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INTRODUCTION

This booklet presents the research output of the Division of Family Medicine and Primary Care at Stellenbosch University in 2012. The booklet includes work that was published as well as work that was examined and approved for the Master of Medicine degree. Each study is presented in the form of a structured abstract. When the work has already been published the reference to the full article is given at the end of the abstract. The email of at least one of the researchers is given with each abstract should the reader wish to obtain further information.

The purpose of the booklet is to improve access to this collection of primary care research by policymakers, within the health services and educational institutions, as well as by colleagues within the discipline of family medicine and primary care.

There is a separate brief overview of the key points arising from this work for policymakers and we hope that this will make the findings even more accessible and user friendly. If nothing else we hope that you will read this section.

The structure of the rest of the booklet has been derived from a paper by John Beasley and Barbara Starfield that offers a typology of Primary Care research.\textsuperscript{1}

Clinical research, which is the largest section, has been subdivided according to the burden of disease into work on:

- HIV/AIDS, TB and STIs
- Non-communicable chronic diseases
- Women’s and maternal health
- Violence and injury

After the material on clinical research there are sections on health services and systems research as well as educational research.

KEY POINTS FOR POLICYMAKERS

Work on HIV/AIDS and TB

A quasi-experimental study evaluated a peer education programme to prevent HIV infection in a faith based context and found that the programme was effective at delaying the age of sexual debut and increasing condom usage. The programme has been implemented within the Anglican Church of Southern Africa and should be evaluated further.

An audit of the management of cryptococcal meningitis in both district hospitals and regional hospitals found that care was comparable and implemented an integrated care pathway for the management of cryptococcal meningitis in the Winelands District.

A study at a district hospital found that 40% of HIV positive children that were discharged failed to return for anti-retroviral treatment. Health service factors in primary care were related to poor staff attitudes, staff shortages and delays in referring children. A number of patient related socio-economic and cultural issues were also identified.

Two studies explored the factors that affect adherence and the one identified 13 factors that influence the success of treatment supporters.

Work on non-communicable chronic diseases

A number of abstracts relate to a randomised controlled trial on group education for people with diabetes by health promoters. The intervention was a 4 session, comprehensive and systematic educational programme. Health promoters are at the level of community health workers and have been specifically trained to provide health education within primary care facilities. A range of educational materials were developed to support the group education, such as a flipchart. Health promoters were trained to deliver the education in a guiding style that was characterised by collaboration, empathy and evocation of ideas and solutions. The results of the trial will be published in 2013, but show that the intervention was successful at significantly lowering blood pressure at 12 months. The effect on blood pressure was analysed in a model using mortality data from South Africa and on the assumption that education would be repeated annually with a persistent beneficial effect, this would prevent a large number of deaths from stroke and ischaemic heart disease. This was found to be a cost-effective intervention (Incremental cost effectiveness ratio 1862).

A study looking at the validity of using random blood glucose to determine control of patients with diabetes found that 10mmol/l was the best cut off figure to use, but that clinicians would still assess the patients incorrectly 23% of the time. This study therefore supports further work to make HbA1c testing more available, particularly in terms of point of care testing.

Quality improvement cycles continued to show promise at improving the quality of care with relatively simple interventions. An audit of diabetes care in Cape Town showed encouraging improvement in the quality of care, while another audit showed benefit of having a more dedicated fast-lane service for patients with hypertension.

A study on the perceptions of people in Khayelitsha with regards to obesity again highlighted that upstream factors are critical in terms of access to affordable healthy food and support for physical activity that provides safe opportunities in the community.

A study on screening for cervical cancer found good knowledge and reasonable uptake of testing, but difficulty with recall and follow up of patients. Interestingly all patients in the study were supportive of HPV vaccination as an intervention to prevent cervical cancer.

Work on violence and trauma

Two published articles from a body of work on intimate partner violence (IPV) demonstrate that primary care providers do not easily identify women who attend with symptoms related to IPV. Only 10% of such women were identified in the medical record and yet their reasons for encounter suggested a number of symptoms that could be used to raise the suspicion of IPV. Following on from this a service for women survivors of IPV in primary care facilities was developed through action-research. The study presents a model of how primary care services in South Africa can incorporate a comprehensive approach to helping women with IPV. The model is currently being further piloted in the Western Cape.

The other study in this section demonstrates the value of community-orientated primary care, when outcome mapping was used to work with traditional surgeons, community elders, parents, initiates, health workers, emergency services and police to prevent mortality and morbidity amongst young men going for traditional circumcision.

Work on maternal and child health

The one study highlights the need for clear guidelines and audit of clinical practice for the use of oxytocin in caesarean sections.

Work on health services and systems

A national survey of primary care morbidity showed the common reasons for encounter and diagnoses made in South African ambulatory primary care. The survey highlighted that mental health disorders are not being recognised or treated by primary care providers. With HIV/AIDS and TB largely in separate vertical services the primary care services are dominated by non-communicable chronic diseases, as well as maternal and child health problems. The results can be used to develop guidelines for primary care, such as the PC101 primary care guideline. The results should also be used to inform the learning outcomes for the training of clinical nurse practitioners and ensure that they have the necessary competencies to work in primary care.

Educational research

The one published article describes the key national learning outcomes for the training of family physicians. These outcomes should guide the development of all training programmes in the country and ensure that family physicians are trained to fulfil their role in the district health services. The second article outlines the development of a national learning portfolio that can be used to develop and assess the competency of registrars in training in the work-based setting. Subsequent work on the portfolio has established its acceptability, feasibility and reliability. The portfolio has been implemented nationally.
Introduction: Religion is important in most African communities, but faith-based HIV prevention programmes are infrequent and very rarely evaluated. The aim of this study was to evaluate the effectiveness of a church-based peer education HIV prevention programme that focused on youth.

Design: A quasi-experimental study design compared non-randomly chosen intervention and control groups. Setting: This study was conducted in the Cape Town Diocese of the Anglican Church of Southern Africa. The intervention group of 176 teenagers was selected from youth groups at 14 churches and the control group of 92 from youth groups at 17 churches. Intervention and control churches were chosen to be as similar as possible to decrease confounding. The intervention was a 20-session peer education programme (Fikelela: Agents of Change) aimed at changing risky sexual behaviour among youth (aged 12e19 years). Three workshops were also held with parents. The main outcome measures were changes in age of sexual debut, secondary abstinence, condom use and numbers of partners.

Results: The programme was successful at increasing condom usage (condom use score 3.5 vs 2.1; p=0.02), OR 6.7 (95% CI 1.1 to 40.7), and postponing sexual debut (11.9% vs 21.4%; p=0.04) absolute difference 9.5%. There was no difference in secondary abstinence (14.6% vs 12.5%; p=0.25) or with the number of partners (mean 1.7 vs 1.4; p=0.67) and OR 2.2 (95% CI 0.7 to 7.4).

Conclusion: An initial exploratory quasi-experimental evaluation of the Agents of Change peer education programme in a church-based context found that the age of sexual debut and condom usage was significantly increased. The study demonstrated the potential of faith-based peer education among youth to make a contribution to HIV prevention in Africa. Further evaluation of the effectiveness of the programme is, however, required before widespread implementation can be recommended.

Measuring adherence to antiretroviral treatment and assessing factors affecting adherence in a state primary healthcare clinic, Mitchells Plain Community Health Centre

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Background: A need was identified to measure adherence levels to antiretroviral treatment (ART) in a resource-poor setting and to assess the impact on adherence to ART of partner disclosure, partner support, other support, and length of time between diagnosis and ART commencement.

Method: A retrospective case-control study was conducted and the information was obtained by means of a file audit. One hundred and ninety-nine participants were chosen based on the inclusion and exclusion criteria. Adherence for each patient was measured using a formula documented in a previous study. For the comparison group, 82 cases (non-adherent patients) were matched for age and gender with 82 adherent controls.

Results: The mean adherence for the total group of 199 participants was 80%. Disclosure to a partner, partner support and the time between HIV diagnosis and ART commencement was not found to make a statistically significant difference to adherence. There appeared to be a trend, though not statistically significant, between support from other sources and better adherence (P = 0.058).

Conclusion: The mean adherence level of 80% is an indication that more work is urgently needed to improve adherence levels in state-run clinics in South Africa. There appeared to be a trend, though not statistically significant, between support from other sources and better adherence (P = 0.058).

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How children access antiretroviral treatment at Kgapane District Hospital, Limpopo, South Africa

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Background: At Kgapane Hospital, Limpopo Province, only 20% of eligible children initiated antiretroviral treatment (ART) in 2007. The aim of this study was to improve the ART programme by assessing how children were accessing ART, and to explore the factors that facilitate or obstruct this access.

Method: Mixed methods were used in a descriptive study of HIV infected children admitted to the hospital over a seven-month period and their caregivers. Children’s subsequent attendance for ART was tracked and caregivers were interviewed about factors influencing access and attendance.

Results: Of 132 children initially admitted, 14 (10.6%) subsequently died and 13 (9.8%) relocated. Sixty of the remaining 105 (57.1%) returned within one month to the antiretroviral clinic, three (2.9%) attended later and 42 (40.0%) did not return at all. Quantitative data associated with poor attendance were younger age, higher CD4 count, maternal caregiver, no income and participation in the prevention of mother-to-child transmission program. Qualitative factors included a lack of money for transport, poor social support, and mothers who struggled to accept their diagnosis, had poor understanding of HIV and strong traditional beliefs. Primary care providers delayed HIV testing and referral, displayed poor attitudes, and were insufficient in number. Quantitative factors significantly associated with good attendance were prior knowledge of the child/mother’s HIV status, mother’s ART treatment and referral to the dietician.

Conclusion: There are serious deficiencies in the prevention, diagnosis and treatment of HIV in children. Factors were identified to improve health services and these highlight the need for broader strategies aimed at addressing poverty, stigma and education.

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A medical audit of the management of cryptococcal meningitis in HIV-positive patients in the Cape Winelands district, Western Cape

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Background: Cryptococcal meningitis (CM) has become the most common type of community-acquired meningitis. CM has a poor outcome if the initial in-hospital treatment does not adhere to standard guidelines. The aim of this audit was to improve the quality of the care of human immunodeficiency virus (HIV) positive patients with CM in the Cape Winelands District.

Method: Following an initial audit in 2008, the researchers and a new audit team introduced interventions, and planned a second audit cycle. The folders of 25 HIV-positive adults (admitted to three district hospitals, one regional hospital, and one tuberculosis hospital) were audited.

Results: Spinal manometry was performed more consistently in the regional hospital, than in the district hospitals. Reasons for failing to reach the 14-day amphotericin B target were in-patient deaths, drug stock problems, and renal impairment. The renal monitoring of amphotericin B treatment was suboptimal. The quality of care at district hospitals appeared to be comparable to that found at the regional hospital. The in-patient referral for antiretroviral treatment (ART) counselling was better in the district hospital setting. However, both levels of care had difficulty in achieving the four-week target between the onset of amphotericin B and onset of ART.

Conclusion: Deficiencies in the quality of care remained. Between the prior and current audit cycles, there was no consistent improvement in care at the regional hospital. An integrated care pathway document has been developed, and adopted as policy in the Cape Winelands district. Its impact on the quality of care will be evaluated by a dedicated audit team in the future.


A study of factors in the treatment support system that contribute to successful HAART adherence at Tshepang clinic

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Background: Highly Active Antiretroviral Treatment (HAART) is currently the best available treatment for HIV but adherence is crucial in managing our patients. In South-Africa, Tshepang clinic is one of the facilities which offer HAART. The aim of the study was to understand the relationship between patients’ adherence to HAART and use of treatment supporters (“buddies”). The objectives were to explore the views of adherent patients on ARVs about the role of their buddy and to describe the views of buddies of patients who are adherent to ARVs on their role as treatment supporters.

Methods: A qualitative study included 22 respondents who were interviewed in 2 focus groups for patients’ adherent to HAART and 2 focus groups with treatment supporters.

Results: The buddy’s underlying knowledge of HIV was important in improving adherence. Disclosure of the HIV status was a key element in the management of HIV/AIDS despite the barriers and the buddy was expected to assist the patient in that regard. The buddy should be trustworthy and capable of complying with the need for confidentiality. Mutual respect and good communication between the buddy and the patient were to be encouraged. A buddy is expected to take the patient through the process of acceptance of the HIV status even in cases where the patient has started HAART, but is still in denial. The mindset of the buddy and the patient is the foundation on which every strategy should be built. Buddies of patients with other co-morbidities should be allowed to collect medications on their behalf. The buddies should take an interest in the lifestyle and behaviour of their patients.

Conclusion: The 13 themes generated from the respondents were well known in our health facility, but they have not been fully understood. The findings of this study can be applied at Tshepang clinic in order to improve support of patients with HIV and adherence to HAART.
A comparison of treatment response in two cohorts of patients with HIV taking once daily versus twice daily ART in Gaborone, Botswana.

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**Background:** With the reduction of mortality and the indisputable positive results seen from the use of Anti-Retroviral Treatment (ART), the demand both from people living with HIV and health care providers to phase in less toxic ART while maintaining simplified fixed-dose combinations has increased considerably. Botswana like most low-resource countries has adapted the WHO recommendation of daily ART as opposed to the previous twice daily ART. The aim was to compare the treatment response at 3-months between two cohorts of patients taking ART once vs. twice daily.

**Method:** The study was a retrospective comparative cohort study. Three ART sites were selected and a total of 263 patient records were selected, data extracted and analysed.

**Results:** The overall sample was predominantly male (75.2%). An overwhelming majority (95.9%) of patients in both arms had undetectable viral loads (VL<400). A significant association was found between the type of regimen and viral load (p=0.03). The difference in CD4 between the two arms was not statistically significant (p=0.66).

**Conclusion:** Virological and immunological response at 3 months post initiation between once daily and twice daily ART in Gaborone Botswana was shown to be comparable.
Background: Diabetes is an important contributor to the burden of disease in South Africa and prevalence rates as high as 33% have been recorded in Cape Town. Previous studies show that quality of care and health outcomes are poor. The development of an effective education programme should impact on self-care, lifestyle change and adherence to medication; and lead to better control of diabetes, fewer complications and better quality of life.

Methods:
Trial design: Pragmatic cluster randomized controlled trial
Participants: Type 2 diabetic patients attending 45 public sector community health centres in Cape Town
Interventions: The intervention group will receive 4 sessions of group diabetes education delivered by a health promotion officer in a guiding style. The control group will receive usual care which consists of ad hoc advice during consultations and occasional educational talks in the waiting room.
Objective: To evaluate the effectiveness of the group diabetes education programme
Outcomes: Primary outcomes: diabetes self-care activities, 5% weight loss, 1% reduction in HbA1c. Secondary outcomes: self-efficacy, locus of control, mean blood pressure, mean weight loss, mean waist circumference, mean HbA1c, mean total cholesterol, quality of life
Randomisation: Computer generated random numbers
Blinding: Patients, health promoters and research assistants could not be blinded to the health centre’s allocation
Numbers randomized: Seventeen health centres (34 in total) will be randomly assigned to either control or intervention groups. A sample size of 1360 patients in 34 clusters of 40 patients will give a power of 80% to detect the primary outcomes with 5% precision. Altogether 720 patients were recruited in the intervention arm and 850 in the control arm giving a total of 1570.

Discussion: The study will inform policy makers and managers of the district health system, particularly in low to middle income countries, if this programme can be implemented more widely.

Views of patients on a group diabetic education programme using motivational interviewing in underserved communities in South Africa: Qualitative study

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Background: Diabetes is a significant contributor to the burden of disease in South Africa and to the reasons for encounter in primary care. There is little structured and systematic education of patients that supports self-care. This study was a qualitative assessment of a diabetes group education programme in Community Health Centres of the Cape Town Metropolitan District. The programme offered four sessions of group education and was delivered by trained health promoters using motivational interviewing as a communication style. The aim of the study was to evaluate the programme by exploring the experiences of the patients who attended.

Methods: Thirteen individual in depth interviews were conducted. Each patient had attended the educational programme and came from a different health centre in the intervention arm of a larger randomised controlled trial. The interviews were audiotaped, transcribed and then analyzed using the framework approach.

Results: Patients expressed that they gained useful new knowledge about diabetes. The use of educational material was experienced positively and enhanced recall and understanding of information. The general experience was that the health promoters were competent, utilised useful communication skills and the structure of sessions was suitable. Patients reported a change in behaviour especially with diet, physical activity, medication and foot care. There were organizational and infrastructural problems experienced specifically with regards to the suitability of the venue and communication of information regarding the timing and location of the sessions.

Conclusion: This study supports the wider implementation of this programme following consideration of recommendations from the patient feedback and results of the larger randomised controlled trial.

The ability of health promoters to deliver group diabetes education in South African primary care

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Background: Diabetes makes a significant contribution to the burden of disease in South Africa. This study assesses a group diabetes education programme using motivational interviewing in public sector health centres serving low socio-economic communities in Cape Town. The programme was delivered by mid-level health promotion officers (HPOs). The aim of the study was to explore the experience of the HPOs and to observe their fidelity to the educational programme.

Methods: Three focus group interviews were held with the 14 HPOs who delivered the educational programme in 17 health centres. Thirty-three sessions were observed directly and the audio tapes were analysed using the motivational interviewing (MI) integrity code.

Results: The HPOs felt confident in their ability to deliver group education after receiving the training. They reported a significant shift in their communication style and skills. They felt the new approach was feasible and better than before. The resource material was found to be relevant, understandable and useful. The HPOs struggled with poor patient attendance and a lack of suitable space at the facilities. They delivered the majority of the content and achieved beginning-level proficiency in the MI guiding style of communication and the use of open questions. The HPOs did not demonstrate proficiency in active listening and continued to offer some unsolicited advice.

Conclusion: The HPOs demonstrated their potential to deliver group diabetes education despite issues that should be addressed in future training and the district health services. The findings will help with the interpretation of results from a randomised controlled trial evaluating the effectiveness of the education.

Clinical audit of diabetes management can improve the quality of care in a resource-limited primary care setting.


Objective: To determine whether clinical audit improved the performance of diabetic clinical processes in the health district in which it was implemented.

Design: Patient folders were systematically sampled annually for review.

Setting: Primary health-care facilities in the Metro health district of the Western Cape Province in South Africa.

Participants: Health-care workers involved in diabetes management.

Intervention: Clinical audit and feedback.

Main outcome measure: The Skillings-Mack test was applied to median values of pooled audit results for nine diabetic clinical processes to measure whether there were statistically significant differences between annual audits performed in 2005, 2007, 2008 and 2009. Descriptive statistics were used to illustrate the order of values per process.

Results: A total of 40 community health centres participated in the baseline audit of 2005 that decreased to 30 in 2009. Except for two routine processes, baseline medians for six out of nine processes were below 50%. Pooled audit results showed statistically significant improvements in seven out of nine clinical processes.

Conclusions: The findings indicate an association between the application of clinical audit and quality improvement in resource-limited settings. Co-interventions introduced after the baseline audit are likely to have contributed to improved outcomes. In addition, support from the relevant government health programmes and commitment of managers and frontline staff contributed to the audit’s success.


Beliefs and attitudes to obesity, its risk factors and consequences in a Xhosa community: a qualitative study.

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Background: The issue of obesity and overweight is often not recognised as a problem in the Xhosa-speaking community of Khayelitsha despite high levels of obesity and associated diseases. This study aimed to explore this phenomenon by trying to understand how people think and feel about their weight, with a view to improving interventions that could reduce the burden of disease related to the risk factors of overweight and obesity.

Methods: A qualitative study recorded interviews of 8 purposively selected subjects who were long term Xhosa-speaking residents, 18 years and older, with a body mass index > 30 and no known diabetes, hypertension or osteoarthritis at Nolungile Community Health Centre. Khayelitsha is a peri-urban black community in Cape Town, South Africa.

Results: Interviewed subjects identified various dietary factors in their obesity. These included overeating widely available fatty diets from street vendors, with a perception that cheap food is fatty food. They also attributed their obesity to other factors like poverty and clearly expressed that it is expensive to eat healthily. Other reasons given are a sedentary lifestyle, fear of embarrassment, safety issues and a poor support system regarding exercise. Respondents differed in their reactions towards their obesity, but generally accepted their condition. Obesity was associated with being more affluent and having good health, respondents were aware of its effects on performing their daily activities, risk of chronic illnesses, difficulties with dressing, problems with getting older and other negative effects.

Conclusions: Respondents expressed ambivalent views, with both pros and cons of obesity identified in their context. Environmental factors that impacted on this ambivalence were also identified. Based on these understandings, health intervention should be directed at addressing such local beliefs and behaviour at the community level, with a need for attention to the environmental factors.
The validity of monitoring the control of diabetes with random blood glucose testing

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The validity of monitoring the control of diabetes with random blood glucose testing

Background: It is important to decide on whether a patient with diabetes has good glycaemic control in order to guide treatment and offer behaviour change counselling. Currently random blood glucose (RBG) is usually used in public sector primary care to make this decision. This study investigates the validity of these decisions.

Methods: Retrospective data, from a district hospital setting, was used to analyse the correlation between glycated haemoglobin (HbA1c) and RBG, the best predictive value of RBG and its predictive properties. Results: The best value of RBG to predict control (HbA1c<7%) was 9.8mmol/l. This threshold however only gave a sensitivity of 77% and a specificity of 75%.

Conclusion: Clinicians will be wrong 23% of the time when using RBG to determine glycaemic control and attempts should be made to make HbA1c more available for clinical decision making. Point of care testing for HbA1c should be considered.

A comparison of the quality of chronic care of hypertensive patients attending a fast lane clinic versus a standard clinic in Ditsobotla sub district, Ngaka Modiri Molema district in North West province in South Africa.

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A comparison of the quality of chronic care of hypertensive patients attending a fast lane clinic versus a standard clinic in Ditsobotla sub district, Ngaka Modiri Molema district in North West province in South Africa.

Background: Ditsobotla sub district is in Ngaka Modiri Molema District, North West province, South Africa. Patients with chronic diseases in the sub district are mainly taken care of at the clinics. There are two types of clinics that cater for chronic patients – fast lane and standard clinics. Fast lane clinics cater for patients with chronic diseases and family planning only whilst standard clinics cater for acute illnesses, chronic patients and family planning. Fast lane clinics were started because of the dissatisfaction of chronic patients with long waiting times. There were no standardised guidelines for the establishment of fast lane clinics. This study attempted to compare the quality of care given to patients at fast lane and standard clinics.

Methods: This was a cross sectional descriptive study using a validated audit tool from the Western Cape, Department of Health to assess facilities and patients folders. There were 145 and 55 medical record systematically selected from fast lane and standard clinics respectively. Selected patients needed to have been attending for hypertension treatment from January to December 2010.

Results: The patients at the standard clinic had better adherence to their appointments than fast lane clinic, more counselling on diet, exercise, smoking and alcohol and better recording of blood pressure and body weight than fast lane clinic (p< 0.05). However, fast lane clinics had more patients with well controlled blood pressure, normal creatinine levels and normal random cholesterol than standard clinic (p<0.05). There were no differences between the clinics in terms of equipment and other processes of care (p>0.05).

Conclusion: Fast lane clinics had better outcomes and thus quality of care than standard clinics. Therefore maintenance and expansion of this type of clinic may be of value.
Cervical cancer prevention: Perceptions of women attending Knysna primary health care clinics

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Background: Cervical cancer is the cancer with the highest prevalence and mortality in Africa. The current screening method is by pap-smear, but other methods of primary prevention against human papillomavirus (HPV) by immunization are currently being investigated. The aim of this study was to explore the experience, knowledge, attitudes and beliefs of women attending clinics in the Knysna sub-district regarding the current cervical screening programme and to obtain their opinion on the possible alternatives methods available.

Method: A prospective mixed methods study was conducted in six primary health care clinics in the Knysna sub-district. Data was collected from 206 sequentially selected women aged 20-65 years by means of a questionnaire. Six focus group discussions were held.

Results: 179 (87%) women knew that a pap-smear was to screen for pre-malignant or malignant cells. 17 (8%) did not believe that cervix cancer is preventable by regular pap-smears and 204 (99%) believed that abnormal cells are treatable before they become cancer. 123 (60%) did not know that different screening programmes exist for HIV positive and negative women. 141 (68%) had had a pap-smear and the result was collected by 115 (82%) of which 108 (77%) reported understanding the meaning. 14 (10%) were referred for further treatment, 47 (33%) were requested to return for another smear the subsequent year. Of this collective group 31 (62%) complied. The Visual Inspection with Acetic acid (VIA) method was acceptable to 153 (74%). HPV DNA-testing was acceptable to 171 (83%). HPV vaccination was acceptable to all participants. The focus groups identified the following themes: knowledge, application, personal esteem, community influence and protection of youth.

Conclusion: Participants had a good basic knowledge of pap smears. Uptake of pap-smears was acceptable but the follow-through was incomplete and influential, external factors were identified. The influence of the community’s opinion on the women’s ideas should not be disregarded. The participants were serious about protecting the youth and felt unable to do so within the current system. Alternative methods of cervix cancer prevention are acceptable to the community in Knysnas and should be explored further.
Introduction: Interpersonal violence in South Africa is the second highest contributor to the burden of disease after HIV/AIDS and 62% is estimated to be from intimate partner violence (IPV). This study aimed to evaluate how women experiencing IPV present in primary care, how often IPV is recognized by health care practitioners and what other diagnoses are made.

Methods: At two urban and three rural community health centres, health practitioners were trained to screen all women for IPV over a period of up to 8 weeks. Medical records of 114 thus identified women were then examined and their reasons for encounter (RFE) and diagnoses over the previous 2 years were coded using the International Classification of Primary Care. Three focus group interviews were held with the practitioners and interviews with the facility managers to explore their experience of screening.

Results: IPV was previously recognized in 11 women (9.6%). Women presented with a variety of RFE that should raise the index of suspicion for IPV—headache, request for psychiatric medication, sleep disturbance, tiredness, assault, feeling anxious and depressed. Depression was the commonest diagnosis. Interviews identified key issues that prevented health practitioners from screening.

Conclusion: This study demonstrated that recognition of women with IPV is very low in South African primary care and adds useful new information on how women present to ambulatory health services. These findings offer key cues that can be used to improve selective case finding for IPV in resource-poor settings. Universal screening was not supported by this study.

A comprehensive model for intimate partner violence in South African primary care: action research

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Background: Despite extensive evidence on the magnitude of intimate partner violence (IPV) as a public health problem worldwide, insubstantial progress has been made in the development and implementation of sufficiently comprehensive health services. This study aimed to implement, evaluate and adapt a published protocol for the screening and management of IPV and to recommend a model of care that could be taken to scale in our underdeveloped South African primary health care system.

Methods: Professional action research utilised a co-operative inquiry group that consisted of four nurses, one doctor and a qualitative researcher. The inquiry group implemented the protocol in two urban and three rural primary care facilities. Over a period of 14 months the group reflected on their experience, modified the protocol and developed recommendations on a practical but comprehensive model of care.

Results: The original protocol had to be adapted in terms of its expectations of the primary care providers, overly forensic orientation, lack of depth in terms of mental health, validity of the danger assessment and safety planning process, and need for ongoing empowerment and support. A three-tier model resulted: case finding and clinical care provision by primary care providers; psychological, social and legal assistance by ‘IPV champions’ followed by a group empowerment process; and then ongoing community-based support groups.

Conclusion: The inquiry process led to a model of comprehensive and intersectoral care that is integrated at the facility level and which is now being piloted in the Western Cape, South Africa.

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Evaluation of a project to reduce morbidity and mortality from traditional male circumcision in Umlamli, Eastern Cape, South Africa: outcome mapping

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Background: Traditional circumcision is common among the amaXhosa in Umlamli, Eastern Cape. Circumcision is associated with high morbidity and mortality. The need to reduce complications was identified as a priority by the local community. The aim was to design, implement and evaluate a project to improve the safety of traditional circumcision.

Method: A safe circumcision team was established and comprised health workers, community leaders and traditional surgeons. Outcome mapping involved three stages: intentional design, outcome, and performance monitoring and evaluation. The eight boundary partners were the initiates, parents, community leaders, traditional surgeons, the District Health Services, the provincial Department of Health, the emergency services and the police. Outcomes, progress markers and strategies were designed for each boundary partner. The team kept an outcome and strategy journal and evaluated hospital admissions, genital amputations and mortality.

Results: Ninety-two initiates were circumcised, with two admissions for minor complications, compared to 10 admissions, two amputations and two deaths previously. More than 70% of the outcome measures were achieved in all boundary partners, except emergency services and the Department of Health. The key aspects were: the use of outcome mapping, the participatory process, a lower age limit, closure of illegal schools, consolidation of accredited schools, training workshops for traditional surgeons, private treatment room for initiates, assistance with medical materials, pre-circumcision examination, certificates of fitness.

Conclusion: This study has shown the value of community-orientated primary care initiatives to address local health problems. Key lessons were identified and the project could easily be replicated in communities facing similar challenges.

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Use of Oxytocin during Caesarean Section at Princess Marina Hospital, Botswana: An audit of clinical practice

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Background: Oxytocin is widely used for the prevention of postpartum haemorrhage. In the setting of Caesarean section (CS), the dosage and mode of administering oxytocin differs according to different guidelines. Inappropriate oxytocin doses have been identified as contributory to some cases of maternal deaths. The main aim of this study was to audit the current standard of clinical practice with regard to the use of oxytocin during CS at a referral hospital in Botswana.

Methods: A clinical audit of pregnant women having CS and given oxytocin at the time of the operation was conducted over a period of three months. Data included indications for CS, oxytocin dose regimen, prescribing clinician’s designation, type of anaesthesia for the CS and estimated blood loss.

Results: A total of 139 case records were included. The commonest dose was 20 IU infusion (31.7%). The potentially dangerous regimen of 10 IU intravenous bolus of oxytocin was used in 12.9% of CS. Further doses were utilized in 57 patients (41%). The top three indications for CS were fetal distress (36 patients, 24.5%), dystocia (32 patients, 21.8%) and a previous CS (25 patients, 17.0%). Estimated blood loss ranged from 50 mL – 2000 mL.

Conclusion: The use of oxytocin during CS in the local setting does not follow recommended practice. This has potentially harmful consequences. Education and guidance through evidence based national guidelines could help alleviate the problem.

http://dx.doi.org/10.4102/phcfm.v5i1.418
Background: Recent studies have described the burden of disease in South Africa. However, these studies do not tell us which of these conditions commonly present to primary care providers, how these conditions may present and how providers make sense of them in terms of their diagnoses. Clinical nurse practitioners are the main primary care providers and need to be better prepared for this role. This study aimed to determine the range and prevalence of reasons for encounter and diagnoses found among ambulatory patients attending public sector primary care facilities in South Africa.

Methodology/Principal Findings: The study was a multi-centre prospective cross-sectional survey of consultations in primary care in four provinces of South Africa: Western Cape, Limpopo, Northern Cape and North West. Consultations were coded prior to analysis by using the International Classification of Primary Care-Version 2 in terms of reasons for encounter (RFE) and diagnoses. Altogether 18856 consultations were included in the survey and generated 31451 reasons for encounter (RFE) and 24561 diagnoses. Women accounted for 12526 (66.6%) and men 6288 (33.4%). Nurses saw 16238 (86.1%) and doctors 2612 (13.9%) of patients. The top 80 RFE and top 25 diagnoses are reported and ongoing care for hypertension was the commonest RFE and diagnosis. The 20 commonest RFE and diagnoses by age group are also reported.

Conclusions/Significance: Ambulatory primary care is dominated by non-communicable chronic diseases. HIV/AIDS and TB are common, but not to the extent predicted by the burden of disease. Pneumonia and gastroenteritis are commonly seen especially in children. Women’s health issues such as family planning and pregnancy related visits are also common. Injuries are not as common as expected from the burden of disease. Primary care providers did not recognise mental health problems. The results should guide the future training and assessment of primary care providers.

Reasons for encounter and diagnoses of patients attending primary care clinics in the Saldanha Bay and Swartland rural sub districts, Western Cape Province: A prospective cross-sectional survey.

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Background: The primary health care (PHC) system was designed to provide equitable and accessible healthcare to all, but the system remains plagued by many challenges. Key to overcoming these challenges is to have a better understanding of the reasons why patients access the service in the first instance and also of the case mix of diseases seen. The aim of the study was to assess the main reasons for encounter (RFE) and the diagnoses made by the healthcare providers of patients attending primary health care clinics in the two rural sub districts of Saldanha Bay and Swartland in the Western Cape.

Methods: The prospective cross-sectional study involved 13 healthcare providers (mainly clinical nurse practitioners) working at 10 randomly selected primary healthcare facilities in the two sub districts. The participants were asked to record the RFE’s and diagnoses of all the patients they consulted on a data collection sheet. Data was collected on six days over a 12 month period from August 2009 to June 2010. The International Classification of Primary Care (ICPC-2) system was used to code the RFE’s and problems defined during all patient encounters.

Results: Out of 1277 consultations there were 2091 RFE’s and 1706 diagnoses. The majority of complaints were respiratory (19.9%), digestive (11.2%), musculoskeletal (9.6%), cardiovascular (9.3%), skin (8.8%) and general/unspecified (7.6%). The majority of diagnoses were respiratory (21.4%), cardiovascular (14.2%), skin (9.1%) and digestive (8.6%). Hypertension (10.8%) was the commonest condition. TB and HIV occurred at low frequency (2.9% and 1.5% respectively). Gender did not influence the number of RFE’s and diagnoses. The majority of patients seen during all encounters were children under the age of 4 years (17.3%).

Conclusion: We were able to ascertain the RFE and diagnoses made by the health care providers of patients attending public primary care facilities in the rural sub districts of Saldanha Bay and Swartland. This information can be used for guideline development and training as well as the planning of services.

Reasons why patients with primary health care problems access a secondary hospital emergency centre

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Background: Many patients present to an emergency centre (EC) with problems that could be managed at primary healthcare (PHC) level. This has been noted at George Provincial Hospital in the Western Cape province of South Africa. In order to improve service delivery, we aimed to determine the patient-specific reasons for accessing the hospital EC with PHC problems.

Method: A descriptive study using a validated questionnaire to determine reasons for accessing the EC was conducted among 277 patients who were triaged as green (routine care), using the South African Triage Score. The duration of the complaint, referral source and appropriateness of referral were recorded.

Results: Of the cases 88.2% were self-referred and 30.2% had complaints persisting for more than a month. Only 4.7% of self-referred green cases were appropriate for the EC. The three most common reasons for attending the EC were that the clinic medicine was not helping (27.5%), a perception that the treatment at the hospital is superior (23.7%), and that there was no PHC service after-hours (22%).

Conclusions: Increased acceptability of the PHC services is needed. The current triage system must be adapted to allow channelling of PHC patients to the appropriate level of care. Strict referral guidelines are needed.

Factors influencing specialist outreach and support services to rural populations in the Eden and Central Karoo districts of the Western Cape – a Delphi study

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Introduction: Access to health care often depends on where one lives. Rural populations have significantly poorer health outcomes than their urban counterparts. Specialist outreach to rural communities is one way of improving access to care. A multifaceted approach to the purpose of outreach may improve both access and health outcomes, while an approach that just relocates the outpatient clinic from the referral hospital may only improve access. In principle, stakeholders agree that specialist outreach and support (O&S) to rural populations is necessary. In practice however, there are factors that influence whether or not O&S reaches its goals and is sustainable.

Aim: The aim was to better understand the factors associated with the success or failure of specialist O&S to rural populations in the Eden and Central Karoo districts in the Western Cape.

Method: An anonymous three stage Delphi process was followed to obtain consensus in a specialist and district hospital panel.

Results: Twenty-eight specialist and 31 district hospital experts were invited, with response rates between 60.7-71.4% and 58.1-74.2 % respectively across the three rounds. Relationships, communication and planning were found to be the key factors influencing the success of O&S and shaping tension between O&S as service delivery vs. capacity building. The success of the O&S programme is dependent on a site specific model that is acceptable to both the outreaching specialists and the hosting district hospital.

Conclusion: Attention to good communication, constructive feedback and improved planning may enable the development of more effective and sustainable O&S.

Advance directives or living wills: reflections of general practitioners and frail care coordinators in a small town in KwaZulu-Natal

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Background: Living wills have long been associated with end-of-life care. This study explored the promotion of living wills by general practitioners (GPs) and frail care nursing coordinators who were directly involved in the care of the elderly in Howick, KwaZulu-Natal. The study also explored their views regarding the pro forma living will disseminated by the Living Will Society.

Subjects: Seven GPs and three frail care nursing coordinators; 10 in total.

Design: The design was qualitative in-depth interviews and analysis, using the Framework method.

Results: Both doctors and nursing staff understood the concept of living wills and acknowledged that they were beneficial to patients, their families and staff. They were concerned about the lack of legal status of the living will. They felt that the pro forma document from the Living Will Society was simple and clear. Despite identifying the low level of living will usage among patients, doctors and nursing staff felt that third-party organisations and individuals should promote living wills to patients, rather than promoting them to patients themselves.

Conclusion: GPs and frail care nurse coordinators were knowledgeable about living wills in general, and the Living Will Society pro forma document in particular. They valued the contribution that living wills make to the care of the elderly, as they benefit patients, their families, healthcare workers and the health system. They also valued the pro forma living will document from the Living Will Society for its clarity and simplicity. However, the GPs and frail care nursing coordinators viewed the living will process as patient driven. They viewed their main role to be that of custodians, and not advocates, of the living wills.

Development of a portfolio of learning for postgraduate family medicine training in South Africa: a Delphi study

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**Background:** Within the 52 health districts in South Africa, the family physician is seen as the clinical leader within a multi-professional district health team. Family physicians must be competent to meet 90% of the health needs of the communities in their districts. The eight university departments of Family Medicine have identified five unit standards, broken down into 85 training outcomes, for postgraduate training. The family medicine registrar must prove at the end of training that all the required training outcomes have been attained. District health managers must be assured that the family physician is competent to deliver the expected service. The Colleges of Medicine of South Africa (CMSA) require a portfolio to be submitted as part of the uniform assessment of all registrars applying to write the national fellowship examinations. This study aimed to achieve a consensus on the contents and principles of the first national portfolio for use in family medicine training in South Africa.

**Methods:** A workshop held at the WONCA Africa Regional Conference in 2009 explored the purpose and broad contents of the portfolio. The 85 training outcomes, ideas from the WONCA workshop, the literature, and existing portfolios in the various universities were used to develop a questionnaire that was tested for content validity by a panel of 31 experts in family medicine in South Africa, via the Delphi technique in four rounds. Eighty five content items and 27 principles were tested. Consensus was defined as 70% agreement.

**Results:** Consensus was reached on 61 of the 85 national learning outcomes. The panel recommended that 50 be assessed by the portfolio and 11 should not be. No consensus could be reached on the remaining 24 outcomes and these were also omitted from the portfolio. The panel recommended that various types of evidence be included in the portfolio. The panel supported 26 of the 27 principles, but could not reach consensus on whether the portfolio should reflect on the relationship between the supervisor and registrar.

**Conclusion:** A portfolio was developed and distributed to the eight departments of Family Medicine in South Africa, and the CMSA, to be further tested in implementation.

Outcomes for family medicine postgraduate training in South Africa

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This article described the final result of a national process to agree on learning outcomes for the training of family physicians. The five unit standards were that the candidate will be able to:

- Effectively manage himself or herself, his or her team and his or her practice in any sector with visionary leadership and self-awareness in order to ensure the provision of high-quality, evidence-based care.
- Evaluate and manage patients with both undifferentiated and more specific problems cost-effectively according to the biopsychosocial approach.
- Facilitate the health and quality of life of the community
- Facilitate the learning of others regarding the discipline of family medicine, primary health care, and other health-related matters.
- Conduct all aspects of health care in an ethical and professional manner.

For each of these unit standards a number of specific learning outcomes were described.
