTINGS IN SOUTH AFRICA

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INTRODUCTION
Infants infected with HIV are at high risk for growth failure. We report on infant growth up to 36 weeks age in 3 cohorts: those infected through MTCT (infected), HIV-negative infants born to HIV-positive mothers (uninfected), and infants born to HIV-negative mothers (unexposed).

METHODS
A prospective cohort study was conducted. Growth measurements were taken at 3, 24 and 36 weeks during home visits. Mean z-scores were calculated for length-for-age (LAZ), weight-for-age (WAZ) and weight-for-length (WLZ), and if they were below -2, the infant was considered moderately stunted, underweight and wasted respectively.

RESULTS
The sample included 98 infected, 386 uninfected and 193 unexposed infants. Infected infants had lower mean WAZ (-1.105) compared to uninfected (-0.553) and unexposed (-0.548) infants at the 3 week and subsequent visits. Infected infants had significantly lower WLZ (0.016) than uninfected (0.720) and unexposed (0.520) infants at 24 weeks. Infected infants had lower (-1.091) mean LAZ compared to uninfected (-0.290) and unexposed (-0.439) infants at 24 week visit, as well as at 36 week, but not the 3 week visit. No significant difference in mean z-scores was observed between uninfected and unexposed infants.

CONCLUSION
Infected infants were significantly more malnourished compared to uninfected infants and unexposed infants. The nutritional status of uninfected infants did not differ significantly from that of unexposed infants. Early HIV infection and not exposure placed infants at increased risk of growth failure. Prevention of mother to child transmission of HIV, prompt diagnosis of infant infection and appropriate follow-up are therefore important.

P078 - CAUSE OF HIGH WAITING TIMES AT HEALTH CARE FACILITIES

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BACKGROUND
The metric, waiting time, is an indispensable elixir in the evaluation of health systems and has obvious relevance to the patients perception of quality (subjectively) and the health providers evaluation of efficiency (objectively). There is however a paucity of information on the conceptual and methodological issues in implementing and using routine waiting time surveys to decrease waiting time. Surveys often typically describe the degree of waiting time and have little to offer regarding the causes of high waiting time. However one is unlikely to be able to reduce high waiting times if the causes of it are not identified.

AIM
To develop a waiting time survey with sufficient depth to identify the causes of high waiting time, and thereby enable the implementation of appropriate interventions to decrease waiting times.

METHOD
Health facilities ranging from primary to tertiary level were visited to determine the varied manner in which health services were provided. Successive surveys were then conducted starting with simple descriptive data collection procedures and proceeding through to more complex surveys, designed to determine causal associations for waiting time.

RESULTS
Eight causes of high waiting time were identified. They are: high workloads, inappropriate arrival patterns, lack of efficiency, temporal mismatch between staff availability and patient arrival, logistical problems, flow problems, queuing problems and inappropriately high service times. Over a series of surveys no other causal factors were identified. This enabled a survey with sufficient depth and yet simple and robust enough to be conducted routinely, to be developed.
P079 - SUPPORTING THE IMPLEMENTATION OF A DATA MANAGEMENT IMPROVEMENT INTERVENTION IN THE WESTERN CAPE PROVINCE – THE JOINT INFORMATION MANAGEMENT INITIATIVE (JIMI)


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BACKGROUND
Standardised data management practices and processes are vital for the reporting of good quality data. JIMI is a collaborative effort between the Directorate: Information Management (IM) and the Division of District Health Services and Programmes of the Western Cape Department of Health. The aim of this paper is to describe tools developed which supported the implementation of the JIMI intervention to cultivate and entrench an IM culture.

METHODS
Following a rapid appraisal of IM in the Province, a series of workshops, meetings, and visits to the Districts were held to develop a set of IM tools and support materials. The JIMI team drafted the tools, distributed these for review by the Province and Districts, and then held workshops to finalise them.

RESULTS
The Provincial Data Flow policy was revised and circulated. A Bed Policy was developed to guide managers in defining and managing bed status. Change Control Forms were developed to formalise and monitor changes to the hospital bed status, facility names, data elements and indicators. Training modules were developed and training was initiated. A Reference Manual is also currently being developed to serve as a comprehensive guideline and information source on all matters pertaining to IM and Monitoring and Evaluation in the Province.

CONCLUSION
Tools to support the interventions to standardise data management improvement are vital for guiding IM processes and developing an IM culture. JIMI serves as a model for the development and implementation of a comprehensive routine health system improvement initiative.

P080 - LEVEL OF HOSPITALS’ PREPAREDNESS FOR A MASS DISASTER DURING THE FIFA WORLD CUP 2010 IN THE ETHEKWINI DISTRICT OF KWAZULU-NATAL

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BACKGROUND
International mass sports gatherings like the FIFA (Fe´de´ration Internationale de Football Association) World Cup Soccer and Olympics could challenge local healthcare systems and emergency medical services. Public sector Disaster Management Practitioners widely recognize that poor planning due to insufficient capacity or adequate data mitigates the potential for hazards.

AIM
The aim of this study is to assess the state of readiness, medical preparedness, and emergency care in preparation for the 2010 FIFA World Cup Soccer in eleven hospitals in the eThekwini District of the KwaZulu-Natal Province. The baseline information obtained will allow the district manager and hospital managers, to identify strengths and weaknesses in current healthcare provision within the Ethekwini District. This will allow creation of a gap analysis, and formulation of an action plan to improve healthcare provision within Ethekwini in preparation for the 2010 FIFA World Cup Soccer, in the event of a mass disaster.

RESEARCH METHODS
An observational cross-sectional descriptive study design is used. Data will be collected using a standard questionnaire and observational checklist by a well-trained fieldworker. The assessment tool incorporates the Yokohama Strategy.

RESULTS
The results of the study are currently being analysed and will be presented at the conference. The results will include a comprehensive analysis of all available resources in the hospitals. In our already severely constrained resource setting country, it is imperative that we have a holistic view of the current existing resources to further utilise if necessary, for more effective disaster risk reduction.
P081 - THE CHALLENGE OF DEATH NOTIFICATION IN SOUTH AFRICA

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Although South Africa is working to improve collection of routine mortality data, multiple barriers exist to the production of accurate statistics. The integrity of the country’s mortality statistics is severely compromised by lack of diligence by health practitioners in completing death notification.

Health practitioners can contribute towards increasing the efficacy of data collection by being informed with regards to guidelines on correct completion of the BI-1663 form, and ensuring that it is filled in completely and comprehensively. Practitioners should also be alerted to the ethical and legal requirements for death notification form completion, and how best to approach the issue of HIV and confidentiality.

Death notification in South Africa can be improved, and contribute to forming an accurate picture of the health status of the nation. Although problems in the existing notification procedure need to be addressed, correct education of health practitioners completing death notification forms can go a long way towards improving the quality of mortality statistics.

P082 - CLINICAL TEACHING OF PUPIL NURSES IN THE UTHUNGULU DISTRICT, KWAZULU NATAL

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INTRODUCTION
Clinical teaching of practical skills during pupil nurse training is important to produce well trained nurses who can deliver good quality health care. Professional nurses in wards where pupil nurses are allocated provide clinical teaching, but this has been identified as inadequate. This study investigates clinical teaching from the perspective of both professional nurses and pupil nurses.

METHODS
The sampling frame comprised all 220 professional nurses and 275 pupil nurses working in three district hospitals. Those professional nurses and pupil nurses on duty on the day of data collection were included in the sample. Self administered questionnaires were completed by 68 professional nurses and 132 pupil nurses during July 2009.

RESULTS
Initial results show 5.9% of professional nurses had a qualification in nursing education, and 23.5% reported having experience of teaching nurses. 75.0% professional nurses felt that they did have adequate skills to conduct clinical teaching but 73.5% stated that they did not have enough time. Most pupil nurses reported that professional nurses did not set aside time for teaching and that some professional nurses had a negative attitude to clinical teaching.

CONCLUSIONS
Clinical teaching is being conducted by professional nurses without qualifications or experience in teaching nurses. Setting aside time specifically for clinical teaching on the wards, will lead to better outcomes in nurse education and therefore improved health care for patients. Attitudes of professional nurses to clinical teaching could be enhanced by the provision of teaching skills.
Despite that 75-80% of the 100 million inhabitants live in rural areas of eastern Africa, the health care system is characterized by long distances to tertiary centers located in major cities and towns, poor roads & transport facilities, payment of user fee introduced as part of structural adjustment programs. The doctor patient ratio stands at 2-14 doctors: 100,000 patients. The estimated need for surgery in eastern Africa is at least 1000 major operations per 100,000 people per year but only 70-200 are performed (about 20%).

This study was by reviewing and collating data in retrospect from various project reports as well as the national health resource documents.

The purpose of specialist outreach service is to contribute to closing the gap between communities and the formal health system by strengthening health care delivery at facility level. 143 hospitals (Government, Mission & Private) in seven countries are visited about 4-6 times in a year. Most of the hospitals are more than 700 Kilometres from Nairobi and use of road transport is time consuming and occasionally insecure in some areas and hence use of light aircraft is the preferred and most cost-effective mode of transport. Eighteen different types of specialists participate; and are sourced from AMREF (14%), University teaching hospitals (80%) regional hospitals and private sector (6%).

Over the last ten years (1998-2008) outreach services have increased in terms of hospitals coverage (68%); consultations (185%), operations (193%) with a corresponding reduction of cost of flights (24%). We note progressive increase in the trainees’ capacity and diminishing participation of trainers in the program. In urology for instance, there has been change from open to endoscopic prostatectomy.

AMREF Specialist Outreach Programme has successfully taken surgical services to the under privileged remote areas where no specialists are willing to work and reside. Provision of a reasonable quality of surgical care in the remote/rural areas will continue to depend upon specialist outreaches by urban-based specialists for the foreseeable future.

The AMREF Outreach model can be adopted as a medium term solution by regional governments in a decentralized manner with outreaches organized from consultant and regional hospital by the resident specialists to the out-lying district hospitals by road to minimize the high flight costs.

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**P084 - THE IMPACT OF QUALITY OF ANTENATAL HIV COUNSELLING ON HIV-FREE SURVIVAL**

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**BACKGROUND**

This study aims to examine impact of the quality of ANC counselling on late postnatal transmission of HIV and/or infant mortality.

**METHODS**

Cohort study during 2002–2004 from 3 PMTCT sites in South Africa. Sites were purposively selected to reflect different HIV prevalence, socioeconomic and geographical locations. 665 mother–infant pairs were followed for 36 weeks. Data were collected by trained field researchers using semi-structured interviews on the quality of counselling including: MTCT ever discussed antenatally, number of times discussed and whether main topics such as risks of MTCT and breastfeeding, different feeding options and assistance given in decision making process. Dried blood spots were collected by heel prick in the baby at 3, 24 and 36 weeks. Cox-proportional hazards and adjusted survival curves were used to examine the differences in HIV transmission and/or infant mortality according to counselling services received and quality of counselling.

**RESULTS**

The study suggests that poor counselling score (counselling score below the average of expected level) was associated with a 66% (p = 0.018) increased risk of transmission and/or mortality at 36 weeks after adjusting for maternal log viral load, premature birth, child sickness at birth, socioeconomic status and disclosure. The hazard of poor quality counselling (adj.HR 1.34, p.value 0.32) service on transmission and/or mortality at early postnatal period (at 3 weeks) were not significant, suggesting the benefits are greater in the later post-natal period.

**CONCLUSION**

This study suggests quality of antenatal HIV counselling significantly influences HIV-free survival during postnatal period.
P085 - THE TEACHING IN THE DEPARTMENT OF COMMUNITY MEDICINE OF WALTER SISULU UNIVERSITY AND THE MILLENIUM DEVELOPMENT GOALS

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INTRODUCTION
Walter Sisulu University (WSU) is located and serves in the Eastern Cape Province of South Africa a province with the worst health indicators in SA. This University is committed to excellence and social responsiveness through the integration of community service into its learning programs, with a special emphasis on sustainable rural development with specific emphasis on local communities. The eight Millennium Development Goals (MDGs) set out by the UN provide a collective vision for the future. The Department of Community Medicine of WSU set out to develop a teaching program that link the WSU vision with the population health needs within a context of the MDGs. The aim of this paper is to demonstrate the linkage between MDGs with students program of WSU.

METHODS
This research is based on: the documental revision of the MBChB I, II, III, and IV programs in the subjects Epidemiology, Biostatistics and Health Management; the realization of practical sessions in the communities; the realization of researches in the communities through the community based education and services sessions (COBES) and the analysis of the research papers carried out for the students during a period of six years.

RESULTS
The objectives of lectures in the four first years of the career in the subjects of the Department of Community Medicine reflect the MDGs as well as the objectives of the practical teaching activities in order to reinforce the commitment of the future health professionals with the needs of population.

CONCLUSION
All MDGs were represented in the teaching approach and principle objectives of the theoretical and practical teaching activities of the four first years of the career which is shown in this paper.

Key words: Teaching; WSU; Community Medicine; MDGs.

P086 - A REVIEW OF CHILD PEDESTRIAN SAFETY INTERVENTIONS: TOWARDS SOUTH AFRICAN SAFETY PROGRAMME PRIORITIES

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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. The aim of this review was to identify and review the current child pedestrian injury prevention programmes and interventions in South Africa.

METHODS
An in-depth search across all electronic databases for descriptive and evaluative documentation on local interventions was conducted. Thematic content analysis was used to organize and code these interventions and core intervention dimensions.

RESULTS
The study reports on interventions that demonstrated some reduction in child pedestrian death, injury, injury risk, and/or that improved pedestrian road safety behaviour. Programmes combining educational, engineering and/or enforcement strategies report greater success at promoting pedestrian safety. Examples of effective interventions are: a multi-component Child Pedestrian Injury Prevention Project, red-light cameras, curriculum-based educational intervention, and the Eldorado Project.

CONCLUSION
This review is intended to assist relevant prevention stakeholders in planning for the development of a national plan involving Childhood Pedestrian Safety programmes in South Africa.
P087 - BALASI PAST AND PRESENT COMMUNITY DIAGNOSIS
2005 – 2008

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INTRODUCTION
Community diagnosis is used to determine and describe the health status of the population (HSP), reflected in health indicators in a community over a specific time period. In public health practice, community diagnosis is a tool for evaluating HSP. The purpose of the community diagnosis (health diagnosis) in the Community-Based Education and Service (COBES) curriculum for third-year medical students is to provide a training component that exposes students to intervention methods that depend on working directly with populations and on understanding patients in the context of their communities.

PURPOSE
To present the results of the health status of Balasi in the year 2008 using the Community Diagnosis as the tool and compare the results with the year 2005.

METHODS
It is a descriptive study. MBChB III students and the Tutor visited 100 houses, a household survey (door-to-door selected randomly) was conducted, applying a questionnaire as a main instrument. The study was based at Balasi village, served by Qumbu Health Centre and located approx 60 km from Mthatha. This included key questions related to the components and determinants of the health status of the population. Similar parameters were then compared with the year 2005. The community leaders were informed about the research which agreed to support it.

RESULTS
There have been improvements in some issues (reduction of smoking, alcohol and obesity). Water supply has increased from 18% to 31%, but still is low. The use of condom has increased from 20% to only 40%, and the 95% of the population has adequate knowledge about HIV / AIDS. The families without toilets have increased from 10% to 16%. The Tuberculosis morbidity is the same (21% / 22%).

CONCLUSION
The health status of the community has been improving along the last three years, but the lack of sanitation and water supply are the emergency problems, together with the use of condoms and the reduction of the Tuberculosis morbidity, that should have been solved and it is necessary more effort from the community, Municipality and Department of Health to make resources available for everyone.

P088 - A CASE STUDY OF A CIVIL SOCIETY ORGANISATION TAKING ACTION TO REDRESS A HEALTH RIGHTS VIOLATION

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BACKGROUND
The South African Constitution guarantees the right of access to health care; however the majority of South Africans who utilise public health facilities experience difficulties in realising this right and in holding health care providers accountable for rights violations. Civil society has an important role to play in creating an awareness of rights and empowering marginalised communities seeking health rights.

AIM
This study focuses on exploring action taken by members of a non governmental organization, Women on Farms Project (WFP), to redress a violation of health rights. A deeper understanding of this case helps to model best practice for community engagement with health facilities around accessibility and the right to health care.

METHODS
Qualitative methods were used to gather information for this case study, including observations of the WFP health team meetings, in depth interviews with members of the health team who were directly involved in dealing with the health rights violation and interviews health care providers at the facility. Data were analysed using thematic content analysis.

RESULTS
This case examines the practical experience of WFP members who took collective action to resolve issues of discrimination in access to care for HIV positive patients. Findings from this study provide insight into the process of empowerment used by WFP to mobilize a marginalized group for the realization of their health rights and documents lessons on best practice for how civil society organizations operationalise the right to health.
P089 - COMMUNITY HEALTH COMMITTEES AS A VEHICLE FOR PARTICIPATION IN ADVANCING THE RIGHT TO HEALTH

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BACKGROUND
Since the Alma Ata declaration on Primary Health Care (PHC), governments have taken legislative and executive measures to incorporate participation in health. Case studies and empirical evidence suggest that community participation can assist the progressive realization of the right to health; nevertheless, many authors agree that participation as envisioned by Alma Ata is largely absent from health systems.

RATIONALE
In South Africa, PHC presented the guiding principles for health system transformation focusing on the vast inequities inherited from apartheid. Formal structures for participation in health took the shape of community health committees (HCs) which were partly anticipated to address health inequities of the past through partnerships with health facilities. However, South African studies have highlighted that many HCs are functioning ineffectively, if at all.

AIMS
To explore the relationship between community participation and the right to health within the context of HCs in the Western Cape and identify best practice for participation in health.

METHODS
A mixed methods research design has been employed, including quantitative questionnaires, in-depth interviews, direct observation and archival analysis.

FINDINGS
This study provides in-depth case studies illustrating the nature of the relationship between HCs and their corresponding health facilities. Preliminary findings suggest that ownership, visibility, agreement on the role of community in health and community expertise are some of the factors influencing these relationships. The selected cases are used to highlight barriers impeding effective community participation, provide insights into mechanisms to overcome them and provide concrete examples of how participation can help operationalize health rights.

P090 - HEALTH CARE PROFESSIONALS ATTITUDE TOWARDS GIVING SMOKING CESSATION ADVICE TO SMOKING PREGNANT MOTHERS

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BACKGROUND
Smoking during pregnancy is a serious and preventable cause of a number of adverse maternal, fetal and infant deformity outcomes. It is associated with increased risk of premature rupture of membranes, abruptio of placenta, placenta previa and pre-term delivery. It also increases the chances for low birth weight, stillbirth, neonatal death and Sudden Infant Death Syndrome (SIDS). A study conducted by the Medical Research Council in 1997 has found that 4% of black women, 3% Asian and 47% of coloured women smoked during pregnancy. This and more other studies made it necessary for the action to be taken.

METHODS
A qualitative approach was adopted to best explore the attitudes of registered midwives working at the Tygerberg, Elsiesriver and Bishop Lavis maternity and obstetric units towards smoking expectant mothers and the underlying factors involved. Semi-structured individual interviews were utilized to gather necessary information.

RESULTS
The overall results indicated the necessity for an intervention to help reduce risks for both mother and unborn baby. 95.1% of health care professionals felt that giving smoking cessation advice would show they care for the women. 81.4 felt that there would be a lesser chance of babies becoming ill. 92.6% agreed that it is an important preventive task for nurses. 30.9% of health professionals were concerned that midwives would get angry at the irresponsible behavior of pregnant women.

CONCLUSION
The findings clearly show that the advice from health professionals to stop smoking is important and will benefit mother and baby.
P091 - INVESTIGATION ON THE USER FRIENDLINESS OF THE SEXUAL REPRODUCTIVE HEALTH SERVICES OFFERED AT BOTSWANA FAMILY WELFARE ASSOCIATION CENTRES, SOUTHERN REGION, BOTSWANA

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INTRODUCTION
Young people constitute a group with specific sexual reproductive health (SRH) needs which have to be met according to their age specifics. In order to meet age specific SRH needs of young people, Botswana offers youth friendly SRH services, yet young people still encounter barriers when seeking services. This study investigated the extent of user friendliness of SRH services at the Southern Region of the Botswana Family Welfare Association Centres.

METHODS
This cross sectional descriptive survey used a sample of convenience of 110 youth aged 15-29. A self administered questionnaire was used to assess their perceptions towards SRH services, the friendliness of health providers, health facility and programme design using a 5-point likert scale.

RESULTS
The overall perception suggested that youth perceive SRH services positively including the health providers’ attitudes. However the referral system was perceived as a barrier with the health facility perceived as being unfriendly. Furthermore, the programme design was rated unfriendly at a rate of 80%. Opening hours were rated 63% as unfriendly and fees for services were perceived as a barrier for accessing services with publicity of the services rated 50% less friendly.

CONCLUSIONS
From this study it can be concluded that whilst the overall youth perception towards the SRH services was positive and youth thought highly of the health providers’ attitudes, most of the characteristics determining friendliness of the services were rated low. A number of weaknesses have to be addressed particularly inconvenient opening hours, publicity of the SRH services and fees for services.

P092 - A REFERRAL NETWORK FOR IMPROVED QUALITY OF TB AND HIV CARE IN UTHUKELA DISTRICT, KWAZULU-NATAL, 2009

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INTRODUCTION
The rapid spread of HIV in Africa has fuelled the TB epidemic, increasing morbidity and mortality, and placing already strained healthcare systems under tremendous pressure. In Uthukela District, Referral Networks, consisting of community health workers, home-based carers, youth ambassadors and traditional healers, were developed to provide a comprehensive integrated programme of treatment support for patients with TB and HIV in an environment where there is poor access to health services, stigmatization, and the health department is challenged to meet the increasing need for care.

The purpose of this study is to describe how the non-governmental facilitation of a Referral Network has improved the care of ambulant TB patients in Uthukela district.

METHODS
This health systems research used an observational, descriptive, cross-sectional study design. Data sources included key informant interviews, existing baseline and follow-up studies conducted by the project, and routinely collected TB and HIV statistics.

RESULTS
In Okhahlamba municipality, the HIV testing rate in TB patients increased from 69% in 2007 to 87% in 2009. CD4 testing and initiation of ART in TB patients also increased. With the expansion of the Referral Network system to Emnambithi municipality, the number of TB patients, child contacts, and patients on TB and ART who received home visits increased, with over 1500 visits being done in quarter two of 2009. There has also been an increase in the number of patients who are screened for TB.

CONCLUSION
Community-based Referral Networks can increase access to, and quality of healthcare services in rural areas. It is hoped that this results in improvement in TB outcomes.
P093 - CIVIL SOCIETY ORGANIZATIONS’ KEY ROLE IN ATTAINING MDGS: EXPERIENCE OF AMREF ANGAZA PROGRAM, TANZANIA

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BACKGROUND
Civil Society Organisations (CSO) and Faith Based Organizations (FBOs) play a key role in attaining MDG 6 (HIV/AIDS). They augment government efforts in providing HIV and AIDS related services in communities. However, weak planning and management capacities, inadequate human resources, structural limitations and inadequate funding prevent many FBOs and CSOs from delivering services to their maximum capacity.

METHODS
AMREF developed and instituted an innovative partnership model of sub granting and addressing (in collaboration with Ministry of Health) capacity, organizational and systems needs of its public, FBOs and NGOs partners in implementing its nationwide VCT program, ANGAZA. The subgrantees participated in project design, implementation, financial management, monitoring and evaluation.

RESULTS
The number of individuals accessing quality VCT services at ANGAZA VCT sites increased from 10,266 in 2001 to a cumulative total of 1,138,238 including 589,692 (51.8%) males and 548,545 (48.2%) females by 2008. The FBOs and CSOs partnerships though initially aimed at addressing MDG6, has also improved the subgrantees overall capacity and organizational systems. Some have successfully submitted funding proposals to other donors for interventions to address the other MDGS.

CONCLUSIONS
Developing the capacity of CSOs and FBOs to engage in meaningful partnership with the government is critical for scaling up HIV and AIDS services. There is need for implementing partners to always integrate and support capacity and systems strengthening needs of CSOs and FBOs by lead CSOs into funding approaches and mechanisms.

P094 - MOBILISING THE HIV RESPONSE ACROSS ALL SECTORS IN TSHWANE, SOUTH AFRICA

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INTRODUCTION
It is well documented that HIV is no longer purely a health issue. In order to respond effectively, mapping of current service provision and estimate of service need is required. In order to effectively mainstream HIV within academic, business, government, health, religious, media and civil sectors, an integrated approach is needed.

METHODS
An epidemiological assessment to estimate the burden of HIV infection and AIDS as well as the number of individuals that require specific services was conducted. Secondly, service providers were identified using directories, internet searches, purposive and snowball sampling techniques. Estimates of the service needs were compared to the data collected in order to identify gaps and overlaps in the HIV treatment and service provision. A cross sector AIDS Council is then supplied with the information to implement strategies within each sector to respond to the gaps identified. This Council meets quarterly and each sector is responsible for action based on decisions made within the Council.

RESULTS
The Tshwane AIDS Council was launched with all sectors being represented. Using the data made available, the Council has already made priority decisions. Each sector has taken initiative to identify where they can contribute and action has been prioritized. This process is being supported by a Secretariat and has gathered political support from the Mayor of Tshwane.

CONCLUSION
This initiative has moved from a model to now being implemented. All sectors in the community have responded positively and next steps are to move toward mainstreaming the action items within each sector.
INTRODUCTION
Stationary Voluntary Counselling and Testing (VCT) sites in Tshwane CBD were experiencing a slow uptake. In order to create awareness and increase the number of people being tested, the Foundation for Professional Development (FPD) partnered with two inner city NGOs to conduct community mobilization.

METHODS
Mobile VCT units were set up at various inner city sites. Participating NGOs were then partnered with mobile VCT units to conduct community mobilization efforts through the distribution of flyers, posters and recruitment prior to and the day of testing. Participating NGOs targeted individuals living in the area and encouraged testing.

RESULTS
Although only a pilot project, it became apparent on days when partner NGOs were onsite with mobile VCT units, the average number of those being tested per day increased. When participating NGOs were not available to conduct community mobilization efforts, the number of individuals tested dropped. The target set is 60 people tested per day. Over a seven day trial, the mobile VCT unit exceeded its target by obtaining an average of 69 people tested per day. Without the participating NGOs present mobile VCT units are tested an average of 50 people per day. Therefore the participation of the NGOs contribute to a 38% increase in VCT testing in partnership with the mobile VCT units.

CONCLUSION
It has been shown, although over a short time, that partnering with the NGO community can assist in increasing VCT uptake through community mobilization. This is a model which may prove to assist other VCT sites.

INTRODUCTION
For holistic healthcare, clients need effective referral to both health and social services. The Circles of Service model uses ART Clinics as a central point of referral, then maps all NGO support services around the clinic point. This tool provides an information source for social workers, nurses, counselors and other healthcare staff in the clinic.

METHODS
HIV service providers were identified using directories, internet searches, purposive and snowball sampling techniques. Organisational and service data was collected from 318 organisations using a close ended questionnaire. GPS data was collected to generate GIS maps. Maps were generated and distributed to 6 ART Clinics and all sites were evaluated 6 months later.

RESULTS
When evaluated on the use of the maps provides, 80% of maps were placed within the office of the social worker at the clinic, or available within the main areas of the clinic. All clinic staff felt the map was useful and referred to the map on average 3 times a week. The map was determined as user-friendly and other staff members or departments within the healthcare facility also made use of the community referral map. Most healthcare providers (60%) knew of most services on the map, while others identified further referral points to be added.

CONCLUSION
Overall, the initiative has proven to be successful. The map has been used to refer clients to service providers and assisted healthcare providers to further identify resources within their immediate community.
P097 - FROM CARE AND SUPPORT TO EMPOWERMENT OF PLHIV IN RESOURCE CONSTRAINED SETTINGS

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INTRODUCTION
Iringa Region has the highest HIV prevalence rate in Tanzania standing at 15.7% against the national rate of 5.7%. The Care and Support Project implemented jointly by AMREF and two councils for Iringa Rural and Urban aim at empowering PLHIV in the project area, tapping the potential, abilities and eagerness by PLHIV to produce for their own and minimize dependency.

METHODS
In 2002 a baseline survey on empowerment needs for PLHIV in two districts of Iringa was conducted. Results showed that PLHIV lacked the capacity to manage their welfare and needed empowerment to enable them meet their basic needs. AMREF in collaboration with district authorities, community members and PLHIV designed a home based care empowerment package for PLHIV. The package included training of key community based health care providers and community structures. Life skills education, training in parent-child communication skills and paralegal aides were implemented. Women economic groups and Post-Test Clubs (PTCs) were formed.

RESULTS
There is less dependency of PLHIV on project support in the project area. Income and food security has increased. Health seeking behaviour has improved. There is increased community acceptance of PLHIV with reduced stigma and discrimination.

CONCLUSIONS
Care and support interventions should foster to promote empowerment to PLHIV to minimize dependency. Economic empowerment of PLHIV through IGA and access to credit facilities, human rights approach, and knowledge and skills gained by PLHIV through training enhances acceptance of their HIV status and promotes self confidence and esteem.

P098 - STATUS OF SCHISTOSOMIASIS IN SOUTH AFRICA AND IMPLICATIONS FOR CONTROL

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Schistosomiasis is one of the neglected tropical diseases that are not prioritised for prevention and control in South Africa. Neglecting schistosomiasis may have a negative impact on MDG 6, which is to combat HIV/AIDS, malaria and other diseases. The World Health Organisation encourages the affected countries to prioritise neglected tropical diseases, with emphasis on preventive chemotherapy. Three forms of Schistosomiasis, namely: Schistosoma haematobium, Schistosoma mansoni and Schistosoma mattheei, occur in South Africa. Schistosomiasis can cause serious, long-term illness such as liver and renal failure. A desk review in 2009 revealed that schistosomiasis is largely distributed in six of the nine provinces of South Africa (Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, North West and Eastern Cape). Considering that schistosomiasis is not a notifiable medical condition, limited information is available to guide development of comprehensive intervention programmes for control of the disease among affected and at risk population. However, due to a growing public health concern, the disease is proposed for inclusion into a list of notifiable conditions. To address this need, available data from Mpumalanga and KwaZulu-Natal provinces was used to evaluate the prevalence of disease and barriers to notification. The median for Mpumalanga province was 2236 cases, ranging from 1963 to 2422 for the period 2005 to 2007. The median for KwaZulu-Natal province was 2501 cases, ranging from 2317 to 2685 for the period 2007 to 2008. The review findings suggest that data should continually be collected, analysed and assessed for appropriate public health interventions.
**P099 - KWANDA: MAKING COMMUNITIES LOOK BETTER, WORK BETTER AND FEEL BETTER**

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Soul City

Kwanda is a multi-media community empowerment initiative that aims to increase social capital in order to enable communities to address their own challenges. Five communities from across South Africa have been trained and offered ongoing support to undertake a community makeover. A community works programme has been introduced in all five communities.

Fifty people from each community attended an organizational workshop designed to give participants the requisite skills to effect community makeover. They subsequently returned to their communities to begin a programme of action. Enterprises to promote economic sustainability - including sewing, baking, and farms - were established in each community. Following a community mapping, participants started on activities with a social focus including Support for OVCs - creating feeding schemes, getting families registered for grants, getting children to school - addressing HIV prevention, especially multiple concurrent partnerships, alcohol abuse and alcohol related violence. TV cameras were based in each community for a four month period.

All communities have faced challenges and learnt lessons around organisation and leadership. Financial skills have been imparted as all communities have set up bank accounts and engaged in financial record keeping. Relationships with municipalities, businesses, local NGOs, faith-based and community-based organisations have been created. At least four of the five communities have ongoing activities following the withdrawal of the TV cameras.

Kwanda is an exciting model for community empowerment that addresses fundamental issues of organisation, leadership and skills for improved economic and social conditions.

**P100 - HEALTH EDUCATION TRAINING NEEDS OF EDUCATORS AT MAKAPANSTAD SCHOOLS IN THE NORTH WEST PROVINCE**

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**PURPOSE**
The purpose of this study was to explore and describe the health education training needs of educators at Makapanstad health promoting schools.

**METHOD**
A qualitative, exploratory and descriptive paradigm was followed. The population of this study consisted of teachers who are working at Makapanstad schools and directly involved with learners. The teachers were purposively selected. Data was qualitatively analysed and followed Tesch data analysis process.

**FINDINGS**
The health education training needs of educators were explored, described and theoretically confirmed. These needs included the University to support training for teachers; University to acknowledge teacher’s responsibilities; basic knowledge of health promotion; common health needs of learners and indirect health problems. These needs form the basis for health education training programme for educators at Makapanstad schools. It was recommended that health education training programme should be established to empower teachers at Makapanstad schools.
P101 - IMPROVING UPTAKE OF COUNSELLING AND TESTING USING A COMMUNITY BASED APPROACH: A TANZANIAN CASE STUDY

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INTRODUCTION AND OBJECTIVES
In 2001, the African Medical and Research Foundation (AMREF) implemented the scale-up “same-day” of HIV Counselling and Testing (VCT) services in Tanzania. A final evaluation was conducted in December 2008.

Project goals:
- To reduce HIV prevalence and associated stigma in Tanzania
- To facilitate linkages to care, treatment, support, and prevention.

METHODS
A final evaluation employing a cross-sectional survey design using both qualitative and quantitative methods was conducted. Purposive sampling was applied to assess 17 out of 55 Counselling and testing (ANGAZA VCT) sites. 471 respondents were interviewed. SPSS.pc software package was used to analyse data.

RESULTS
Diverse approaches to community based Counselling and Testing (static, stand-alone, mobile and outreach services to rural and hard to reach populations) increased the VCT uptake from 10,266 clients in FY2001 to over 500,000 in FY2008. Social marketing campaigns carried out by ANGAZA generated national awareness and demand for VCT services. Most respondents (98%) knew ANGAZA,® and 93% correctly mentioned its main role was to provide VCT services.

CONCLUSIONS
A Social marketing approach can strengthen appeal of health related programmes. Participatory approaches working through community based organizations and people directly affected by the health problem underpin effective community based initiatives.

P102 - PRIMARY SCHOOL EDUCATORS’ READINESS-TO-CHANGE CONCERNING WEIGHT LOSS IN THE WESTERN CAPE

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INTRODUCTION
South Africa has a quadruple burden of disease, which includes chronic diseases caused by over-nutrition and a westernised lifestyle. Overweight and obesity is associated with over-nutrition and a small decrease in weight can reduce a number of obesity-related risks. This study aims to assess educators’ readiness-to-change regarding weight loss by determining their current stage. An intervention will be implemented to monitor whether any change had occurred.

METHODS
In Phase one, the presence of phenotype indicators of diabetes in educators in the intermediate phase at disadvantaged schools in the Western Cape was investigated. This involved assessing 517 educators’ anthropometric measurements, blood pressure, glucose and cholesterol levels. A global physical activity questionnaire (GPAQ) was also completed. Phase two (the HealthKick study) envisages to adopt a similar methodology for data collection, and will include the use of quantitative and/or qualitative approaches to determine the educators’ readiness-to-change.

RESULTS
Phase one indicated that 78% of the educators were overweight or obese, 56% had a high waist circumference and 56% were hypertensive. Males had a higher risk of type 2 diabetes and both sexes had an increased risk of high cholesterol. The identified risk factors imply an urgent need for the development of a suitable intervention strategy, which Phase two will attempt to achieve.

CONCLUSION
Since educators are role models for learners, it is important to address issues affecting their health, such as overweight and obesity.
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