REPORT OF THE DEPARTMENT OF HEALTH:
WESTERN CAPE PROVINCIAL HEALTH
RESEARCH COMMITTEE PRIORITY SETTING
WORKSHOP

Date: Monday, 28 June 2010

Venue: The Colleges of Medicine of South
Africa, 17 Milner Road, Rondebosch, Cape
Town
FOREWARD

Understanding the research priorities in the Western Cape is fundamental to approving, planning and decision making with regards to research. At a provincial level, there needs to be an understanding of the research needs with a specific focus on areas of interest. The intention with this workshop was to collectively create a list of priority research questions which would form the basis for research in the future as well as a guide for the Provincial Health Research Committee and those individuals, institutions or companies interested in conducting research in the Western Cape.

I would like to thank all those who attended and contributed in particular, Dr Astrid Dearham for her efforts in making this workshop a success.

Prof Craig Househam

Head of Health: Western Cape
# TABLE OF CONTENTS

Background……………………………………………………………………………………….4

Group Discussions

- Group 1. HIV & AIDS, TB, other Infections ........................................6
- Group 2. Chronic Diseases, including Mental Health and Injuries ........9
- Group 3. Child, Maternal and Women’s Health .................................10
- Group 4. Financing, Health Systems Management and unclassified inputs …13

Appendix A : Department Strategic Goals ......................................................19

Appendix B: Agenda / Programme of the Workshop ......................................42
Background

“...research is universally recognised as a tool used for generating information that shapes decision-making, policy, practice and service delivery. In our context of limited resources it is thus critical that research is appropriately prioritised, co-ordinated and managed to ensure that such resources make the greatest impact on the health of the citizens of Western Cape.” (HoD, 2010)

In accordance with the Health Research Policy (2001) and National Health Act of 2003, the Western Cape Provincial Health Research Committee (PHRC) was established and its Terms of Reference were adopted in 2009. The main purpose of the PHRC is to liaise with all research stakeholders within the province to co-ordinate health research as well as ensuring that research activities are largely directed towards the greatest health needs both in the province and in the country.

Following the finalization of the Guidelines for Approval of Health Research, the Head of Health and the PHRC planned the first Provincial Research Priority-setting workshop for Monday, the 28th June 2010. Prior to the workshop, research inputs were requested from a wide range of service managers and academic institutions. These inputs were collated into a framework that was based on the Western Cape’s Burden of Diseases project (2006) and the Departmental Strategic goals (Appendix A). The inputs became the basis of group discussions on the day of the workshop. The workshop was attended by a diverse group of health services managers from provincial and local government as well as representatives of non-government organisations, universities, research institutions and members of the provincial health research (advisory) committee. See list of workshop attendees (attached).

The Head of Department, Prof Craig Househam, opened the workshop and extended a welcome to all who attended.

Chief Director of Health Programmes, Mr J Ledwaba, provided an overview of the proposed workshop agenda (Appendix B). The Chair of the PHRC, Prof J Volmink, provided the background to the workshop and introduced the members of the PHRC and its Terms of Reference. The Deputy Chair of the PHRC, Prof R Ehrlich, provided an input entitled “Turning health problems into research questions”.

The facilitator of the workshop, Prof W Pick, provided the historical context, both international and local, for this very important initiative. He also outlined the envisaged aim of the workshop.

Attendees were pre-allocated into four groups in order to ensure representation while not losing sight of the need for appropriateness in terms of insight, experience and personal preference. The four groups were allocated the following topics:
• Group 1. HIV & AIDS, TB, other Infections
• Group 2. Chronic Diseases, including Mental Health and Injuries
• Group 3. Child, Maternal and Women’s Health
• Group 4. Financing, Health Systems Management and unclassified inputs

The collated report on health research priorities prepared from the inputs solicited prior to the workshop were provided to all participants in order to facilitate the formulation of research questions in the different areas to which participants were allotted. The groups were asked to formulate at least five research questions relevant to their areas of discussion based on the inputs that were provided prior to the workshop. They were also asked to suggest what criteria they would use for prioritising the research questions.

What follows is a summary of the discussions that took place in each of the groups and a list of priority research questions that participants suggested. The list of priority research questions provides an excellent basis for the research agenda which will guide the PHRC and the Western Cape health research community. The original format of the discussions of the groups has been retained.
GROUP DISCUSSIONS

GROUP 1: HIV & AIDS, TB, OTHER INFECTIONS

Group 1 approached the task by providing a framework for developing a research programme for addressing the challenges of HIV & AIDS, TB and other infections.

The priority challenges facing the Western Cape health department were categorized into prevention on the one hand, and diagnosis and treatment issues on the other:

- **Prevention**
  - PMTCT
  - TB/HIV/STI – HCT campaign
  - Social mobilization

- **Diagnosis and Treatment**
  - HIV – ART, general care
  - TB
  - STIs

The group identified certain features of the macro-environment that would influence the research to be conducted. The important considerations were:

- **Political**
  - Millennium Development Goals
  - Children, youth, vulnerable groups

- **Economic**
  - Finances

- **Social**
  - Equity
  - Access

- **Environmental**
Criteria for prioritization

In determining the criteria for prioritization the group identified the following:

- The *feasibility* of research would be a function of its timing, which should be aligned to services needs. This would be particularly important where critical and urgent decisions are to be taken.
  - The feasibility of research would also be determined by the availability of funding. Research requires financial resources and where this is not available, research becomes unfeasible.

- *Relevance* is another critical criterion for prioritization. The relevance of research can be measured by its responsiveness to the health services’ needs. Of course, this relationship is reciprocal as the results of research may highlight certain needs.
  - Another determinant of relevance is the degree of flexibility of research and researchers in relation to a changing environment.
  - A further determinant of relevance is the conditions of effectiveness (access, use, integration, quality, availability)

- A final criterion for prioritization identified by group 1 was the *potential outcomes or impact* of the research. The outcomes or impact can be measured in a number of ways:
  - The burden of disease (BOD) as indicated by measures of morbidity, mortality, incidence and prevalence
  - The functioning of the health system
  - Service delivery, design and functioning
  - The impact of research on the process of policy making
  - The impact on the community

Group 1 went on to examine and discuss the important issue of the nature of the relationship between researchers and the providers of health services. Out of this discussion there emerged a set of rules for engagement between health service providers and academics:

- Familiarization with current policies, service activities, challenges, priorities. Platform to be created before research conducted
• Synergy of research with and strengthening of service work.
• Respect and Assertiveness
• Feedback

These rules are captured in the diagram below.

![Partnership Diagram]

Research questions

The group then listed five research questions which they felt needed to be answered. These questions were:

1. Integration of TB/HIV and across all health programmes, platforms, levels of care and categories of staff.
2. Special groups: adolescents (men, women) & men (partner).
3. Policy implementation: how to convert policy into practice.
4. Assessment of programme & policy performance (e.g. prevention strategies).
5. Appropriate use of info for action; development of new tools (e.g. Monitoring & Evaluation, surveillance, Quality Assessment tools)
GROUP 2: CHRONIC DISEASE; MENTAL HEALTH; INJURY & SUBSTANCE ABUSE

Group 2 used a theme to approach the priority setting for these conditions and the theme was ‘How responsive is the health system to chronic diseases, mental health (MH), injury and substance abuse?’ This theme is broad to enable a wide variety of people from different sectors to answer the question. For example, “health system” can mean facilities, programmes, Information Management, Human Resources; the department; legislation etc. Similarly, responsiveness can be interpreted in many ways as well.

The group emphasized the importance of stakeholder consultation (community, funders, interest groups, health focus groups etc) in coming up with research questions and priorities and cautioned that one should not just look within the Department of Health to develop and implement this task.

Research questions

From a service perspective, the research questions were centered on any of the following factors, namely input; output; process; outcome and impact

1. What are the effective models of care for chronic disease vs. the current models of health care that tend to focus on acute care?

2. How does one develop and evaluate implementation of an intervention and what is the best way to measure the impact for all the above conditions

3. What are the most effective multi-sectoral strategies to prevent substance abuse and injuries

4. How to improve the detection of patients with common Mental Health and substance abuse disorders within the district health system, including incorporation of an evidence-based response

5. What are the policy and regulatory imperatives that would provide an enabling environment to respond to chronic diseases, injuries and substance abuse

Criteria for prioritization

Would be based on:

1. Size of the problem (Burden of disease)

2. Provincial goals as influenced by national (e.g. 10 point plan) and internationally agreed goals (e.g. MDGs)
3. Feasibility, in terms of the health department and tertiary institutions’ interests and operational capacity

**GROUP 3: MOTHER WOMEN’S AND CHILD HEALTH**

Group 3 spent time discussing issues of process:

1. How have the questions been generated (from both the academic and services side)?

2. It was important to recognize that the list of questions that was generated is not exhaustive

3. It was important to realize that while there was a need to generate questions in the group, there was also a need for broader consultation with other stakeholders:
   
   a. What is the impact of campaigns: Immunizations, diarrhoea Season Vaccinations and EPI, on diseases such as diarrhoeal disease, for example

   b. What about HIV issues and the integration of HIV/TB in relation to mother, women’s and child health

   c. Malnutrition and development issues are also significant areas for research

   d. Non-infectious Diseases: like asthma and cardiac illness should not be neglected

4. Access to Termination of Pregnancy (TOP) services

5. Clinical Forensic issues need research

6. Teenage pregnancy

In summary, five broad areas for interrogation were identified. These were:

1. Broad screening

2. Antenatal and postpartum care

3. TOP

4. Clinical Forensics

5. Family planning with Focus on Teenage pregnancy
The group then developed a framework for prioritization of research.

Framework for prioritization

A set of questions were posed in order to develop the criteria for prioritization. These were:

1. Burden of Disease - does the size of the problem justify doing research in this area e.g. diarrhoeal disease vs. cardiac?

2. Does it answer implementation questions around effectiveness and efficiency?

3. Is it feasible?

4. Are our systems effective? What interventions are available? What new systems are available? What is the possibility of implementing?

The group also identified an additional set of parameters for determining criteria for prioritization.

Criteria for prioritization

These were:

- Provision
- Utilization
- Coverage
- Impact
- How does it link to prevention?

The group then finally assembled a list of questions for research in this area:

Research questions

1. Child Health
   a. TB/HIV Integration
   b. EPI
   c. Management of common Childhood Illnesses: Malnutrition, Pneumonia, Diarrhoea, Chronic Disease
2. Women’s Health

   a. Health systems issues were identified that needed attention: For example, what are the components of a package of care for reproductive health services: components of the full package may need prioritization. Another question is, if you are providing full package of care, why are young women not accessing the services?

   b. Maternal Care

   Specific elements that require attention are:

   1. Access to antenatal care: access questions
   2. Access to reproductive health services

The group then translated their discussion into specific research questions.

Research questions

1. TB, HIV and TB/HIV - How do we develop and implement integrated family centered TB/HIV service to improve childhood outcomes in the context of PHC?

2. EPI - How do we maximize EPI vaccine coverage in the community?

3. Management of Common childhood illnesses: Impact of IMCI. Is IMCI impacting on Childhood Morbidity in reducing admission of acute severe illnesses, e.g. diarrhoea and pneumonia?

4. Antenatal coverage - Evaluating impact of BANC by comparing rural vs urban districts.

5. How should reproductive services be reorganized to better meet the needs of women from a community perspective?

The next steps

Group 3 concluded that the exercise has been useful in that it enabled academics and health service providers to develop a common research framework. It was important to consult other stakeholders and to review the list of problems as part of such a consultation process. The group further recommended that a process be established to ensure that such wider consultation takes place.

The last group, Group 4 addressed issues of finances, health systems and other miscellaneous items.
A general discussion to clarify the task raised some interesting questions. One of the questions related to the ability of health service providers to influence researchers. To quote:

“How to influence researchers from service provider’s side”

It was acknowledged that the Burden of Disease (BOD) process might be useful as point of departure. It was also noted that there was a view that suggested that health services are over-resourced in the Western Cape. This could be resolved through research. A few more questions were raised in this group. For example, “How do I get answers?”, “How does one pose (fashion) the problem as a research question?” The issues are often complex and present additional challenges. For example, the BOD work also influenced Liquor Act for instance. It was also noted that the social determinants of health are important. The general discussion in this group led to a few more pointed questions and raised additional issues for consideration. These were:

- Who asks the questions? Openness in the agenda is proposed for insight into questions. Should focus on the relevant questions.

- Interest in operational research. Real questions in field, practical applications of research are important. BOD should inform research questions.

- What are the issues you as a manager felt was important? One participant said it touched upon real life issues; methodology was practical; positive outcomes for patient and clinical care; deployment of resources

- Also mix of diverse role players; communities, academia and service providers.

- We need to generate a type of resource for this research. Who will provide it, such as private researchers, etc? Specialized skills are needed in the operational research paradigm.

- There are different forms of research; the relationship that is deemed good; how should it be? Research happens where the money is? If it is not the flavour of the month, where will resources come from?

- Is there a common agenda. Benefit of prioritizing?

- Audits are also done on performance info within short time span. “Audit mechanism research.” On financial regularity, value for money and performance info. For research on performance, money is
needed. BOD programme came from own budget. Point is that every service needs funding, then the relationship needs sorting out. Whose agenda is important, i.e. Bill Gates Foundation. What about our own questions? Why do we not dedicate our own research resources to our own questions? Government should more consciously fund research and put more value upon the outcomes and importance of research.

The group then identified five key research questions.

Research questions

a. How does the Provincial Health Department respond to new CD4 Entry Point requirement/policy? Can we afford it? More generic is “Can provinces afford new National Programmes?” How do we then respond to the challenge? When policies are made on National level, are they thought through, costed, etc? How can we influence National to revisit their approach? What is the strategy for a provincial department if faced with such a challenge? The challenge is that the terms of engagement of National Department of Health should be addressed. Is not the way decisions are made, thus the prioritization, and hence decision-making the real issue? What is the process we can use in health services for a socially acceptable health spending prioritization process? If this process on national level is fair, equitable, etc. then there will be more confidence in this system. National Health Insurance is also an unclear area.

How are well-informed decisions made? What is a fairer system of allocation across provinces for programmes, etc?

b. Is the Western Cape Provincial Health Dept over-resourced in relation to the rest of the country? A more appropriate funding system would be a realistic question.

District Expenditure system is the current tool. Is DHS as envisaged adequately resourced, especially for long term plans? There are different questions related to each level of allocation.

c. Given the same resource allocation, why are certain hospitals/districts performing differently in respect of quality of services and patient outcomes and eventual effectiveness?

d. What will be a more effective model for effective Emergency Medical Care, in-hospital and pre-hospital? Return on investment is not adequate. For instance, response times. Which factors are involved here?
Communities’ perception/experience of health services, also expectations, is often quite negative and not easy to fathom for adjusting the health care system. Waiting times, staff attitudes, shortage of medicines, not enough resources. Polls of samples point this out. The question is how representative these views are? Health is a higher priority for communities in this province. Appalling individual encounters of poor health services reinforce public sentiments in general. Still, it must be considered important enough to investigate. All expect a higher standard of services and often they are unrealistic. I.e. what is an unacceptable waiting time? Are the systems for patient flow optimal?

After raising these research questions, the group went on to identify some criteria for prioritization.

Criteria for prioritization

1. Risk-based methodology would be important? What risks face the organization if these issues are not researched for the organization and the clients/community?

2. Secondly, what is the leverage of the answer, which is how will the managers be assisted and supported? Focus upon emergencies should not overwhelm the importance of preventive health.

3. Time frame for getting the answer

4. Burden of Disease (BOD)

5. Community priorities

Some thought went into getting the research activity done

A relationship and joint effort could be important, but one should utilize enough time to realistically address the challenge and achieve a better outcome? The eventual package of priorities should be made visible to the funders, academic institutions, Business Schools, etc. How are the messages channeled to the influential decision-makers for funding, i.e. through publication in visible and transparent media?

It is also important to divide the research project into manageable sizes and scale.

Feedback to the end users was an important consideration.

Final concluding comments

- There are many questions needing answers and partnerships are important
- Consultation with civil society is important, especially research community and civil society; how could civil society assist and support research initiatives and also draft questions?
• Refining of data bases, and links between practical outcomes, results as feedback to end users in the health system; also building trust

• These conversations help with focus on questions drafting

• PHRC has to institutionalize these priorities and have them placed on the agenda of the academic institutions.

• How do we now go forward with unpacking these questions

• Sometimes one needs to just get the communities/clients on board with regard to information/enlightening, etc. An informed society is normally more realistic in their expectations of what we can offer with our resources, skills, etc.

The Plenary Session

After lunch the workshop proceeded with a plenary session in which Prof D Bradshaw gave an informative presentation on methods of prioritization. The presentation elicited considerable discussion and set the tone for a lively plenary session on the way forward. What follows are some of the contributions made during this discussion.

Some comments were: “We should accept an initial level of engagement but that not all will be done immediately”; “As a collective what should we do?”

Some of the concerns raised were the lack of consensus. It was also noted that common themes emerge from most discussions on the challenges facing the health services. The more complicated methodology for prioritisation of research may not be appropriate for the PGWC health department which has a wealth of information that could be usefully deployed to facilitate research. The danger of areas such as women’s health being overwhelmed by issues such as trauma, HIV/AIDS and TB was mentioned.

The issue of funding led to some interesting discussion and the role of government (all levels) in funding research was discussed. It was suggested that the health department would be supportive of applications for funding research that would be beneficial to the health system. The health department could also support applications for research funding from outside agencies. The danger of a research agenda that is determined from without was raised. It was suggested that in order to change the focus of researchers, funding similar to that provided in the UK, could be provided through commissioned research. Researchers are invited to bid for the research. There was also an interesting suggestion that health services and
academics endeavour to create a single fund for shared research, some of it derived by the research community itself.

The need to translate the findings and recommendations flowing from this workshop into action was highlighted by some senior managers. It was suggested that one of the options was to appoint task teams with finite time lines to take the process forward. The priority list of research questions could be placed on a database accessible to researchers. The PHRC can update the database with questions and refine questions. There was an earnest request that research institutions provide the health services managers with their priority research activities, such that synergies can be developed and research interests aligned. A useful practical input was that health managers add to the database of research questions and that academic institutions put students in touch with the health managers. This was endorsed by experience with funding from the National Research Foundation (NRF).

Matters such as the right to publish were discussed. The PGWC position is that bad news would not be suppressed provided the health services senior management is informed timeously.

The need for engagement without dampening the curiosity that drives research, and the need for international collaboration as a useful vehicle for stimulating the research endeavour were also emphasised.

The workshop was formally closed with thanks from the chairperson of the PHRC to all relevant institutions and individuals, who endorsed the commonly held view that it was a significant first step in a lengthy process.
List of attendees

<table>
<thead>
<tr>
<th>Name</th>
<th>Name</th>
<th>Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prof KC Househam</td>
<td>Prof G Hussey</td>
<td>Mrs J Caldwell</td>
</tr>
<tr>
<td>Dr J Cupido</td>
<td>Prof L Dudley</td>
<td>Dr P Nkurunziza</td>
</tr>
<tr>
<td>Dr E Engelbrecht</td>
<td>Dr K Nokoko</td>
<td>Mrs D Kiewits</td>
</tr>
<tr>
<td>Dr I Bromfield</td>
<td>Mr Titus</td>
<td>Dr I Friedman</td>
</tr>
<tr>
<td>Mr J Ledwaba</td>
<td>Prof R Christie</td>
<td>Dr K Jennings</td>
</tr>
<tr>
<td>Dr K Cloete</td>
<td>Dr A Dhansay</td>
<td>Ms K Lowenherz</td>
</tr>
<tr>
<td>Mrs CW Bester</td>
<td>Dr A Dearham</td>
<td>Dr V Azevedo</td>
</tr>
<tr>
<td>Dr L Bitalo</td>
<td>Dr R English</td>
<td>Dr K Gailey</td>
</tr>
<tr>
<td>Dr T Carter</td>
<td>Dr M Dombo</td>
<td>Mrs S Elkor</td>
</tr>
<tr>
<td>Dr J Claassen</td>
<td>Prof N Beyers</td>
<td>Ms A Janse Van Rensburg</td>
</tr>
<tr>
<td>Dr S Fourie</td>
<td>Prof J Volmink</td>
<td>Dr A Zimba</td>
</tr>
<tr>
<td>Dr K Grammer</td>
<td>Prof D Bradshaw</td>
<td>Mrs L Bakana</td>
</tr>
<tr>
<td>Dr S Kariem</td>
<td>Prof R Ehrlich</td>
<td>Dr A Krajewski</td>
</tr>
<tr>
<td>Dr L Linda</td>
<td>Prof D Jackson</td>
<td>Dr H Visser</td>
</tr>
<tr>
<td>Dr L Phillips</td>
<td>Mr T Mbatha</td>
<td>Ms K Ward</td>
</tr>
<tr>
<td>Mrs C Dean</td>
<td>Dr D Schoeman</td>
<td></td>
</tr>
<tr>
<td>Ms J Arendse</td>
<td>Dr B Kruger</td>
<td></td>
</tr>
<tr>
<td>Health System framework</td>
<td>Research Priorities</td>
<td></td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------------</td>
<td></td>
</tr>
<tr>
<td>Strategic goal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Managing the burden</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Management tools/SOPs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. M&amp;E</td>
<td></td>
<td></td>
</tr>
<tr>
<td>disease</td>
<td>1. HIV:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Number of patients with HIV and low CD4 counts presenting acutely, without having been entered into the ARV programme</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Continuous Quality Improvement: Treatment of AIDS defining illnesses (e.g. Cryptococcus meningitis): in hospital phase and enabling “fast-track” access to ART</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Utilization of nCPAP (monophasic and biphasic) in non-neonatal patients</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Fluid management in trauma. We have completed a study showing that colloids are preferable to crystalloids for penetrating trauma. We need to confirm this for blunt trauma and also need a project on the early use of fresh frozen plasma.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Intubation in the field is another priority area for study</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Optimal management of burns including anaesthetic pharmacology and fluid therapy, especially blood and blood product use.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Paediatric pain management is a critical area of research.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Improving hospital management of acute severe malnutrition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. NTSV caesarean section rates as an indicator across all hospitals</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Interface between chronic diseases complications/symptoms and acute services (emergency centres)?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Why is the Bed Utilisation Rate (BUR) so high in the City of Cape Town and Central Karoo districts? Are there lessons in how high BURs can go hand in hand with low patient day equivalent (PDE) costs?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Conduct baseline estimates of percent of total paediatric admissions and</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>case fatality rates from severe malnutrition in all in-patient facilities in Western Cape. Undertake participatory research with key paediatric unit staff (nurses, doctors, dieticians) to ascertain compliance with WHO 10 steps of management of severe childhood malnutrition.</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td><strong>Needle stick injuries</strong></td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td><strong>Ambulatory care</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Outreach and support:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Audit to be conducted of outreach and support</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Patient transfer systems.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Effectiveness of referral system</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Operations assessment: ambulance services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. Optimizing Tertiary outreach clinics – bringing the expert to the patient and utilizing the training opportunity of local care providers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>f. EMS ambulance utilization in community ~ optimal and efficient use of ambulance services? Place of less expensive sub-acute care transport systems?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>g. Qualitative enquiry into nature of Outreach &amp; Support services ~ balance between service and teaching on site?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>h. The effectiveness of critical care services</td>
<td></td>
</tr>
<tr>
<td>1.3</td>
<td><strong>De-hospitalised care</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Management tools/SOPs:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a. Chronic pain management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>b. Implementing a PHC based integrated approach to HIV/TB co-management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>c. Pain management in home-based palliative care.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>d. Design and evaluate the impact of a pilot model for implementation of community based management of severe childhood malnutrition</td>
<td></td>
</tr>
<tr>
<td></td>
<td>e. Conduct a study to ascertain the additional needs of TB patients to maintain adherence to treatment over and above DOTS support (e.g. food</td>
<td></td>
</tr>
</tbody>
</table>
supplements, transport allowances, etc) and ways in which such support may be most cost-effectively provided, including by provision of grant support (including a comparison with the current temporary disability grant).

f. Brief motivational interviewing as a tool to enable lifestyle change: how to modify the approach in a rural community with lower educational & literacy levels and bridging the challenges posed by poverty

g. Exploring factors that influence adherence to chronic medication in the rural community (and how to address them)

h. The use of treatment flow charts by clinical nurse practitioners in supplying a uniform standard of care for follow-up review and management of the “Big 5” chronic conditions at PHC level

2. Access:

a. Availability of community-based care, including residential care, for chronic mental health care users

b. Integrating the Health service system in the Langeberg sub-district – an example of qualitative research / Action research, involving health care providers, management, administration and the community served

c. Improving health care access to farm-based communities (evaluating the role of a farm-based community worker system, vs. review of EMS access to remote farms)

3. Staff:

a. Roles of community care givers and developing and evaluating models of community-based services, including links and integration of community-based and facility-based services; roles of community structures, training, career parting and supervision of CCWs.

b. The role of community health workers in prevention and control of chronic diseases (competencies, training support required).

c. The role of support groups in prevention and control of chronic diseases
| 1.4 Child health | 1. Early childhood development:  
| | a. Impact of maternal mental health on early childhood development; availability of evidence-based interventions  
| | b. Barriers to learning in W Cape children - Are birth defects and congenital abnormalities, together with developmental disorders contributing to health and social burden in the Western Cape? These may be as high as 80% of children in some communities presenting with a barrier to learning.  
| | 2. TB:  
| | a. Improved diagnosis of childhood TB  
| | b. Improved treatment strategies  
| | 3. Respiratory diseases:  
| | a. Need for ongoing surveillance not only of the incidence of childhood pneumonia but also of the aetiology to inform future better vaccines - eg there will be a PCV 13 and a H inf - PCV10 available soon  
| | 4. (Mal) nutrition:  
| | a. Why are children still dying of hunger in South Africa?  
| | b. Severe Malnutrition of children in a country hosting the Soccer World Cup – Is it acceptable that children are dying of hunger amidst the hype? Where are our country’s priorities?  
| | c. What is the nutritional status of primary and secondary school children? How does this relate to any feeding scheme at the school? Or to socio-economic status of the family  
| | d. Childhood obesity  
| | e. Conduct surveys of foods made available through health facilities and at and around schools (including in Child School Feeding Programme) to assess their quality and appropriateness in promoting healthy diets |
5. Resources:
   a. Establish what resources are actually put towards child health
   b. Audit & review of existing Metro services for children against national recommendations, norms and standards toward strategic redesigning of service delivery in order to meet the needs of the current child population and the specific priority child health conditions (including malnutrition) for closer alignment with achieving MDG4
   c. Optimal anaesthetic practice for paediatric operations, with emphasis on pain management.
   d. Availability of evidence-based non-pharmacological and pharmacological interventions for common childhood mental disorders (eg. ADHD, Conduct Disorders, Alcohol and Drug abuse)

6. M&E:
   a. What are the factors that contribute to the Western Cape having such low still-birth and neonatal mortality rates? Are these findings because of or in spite of the very high Caesarean section rates?

7. Immunization:
   a. Although encouraging, the data in relation to immunisation is nevertheless very puzzling, showing that 103% of all the children under one year of age resident in the Western Cape in 2008/09 were immunised. Whatever the reasons for this anomaly, it should be investigated to establish if it is real and whether this is having any beneficial or adverse effects?
   b. Why are drop-out rates for DPT and measles so high in the Western Cape despite the extraordinary high rates of immunization?
   c. Prevention & Health promotion (Immunization) aspect to be included & evaluated. Impact of IMCI on mortality & morbidity.
   d. Coverage of immunization focus on adolescents – appropriate
8. Infant feeding:
   a. Conduct participatory research with key staff at primary level (clinics, health centres, outpatient units of hospitals) to assess the quality of Growth Monitoring and Promotion activities, including the content and process of counselling on infant and young child feeding.
   b. Conduct a survey of health facilities (paediatric wards, outpatient paediatric units, primary care facilities) to ascertain the extent of use and promotion of infant formula milk, including the use of feeding bottles.
   c. Baby bottle caries syndrome

9. Diarrhoea:
   a. Commission a study to ascertain the microbiological spectrum of diarrhoeal disease in the W Cape and the relative cost-effectiveness of different preventive interventions, notably Rotavirus vaccine and environmental sanitation in addressing such diarrhoeal disease
   b. Cost effectiveness of Rotavirus on diarrhoeal deaths
   c. Cost effectiveness of DRH corners diarrhoeal deaths,

10. Implementation of IMCI in Secondary and Tertiary Hospitals

11. Caring for the younger rural population – demographics indicate that the rural population of the sub-district is getting younger: what are the implications for health policy planners?
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
|   | a. Pap smear coverage?  
|   | b. Are reproductive health services meeting the needs of women?  
|   | c. Colposcopy services; Pap smear followup.  
|   | d. Reviewing the PAP smear & Breast screening facilities in the PHC setting, and auditing follow-up, access to results, quality/adequacy of smears, access to doctor/specialist when abnormal findings  
|   | e. Availability of universal screening of pregnant mothers for peri-partum common mental disorders and availability of evidence-based interventions  
|   | f. Integrating cervical cancer screening into HIV prevention and treatment services |
| 2. | Antenatal care:  
|   | a. Antenatal care: effect of BANC training; Appropriateness of referral systems  
|   | b. Cost-benefit analysis of routine antenatal care  
|   | c. Addressing the problem of low birth weight and preterm delivery, especially among coloured moms, who smoke, ingest alcohol during pregnancy?  
|   | d. Access to Antenatal Services & care + impact of BANC & delivery  
|   | e. Access of remote farm-communities to antenatal care and interview-based research (qualitative) to review health system- and remote setting-related factors for poor antenatal care  
|   | f. Integration of Reproductive Health with TB/HIV etc  
|   | g. Impact of cervical Screening Programme |
| 3. | Postpartum care:  
|   | a. Exploring the cultural barriers and myths relating to post-partum or interval sterilizations  
|   | b. The vitamin A supplementation programme, especially for women post-partum. Is it necessary? Are we making a difference? Currently, dietitians cannot dispense the vit A capsules, and nurses are already overburdened. |
4. Infertility: Low cost alternatives to full IVF etc

5. Extensive research is being conducted in obstetric anaesthesia, with emphasis on pre-eclampsia including optimal drug use for hypotension, cardiac performance etc.

6. Increasing access, uptake and correct use of contraception is critical –
   a. barriers to all these aspects need to be investigated and solutions implemented (contraception is probably one of the most cost-effective health interventions)
   b. we need to investigate models for delivery including increasing the range of choices - why for instance is norplant not available? Why do we use so few IUDs? Should we not offer all women having TOPs IUDs post evac?

7. Maternal mortality & morbidity:
   a. Reducing maternal mortality and morbidity - this is a MDG and our maternal mortality is way too high (Melinda Gates just announced a 1.5 billion dollar investment in maternal health)
   b. Quantifying the morbidity related to gender based violence, infertility and postpartum depression and the impact of all three on health services
   c. What is the cause of the very high Caesarean section rates in the City of Cape Town, particularly Khayelitsha? How does this impact on maternal and infant mortality rates in the area?

8. Why is the delivery rate in Eden so extraordinarily high, over a 100% and so low in Overberg? What could be done in the latter to improve the facility-based delivery rate?

1.6 HIV, AIDS and TB

1. Management tools/SOPs:
   a. Real sputum result turn-around times in the sub-districts?
   b. Detection and Management of HIV+ve, sputum –ve, TB patients?
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>c.</td>
<td>Audit of sputum register and patient follow-up</td>
</tr>
<tr>
<td>2.</td>
<td>Impact of HIV epidemic on suicide rates in the WC; availability of evidence-based interventions</td>
</tr>
<tr>
<td>3.</td>
<td>Treatment:</td>
</tr>
<tr>
<td>a.</td>
<td>HIV: Coverage of HIV treatment and prophylaxis in pregnant women; ditto in rape cases.</td>
</tr>
<tr>
<td>b.</td>
<td>M(X)DR-TB alternative dosing;</td>
</tr>
<tr>
<td>c.</td>
<td>Drug - drug interactions</td>
</tr>
<tr>
<td>d.</td>
<td>Drug – food interactions</td>
</tr>
<tr>
<td>e.</td>
<td>Interactions between drugs and medicinal plant used</td>
</tr>
<tr>
<td>f.</td>
<td>Drug resistance</td>
</tr>
<tr>
<td>g.</td>
<td>Investigating the level of understanding of TB, the reason for default of TB drugs and methods to improve TB drug adherence</td>
</tr>
<tr>
<td>h.</td>
<td>Childhood TB drugs</td>
</tr>
<tr>
<td>i.</td>
<td>Poor compliance with treatments</td>
</tr>
<tr>
<td>4.</td>
<td>Reducing HIV transmission in young women</td>
</tr>
<tr>
<td>5.</td>
<td>Syphilis stats, correlation if possible with introduction of rapid testing</td>
</tr>
<tr>
<td>6.</td>
<td>PMTCT of HIV (new national policy)- audit of implementation; transmission rates</td>
</tr>
<tr>
<td>7.</td>
<td>Integration of HIV and TB services:</td>
</tr>
<tr>
<td>a.</td>
<td>ARVs &amp; M(X)DR-TB drug interactions;</td>
</tr>
<tr>
<td>b.</td>
<td>Integration of vertical/disease priorities with cross cutting health systems issues and with other priorities.</td>
</tr>
<tr>
<td>c.</td>
<td>Research on possible linkages and &quot;synergies&quot; between HIV and chronic disease programmes in terms of structuring and managing services and approaches.. i.e. how are we doing on delivering continuity of care</td>
</tr>
<tr>
<td>1.7 Other infectious diseases</td>
<td>1. Could the availability and use of viral identification in rural regional laboratories be cost effective and prevent evolving antibiotic resistance patterns?</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>2. Basic research into South African genetics /pharmacogenetics—a crucial area to understand individual differences in response to TB/other infectious diseases</td>
</tr>
<tr>
<td>d. Integration of HIV&amp; TB Services</td>
<td>8. What are the genetic factors which predispose to infectious disease, most notably HIV/TB in our communities?</td>
</tr>
<tr>
<td></td>
<td>9. Basic research to find better diagnostic, treatment and vaccines</td>
</tr>
<tr>
<td></td>
<td>10. Understanding the basic science of neuroHIV</td>
</tr>
<tr>
<td></td>
<td>11. Accessibility for people living with HIV</td>
</tr>
<tr>
<td></td>
<td>12. What has contributed to the Western Cape’s success in reducing the incidence of TB and increasing smear conversion and TB cure rates? Does the relatively low burden of HIV in the Western Cape improve the prospects for TB management? What lessons are there for other high burden provinces?</td>
</tr>
<tr>
<td></td>
<td>13. What proportion of infants born to known HIV positive women are HIV positive six weeks after birth? To what extent are the rates used in the Western Cape compatible with DHIS data in the rest of the country?</td>
</tr>
<tr>
<td></td>
<td>14. Field research re: Diagnostic Rx</td>
</tr>
<tr>
<td></td>
<td>15. Child &amp; Youth &amp; Male focus - HIV prevention &amp; retention in care</td>
</tr>
<tr>
<td></td>
<td>16. Impact of HIV/AIDS and different service models on PHC (direct/indirect)</td>
</tr>
</tbody>
</table>
3. Delivery of infectious diseases care for our high burden diseases (HIV/ TB/ STI's) - this could focus on integration/ task sharing/ case finding etc., but also upcoming issues such as isoniazid preventive therapy (IPT)

4. STI:
   a. Evaluation of the syndromic approach to STI treatment - are we having an impact? Is this a cost-effective intervention?
   b. How is the Western Cape able to achieve such high condom distribution rates? Do the higher distribution rates in the Western Cape translate into higher utilisation of condoms than in other provinces where the distribution rate is lower? How significant is this finding in reducing the risk of acquiring an STI and HIV in the Western Cape compared to other provinces where the condom distribution rate is lower and the STI infection rate higher?

<table>
<thead>
<tr>
<th>1.8 Injury and substance use</th>
<th>1. Alcohol/substance abuse:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a. Innovative ways to reduce domestic alcohol related sharp and blunt trauma (intimate partner violence)? Community based participatory action research?</td>
</tr>
<tr>
<td></td>
<td>b. Impact of alcohol and drug abuse on violence and injuries, availability of comprehensive evidence-based interventions to limit future harm</td>
</tr>
<tr>
<td></td>
<td>c. Interpersonal violence –</td>
</tr>
<tr>
<td></td>
<td>i. What are the risk factors associated with high levels of male violence?</td>
</tr>
<tr>
<td></td>
<td>ii. Develop and evaluate community interventions to reduce violence and violence against women.</td>
</tr>
<tr>
<td></td>
<td>iii. Evaluate the AUDIT tool to screen for alcohol abuse and the effectiveness of brief interventions</td>
</tr>
<tr>
<td></td>
<td>iv. Substance abuse in the Western Cape, and its potential impact on a growing/developing population</td>
</tr>
</tbody>
</table>
d. What proportion of substance abuse is associated with addictive personalities, and possibly linked to mental disease?

e. What is the role of alcohol in infectious diseases such as HIV or TB

f. What are the genetic factors responsible for processing substances, and which may differ in abusive mothers who produce babies with developmental/learning and social disability (compared to mothers who are abusive and do not produce babies with these disabilities)? This is not only pertinent to alcohol, but needs to be fully investigated in e.g. methamphetamine abuse.

g. Basic science of substances widely used locally e.g. methamphetamine, mandrax

h. Substance Abuse (alcohol & drugs) – specific focus area

i. Effect of alcohol on the parenting ability of parents: qualitative research project: How can one break the cycle of alcoholic parents raising the next generation of alcoholic parents

j. Abuse of any person @ home (Verbal).

2. Rape: Waiting times for rape cases; conviction rates for rapists. Follow up of rape victims.

3. Exploring the use of high visibility wear in reducing pedestrian deaths (public health intervention)

4. Exploring Knowledge, attitudes and practices (KAP) of “child-proofing” houses in rural lower socio-economic setting (especially knowledge regarding the storage of medicinal drugs, household cleaners, toxins)

5. The influence of psychologist on a permanent basis on the well being of community

1.9 Chronic disease

1. Ways to improve quality, rather than quantity, e.g. annual creatinine in hypertensives, annual HbA1C in diabetics, as opposed to e.g. BP and HGT check every 2-4 weeks?
2. Allied services for chronic care patients, e.g. Dietician consults for diabetics, etc.

3. Evaluation of quality of primary care in chronic diseases – seems to be lack in knowledge and early goal directed approach.


5. Anti coagulation possibilities. ESBL incidence and current provincial antibiotic protocol. See list of current CPR trials being done at WH.

6. Integrated Cancer Control programs

7. Chronic diseases are a growing burden in our Province
   a. What proportion of chronic disease is due to genetic predisposition? (Insurance companies take family histories because they provide valuable information re health risk)
   b. Cardiovascular research

8. Population ageing
   a. Impact of ageing on health
   b. Regenerative medicine

9. Treatment:
   a. Overmedication
   b. Drug-drug interactions
   c. Drug side effects

10. Understanding the “causal” pathways in order to inform interventions: What is the relationship between societal influences and prevalence of established risk factors
of chronic non-communicable diseases?

11. Chronic disease care, including current structures/ standards/ roles/ outcomes, but also possibly a (qualitative) approach to socio-cultural barriers such as weight loss and healthy nutrition in the Xhosa community.

12. Understanding “risk factor” changes over time: What is the relationship between societal determinants and incidence of chronic non-communicable diseases?

13. What are the changes in the rates of risk factors (e.g. smoking) of chronic non-communicable diseases over time and what upstream and downstream determinants influence these changes?

14. How can continuity of care be established, maintained and strengthened for chronic non-communicable diseases conditions?

15. Epidemiological cohort studies to track risk factors for cardiovascular diseases

| 1.10. Mental health | 1. True impact of common mental disorders on WC BoD as measured by DALY’s; possibly not currently adequately accounted for |
|                     | 2. Impact of common mental disorders on 1. ARV treatment adherence, 2. Sexual Risk Behaviour; availability of evidence-based treatment of common mental disorders for ARV-patients and those at risk |
|                     | 3. Availability of comprehensive, evidence-based chronic mental health care within district health services |
|                     | 4. Mental disease could end up being No 1 burden of disease in future a. What proportion of mental ill-health is due to genetic factors? |

2. Financing

| 2.1 BMI/ FMC process | 1. Do the variations between district expenditures reflect valuable evidence of redress |
of health inequity, or do they represent a misdistribution of funds that could be better spent in another way?

2. Conduct a study of differentials in pay between different levels of health personnel (including managers, clinicians and ancillary staff) and compare the findings with global norms

| 2.2 Audit | Nil |
| 2.3 Supply chain management | 1. Adherence to supply chain processes; Financing in terms of burden of disease; Health financing projections for 2020. |

### 3. Developing a Capacitated Workforce

#### 3.1 Approved Post List

Nil

#### 3.2 Establishment Adjustments

Nil

#### 3.3 Priority Skills Development

1. Which regional and district level hospitals actually have the skills to implement the proposed levels of care for children now?"

2. Urgent study is required on anaesthetic manpower in the country districts; Nursing skills; Capacity at level 1

3. In-service capacity building: incorporating Teaching & Adult Learning principles: one may investigate the process of implementing and reviewing a T&L-based training platform (decentralized into management and sub-district based; accredited and in keeping with provincial and district general guidelines

4. Organisational Strategic Capacity and Synergy

#### 4.1 Rational Planning

1. Health economic type research looking at health outcomes or economic evaluations for either high volume conditions or for high cost conditions.

2. Exploring factors that influence staff recruitment and retention in rural settings

3. Building research capacity in the PHC context – challenges and ideas

4. Evaluate the impact of the MACH-1 project model for an integrated maternal, infant
and child health care system at sub-district level through an integrating team (led by Family Physician) inclusive of all relevant program packages for MCH&N/PMTCT, with local monitoring subdistrict indicators to track progress to MDG4 & 5.

5. Strengthening district health systems by understanding the key restrainers and enablers at local (sub district, programme and facility) level, developing leadership and management strategies; building management capacities through collaborative action research activities.

6. Strategic use of information eg. Budget

7. Cost of duplicate health systems

8. Working conditions and situation of the workforce, e.g. staff satisfaction, burn-out, retention strategies etc.

9. Do research on whether it is really possible to improve oral health with the limited staff. We have 1 dentist: 40-60 000 patients is an impossible load

10. New programs like HIV, dispensing, school health, R48, etc. not enough staff to do the work. Not enough hands to do non-nursing tasks.

11. Operational managers is not managers, they are CNPs in charge. Due to that information does not reach staff on time. Due dates are not reached. Research into duties of operational manager

| 4.2 M&E | 1. Adequate recording of specific mix of mental disorders seen in subdistricts, current system possibly too non-specific to adequately inform planning of services  
2. Systems need to be strengthened including mental health surveillance  
3. Development of indicators and use of information to plan, manage and monitor |
<table>
<thead>
<tr>
<th>4.3 Decentralised implementation</th>
<th>pharmaceutical services at primary level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Appropriate technology and infrastructure</th>
<th>5.1 Physical infrastructure</th>
<th>5.2 Essential equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nil</td>
<td></td>
</tr>
</tbody>
</table>

1. Telemedicine possibilities, video-conferencing between facilities (clinics to CHCs, to district hospitals, to regional hospitals, and back)?

2. Improved feedback systems re patient referrals between services/facilities – phone, letters, e-mail, web-based clinical discussion boards?

3. Digitisation of health technology: Cost benefit analysis of newly introduced systems such as HERMES and Radiology PACS/RIS

4. Use of ICTs to strengthen health services [e.g. electronic health records; use of m-Health; information system requirements to support NHI and implementation of programmes

5. Building the evidence to enhance the quality of routine health records; use of health registers in diverse case-control studies

6. Conducting of large scale health facility surveys

7. Using IT solutions (software) to facilitate a chronic disease register, where information may be managed/adapted to guide public health promotion interventions.

8. The contribution of Bar code-type patient labels towards establishing the paperless electronic health system
| 5.3 Essential drugs | 1. Ability of district health system to manage psychiatric scripts within the time-frames and limits set by MCC legislation  
2. Review of 6-monthly repeat scripts by doctors ~ a zombie exercise? How to do this better?  
3. Review of optimal anaesthetic drugs for use at all levels of care; Moving towards an electronic patient consultation system.  
4. Drugs are developed and trailed in Caucasian populations (internationally). We have shown that these drugs are processed very differently in local populations. Our province with its good infrastructure should attempt to research this issue and provide optimum drugs for its communities.  
   a. What are the most appropriate drugs for the populations of the W Cape based on their genetically defined pKs and pDs?  
   b. Should we make an attempt to establish reference values for our populations for each drug type based on genetic factors (pharmacogenomics) towards minimizing ineffective drugs and adverse drug reactions? |

| 6. Improving the quality of services | 6.1 Clinical governance | 1. Audit of quality of mental health interventions offered in district health services  
2. Adherence of services to the regulations of the Mental Health Care Act  
3. Evaluate the impact of participatory audit and feedback at subdistrict level towards improving quality of hospital care for children and newborns  
4. Impact of pre-anaesthetic assessment clinics on efficiency of care and reduction in risk; Occupational risks posed to staff. |
5. Safety strategies in anaesthesia, including drug labeling, pre-operative checklists, machine safety from a quality of monitoring, QA assessment

6. The application of ethics in healthcare at our facilities.

7. Staff performance management: Audit and evaluation of effectiveness of current system of SPMS

8. Conduct a study to establish the range of different approaches taken within the Western Cape to supervision and support of personnel working at primary level clinics and health centres from district, regional and provincial levels. Such a study should examine the frequency and quality of supervisory visits, who conducts them and what resources are available to support them (transport, standard protocols etc).

9. Continuous Quality Improvement (CQI) cycles may be considered for all areas identified in the list above (1.–5.). This forms part of Clinical Governance. Examples include:
   - Infection Control measures (general wards, theatre, OPD, hand washing techniques, microbial resistance patterns)
   - Review of Special Investigation use and follow-up by primary care physicians (i.e. are all special tests performed indicated, and is there a system to ensure the timely review of results that will ensure patient-benefit and budget-wise requests)
   - Audit of emergency centre care: resuscitation events, recognition (correct triage) and treatment of critical patients, availability of essential emergency drugs and equipment
   - Audit of notifiable disease notification behavior amongst health workers
   - Exploring challenges and barriers of CQI in the District hospital context

10. Local government clinics to PAWC from 2007. Question: is the service now or the
services rendered before 2007 more friendly to staff and community. What was the purpose to put staff through such a lot of stress

11. The impact of workload – packing of chronic medication on staff.

12. Disaster plan review

<table>
<thead>
<tr>
<th>6.2 Cleanliness</th>
<th>1. Conduct a study to ascertain the knowledge, skills and current practices of environmental health personnel in relation to sanitation and hygiene advice and assistance.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.3 Safety and security</td>
<td>Nil</td>
</tr>
</tbody>
</table>
  2. Monitoring and evaluating the efficiency of health service provision in health care facilities (Waiting Times and Service Efficiency Surveys)  
  3. Monitoring and evaluating the equity of health service provision in health care facilities (Waiting Times and Service Efficiency Surveys)  
  4. How can patient waiting times in Public Health Care Facilities be reduced?  
  5. What role does proper monitoring and evaluation play in the quality of care?  
  6. Developing colposcopy in a district service: audit of impact on waiting times |
| 6.5 Drug stock outs | Nil |
| 6.6 Staff attitudes | 1. Attitudes and abilities of non-specialist district health care staff in terms of providing evidence-based mental health care  
  2. Attitudes and abilities of senior health managers in terms of planning and managing
comprehensive, evidence-based mental health services

6.7 Infection control

1. The incidence (and related costs) of health service related infections, and to consider ways in which these could be substantially reduced.

2. Nosocomial infections are a huge problem in all the ICUs - causing major costs and morbidity. It is likely that inadequate staffing is an important contributing factor, and research on optimization of staffing would be very important.

3. Infection control in facilities

Other items:

1. Greater attention to research translation so as to base clinical guidelines on evidence

2. Traditional medicine:
   a. Traditional Medicine research -from pre-clinical (animal research) to clinical trials
   b. How can the integration of traditional and complementary medicines be best achieved in our context?

3. Setting up a clinical trials research support programme

4. Social determinants of health

5. Nutrition and food security and safety

7. Inter-sectoral collaboration:
   a. What mechanisms should be put in place to ensure inter-sectoral collaboration between stakeholders/role-players (e.g. Departments of Education, Agriculture, Local Government) in the prevention and control of chronic-communicable diseases?
   
   b. Building capacity for inter-sectoral collaboration (see below) through training, mentoring, collaborative research.
   
   c. Inter-sectoral collaboration: better understanding both challenges and opportunities/successes/good practice, eg in the area of scaling up health-promoting schools, teenage pregnancies, substance abuse, community-based service interventions.
   
   d. Developing and implementing approaches for collaborative and participatory research, including action research, action learning, appreciative inquiry, etc. between academic institutions and PGWC structures
   
   e. Community participation and involvement in health

8. Public policies regulating food trade

9. Environmental health:
   
   a. Water & Sanitation: linked to diarrhea, infant mortality, communicable, waterborne diseases.
   
   b. Efficiency of M & E of water quality (potable, rivers & vlei’s)
   
   c. How to measure impact of Environmental Health intervention in communities eg. Hand-washing
   
   d. Impact of block-baiting
e. Identification of high risk groups and locations for environmental pollution

f. Environmental and structural barriers to healthy lifestyle

g. Appropriateness of Environmental Standards — ie. Milk, foodstuffs, Creche’s (1\textsuperscript{st} world vs 3\textsuperscript{rd} world)

h. Food poisoning & notification – does the system work??

i. Air quality and Noise issues

10. Teaching communication & consultation skills in primary health care

11. Exploring the influence and potential spin-offs that rotating undergraduate health science students have on staff, health system and community

12. The value of volunteer group meetings which provide a platform to consider strenuous work-related scenarios and opportunities to debrief & reflect on challenging experiences (Balint groups)