HIV and AIDS Research Priorities for Zimbabwe 2010 - 2012

NATIONAL AIDS COUNCIL
ZIMBABWE

PRIMARY HEALTH CARE
A HEALTHY NATION
MINISTRY OF HEALTH & CHILD WELFARE
ZIMBABWE

Joint United Nations Programme on HIV/AIDS
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- Professor Simbarashe Rusakaniko (University of Zimbabwe Community Medicine) - (RAC Chairman)
- Shungu Munyati (Biomedical Research Training Institute) -(Vice Chairperson)
- Amon Mpofu (National AIDS Council)
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Preface by the Honourable Minister of Health and Child Welfare

The call for evidence to inform the national response to HIV and AIDS, and guide policy and programme development is a phenomenon that Zimbabwe can no longer ignore.

Over the years, Zimbabwe has recorded significant achievements in the response to HIV and AIDS, such as the decline in both the HIV incidence and prevalence as well as the rise in the number of people accessing treatment services. Despite the achievements, there is urgent need to drastically change the course of the pandemic if our nation has to effectively tame HIV and AIDS. Our understanding of the pandemic and the challenges it brings is a very essential element for effective national response to HIV and AIDS. With a proper understanding of the epidemiological, social and economic aspects of HIV and AIDS, we can certainly develop relevant and appropriate strategies to address the pandemic.

Without research, it is not possible to have such an understanding as well as effective policies and programmes. Before spending money on any intervention, there is need to be fully clear about researched and proven potential effects of an intervention.

These HIV and AIDS Research Priorities are therefore a major step towards building research capability in the national response to the pandemic. I am convinced that these research priorities will give our nation guidance as to which areas urgently require evidence to address current and future challenges in tackling HIV and AIDS. The priorities will also guide our country in spending the limited resources we have in the areas of greatest need. Further, the priorities will not only guide our own researchers but foreign ones too, while also serving as a basis for partnerships and cooperation with external researchers.

Research is not an end in itself as it must produce evidence and new knowledge to inform the development of policies and programmes. The Ministry of Health and Child Welfare is therefore looking forward to an immediate implementation of these priorities and the generation of relevant evidence in the various areas of the national response.

Dr. Henry Madzorera
Minister of Health and Child Welfare

ACRONYMNS

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral Therapy
ARV	Anti-retroviral (drugs)
BCC	Behaviour Change Communication
CBO	Community Based Organizations
CHBC	Community Home Based care
HIV	Human Immunodeficiency Virus
KAPB	Knowledge, Attitudes, Practices and Beliefs
MoH&CW	Ministry of Health and Child Welfare
MRCZ	Medical Research Council of Zimbabwe
MSM	Men who have Sex with Men
NAC	National AIDS Council
NACP	National AIDS Control Programme
NBSZ	National Blood Services Zimbabwe
OI	Opportunistic Infections
PEP	Post Exposure Prophylaxis
PLHIV	People living with HIV
PLWD	People living with disabilities
PMTCT	Prevention of Mother to Child Transmission
pTB	pulmonary tuberculosis
RAC	Research Advisory Committee
SADC	Southern Africa Development Community
STI	Sexually Transmitted Infection(s)
VCT	Voluntary Counselling and Testing
YIS	Youth in School
YOS	Youth Out Of School
ZNASP	Zimbabwe National HIV and AIDS Strategic Plan

Executive Summary

HIV was first identified in Zimbabwe in 1985 and is reported to have reached its highest prevalence of 36% between 1995 and 1997. At the outset, there was no clear indication of the direction of the pandemic and the magnitude of the response reflected this. Since then, the HIV prevalence has declined to the present 13.1% (MoH&CW, 2009), mainly attributable to prevention interventions undertaken by the different stakeholders in the country. The number of people accessing antiretroviral drugs has also risen, with 60% coverage in 2010. The revision of WHO guidelines, raising the threshold for initiation to a CD4 cell count of 350 at initiation has resulted in the need of treatment escalating to close to six hundred thousand adults requiring ART. The estimates quote mortality in 2009 at 57 000 and about 990 000 children orphaned by HIV and AIDS.

The National AIDS Council was established in 1999 and has led the national response in line with national policies, regional and international commitments. The national response is now at a level where it emphasises:

I. reduction of new cases of HIV
II. access to and utilisation of treatment services
III. providing evidence for decision making,
IV. managing processes in the response
V. monitoring and evaluation
VI. coordinating and mobilizing resources in the response to the pandemic.

From the outset, the National AIDS Council recognised the need for evidence based decision making and programming hence organized a meeting in Nyanga in 2005. This meeting focussed on what research activities should assist decision-making in response to the pandemic. The participants made a thorough analysis of what was known (then) and derived what needed to be investigated in order to make a meaningful system response to the HIV pandemic. Resource-limitations prevented implementation of the great ideas and plans generated from that meeting.

More recently, the Southern Africa Development Community, SADC, equally anxious to have evidence-informed responses developed a regional HIV and AIDS Research Agenda in 2008 and also encouraged member states to come up with their own research priorities. The HIV and AIDS Research Advisory Committee, aware of the time that has passed, requested a re-evaluation of the priorities and this document represents the outcome of this process.

This document which highlights the current priority areas for research that NAC will support is a result of national dialogue. The priority areas cover the four broad areas of Prevention, Mitigation and Support, Treatment and Care and Systems, Policy and Cross-cutting issues, wherein the following are some of the key priorities:

1. Evaluation of the impact of existing interventions
2. Gender issues and gender-based interventions
3. Microbiology of infections, strains and resistance
4. Reproductive health knowledge and behaviour change amongst the youth
5. Transmission of HIV: discordant couples, breast milk in Prevention of Mother To Child Transmission (PMTCT)
6. Orphans and Vulnerable Children (OVC): economics, best practices, financing OVC programmes
7. TB: early diagnosis, co-infection with HIV, treatment adherence, drug resistance, transmission to children
8. Antiretroviral drugs(ARVs): choice, availability and access
9. HIV and AIDS and the Military
10. Voluntary testing and counselling: impact, behaviour change and disclosure

This document is recommended for use by research organisations, individual researchers and funding organisations as a guide towards areas of research. Many of these are areas likely to be supported with government resources while applications for approval by the Medical Research Council of Zimbabwe (MRCZ) will be easier to support.

The National AIDS Council and its collaborating partners, including research grant – giving bodies will also make use of this document as a guide to prioritising research in the country.

1. Introduction

Zimbabwe has been experiencing significant declines in both prevalence and incidence of HIV over the years. From a high of over 29% in 1999, the HIV prevalence rate has fallen to 14.2% in 2010 (MoHCW, 2009). The fall has been related to a number of factors such as increased promotion and uptake of HIV prevention strategies, deaths, others. Since the identification of the first case of HIV in 1985, Zimbabwe has been implementing prevention interventions that combined awareness campaigns and prevention strategies such as PMTCT, VCT, condom distribution, blood screening, STI control programmes and others.

In the midst of the decline in the prevalence and incidence rates, there have been various challenges across the national response particularly in the areas of treatment and care and social impact mitigation. The burden of the need for treatment services has continued to rise although significant progress has been recorded. By 2010, Zimbabwe had already initiated over 300 000 clients in ART against a target of 340 000. However, following the adoption of the new WHO recommendations in 2010, which call for people to be initiated on ART at CD4 count of 350, the number of people requiring treatment rose to 560,000.

In addition to treatment, the inadequacy of resources for the national response has also severely worsened the plight of both orphans and vulnerable children and people living with HIV, whose livelihoods have been eroded. The busting of safety nets due to increased inflation and reduced budgetary allocations for social services have left these vulnerable groups more exposed.

Despite these challenges, Zimbabwe has recorded an impressive scale-up of both preventive as well as care and treatment services for HIV in the country following the establishment of the National AIDS Council in 1999. Zimbabwe has adopted a public health approach to addressing the epidemic. The key steps of such an approach include defining the problem and risk factors, developing effective prevention and care strategies, scaling up these interventions, and monitoring and evaluating programme impact. This approach has led to the development of certain successful strategies for both prevention and care. It has also highlighted data gaps and questions that remain unanswered in the development of an effective, coordinated response. These questions can be answered through the conduct of simple, well-designed and programme impact oriented research. With data-driven evidence to guide policy and programme initiatives, the public health approach and the overall scale-up and response to the HIV and AIDS epidemic in the country can be greatly strengthened.

A successful response to HIV and AIDS requires sound coordination and harmonisation of interventions across multiple areas and issues. Similarly, the HIV and AIDS research priorities span a spectrum of topics. These range from the need for reliable epidemiological estimates of the number of persons requiring HIV treatment, the design of evidence-based targeted interventions and harm-reduction strategies to prevent infection, to the need for data-driven methods to enhance treatment outcomes in care and treatment services, with the goal of effectively decentralizing HIV health sector services through a strengthened health system.

To sustain the achievements in the national response and significantly change the course of the pandemic, there have been stronger calls for use of evidence to inform both at policy and programme levels. The absence of a clear set of HIV and AIDS research priorities as

well as funding for research and the lack of platforms for dissemination of research findings were some of the inherent challenges affecting the availability and use of evidence. The strength of national efforts in monitoring the response has unfortunately gone un-complimented with relevant evaluations over the years.

To ensure that a platform for the creation and use of evidence was established, a set of HIV and AIDS research priorities was needed as part of a broader strategy to address the identified challenges.

These HIV and AIDS research priorities were therefore developed. They were developed in a participatory process involving stakeholders and partners in national multi-sectoral response. They are a result of two meetings in 2008 and 2010. The priorities seek to address that major challenges and in part point to other areas that need attention in the pursuit of evidence informed national response to HIV and AIDS. Their main purpose is to guide NAC, stakeholders, and researchers towards the issues in which more knowledge and evidence are required as ingredients for an evidence based national response.

These HIV and AIDS research priorities are presented under the broad thematic areas of:

- Prevention,
- Treatment and care,
- Mitigation and policy and
- Cross cutting issues.

The research priorities are not prescriptive but are strongly recommended as a means of working in tandem with national response to HIV and AIDS in Zimbabwe.

This document presents the HIV and AIDS Research Priorities for the period 2010 to 2012. The priorities are meant to guide NAC, stakeholders, and researchers towards issues in which more knowledge and evidence are required as ingredients for evidence informed national response. They are presented by thematic areas, grouped under Prevention, Treatment and care, Mitigation and Systems, policies and cross cutting issues.

The HIV and AIDS Research Priorities are a result of a rigorous process of stakeholder consultation and participation, literature review and gap analysis.

1.2 Background to the HIV and AIDS Research Priorities

Although there has been considerable output of HIV and AIDS research in Zimbabwe, various challenges have affected the coordination and implementation of HIV and AIDS research as well as the application of resulting evidence over the years. This has resulted in the alienation of evidence in planning and programming at a time when the call for evidence based strategies in addressing HIV and AIDS challenges has been gathering momentum.

The absence of a clear strategy and framework guiding stakeholders as to what must be prioritised in HIV and AIDS research has been a glaring challenge. Although Zimbabwe previously developed an HIV and AIDS Research agenda in 2005, it was never implemented due to various challenges, which included lack of a framework determining clear responsibilities and funding.

The approach to funding for HIV and AIDS has largely been organizational without a central focus that promotes coordination. In that arrangement, the previously developed HIV and AIDS Research Agenda did not attract any funding and hence its lack of impact.

It has always been very difficult to establish the totality of what research has been done or is being done in the area of HIV and AIDS. The absence of a single up-to-date database has resulted in oversights and duplications at times at the expense of resources and time, which could have made an impact elsewhere.

Efforts by Zimbabwe to lay strategies for the coordination and implementation of HIV and AIDS research as well as use of evidence resonated with a regional drive by the Southern African Development Community (SADC). In 2007, SADC convened a meeting to develop a regional HIV and AIDS Research Agenda, which was finalised in 2008. The regional body encouraged member states to develop country-specific research agendas that would unpack and localise the regional agenda. Mindful of the limited funding for research in the member states in general, a US$7 million fund was set aside to support the regional agenda.

Without clear platforms for dissemination and transfer of research findings to influence policy formulation and programming, many Zimbabweans have had to learn about local research findings when they have been disseminated elsewhere.

To ensure that evidence is regarded seriously and therefore utilized in developing policies and programmes in the national response to HIV and AIDS, NAC realized and acknowledged the need for an overarching strategy that would address the majority of the above challenges.

1.3 The Process of Prioritisation

With funding from the Expanded Support Programme, NAC thus convened an all stakeholders meeting to develop HIV and AIDS research priorities in 2008. Unfortunately due to funding challenges, the resulting report was never finalized and the challenges continued to be mitigated in a piecemeal approach.

It was only after 2009 when NAC established a multi-sectoral Research Advisory Committee (RAC) that a coordinated approach began to take shape. The RAC has a consultative mandate to support the National AIDS Council in carrying out its mandate of coordinating the national response to HIV and AIDS, through promoting and coordinating HIV and AIDS research, acting in close cooperation with internal and external institutions pursuing common goals and with the research community at large.

A meeting was held from 27 to 28 May 2010, to update the priorities. The priorities were therefore developed in a participatory process involving stakeholders and partners in national multi-sectoral response.

As part of the process of development of these priorities, a literature review of existing evidence was conducted to identify areas with gaps and therefore needing prioritisation. The process was also intended to ensure that the priorities do not duplicate research in areas where evidence already exists.

1.3.1 Why HIV and AIDS Research Priorities in Zimbabwe?

This research priority document was developed specifically to:

1. Inform researchers, partners and stakeholders in the national response of specific research issues that are critical to the national response to enable better understanding of the pandemic
2. Serve as an instrument for the coordination of HIV and AIDS research in the country
3. Guide researchers and research organisations to areas of importance to the country, which can receive funding support where resources are available

The priorities are presented under the broad thematic areas of prevention, treatment and care, mitigation and policy and cross cutting issues. They are not prescriptive but are strongly recommended as a means of working in tandem with the national response to HIV and AIDS.

1.4 The Processes of Identifying the Research Priorities

The prioritisation process followed meetings that were held in 2008 in Harare where four key thematic areas had been identified:

- Prevention
- Treatment and Care
- Mitigation
- Policy and Cross Cutting Issues

The identification and prioritisation was guided by a tool adapted from: *Varkevisser, C.M., Pathmanathan, I., Brownless, A. 1991. Designing and conducting health systems research projects. Module 3: Identifying and prioritizing problems for research. In: Health Systems Research Training Series. International Development Research Centre and the World Health Organization. 2(Pt 1):34.).*

The tool consists of a seven point criteria that ranks issues from 1 to 3 for each point. Ordinarily, all research topics scoring higher overall marks are deemed high in priority. However, it was pointed out that despite scoring a higher overall mark, a topic that scored lower on the ethical criteria should be automatically deemed problematic.

The following are the components of the tool:-

Relevance

- 1= Not relevant
- 2 = Relevant
- 3 = Very relevant

Avoidance of duplication

- 1 = Sufficient information already available
- 2 = Some information available but major issues not covered
- 3 = No sound information available on which to base problem-solving

Feasibility

- 1 = Study not feasible considering available resources
- 2 = Study feasible considering available resources
- 3 = Study very feasible considering available resources

Political acceptability

- 1 = Topic not acceptable to high level policy-makers
- 2 = Topic more or less acceptable
- 3 = Topic fully acceptable

Applicability

- 1 = No chance of recommendations being implemented
- 2 = Some chance of recommendations being implemented
- 3 = Good chance of recommendations being implemented

Urgency

- 1 = Information not urgently needed
- 2 = Information could be used right away but a delay of some months would be acceptable
- 3 = Date very urgently needed for decision-making

Ethical acceptability

- 1 = Major ethical problems
- 2 = Minor ethical problems
- 3 = No ethical problems

Using the above criteria, workshop participants were divided into four thematic groups as highlighted earlier, to score and prioritise those areas. The outcome of the process is detailed in the section that follows:

2.0 Identified HIV and AIDS Research Priorities

2.1 Prevention

2.1.1 Male circumcision (MC)

MC had been piloted in Zimbabwe following WHO recommendations. Zimbabwe has already developed an MC policy and strategy to guide a national rollout. The MC policy and the national roll out guidelines have raised a number of issues that need further understanding through research, namely:

a. Evaluating the impact of male circumcision on the (pandemic) at population level and on different population groups.
b. How does the manner of the roll out affect the impact on the pandemic?
c. What coverage can the MC roll-out achieve?
d. How do the various communities and population groups respond to the call for male circumcision?
e. Does MC have an impact on blood safety?
f. What is the impact of MC on gender dynamics and how does this relate to uptake of MC?
g. How do women groups view MC and their extended role as care givers in what is perceived as a process largely benefitting men?
h. What effect has Testing and Counselling (TC) as part of the MC package on uptake of MC itself?
i. How do the traditional circumcising groups view medical MC and how do they intend to fit in it?
j. What is the most effective community mobilisation communication and what effect has this on behaviour change modification?
k. What is the extent of resultant behaviour disinhibition and what impact will this have on the pandemic

2.1.2 Prevention of transmission of HIV to newborns

Prevention of mother to child transmission of HIV is a critical component in creating an AIDS-free new generation. It was noted through the prioritisation process that breast feeding policies need review based on hard research evidence. The national policy currently advocates exclusive breast feeding for HIV positive mothers in the Prevention of Mother to Child Transmission (PMTCT) programmes. Areas identified as needing better understanding are based on the following questions:-

a. What is the nutritional impact in different population groups of this policy?
b. How much choice do HIV positive mothers have and how well do they understand the implications of the choices they make?
c. To what extent is this policy understood by the service providers at different levels in the health delivery system?
d. To what extent is this policy actually followed? (What are the factors that prevent adherence to the elements of the policy, e.g. exclusive breast feeding is for a minimum of six months: how does a working mother cope with this?

e. How does availability and levels of disposable household incomes affect adherence to breast feeding policies?)
What are the models of breast feeding compatible with our life styles, cultural practices and the lifestyles of working women?
f. What role does the breast feeding policy play in stigma, discrimination and confidentiality

2.1.3 Testing and Counselling:

Zimbabwe provides a two tier testing and counselling service, namely the Provider Initiated Testing and Counselling (PITC) introduced in 2008, and the Voluntary Testing and Counselling (VCT).

Identified research questions in this area are:

a. What have been the effects on individual motivation towards voluntary testing and counselling (VCT)?
b What has been the impact of PITC on the numbers tested?
c How do VCT and PITC compare as delivery methods?
d. What is the uptake (and coverage) of testing in this country?

2.1.4 What are the drivers of the pandemic?

There is need to define the most at risk populations (MARPS) and the dynamics of such groups including the following:

a. Youths in tertiary education, within and outside the country

(i) College students, especially in light of the level of impoverishment and living conditions of students in tertiary education not living at home
(ii) Recipients of University Scholarships who go out of the country and face different environments and some who have financial difficulties while out there

b. The Military (all uniformed forces, Army, Air Force, Police, Prisons and the National Parks Authority) with their mobility and working conditions (including cross-border deployment)as well as the fact that they attract young, single persons.
c. Men who have sex with Men (MSM): What is the magnitude of MSM?
d. Prisoners while they are inmates and at release
e. Sex Workers. Who are sex workers? What is their capacity to negotiate for safe sex? How can their impact on the pandemic be turned into a positive factor in behaviour change?
f. Children of parents in the Diaspora. These are often the recipients of money far beyond their needs in as much as they represent recipients of different patterns of parenting.
g. Multiple concurrent partnerships (MCPs)

2.1.5. HIV-related Malignancies:

have been a burden of disease that the health delivery system has struggled to cope with under normal circumstances. HIV and AIDS has come with changes in malignancies, their pattern and modes of presentation and therefore creating changes in needs for surgical services and oncology services. Kaposi sarcoma is an obvious example. There is need to define, and continue to define:

a. What impact has HIV and AIDS had on disease patterns in cancers?
b. What are the service needs of these cancers in terms of surgery, chemotherapy and radiotherapy?
c. What impact do these demands have on the health delivery system?
d. What resource and training needs are generated?
e. Can these cancers be detected early, can they be prevented?

2.1.6. Protection and support for Care-givers:

The magnitude of the pandemic is such that institutional care is not a viable option. Community home-based care therefore provides a viable option but the following questions in terms of protection and support for the care givers still need to be addressed.

a. What infection control practices work best and how can care givers be adequately trained and supported with appropriate materials?
b. In institutions, how can providers be protected (infection control practices)
c. What post exposure prophylactic (PEP) measures work and how can their provision be optimised?
d. What factors affect how health workers deal with PEP?
e. Should HCWs working in the TB wards be tested for HIV ?

2.1.1: Top Ten Prevention priority areas in the in order of descending priority:

- Youths in and out of School (YOS)
- PMTCT
- Male Circumcision
- High Risk Groups
- Behaviour change communication
- Infection control
- HIV-related Malignancies
- Voluntary testing and counselling
- Workplace programmes
- Blood safety

2.2 Treatment and Care

The treatment and results of management of AIDS and TB remain areas of great concern. The greatest issues facing our nation include how to ensure access to treatment and care for all citizens needing treatment, that diagnosis and treatment are offered accurately at the best time for the individual, and that treatment options work best and are cost effective. Zimbabwe has decentralised Opportunistic Infection treatment centres nationwide but the performance and impact of the services are not yet clear, raising the following research issues:

2.2.1 Access, efficacy, control and management of Antiretroviral Therapy (ART)

This area encompasses a complex interplay of factors looking at the whole of delivery of care in HIV and AIDS, ranging from diagnostic issues in HIV, diagnostic and treatment issues in opportunistic infections, diagnosis and treatment of AIDS and AIDS-related illness, with the following research issues becoming pertinent:

a. With regards to AIDS, questions are on what are the treatment options. How much is the individual patient involved in the choice of first line treatment, second line treatment and the presence / absence of a third line option. Is the absence of choice a reflection of resource constraints or capacities of human resources in terms of their knowledge of drugs, their effects and, in particular, side effects?
b. How are issues of access, equity and choice managed in our delivery system?
c. How much do providers know and assist patients in making choices of therapies? What is the training of providers at all levels and how much does this affect the quality of care they give?
d. What are the outcomes of therapies in our system and what factors determine this?
e. What are the strengths of the delivery system in terms of strengths and logistics at the levels of:

    (i) Drug delivery and support systems
    (ii) Drug management and control, functions (supply chain issues as well as provider performance)
    (iii) Monitoring and evaluation strengths of the health system.

f. There is need to define processes surrounding

    i. Care and treatment (choice, management of side effects),
    ii. Access to care and treatment
    iii. ART: Adherence and follow up
    iv. Drug resistance to ART
    v. Quality of life on ART
    vi. Knowledge, perceptions and attitudes regarding ART

2.2.2 Community Home Based Care (CHBC):

Resource constraints in offering institutional care forced the Ministry of Health and Child Welfare to embark on Community Home Based Care. Many lessons were learnt along the way, resulting in several publications. A number of questions, including the following however remain unanswered:

a. What is the quality of care on the ground?
b. What is (and what should be) the preparation and support for the care givers?
c. How are resources for care givers provided? How should resources be channelled to the care givers? Should it always be through community-based organizations (CBO's)
d. How should issues of infection control in the home be approached?
e. What is the role of nutrition as a factor in determining outcomes?
f. What is the impact of food supplement provision?
g. What is the national coverage of CHBC?
h. What are the challenges and opportunities of CHBC?

2.2.3 Pharmacovigilance of alternative therapies

It is an accepted fact that a number of patients on or requiring ART seek alternative therapies or take them concurrently with the formal ART medications. What therefore:

a. Is the relationship between conventional and alternative therapies?
b. Are the interactions between conventional and alternative therapies?
c. Drug side effects are seen and how can they be ascribed to either
    i) Access issues prevailing in relation to alternative therapies?
    ii) Interactions between conventional therapies and alternative therapies?
d. Is known about the effectiveness of alternative therapies (in general or specifically)?
e. Is the relationship of nutrition to outcomes?

2.2.4. Pulmonary Tuberculosis (pTB)

pTB presents the problems of resurgence of a condition in the wake of the AIDS pandemic. Issues include the coexistence of the infection with HIV and AIDS, the problems pTB presents to the provider as to when to start ART in the presence of untreated TB. The diagnosis of pTB itself is problematic, especially in smaller units. An emerging problem is drug resistance, especially multi-drug resistant TB.

In this area, specific issues identified as needing investigation include:

What are the effective and reliable rapid and simple diagnostic protocols? How can adherence to protocols by providers be ensured?
What is the role of TB cultures? How should TB culture results be made available to providers?
How should treatment be delivered to TB cases, including introduction and timing of ARV treatment?
Drug resistance: how to recognise, diagnose and manage drug resistance

2.2.5 Cost of care in institutions

There is yet to be defining research on the cost of care in hospitals and other institutions for HIV and AIDS, and AIDS-related illnesses. Information is needed to compare different modalities of delivery of care and their outcomes.

Related to this is the economic dynamics of people living with HIV (PLHIV). How do they cope with HIV and AIDS at the workplace, at home when they require treatment and especially when they require institutional care? How do families prioritise needs, including health care costs of the HIV positive family member against inadequate family disposable incomes?

2.2.6 Relationship between nutrition and PMTCT

Whilst there are official policies on breast feeding, supplementary feeding or artificial feeding regimes, there is an observed lack of clarity in the policies themselves. There is a discrepancy between policy and what is happening on the ground, raising the following questions that need investigation:

a. How well are the policies and their meaning to clients communicated?
b. How do clients make the choice amongst the options available?
c. What is the relationship between PMTCT therapies and breast feeding?
d. What factors affect adherence to breast feeding policies and
e. What is the impact of breast feeding policies on the baby's growth and on HIV transmission?

Top Ten Treatment and Care Priorities in order of descending priority:

- Access, efficacy, control and management of ART
- Quality of care in CHBC
- Pharmacovigilance of alternative therapies
- Health systems: drug management and control, functionality of health systems
- pTB: diagnosis, adherence to treatment and drug resistance
- quality of life and adherence to ART
- Drug resistance in ART
- Cost of care in hospitals
- Relationship between nutrition and PMTCT
- Challenges and opportunities of CHBC

2.3 Mitigation and Support

AIDS has created a large number of orphans and vulnerable children as well as other sub population groups. Some of these are cared for by the extended family. Many are in the care of an aged relative, often a grandmother. A number of households are headed by children. Issues in this category are related to how orphans and other vulnerable groups as well as their needs should be identified and assessed, how resources should be allocated and channelled to them. The impact of services delivered to these groups is largely yet to be assessed and therefore the modes of delivery of services, yet to be evaluated. With children, there are the additional and specific policy issues of institutionalisation (should fostering outside the extended family be promoted?), barriers to birth registration (affecting access to education and later job opportunities), and how much should the children themselves participate in decisions relating to child-focussed interventions.

People living with HIV (PLHIV), orphans and vulnerable children (OVC's), face issues of nutrition and food security, stigma and discrimination, the need for support groups, education, training and livelihood.

2.3.1 Orphans and vulnerable children

The following are the research issues identified in this area:-

a. How to assess the needs of OVC's. How should the children participate in this process?
b. What are the ideal ways of fostering OVC's?
c. How and when to institutionalise children. What is the impact of institutionalisation of children on growth and social development?
d. Understanding the needs of OVC's
e. Allocation and channelling of funds and other resources to OVC's. [*The model of channelling resources to OVC's is not as important as the services themselves].*
f. What is the minimum package of services to OVC's
g. What are the needs of services to adolescents?
h. What are the needs of and how should child-headed households be supported?

2.3.2 People Living with Disabilities (PLWD)

This group is very similar to adolescents in that it has, hitherto, been wrongly lumped with other groups. People living with HIV and disabilities have expressed a strong need to be recognised as a unique group. Therefore, there is need to:

a. Assess their service needs in the same way as adolescents above and define the minimum package of services .
b. Define models of channelling resources to community based organizations (CBO's) serving PLWD.
c. Define methods of transferring skills to PLWD so that projects are sustained at programme termination.
d. Skills transfer itself was recognised as a Cross-cutting Issue.
e. Assess whether IEC materials are available and adequate for the different categories of PLWD

2.3.3 Other vulnerable Groups

These have been recognised to include widows, widowers, single parents and the elderly. Specific information is needed on the most appropriate livelihood models for married couples where one spouse/partner is incapacitated by HIV.

Identified research issues in respect of these groups are as follows:

a. What is the impact of cultural norms in the coping mechanisms of these groups?
b. What are the appropriate livelihood models for couples where one partner is incapacitated with AIDS?

2.3.4 Stigma and discrimination

Identified research issues in respect of stigma and discrimination are as follows:

a. Has education and training of service providers had an impact on stigma and discrimination?
b. What coping mechanisms do PLWHIV use to counter stigma and discrimination?
c. Have workplace programmes affected stigma and discrimination at the workplace?
d. Has education and training had an impact on willingness to disclose HIV status? To what extent does access to treatment promote HIV disclosure and positive living?
e. Is the girl child more exposed to stigma and discrimination than the boy child?
f. What is an effective support group?
g. What impact have HIV and AIDS curricula for health professionals had on stigma and discrimination?
h. What impact has certain laws and policies have on stigma and discrimination (some laws by accident and not design might exacerbate the issues of stigma etc?)

Top Ten Mitigation Priorities in descending priority:

- How to involve People Living with HIV in decision-making
- OVCs : what services and how best to get them to this group?
- HIV and AIDS Services targeted at adolescents : defining the minimum package of services and how to deliver them;
- Children living with HIV - AIDS
- Stigma and discrimination among adolescents
- Establishing a stigma index
- HIV disclosure: does access to treatment promote HIV disclosure and positive living
- Services to People Living With Disabilities : defining the minimum package of services and how to deliver them;
- Nutrition and food security to each vulnerable group
- Livelihoods: defining most appropriate models for vulnerable

2.4 Systems, Policies and Cross-cutting Issues

It is now widely acknowledged that there is a need to share all information on HIV and harmonize it so that information is collectable and usable across platforms and by all decision makers.

Databases that can talk to each other are needed. This will create opportunities for existing data to be subjected to further analysis / meta-analysis as the need arises.

There is need to enable NGOs to deposit their data with NAC and extinguish the demonstration of competition between NGOs and NAC, which cannot be allowed to override the national interest. A number of NGOs currently voluntarily deposit their research results with NAC. However, others do not. Some even carry out tests on Zimbabwean citizens and do not disclose the results.

2.4.1 Monitoring and Evaluation

In line with the three ones principle, Zimbabwe has a single national Monitoring and Evaluation System for the national response to HIV and AIDS. The system is complemented by a National M&E Plan which has specific indicators and targets. Although progress has been made in data collection and international reporting, challenges still reside in a number of areas such as data quality management and utilisation of data among others. The following are the issues identified for research in this area:

- Establish systems of collecting information on the individuals accessing ARVs from "Private Doctors and mission hospitals
- Reviewing and evaluation of M&E policies and systems in place.
- What are the current HIV and AIDS Clades (ABC), Strains (HIV 1 &2)
- Establishing the sensitivity to antiretroviral drugs of strains circulating in Zimbabwe
- How cost effective are the current HIV and AIDS interventions?
- What tools are available to measure impact of interventions?
- Surveys to measure the number of people accessing ARVs and their sources

2.4.2 Coordination

Although the National AIDS Council has created platforms for improvement in the coordination of various efforts in the national response and adherence to the "three ones" initiative, challenges still remain in ensuring complete harmonisation and alignment of the response. As a result, the following issue was prioritised for research in this area:

- Establishing effectiveness of the decentralized multi-sectoral approach

2.4.3 Capacity-building and infrastructure

The economic and social challenges affecting Zimbabwe over the years have had a knock on effect on the capacity of the overall health delivery system as well as the national response to HIV and AIDS in terms of staffing and systems. Resulting issues identified for research are as follows:

- Establishing the impact of brain drain on the health sector
- Establishing the availability / accessibility of health equipment.
- Establishing the functionality of health facilities, e.g. labs, surgeries, equipment (CD4 count, haematology machines, liver function test machines, etc.), etc

2.4.4 Women, Girls, HIV and AIDS

Zimbabwe has been making strides in mainstreaming gender in the national response to HIV and AIDS. A national policy to this effect as well as laws in areas such as domestic violence and inheritance have been in place but their effect and impact have yet to manifest themselves.

- To do a programme audit into the extent to which women and girls are mainstreamed into HIV and AIDS programs
- To establish the source of information or where information relating to gender based violence, women, girls, HIV and AIDS can be obtained from
- What is available on female controlled devices, e.g. female condoms and microbicides based on the fact that current researches have not been conclusive?
- Establish the availability of post exposure prophylaxis and linkage between service providers

2.4.5 Regulatory framework

Legal advice suggests that a sufficient regulatory framework has been created. Resources would appear to be the major limiting factor in assuring monitoring of researcher activities. The Medical Research Council of Zimbabwe (MRCZ) clearly has staff and resource constraints in discharging its mandate as a statutory body. The Institution needs strengthening. Nevertheless, it has already created a comprehensive framework for researchers to apply for research approval even though their monitoring capacity is yet to become adequate.

There remain grey areas in terms of policy clarity. Areas where concern resides and exploration would be useful include:

1. Issues of confidentiality in health institutions and policies regarding disclosure.
2. Use of children and partners for surrogate testing
3. The management of adolescents regarding access to VCT and ART
4. Issues of lesbians and men who have sex with men.

2.4.6 Advocacy

It is hoped that the Research Priorities document would be used in Government to mobilise resources for research and to facilitate approval for appropriate research projects.

More studies are needed on gender issues (gender-based violence, female controlled devices, and behaviour disinhibition, traditional practices, and the use of PEP services by health professionals.

There is concern that Zimbabwe is not using its pool of well qualified Diasporas more effectively, in spite of the extent of the brain drain.

a. How do women groups feel about their extended roles as care givers?
b. How do women feel about blame in the household after "immunisation" of the male after male circumcision?
c. How to communicate advocacy for MC to women who feel they are victims of the programme?
d. How to assure women that MC does not take resources from their programmes?

2.4.7 Databases

HIV and AIDS data management and access are very important elements of research capability, which should enable researchers and managers of the pandemic to:

- Identify existing knowledge
- Define knowledge gaps
- Access previous research data for further analysis.

As part of this, it is best for national research data to be pooled and be accessible by all. There is need to create mechanisms or a platform whereby all data, however created or stored, needs to have a common language for access. There is a need to tie the national data to regional and international data.

In doing this, however, there is need to recognize and respect issues of ownership of data, especially where competing organizations might be involved. Therefore it was further agreed that mechanisms will need to be created for access keys so that permission is always sought by the researcher from the data owner. Notwithstanding, the Ministry of Health and Child Welfare in terms of the office of the Permanent Secretary will need to have access to this data at all times and without restriction.

It is, therefore recommended:

That a comprehensive HIV and AIDS research database be created urgently and updated annually
That it be stored physically in a unit in the country, preferably the National AIDS Council
The access be electronic and internet based, therefore be universally accessible.

Access and use of the database shall be governed by the following conditions:

- Permission to carry out research on HIV and AIDS in Zimbabwe can only be granted if an undertaking is made that the results shall be stored in the National Database. The concept of sharing data shall be encouraged through linking the National Database with other available databases elsewhere.
- All published research on HIV and AIDS on Zimbabwe or needed in Zimbabwe shall be stored in this database, e.g. SADC materials, other international publications.
- Any person seeking access to the data in storage shall need permission from the owner of the data.

NAC and partners, as the gate keepers, shall create the mechanisms for this permission to be sought and granted. These mechanisms must have a high level of security

- The public accounting officer for the health sector, i.e., the Secretary for Health, shall have access to the entire database.
- NAC shall determine who should have access and how in order to provide for protection of owners of data from competitors.

3.0 Taking the research agenda forward

The HIV and AIDS research priorities for Zimbabwe range from those focused on prevention to those related to enhancing treatment outcomes and further strengthening the health systems on which all these programme activities rely. While some of these research priorities can be applied equally to all provinces, others will have more relevance in areas with a higher burden of HIV and AIDS. The national HIV and AIDS programmes in Zimbabwe will have to prioritize specific research needs in light of the local context of the epidemic. Furthermore, the implementation of quality research requires national-level commitment to ensure trained practitioners and experts of varied backgrounds, who can effectively design, conduct, supervise and analyse research studies.

Ultimately, the goals of such research activities are to advance, improve and enhance Zimbabwe's national response to HIV and AIDS. For research results to truly impact programme activities and policy, mechanisms will be required to ensure that research findings can be broadly communicated to local stakeholders as well as national decision makers.

The success of research ultimately relies on effective partnerships between local, non governmental, state, national and international partners, who can together effectively translate research findings into policy and practice to better control the HIV epidemic in this country.

3.1 Epidemiological research priorities

Relevant and reliable data are needed to plan for and scale up HIV prevention, care and treatment services. In most countries, second-generation HIV surveillance systems and mathematical models are used to obtain the required data. While progress has been made in collecting the relevant information for planning and monitoring HIV programmes, several data gaps remain. In particular, there is a critical need to understand the number of people and characteristics of the population groups most at risk for HIV, the proportion of individuals who have become newly infected with HIV, the number of prevalent HIV infections, the number of HIV-infected individuals who require antiretroviral therapy (ART) and the estimated mortality due to AIDS. These areas will therefore also be considered in the implementation of the these research priorities.

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Appendices : List of participants to the HIV and AIDS Research Priorities Meeting, 27-28 May 2010

	NAME	ORGANISATIION	DESIGNATION	E-MAIL ADDRESS	TELEPHONE NUMBER
1	Toindepi Mahaso	Tamuka	Programme Manager	tamukafoundation@yahoo.com	0912 869069/ 0733 277 923
2	Anna-colletor Penduka	WASN	Women's Programme Manager	director@mweb.co.zw or cpenduka@yahoo.com	04 791401/2/4
3	Lindiwe Ngwenya	ZWRCN	Programme Assistant	lindiwen@zwrcn.org.zw	0913 064 525/ 04 252389/90
4	Patience Chibaya	WAG	Programme Assistant	wag@wag.org.zw	0915 158 394/ 04 308 728
5	Evelene Taadira	Herald	Journalist	evetaadira@gmail.com	0912 914 469
6	Amon Mpofu	NAC	M & E Director	ampofu@nac.org.zw	0912 415 145
7	Shorai Huwa	NAC	Database Officer	shuwa@nac.org.zw	0912 935 310
8	Lovemore Gwanzura	CHS	Professor	gwanzura@mweb.co.zw	0912 240 250
9	Godfrey Musoro	UZCRC	Medical Officer	gmusoro@mweb.co.zw	0913 944 429
10	Lawrence Maboreke	UNAIDS	M & E Officer	maboreke@gmail.com	0912 252542
11	Nyamukapa C	BRTI Manicaland	Research Operations Director	cinyamukapa03@imperial.ac.uk or nyamukapaconnie.co.uk or nyamukapaconnie@gmail.com	0712 308 565
12	Wilson Mashange	BRTI CIHP	Research Officer	wmashange@yahoo.co.uk or wmashange@brti.co.zw	0913 654 909
13	Tsitsi Bandason	BRTI	Project Coordinator	tbandason@brti.co.zw	0912 942 268
14	Misheck Rusere	Freelance Journalist	Reporter	mrusere09@gmail.com	0912 858 205
15	Joseph Tinarwo	HOSPAZ	Programme Assistant	joseph@hospaz.co.zw	0912 485 519
16	Mambeu Shumba	NAC	Planning and Implementation Coordinator	mshumba@nac.org.zw	0913 403 084
17	Noah Taruberekera	PSI Zimbabwe	Research Director	ntaruberekera@psi-zim.co.zw	04 339580
18					
19	Tendai Mhaka	ZNNP+	Programme Manager	tfmhaka@yahoo.co.uk or tendaifmb@gmail.com	0912 344 982
20	Nyarai Soko	SIRDC	Senior Research Scientist	nsoko@sirdc.ac.zw	0912 973 506 / 0733 416 746 or 860357
21	Melody E. Phiri	MRCZ	Research Officer	lizphiri@gmail.com	0912 283 669 or 0733 352 286 or 04-790715
22	Florence D. Majo	Zvitambo	Research Supervisor	fmajo@zvitambo.co.zw	0912 270 121 or 850732-3

23	Batsirai Mutasa	Zvitambo	M & E Officer	bmutasa@zvitambo.co.zw	0912 453 541 or 850732-3
24	P Chari	Action	Research Coordinator	pyke@action.co.zw	
25	T. Mwadiwa	ZIMSTAT	Statistician	tmwadiwa@gmail.com	0913 169 839
26	R. Masanganise	UZCHS	Deputy Dean	drmasonganise@eaueu.co.zw	0733 410 503
27	Fortunate Machingura	Training and Research Support Centre	Programme Manager	tarsc@ai.co.zw or fortunate@tarsc.org	04 708835 or 0912 971 481
28	Emma Mudzura	MCAZ	Senior Regulatory Officer	emudzura@mcaz.co.zw	0912 313 514 0r 708 255
29	Junior Mutsvangwa	BRTI	Head of Laboratories	jmutsvangwa@brti.co.zw or jmutsvangwa@nuhr.co.zw	703522 0r 0712 419 637
30	Freeman Dube	NAC	Research and Documentation Coordinator	fdube@nac.org.zw	0912 431 038
31	Orirando Manwere	NAC	Communication and Advocacy Officer	omanwere@nac.org.zw	0912 802 124
32	Perpetua Chikolere	Standard Paper	reporter	perpechiko@gmail.com	0913 094 016
33	Chipo Samra	Faith Support Group	Member		0913 193 238 or 0734 030 825
34	Mercy Gomo	UZ Support Group	Member		0733 329 614
35	Elizabeth Gonese	CDC AIDS and TB Unit	HIV Surveillance	gonesee@zw.cdc.gov	0912 129 114
36	Edwin Mpeta	MOHCW	Deputy National ART Coordinator	mpetae@yahoo.com	0712 798 276
37	Otilia Mutwira	Chengetanai Support Group	Member	93 Zambe Street Mbare	0912 416 066
38	Martha Nyandoro	Chengetanai Support Group	Member	1725 Overspill Epworth	0913 830 289
39	C. E Ndlovu	HAQOCI/NDTPAC/UZ/CHS	Director HAQOCI	mascen@mweb.co.zw	0712 206 313/ 0912 412 701
40	Tinashe Mwadiwa	ZIMSTAT	Statistician	tmwadiwa@gmail.com	0913 169 839
41	Angelina Lunga	ZIMTA	HIV and AIDS Coordinator	lungaangelina@hotmail.com	0912 251 960
42	Millicent Dengwani	New Ziana	Reporter	newsroom@africaonline.co.zw or millsdengwani@gmail.com	0733 821 620
43	Crispen Mupungani	NIHR	Medical Research Officer	mupungani@gmail.com	0912 352 784

44	Dr S I Mutambu	NIHR	Acting Director	slmutambu@yahoo.com	0913 786 602
45	Dr Clemens Benedikt	UNFPA	HIV Prevention Programme Manager	benedikt@unfpa.org	0912 418 642
46	James Makoma	Herald	Reporter/Editor	Jimmy.makoma@gmail.com	0712 379 832
47	Tendai Kudzunga	IOM	Programme Assistant	tkudzunga@iom.int	0913 033 745
48	Clever Mukove	VAPRO	Programme Manager	vapro@zol.co.zw	04 775870
49	Shungu Munyati	BRTI	Assistant Director General	smunyati@brti.co.zw	04 735000
50	Phineas Makurira	NAC	Board Vice Chair		0912 787 152
51	Takudzwa Hanyani	ZAN	Information Officer	takudzwa5@cooltoad.com or intern-information@zan.co.zw	0913 456 599
52	Patience Mukwambo	UZ – Centre for Population Studies	Lecturer	pmukwambo@social.uz.ac.zw	0913 065 897
53	Nyasha Maravanyika	Health Services Board	Public Relations Head	nyashadm@yahoo.ca	0912 876 307
54	Fatima Bulla	Kwayedza	Journalist	Fatima.bulla@zimpapers.co.zw	0912 892 872
55	Josephin Taderera	UZ	Cashier	0733 056 691	
56	Lameck Munangaidzwa	NAC	M & E	lmunangaidzwa@nac.org.zw	0912 928 008
57	Beauty Nyamwanza	NAC	Youth Coordinator	bnyamwanza@nac.org.zw	0912 381 201
58	Fungisai Kwaramba	Media	Reporter	fungikwaramba@gmail.com	0913 197 037
59	Garikai Chaunza	Medico	Reporter	schaunza@gmail.com	0912 594 780
60	Mathias Guchutu	NEUZ	National Coordinator HIV/AIDS Desk	mguchutu@yahoo.com	0733 961 105
61	Yemurai Nyoni	NAC	Youth Intern	ynyoni@nac.org.zw	0912 117 158
62	George Mangwiro	ZABS TRUST	Director	georgemangwiro@yahoo.com	0913 827 576
63	Maxwell Kapachawo	MFF	Director	maxwellkapachawo@yahoo.com	0912 218 955
64	S. Muzite	RCZ	Executive Director	susan@rcz.ac.zw Box CY 294 Causeway Harare	0712 874 726
65	C. S Mangwiro	ZABST	CEO	georgemangwiro@yahoo.com	0913 827 576
66	T. Songore	VIM	P.D	tatendasongore@yahoo.com or tatendasongore@gmail.com	0912 546 488
67	B. Kahwema	ZABST	Information Officer	beautysuits@cooltoad.com	913 836