ZIMBABWE

Quality Assurance and Quality Improvement Strategy 2016-2020

Ministry of Health and Child Care

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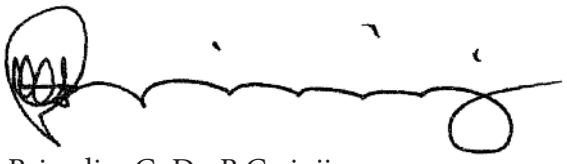
Health Development Fund
Supporting the National Health Strategy to improve access to quality health care in Zimbabwe

FOREWORD

The mission of the Ministry of Health and Child Care in line with the Primary Health Care Approach is "to provide, administer, coordinate, promote and advocate for the provision of equitable, appropriate, accessible, affordable and acceptable quality health services and care to Zimbabweans while maximizing the use of available resources." It is therefore important the country has a policy on Quality Assurance and Quality Improvement (QA/QI) with the ultimate aim of providing the highest quality of healthcare services to the people of Zimbabwe. I sincerely believe that this is achievable and we have the potential to deliver.

The development of the QA/QI Strategy was a consultative process involving multiple stakeholders in the Health Sector. This was led by the Ministry of Health and Child Care including, public, mission, private and public health programs and projects in the country with technical assistance from partners. Thematic working groups with wide stakeholder representation were instrumental in the development of this strategy. The two main focus areas of the strategy are the horizontal dimension of the strategy dealing with QI of cross-cutting issues related to health service organisation, and the vertical dimension of the strategy dealing with QI for disease specific issues.

We are aware of the challenges in delivery of reliable and responsive high quality healthcare and improving people's lives. This strategy provides a basis for all to focus our combined efforts on what is required to address current and future challenges to ensure high quality healthcare for ourselves and generations to come.



Brigadier G. Dr. B.Gwinji
Secretary Minister of Health and Child Care

ACKNOWLEDGEMENTS

The Quality Assurance (QA) and Quality Improvement (QI) Department within the Ministry of Health and Child Care (MOHCC) would like to acknowledge the contribution of various individuals and organisations to the formulation of the QI Strategic plan for Health in Zimbabwe. Their contributions were through providing information during interviews, relevant documents and participating in thematic group discussions. The list of contributing persons and organisations is listed in appendix section. Special thanks goes to Secretary for Health and Child Care Brigadier General Dr G. Gwinji and Dr D. G. Dhlakama Principal Director Policy Planning Monitoring and Evaluation for their excellent support throughout the strategy development process.

The QA and QI department acknowledges the Maternal and Child Health Integrated Program (MCHIP) for financial and technical support in hiring of the consultants and convening of stakeholder meetings. The QA and QI department also acknowledges the technical contributions of Prof R Kambarami, Dr H Chiguvare from MCHIP, and Dr J Keatinge from USAID.

Likewise, the QA and QI department would like to also acknowledge the financial and technical contributions of the World Bank via support for a consultant and ongoing contributions to the QA/QI policy and strategy documents.

The consultancy services for desk review, coordination, writing and final production of the document were provided by Dr N Masuka, Dr K Hill and Dr G Shambira. The QA department led by Dr Z Chiware provided secretarial support and coordination of stakeholders who participated in the formulation of this strategy. The final editing and proof reading was done by Drs Endris Mohammed, B. B. Khabo and J. Z. Chiware.

EXECUTIVE SUMMARY

The health sector in Zimbabwe is in recovery mode after a decade of significant challenges spanning from inadequate financing and shortages of qualified staff, poor infrastructure and obsolete equipment. As the health sector recovers, it is important that Quality Assurance (QA) and Quality Improvement (QI) be embedded and become a culture of doing business in the Health Sector.

The development of the QA/QI strategy was led by the MOHCC through a consultative process involving selected stakeholders including Provincial and District Health Executive teams, public and private health workers, Non-Government Organisations and technical partners involved in the health sector. The process started in late 2012, with support from a team of two consultants who were hired with specific terms of reference. A series of meetings, key informant interviews and stakeholder workshops were conducted from situation analysis to drafting of a policy framework culminating in the strategic plan. Four main thematic working groups were formed on: Standards of Healthcare; Patient/Client Safety; Patient/Client Satisfaction; and Health Worker Attitudes and Performance.

Among major strengths noted were the existence of institutions for setting standards such as Standards Association of Zimbabwe (SAZ) and regulatory bodies such as the Health Professions Authority. Political commitment to QA/QI was demonstrated by the establishment of a Quality Assurance and Improvement Directorate in the MOHCC. Within the health sector there are a number of treatment guidelines and protocols which if adhered to, will help in the standardization of care and improved outcomes. Opportunities that may enhance QA/QI include existence of patient and service charters, recent lessons from the Performance Based Financing pilot in 18 districts of Zimbabwe, as well as health centre committees for more meaningful participation of communities in health care. The Standardized Maternal Care project by MCHIP in Manicaland also demonstrated the feasibility of implementing QI initiatives with existing resources. Threats to successful implementation of QA/QI relate mainly to underfunding and donor dependency on health financing.

The target audience for this QA/QI framework includes all health providers, planners, programme managers, implementers, teaching/academic institutions, partners in the private and public sectors, non-governmental organisations in the health sector, patients, families and communities. The aim of this strategy is to guide the process of ensuring quality as well as continual quality improvement in both public and private sectors in the health sector. The vision and mission are articulated in the main body of the document.

The strategy takes a systems approach to improving and sustaining high-quality health services in Zimbabwe, highlighting cross-cutting priority intervention areas related to the World Health Organisation's health system building blocks and priority quality domains (e.g. safety, clinical effectiveness) and priority interventions in vertical disease control

programs targeting major causes of morbidity and mortality. The simultaneous focus on strengthening essential cross-cutting health system functions and continuous improvement of vertical disease programs will help to build a strong health system capable of continuous improvement for achieving optimum health for all Zimbabwean citizens.

Mechanisms for implementation of the strategic plan include the creation of a national advisory committee and technical working groups, creation and support of regional and district QI focal points, regular monitoring of priority quality measures within the health information system tailored to specific stakeholders, as well as provisions for monitoring of the strategy implementation.

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ACRONYMS

AMTSL	Active Management of Third Stage of Labour
ART	Anti-Retroviral Therapy
BMI	Body Mass Index
CCZ	Consumer Council of Zimbabwe
CME	Continuing Medical Education
CPD	Continuing Professional Development
CQI	Continuous Quality Improvement
CVD	Cardiovascular Disease
DHE	District Health Executive
EDLIZ	Essential Medicine List of Zimbabwe
EMR	Electronic Medical Record
ENND	Early Neonatal Death
EPMS	Electronic Patient Monitoring System
FSB	Fresh Still Birth
HPA	Health Professions Authority
HMIS	Health Management Information System
ICU	Intensive Care Unit
IMR	Infant Mortality Rate
ISO	International Standards Organization
IYCF	Infant and Young Child Feeding
MCAZ	Medicines Control Authority of Zimbabwe
MDPCZ	Medical and Dental Professions Council of Zimbabwe
MIMS	Multiple Indicator Monitoring Survey
MNCH	Maternal Newborn and Child Health
MMR	Maternal Mortality Ratio
MOHCC	Ministry of Health and Child Care
MOU	Memorandum of Understanding
NCD	Non-Communicable Diseases
NDTPAC	National Medicines and Therapeutics Policy Advisory Council

NIHFA	National Integrated Health Facility Assessment
NQIC	National Quality Improvement Committee
ORT	Oral Rehydration Therapy
PDSA	Plan-Do¬-Study-Act
PHC	Primary Health Care
PHE	Provincial Health Executive
PMTCT	Prevention of Mother to Child Transmission
PPH	Post-Partum Haemorrhage
QA	Quality Assurance
QAD	Quality Assurance Department
QI	Quality Improvement
QMS	Quality Management System
RBM	Results Based Management
RBF	Results Based Financing
ROM	Rupture of Membranes
RUTF	Ready to Use Therapeutic Feeds
SAZ	Standards Association of Zimbabwe
SOP	Standard Operating Procedures
STI	Sexually Transmitted Infection
SWOT	Strength Weaknesses Opportunities and Threats
TB	Tuberculosis
U5MR	Under 5 Mortality Rate
VMAHS	Vital Medicines Availability and Health Services Survey
WHO	World Health Organisation
ZANSP	Zimbabwe AIDS National Strategic Plan
ZDHS	Zimbabwe Demographic and Health Survey
ZINARA	Zimbabwe National Road Authority
ZNHS	Zimbabwe National Health Strategy
ZINQAP	Zimbabwe Quality Assurance Programme (ZINQAP)

DEFINITION OF TERMS

Best Practice: A way or method of accomplishing a function or process that is considered to be superior to all other known methods. In health care, it is often used to refer to tools, materials, and models of care, organisational arrangements, and other practices that have been shown in multiple settings to facilitate compliance with evidence-based standards of care.

Collaborative: A systematic approach to health care quality improvement in which organisations and providers test and measure practice innovations, then share their experiences in an effort to accelerate learning and widespread implementation of best practices."Everyone teaches, everyone learns"

Continuous Quality Improvement: An approach to health care based on evaluation of a product or the outcome(s) of a process, and an understanding the needs and expectations of the consumers of these products or processes.

Quality Assurance: A system to support performance according to standards. It implies a systematic way of establishing and maintaining quality improvement activities as an integral and sustainable part of systems or organisations. This includes all activities that contribute to the design, assessment, monitoring of standards agreed upon by all stakeholders and improving quality of service delivery, client satisfaction and effective utilization.

Quality Improvement: An interdisciplinary process designed to raise the standards of the delivery of preventive, diagnostic, therapeutic and rehabilitative measures in order to restore and improve health outcomes of individuals and populations focusing on systems, clients, processes, team work and use of data.

Quality Management: The application of management practice to systematically maintain and improve organisation-wide performance.

Indicator: A measurable variable (or characteristic) that can be used to determine the degree of adherence to a standard or the level of quality achieved.

Quality: There are many definitions, but for our purposes, quality is defined as the extent to which health care, services, systems, and programmes conform to national or international standards/ requirements/ specifications. According to the Institute of Medicine (IOM), health care is of high quality if it is safe, effective, patient-centred, timely, efficient; and equitable.

Quality Improvement Initiatives: Cycles of interventions that are linked to assessment and that have the goal of improving the process, outcome, and efficient of complex systems or simply put: interventions for assessing, measuring, defining and resolving health care delivery issues with an aim to improving the safety, timeliness, equity, access, and appropriateness of health care services.

Patient Centred Care: Providing care that is respectful and responsive to individual preferences, needs and values and ensures that patient values guide all clinical decisions

Patient Safety: The prevention of errors and adverse events to patients associated with health care.

Standard of Care: Preformed and agreed upon statements issued for the purpose of influencing decisions and health interventions.

Plan-Do-Study-Act (PDSA) Cycle: A process to describe quality improvement cycle using four steps: Plan, Do, Study, Act. It is sometimes referred to as the Shewart or as the Deming cycle.

1 BACKGROUND

Overview of the Zimbabwe Health System

At Independence in 1980, Zimbabwe adopted the Primary Health Care (PHC) Approach in line with the Alma Ata Declaration of 1978. The implementation of the PHC approach resulted in decentralization of health service provision from central level (cities and towns) to administrative wards at district level in the rural communities. Four tiers for health service delivery were established as follows:

- **Quaternary Level:** Central Teaching Hospitals with specialist medical services in the capital city Harare, the second largest city Bulawayo and in Chitungwiza.
- **Tertiary Level:** Provincial Hospitals with ambulatory and inpatient specialist services in the eight rural provinces of Zimbabwe.
- **Secondary Level:** District Hospitals with emergency, ambulatory and inpatient services in the sixty-two districts of Zimbabwe.
- **Primary Level:** Rural Health Centers with primary care services in the 220 wards of Zimbabwe.

This decentralization was associated with a significant improvement of most health indicators in the 1980s and early 1990's. It is in the context of a decentralized health system that quality of care will be viewed in this strategy. In addition there is a private for profit sector whose operations will also be guided by this strategy.

The Zimbabwe health system has been undergoing a revitalization process since the launch of the Zimbabwe Health Sector Investment case in 2009, after a near collapse on the background of socio-economic challenges which reached a peak in 2008. This process is embedded in the Zimbabwe National Health Strategy (ZNHS 2009-2015) in which the vision of the Ministry of Health and Child Care (MoHCC) is "to have the highest possible level of health and quality of life for the citizens of Zimbabwe".

The mission of the MoHCC as stated in the ZNHS 2009-15 is "to provide, administer, coordinate, promote and advocate for the provision of equitable, appropriate, accessible, affordable and acceptable quality health services and care to Zimbabweans while maximizing the use of available resources, in line with the primary health care approach. The provision of these services is guided by the Results Based Management system (RBM), which was adopted by the Zimbabwean government in 2005 as a performance monitoring and evaluation system.

1.1 STRATEGY DEVELOPMENT PROCESS

The development of the QI Strategy was a consultative process involving stakeholders in the Health Sector. This was led by Task Force on quality improvement chaired by the Ministry of Health and Child Care directorate of Quality Assurance and Improvement. The Task Force comprised technical experts from MCHIP, USAID, the World Bank and two local consultants. The Task Force facilitated a desk review of policy and strategic documents in the MOHCC, and the two consultants carried out key informant interviews and undertook a situational analysis of the quality of care within the public health facilities and institutions. Consultations with stakeholders from public, mission, private, civil society, technical partners and public health programs and NGO projects in the country were undertaken.

Dimensions of Quality of Care

Major dimensions of quality of health care guiding the formulation of this strategy are noted below. All except coordination of care are adopted from the Institute of Medicine (IOM) dimensions of quality:

Effectiveness: delivering health care that is adherent to an evidence base and results in improved health outcomes for individuals and communities, based on need.

Efficiency: delivering health care in a manner which maximizes resource use and avoids waste.

Accessibility: health care that is timely, geographically reasonable, and provided in a setting where skills and resources are appropriate to medical need.

Acceptable/patient-centred: health care, which takes into account the preferences and aspirations of individual service users and the cultures of their communities.

Equity: health care, which does not vary in quality because of personal characteristics such as gender, race, ethnicity, geographical location, or socioeconomic status.

Safety: delivering health care which minimises risks and harm to service users.

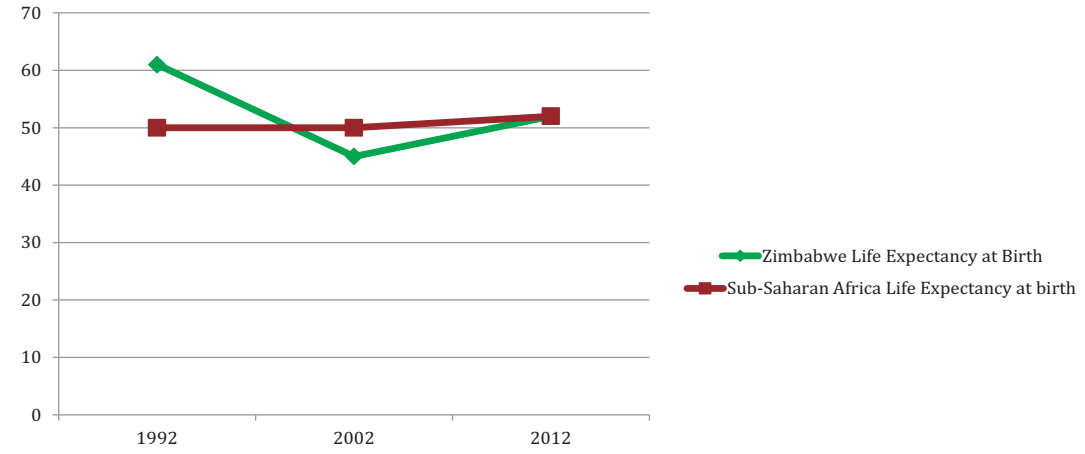
Coordination and continuity of care: Access to care provided by families and communities, by outpatient and outreach services, and by clinical services throughout the lifecycle, including adolescence, pregnancy, childbirth, the postnatal period, and childhood. Saving lives depends on high coverage and quality of integrated service-delivery packages throughout the continuum, with functional linkages between levels of care in the health system and between service-delivery packages, so that the care provided at each time and place, contributes to the effectiveness of all the linked packages.

1.2 SITUATION ANALYSIS

Zimbabwe Health Status

The life expectancy at birth for Zimbabwe decreased from 61 years in 1992 to 41 years in 2002, which was lower than the average life expectancy at birth in sub-Saharan Africa.

Figure 1: Life Expectancy at birth in Zimbabwe and sub-Saharan Africa 1992-2012



According to the Zimbabwe Demographic Health Survey (ZDHS) 2010/11, this figure has recently risen to 52 years matching the overall increasing trends in sub-Saharan Africa as shown in figure 1. The QI strategy will therefore aim to contribute to improved life expectancy by strengthening quality of health promotion, prevention and curative services for high-burden diseases in Zimbabwe.

Child Health

The status of newborn, infant and child health in Zimbabwe has been deteriorating in the past 15 years as depicted by figure 2 above. According to the ZDHS 2010/2011, the Infant Mortality Rate (IMR) and Under 5 Mortality rate (U5MR) were 57/1000 live births and 87/100 live births respectively. The majority of deaths, 86% occur during the first year of life of which 37% occur in the first month of life. The neonatal mortality rate is 36 per 1,000 live births (State of the World's Children 2009, UNICEF) with 75% of deaths occurring within the first week of life. Of these, 50% occur within the first 24 hours of life. Thirty nine percent of neonatal deaths are caused by preterm birth complications followed by birth asphyxia (27%), and neonatal sepsis (14%). These statistics show how critical the perinatal period is in improving overall child survival in Zimbabwe.

Figure 2: ZDHS Infant Mortality and Under 5 Mortality in Zimbabwe between 1999-2014

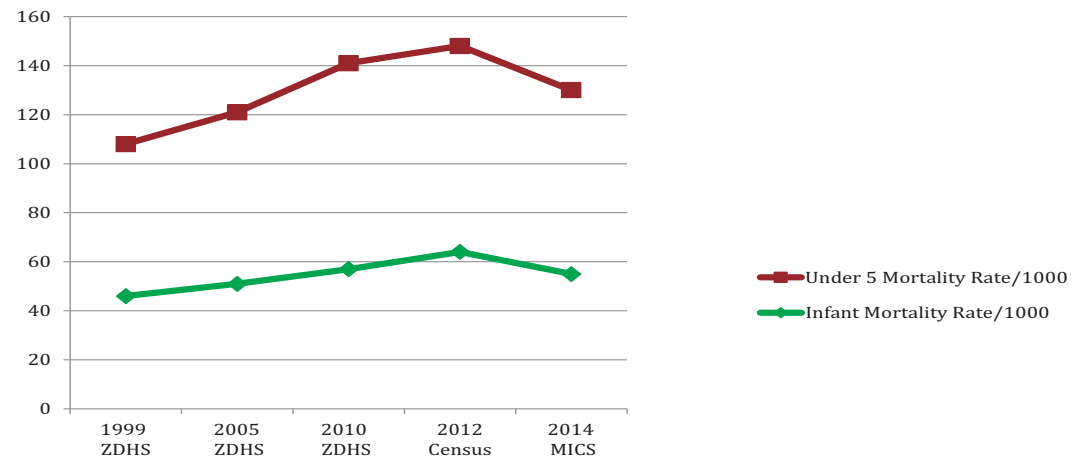
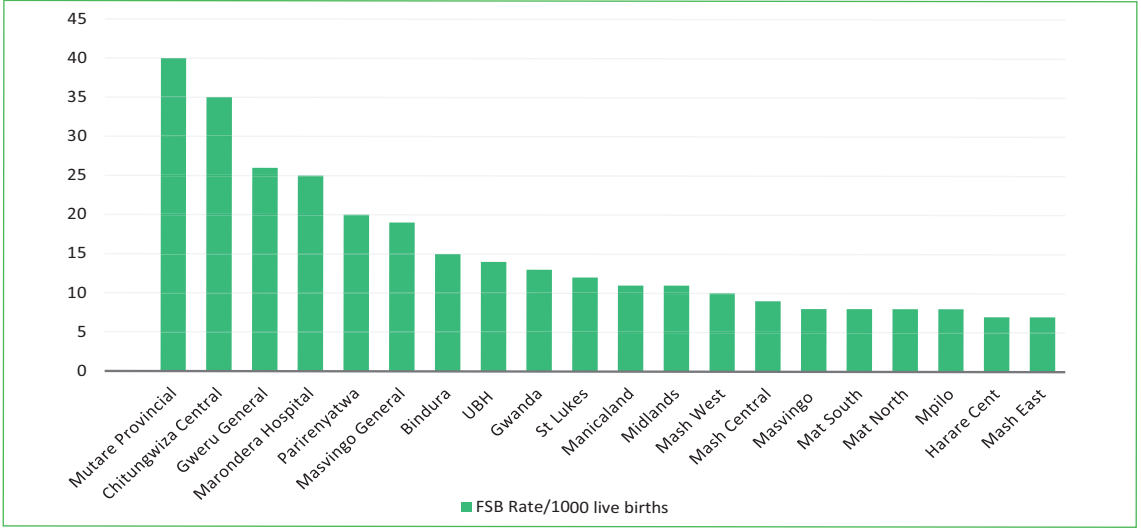


Figure 3: Fresh Still Births per 1000 live births by province and central institutions 2012

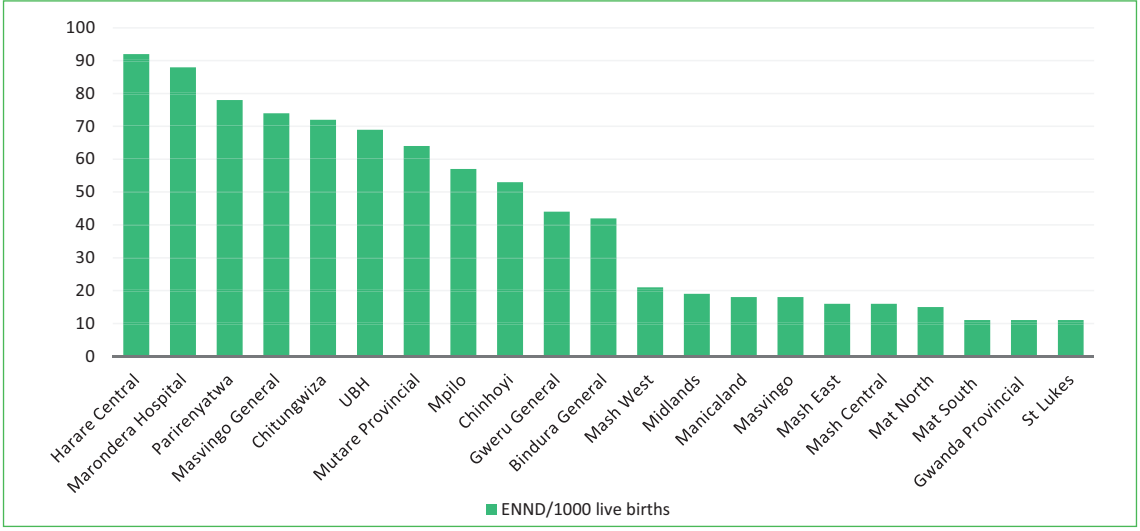


Note: *Data is from the national T5 series HMIS*

The Fresh Still Birth (FSB) rate is a strong indicator of the quality of intra-partum care. Figure 3 shows that the country still has unacceptably high rates ranging from 40/1000 in Mutare Provincial hospital to 7/1000 at Harare Central hospital and Mashonaland East province. The QI strategy must therefore give direction on ways to improve the quality of care to reduce the FSB rate.

Figure 4 below shows the Early Neonatal Deaths (ENND) per 1000 live births by institution and province in 2012. These ranged from a highest of 88/1000 in Harare Central hospital to 11/1000 in Mashonaland Central, Matebeleland South and St Lukes hospital. The QI strategy will prioritize strategies for reducing ENND in high-mortality institutions and provinces by strengthening quality of Essential Newborn Care and early detection and evidence-based care for major causes of early neonatal mortality (asphyxia, sepsis and prematurity).

Figure 4: Early Neonatal deaths per 1000 live births by province and institution Zimbabwe, 2012



Note: *Data is from the national T5 series HMIS*

The top causes and absolute numbers of infant and under five mortality are shown in the table below for the eight rural provinces according to data from the HMIS for 2012. The QI strategy will prioritize cross-cutting essential health system functions and delivery of evidence-based high impact services for leading causes of neonatal and childhood mortality as described in Table 1.

Table 1: Number of neonatal, infant and under 5 deaths by specific disease and rural provinces in Zimbabwe, 2012

Province	Pneu-monia	Malaria	Mal-nutrition	Dia-rrhoea
Manicaland	446	342	278	302
Mashonaland East	594	134	484	11
Matebeleland South	124	43	0	51
Midlands	59	44	0	41
Mashonaland West	44	27	29	41
Matebeleland North	32	39	1	15
Mashonaland Central	42	20	0	11
Masvingo	17	23	0	9

Note: *Data is from the national T5 series HMIS*

In addition, the Multiple Indicator Monitoring Survey (MIMS) of 2009, reports that 32% of all the children who had anthropometric measurements were stunted. This strategy must therefore address issues to improve quality in prevention and management of malnutrition to improve the quality of health care to reduce morbidity and mortality in children.

Gaps in the quality of care for newborns, infants and under 5years to be addressed by this strategy

The quality improvement strategy will address gaps in quality of antenatal care to reduce premature labor, quality of intra-partum care to reduce incidence of birth asphyxia, and quality of newborn care to reduce neonatal sepsis.

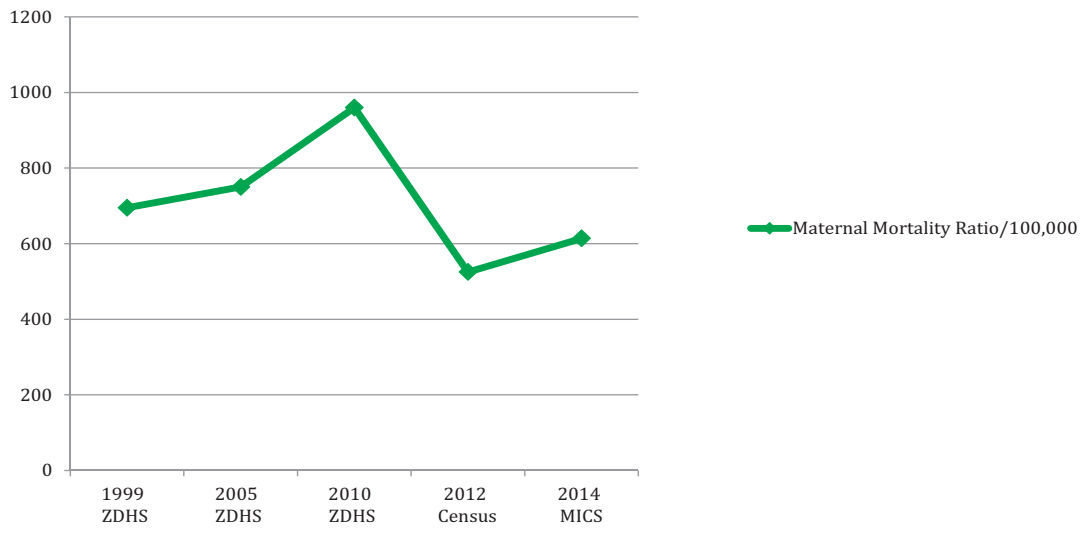
- Late diagnosis and management of maternal conditions and infections that may lead to preterm labour.
- Inconsistent availability of dexa-methasone to facilitate lung maturity for the preterm babies.
- Non-availability of resuscitation equipment and commodities at newborn corners to manage preterm and term babies.
- Late referral to higher levels of care.
- Non-availability of oil heaters.
- Inadequate numbers of incubators.

- Inconsistent availability of cleaning materials for infection control.
- Poor or no monitoring and evaluation of infection control procedures e.g. by doing swabs for microscopy culture and sensitivity.
- Inconsistent use of the partograph leading to failure by health workers to react in a timely and appropriate manner when emergencies or complications occur.
- Late diagnosis of neonatal sepsis.
- Inconsistent availability of antibiotics for treatment of neonatal sepsis.
- Inadequate staff trained in IMNCI guidelines
- Poor adherence to IMNCI guidelines on management of illnesses (pneumonia, diarrhoea and malaria)
- Late infant diagnosis of HIV and commencement of pediatric ART
- Late diagnosis and management of severe malnutrition

Maternal Health

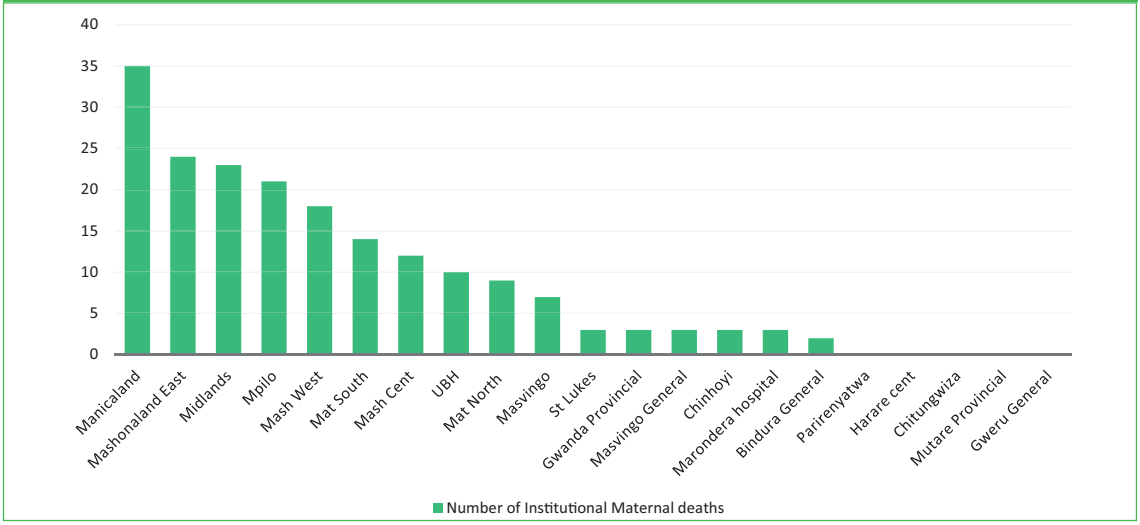
Trends in maternal and child health are an indicator of the general socio-economic status of a country and of the overall strength of the health system since maternal health outcomes depend on a robust health system capable of providing coordinated routine and emergency obstetric care. The Maternal Mortality Ratio (MMR) has been increasing in the past 15 years as shown in Figure 5. The QI strategy will address critical quality gaps in provision of high-impact routine and emergency best practices for prevention and management of major causes of maternal mortality and morbidity (PPH, eclampsia, sepsis, obstructed labor, and abortion).

Figure 5: ZDHS Maternal Mortality Ratio Trends, Zimbabwe 1999-2014



The graph in figure 6 shows the number of maternal deaths by institution and province in 2012. The QI strategy will aim to prioritize strategies to reduce maternal deaths in institutions and provinces where the numbers are high. This graph is however an underestimate of the actual numbers since community deaths are not captured in the routine Health Management and Information System (HMIS).

Figure 6: Institutional maternal deaths by province and institution, Zimbabwe, 2012



Note: *Data is from the national T5 series HMIS*

Reduction of maternal morbidity and mortality depends on achieving coverage of high quality and well-coordinated ANC, delivery and postpartum maternal health services provided by a skilled birth attendant and staff working in an enabling environment (which requires essential commodities, 24/7 availability of competent staff, supervision, etc). According to the ZDHS 2010/11, 90% of women had at least one ANC attendance and were attended by a skilled health worker in their previous pregnancy. However, skilled attendance at birth demonstrated striking disparities between urban areas (86%) and rural areas (58%). Table 2 below shows delivery in health facilities and skilled attendance at delivery. The quality strategy will seek to improve equity of coverage of high-impact services for disadvantaged regions and populations of women (e.g. poor women).

Table 2: Delivery in health facility and skilled attendance at birth by province in Zimbabwe, ZDHS 2010/11

Province	Skilled attendance at delivery (%)	Delivery in facility (%)
Bulawayo	88.4	88.3
Harare	83.5	82.7
Masvingo	75.2	73.4
Matebeleland South	71.6	69.3
Matebeleland North	65.7	63.5
Midlands	64.7	63.5
Manicaland	60.3	60.7
Mashonaland East	59.9	59
Mashonaland West	55	52.6
Mashonaland Central	51.4	50.3

Gaps in quality of maternal care to be addressed by this strategy

Some of the gaps in quality of maternal care are as follows:

- Poor history taking leading to missing of critical information to identify at risk pregnancies.
- Unavailability of BP machines and urinalysis kits.
- High patient midwife ratio in some institutions.
- Low skilled attendance at birth especially in rural institutions.
- Inconsistent utilization of the partograph leading to poor monitoring of labour resulting in delayed reactions.
- Non-availability of quality checklists in labour ward.
- Inconsistent availability of theatre drugs and commodities including oxygen.
- Late referral of critical cases.
- Lack of on-the-job supervision and mentorship.
- Inconsistent availability of blood and blood products.
- Inappropriate management of pregnancy induced hypertension, pre-eclampsia and eclampsia.
- Inconsistent availability of antibiotics for management of HIV related co morbidity.

HIV and AIDS

There has been a slight decrease in HIV prevalence in Zimbabwe from 18% (ZDHS 2005-6) to 15% (ZDHS 2010-11). As more and more people survive on Anti-retroviral Therapy (ART), the quality of care will need to be a major focus for treatment programmes. There is an Early Warning Indicator survey for HIV drug resistance which is being implemented which needs to be further disseminated and strengthened. However, there is need to introduce viral load testing to closely monitor patients in order to measure the quality of care in a more objective way.

Figure 7: ZDHS Trends in HIV Prevalence, Zimbabwe 2005-2011

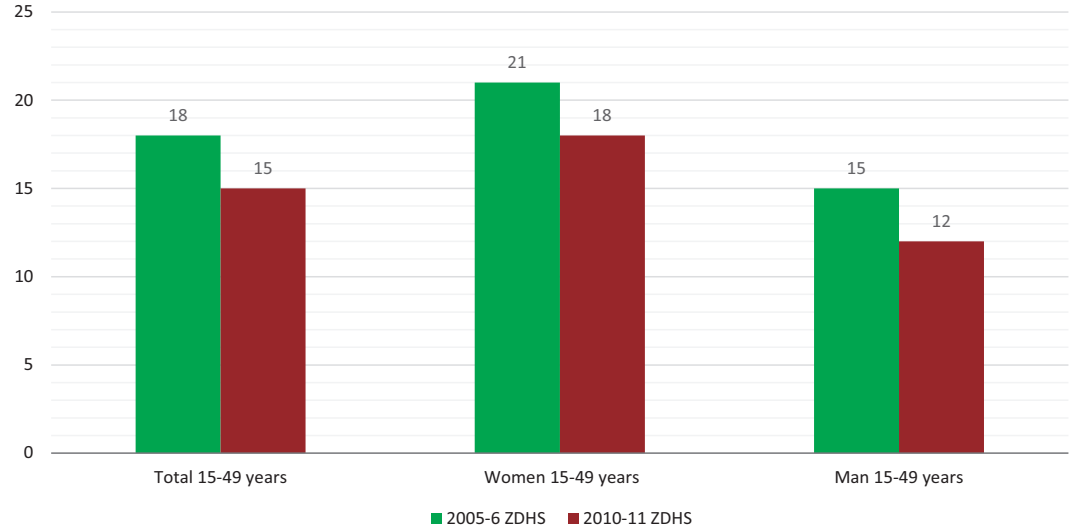


Table 3 below shows the HIV prevalence in Zimbabwe by province. The highest prevalence is in Matebeleland South province (21%) and the lowest prevalence is in Harare province (13%). Quality issues on the delivery and reach of HIV/STI prevention programmes especially in the high burdened provinces needs to be addressed in this strategy.

Table 3: HIV Prevalence by province, ZDHS 2010-11

Province	HIV Prevalence (%)
Matebeleland South	21
Bulawayo	19
Matebeleland North	18
Mashonaland East	16
Mashonaland West	15
Midlands	15
Masvingo	14
Manicaland	14
Mashonaland Central	14
Harare	13

Gaps in HIV and AIDS quality of care to be addressed by this strategy

The gaps in quality of care for people living with HIV are outlined and are related to the testing, treatment and care cascade as follows:

- Low population coverage of HIV testing.
- Unavailability of a mechanism to track linkage to care for those who test positive.
- Weak counseling on disclosure, behavior change and adherence.
- Lack of an effective measure of adherence to treatment.
- Lack of an implementation plan for treatment as prevention strategies.
- Lack of an effective means of tracking patients lost to follow-up.
- Monthly reviews and drug pick-ups in view of competing priorities
- Inconsistent availability of CD4 testing.
- Unavailability of biochemistry and liver function tests in most institutions.
- Lack of access to viral load testing.
- Unavailability of HIV resistance testing.

Malaria

Malaria incidence has been on the decline in Zimbabwe in the past ten years and with one province, Matebeleland South province entering the pre-elimination stage of malaria control. According to the ZDHS 2010-11, 41% of households had at least one mosquito net and 29% had at least one insecticide treated mosquito net (ITN). Seventeen per cent of households reported that they had received indoor residual spraying in the past 12 months. On the night before the survey, 14% of children under the age of 5 years slept under a mosquito net.

Malaria case management audits have demonstrated above average adherence to malaria diagnosis and first line therapy. However, inadequate monitoring of in-patients with severe malaria has been associated with high case fatality rate. (Malaria Case Management Audit, 2010).

Gaps in malaria quality of care to be addressed by this strategy

The gaps in quality of care in malaria care are related to prevention, suspicion, diagnosis and case management of malaria as outlined below;

- Low coverage of indoor residual spraying, inadequate insecticide treated nets, and low numbers of children under 5 sleeping under treated nets.
- High suspicion of malaria at the expense of other differential diagnosis.
- Late diagnosis of malaria.
- Inappropriate case management of malaria.
- Poor management of complicated malaria.
- Late referral of complicated malaria cases.

Non Communicable Diseases (NCDs)

Hypertension and its associated complications (stroke, heart and kidney failure) is the major NCD affecting the Zimbabwean population and is now contributing more to the burden of disease in Zimbabwe. The WHO Stepwise approach to Surveillance (STEPs) survey conducted in Zimbabwe in 2005 showed a high prevalence of hypertension: 23.2% among adult males and 29% among adult females.1 increasingly, younger persons under the age of 40 years are presenting with hypertension which is often poorly controlled. This is against a background of low awareness of hypertension in the population and poor blood pressure control among those on treatment, high prevalence of risk factors such as obesity among females (32% prevalence), and alcohol and tobacco consumption among males. Evidence suggests that tertiary hospitals in Harare are now overwhelmed with increasing numbers of individuals presenting with complications of uncontrolled NCDs such as stroke, heart and renal failure with increasing bed occupancy levels. There has been a significant increase in the incidence of cancers such as cervical, breast and prostate cancer in an environment where diagnostic and treatment facilities are limited.

Gaps in quality of care for Non-Communicable diseases to be addressed by this strategy

The gaps in quality of care of patients with non-communicable diseases remain extensive since these conditions have been largely ignored over the past 10 years because of the focus

on MOHCC's priorities which are mostly communicable disease control programs. Some of the gaps are:

- Non-availability of screening facilities and equipment for NCDs.
- Lack of diagnostic facilities for NCDs.
- Late presentation of patients with NCDs leading to avoidable deaths.
- Poor clinical management and monitoring of NCDs.
- Unavailability of drugs and commodities for the management of NCDs.
- Lack of effective follow-up mechanisms for patients with NCDs.

1.3 STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS (SWOT) ANALYSIS

There are crosscutting health system weaknesses impairing optimal health system functioning and delivery of high quality services in Zimbabwe. An overall SWOT analysis for the provision of quality healthcare is summarised below:

Strengths:

- Existence of institutions responsible for setting standards of care such as the Standards Association of Zimbabwe and regulatory bodies such as the Health Professions Authority among others.
- Commitment and leadership from the MOHCC to ensure QA&QI processes are adopted as evidenced by the formation of the Quality Assurance Department in the MOHCC.
- Existence of some clinical treatment, infection control, and clinical audit guidelines.
- Well established proficiency testing system for laboratories.

Weaknesses:

- Underfunding of health services.
- Variable provider competence to deliver best practices.
- Low staffing levels against a background of high workload.
- Lack of well-defined quality management systems in health training institutions.
- Inconsistent and poor staff support and supervision, assessment of competences and evaluation of performance after training.
- Non-systematic undertaking of clinical audits.
- Inadequate capacity of the QA department within the MOHCC to oversee QA&QI activities.
- Lack of inclusion of quality of care (content) measures, including regular analysis of such measures as part of routine facility health services and national and local Health Management and Information Systems.

- Lack of improvement capacity and experience among mid-level managers and front-line health service delivery staff to support continuous improvement to overcome important quality of care gaps.
- Lack of pre- and in-service competency based training on quality of care.
- Lack of data on major quality of care gaps and service delivery and health system obstacles related to priority health conditions.
- Lack of good monitoring and feedback mechanism to allow two-way flow of information.
- A health system fragmented along vertical programmes.
- Availability of essential commodities and stock management.

Opportunities:

- Political commitment at national level to the importance of quality for achieving priority national health outcomes.
- Existence of Quality Assurance Department within the MOHCC.
- Commitment of partners and professional associations to QA&QI initiatives.
- Examples/models of good functional hospital quality management systems in place to adopt.
- Several QA&QI initiatives in the country to learn from e.g. HIV/TB QA&QI initiatives, Maternal, Newborn and Child Health QA&QI initiatives, Results Based Financing experiences.
- Existence of QA&QI policies and guidelines for some national programmes.
- New constitutional provisions prioritizing health as a human right.
- Institutional memory on QA&QI activities during the "good old days".
- Existence of a patient's charter.
- Existence of health centre committees.
- Availability of intrinsically motivated community health workers.

Threats:

- Underfunding and inefficiencies in the utilisation of health care resources.
- Dependence on donors for funding of QA&QI activities.
- Expectations for remuneration from staff whenever QA&QI is mentioned.
- Lack of empowerment (education and knowledge of the patient's charter).
- Resistance to change among providers and managers.
- Lack of data on the quality of care of the leading conditions of morbidity and mortality in Zimbabwe.

Experience and Progress so far in QI initiatives in Zimbabwe

The MOHCC formed a Directorate of Quality Assurance at national level under the Principal Director of Policy Planning Monitoring and Evaluation, which is a sign of high level commitment to fulfil the mission of delivering quality health services. The Directorate of Quality Assurance with assistance from technical partners and stakeholders led the formulation of a QA&QI policy, which is now at final draft level and awaits approval and launching. This strategy recognises and seeks to build on QI initiatives already undertaken and in progress in different programmes, levels of care and areas of Zimbabwe. Several quality improvement initiatives undertaken in Zimbabwe are briefly described below, highlighting key elements that have informed this strategy.

Anti-Retroviral Therapy (ART) Quality Improvement

The MOHCC has piloted a quality improvement initiative in 83 of the 700 ART sites. The programme has 5 key elements:

- Performance measurement - using mostly process indicators along the ART cascade e.g. % of patients retained in care 6 and 12 months from enrollment (ART eligible and ART-ineligible).
- Quality improvement - problem identification using management tools such as process mapping, 5 Whys fishbone analysis and prioritization of interventions using a decision making matrix.
- Coaching and mentoring including peer learning and exchange visits.
- Consumer involvement - clients involved during training and development of QI implementation plans. However no indicators have been developed to monitor this involvement.
- Quality management system - organisational assessment to build the necessary infrastructure that supports QI.

Of the 83 sites that have been trained and participated in the initial phase of the performance measurement process, 35 of them have started using the information gathered to undertake quality improvement activities through ART QI subcommittees, which report to the overall QI committee at the respective institution after getting the training on basic principles of quality improvement. The ART quality improvement initiative is closely linked to the recently introduced Electronic Patient Management system (EPMS) in 84 main ART sites countrywide. This system allows the ART programme to easily capture quality indicators used for performance measurement at both local and central levels.

The ART model of QI including the EPMS, provides a base on which this strategy can build on. Other programmes and clinical disciplines can adapt this strategic framework to suit their needs for QI.

Electronic Patient Management System – Since the inception of HIV/TB programme, all patient related data has been collected using a manual paper based system. The manual system has been unable to function properly owing to increased number of patients requiring HIV/TB services and this affected accurate monitoring, tracking and reporting

of patients accessing HIV/TB services. The quality of data was suffering because of the high workload but also because of the challenge of tracking the 'drop-out' rate of patients from the system (e.g. moving to another clinic, death, not coming to an appointment etc.). In addition, health workers are spending significant amounts of time entering data into registries or generating monthly monitoring tallies. To address this gap and to ensure that HIV/TB data is collected in a timely manner and is of good quality, the MOHCC resolved to establish an electronic system to collect and manage patient level HIV/TB data.

The roll out of the EPMS is on course although there are some challenges. These include:

- Inadequate funding to conduct supportive visits to sites.
- Internet Service Provider (ISP) Network not covering all health facilities
- Frequent power cuts.
- Few teams responsible for installations, maintenance and trainings.
- Inadequate IT skills among most health care workers.

Quality Improvement in PMTCT

In 2012, the MOHCC with support from EGPAF piloted a QI initiative for PMTCT at facility level that started with the sensitization of District Medical Officers, District Nursing Officers and PMTCT District Focal Persons. Concepts, processes, planning and documentation tools were developed focusing on 4 specific areas:

- CD4 count testing for pregnant women.
- ART initiation for eligible pregnant women.
- Early Infant diagnosis.
- Early infant ART initiation.

After the introduction of Option B+ for PMTCT in 2014, the indicators on CD4 count, Early infant ART initiation and ART initiation for eligible pregnant women were revised accordingly and a new additional indicators was added. The revised and the newly indicators are:

- ART initiation in ANC for all HIV positive pregnant women
- Pediatric ART initiation for <2 years HIV positive children
- Retention in care of HIV positive women and children < 2 years after being initiated on ART

Almost all districts were involved. However, only 125 sites were consistently reporting on all or any of the indicators of the specific areas mentioned above. Some experiences encountered in implementing QI include:

- Local initiatives have demonstrated improvements on some indicators e.g. related to better communication between facilities and communities.
- Improvement were also seen on some of the indicators on which the sites are working on e.g.the percentage of HIV positive pregnant women who were initiated on ART the same day has increased from 70 to 96%.

- The QI implementing sites were provided coaching visits through QI coaches and peer learning meetings were also conducted.
- Lack of agreed measurable and verifiable standards hindered the objective assessment of progress made.
- Overlap in training across the concepts of Quality Assurance, Quality Management and Quality improvement might have led to challenges to participants grasping the concept of QI.
- Protocol issues often necessitated the need for repeat sensitization of stakeholders leading to increased costs and delays in implementation.
- Low capacity of providers at service delivery point in appreciating and using local data for decision making. This is happening in the context of perceived low morale among health workers.
- Inadequate resources for coaching, support and supervision and a general lack of accountability at various levels of the MOHCC.
- The community lacks a culture of interrogating the quality of service rendered in relation to their rights. Feedback on QI activities or surveys has generally not been relayed back to clients.

Improving the quality of Maternal and Newborn Care in Zimbabwe

The MOHCC with support from Maternal and Child Health Integrated Programme (MCHIP) piloted a QI initiative in 2 districts in Manicaland Province from 2010 to 2013. This programme used the Standards Based Management and Recognition (SBM-R) quality improvement approach which has been successfully implemented in several other countries. The SBM-R consists of:

- Setting performance standards based on national norms, policies, and guidelines which are consistent with international best practices and evidence based.
- Implementing standards through a systematic and structured approach.
- Measuring progress continuously to guide performance improvement activities. Recognizing achievement of the target performance improvement standards

Following an inclusive consultative process, standards for Maternal, Newborn and Child Health (MNCH) were identified and packaged into 5 clinical areas (process) and 5 areas of support systems (context) and written on a standard template. The implementation of the QI approach was modular in nature and followed the following steps:

1. Measuring the performance gaps using Standards set (expected level of quality) to measure the actual performance.
2. Analyzing the cause(s)/root cause analysis for the performance gaps, selecting priority interventions, implementing interventions (training, procurements, supervision, refurbishments, and others).
3. Evaluating progress through continuous self and peer assessments, and scheduled external assessments.

In the baseline assessment conducted in 2010-11, less than 40% of the MNH standards were fully met at any facility. The performance was particularly poor in the clinical areas. Following implementation of SBM-R, there was a demonstrated statistically significant increase in performance scores for MNCH Services from 2010 to 2013 with the score increasing from approximately 20% to 80%. A notable reduction in early neonatal mortality was clearly documented during the intervention period.

These initiatives although mostly donor funded have a common purpose of improving quality of care. While they differ in terms of approach to implementation, the concepts and principles are largely similar. Linking performance to minimal institutional incentives such as in Results Based Financing (RBF) has also shown some association with improvement in quality of care from the community perspective for example patient satisfaction with staff attitudes as noted in the Mid-Term Review of the RBF program.(RBF mid-term Review Report, June 2013).

This initiative is now being implemented in all districts in Manicaland province.

Results Based Financing (RBF) program as pay for quality improvement initiative

RBF programme funded by World Bank has been implemented by CORDAID- Zimbabwe in 18 districts since 2011. The health facilities have been receiving subsidies with a focus on MNCH indicators. The subsidies are provided according to the results obtained from quantity verification, quality supervision checklists for hospitals and health centres and client tracer satisfaction survey results. The quality supervision checklist has both structural and clinical indicators and is administrated by DHEs and PHEs. The PHEs and DHEs were provided adequate training on the use of the quality supervision checklist.

The client tracer satisfaction surveys are conducted by CBOs on the clients identified during the quantify verification exercises from registers using the systematic random sampling technique. CBO were trained on how to effectively conduct client satisfaction surveys and write a report on the findings. The findings from quality supervision, quantity supervision and client satisfaction surveys have been discussed at provincial, district, and HC committee level. Some provinces and districts have designed and implemented a post assessment support mechanism to address the identified gaps. In order to maintain the quality of the verification mechanism, external verification has been conducted by University of Zimbabwe Community Health Department quarterly on selected health facilities.

Preliminary evaluation results have shown improvement on few quality process indicators e.g. an increase of 13 and 12 % were seen on in facility delivery rate and post natal coverage, respectively and most women received full package of ANC services. Taking in to account the preliminary findings and the findings from the quality supervision checklists, MoHCC decided to scale up the RBF approach to 42 additional districts in 2014 using HTF. This approach has paved the way for the institutionalization of the pay for quality model of improvement.

2 The National Quality Improvement Strategic Framework

Rationale for a Strategy on Quality Improvement in Health Care

The Quality Improvement strategy is expected to help ensure the rational application of different quality approaches and streamline efforts through the introduction of priorities, targets and milestones. Since this strategy is introduced on the background of a multitude of factors hindering the provision of quality services, a phased approach is suggested that takes into account the resource constrained environment in which it will be implemented. The earlier phases of implementation will focus on the most immediate health challenges that help build necessary foundations for quality, measurement, accountability and change are in place to enable further success.

National QI Strategy

The QI Strategy has ten strategic priorities to:

1. Strengthen leadership structures and mechanisms that will develop, advocate for, implement and sustain QA/QI processes in the health sector.
2. Increase patients' participation and empowerment by promoting client awareness of their rights when interfacing with the health system.
3. Address and prioritise issues of access, effectiveness, efficiency and equity of health care.
4. Improve patient/client safety, reducing errors in health care and improving health care waste management to reduce possible harm to staff, patients and communities.
5. Develop long-term mechanisms that attract and retain staff in the health system.
6. Strengthen supportive supervision as well as routine self-assessment of performance.
7. Develop accountability frameworks that hold providers and staff responsible for the quality of services provided.
8. Ensure efficiency in service provision through reorganisation and inte-gration of different programmes.
9. Strengthen the health information management system to adequately monitor and evaluate quality in health care and facilitate operations research on QA&QI in health and dissemination of levels of provider achievement in quality of care.
10. Mobilise and leverage financial and non-financial resources (expertise and technology) from other sectors towards the resuscitation of health services that incorporates a culture of QI.

2.1 AIM AND GUIDING PRINCIPLES OF THE STRATEGY

Aim: To provide quality preventive, curative and rehabilitative health services which are accessible, acceptable, effective, safe and equitable, as efficiently as possible and within the context of continuous improvements. The ultimate aim is to deliver the highest quality healthcare services to the people of Zimbabwe.

Guiding Principles

1. **Patient-centred care** recognising and reflecting the uniqueness of the individual, their experience of their health, illness and healthcare, and enabling them to share in decision-making about their care, to manage their own health and illness, through support and access to advice and information for them, their families and carers.
2. **Delivering services through empowered staff** enabling people working in the health sector to use their skills, further improving staff experience, staff engagement, and building capacity, providing support and incorporating a culture of continuous Quality Improvement into routine practice.
3. **Health Systems Approach** guided by the six building blocks for health systems strengthening.
4. **A culture of continuous Quality Improvement** that recognises the centrality of meeting client expectations and values and delivering safe, effective health care. This culture will permeate health care organisations which will be reorganised to deliver based on client needs and evidence-based care.
5. **Reward for performance** that encourages and rewards proactively, collaborative efforts that emphasise prevention and improves positive health outcomes.
6. **Standardising processes of care** and ensuring adherence to these will lead to better utilisation of resources and better patient outcomes.
7. **Creating a shared learning culture** that uses lessons learned to modify systems to prevent negative occurrences and enhance patient safety and which actively spreads these lessons in support of continuous shared learning. Sharing of data collected on quality indicators and activities in a transparent manner will promote shared learning to accelerate the uptake of best practices from QI efforts.
8. **Innovative ways of problem solving** will require an agreed methodology for problem root cause analysis.
9. **Basing approaches on evidence-based strategies/practices** which when implemented will lead to more favourable patient outcomes.
10. **Collective effort and team work** where QI committees are composed of the right balance of stakeholders is crucial to the success of improvement efforts.
11. **Results-driven processes** with regular real-time measurement and analysis of prioritised results will be critical for a strong QI approach.

These guiding principles for quality improvement cut across all the six building blocks of health systems strengthening approach which are summarised below.

a. **Leadership and Governance:** Quality improvement increases oversight, stewardship and accountability in governance of the health system as well as more meaningful participation of citizens in healthcare.

b. **Service delivery:** QI fosters the delivery of proven high impact interventions in a standardised way leading to the closure of the gap between minimum expected standards and actual practice.

c. **Human Resources:** QI enhances the responsiveness, performance, satisfaction and retention of staff ensuring adequate numbers of appropriately skilled staff can operate in an efficient manner.

d. **Information:** QI will increase the capacity of health institutions to collect analyse and utilise reliable and timely health information on quality of care.

e. **Financing:** QI helps optimize the efficient use of resources for greater impact and may act as a stimulus for resource mobilisation.

f. **Medical supplies, vaccines and technology:** QI promotes a scientifically sound and cost-effective use of these commodities. e.g. adherence to guidelines on rational use of medicines.

2.2 STRATEGIC OBJECTIVES, PRIORITIES AND INTERVENTIONS

Conceptual Framework for National QI Strategy

The strategy introduces a two-dimensional framework to support continuous improvement and sustaining of high quality care at all levels of the Zimbabwe health system and across all priority technical areas (e.g. MNCH, HIV/AIDS, TB, Malaria, NCDs).

The horizontal dimension defines a set of specific strategic objectives along the dimensions of quality of care(based on national QI/QA policy strategic priorities and priority quality dimensions) designed to achieve broad-ranging improvements in essential health system functions and health services in the coming five to eight years in support of the national QI/QA Policy. Each strategic objective includes intermediate sub-objectives and specific activities to achieve the intermediate objectives and overall strategic objective. Strategic objectives and related interventions are designed to improve the capacity of the health system to provide high quality services.

Strategic objectives along dimensions of care are:

- Improving patient safety.
- Providing client centred services.
- Strengthening data recording, reporting system and use of this data for decision making.
- Improving clinical practices (effectiveness of care).
- Building pre-service and in-service capacity to continuously improve.
- A professional and motivated health workforce with an enforceable code of ethics.
- Improved and efficient, cost effective supply of equipment, medicines, consumables and health related commodities.

Table 4: Dimension 1 - Strategic and Intermediate Objectives, Key Activities, Indicators and projected costs

Strategic Objective	Intermediate Objective	Key Activities	Indicators	Projected Cost
To provide patient centred care which meets or exceeds the expectations of the patients or users by 2018 according to established standards	1. To disseminate and raise awareness of the patient's charter (rights and responsibilities) and code of conduct tailored to individual contexts	1. Finalise the review of the Patients Charter and disseminate to all facilities. 2. Translate Patients Charter into local dialects. 3. Identify media through which the Patients Charter can be disseminated to local communities and users. 4. Facilities and institutions to produce and publicly display lists of commitments relevant to local contexts and describe staff behaviours that reflect the framework of the code of the ethics availed in all health institutions and monitor implementation of these routinely and during support and supervision and through patient surveys.	• No of patient charters translated and disseminated • % of facilities with patient charter	
	2. To establish a responsive patient and user complaint system	1. Each health facility to develop a system through which patients complaints are documented, reviewed and consolidated at district, provincial and national level. The QI committee will be responsible for the consolidation and forwarding to the next level 2. Sensitise patients and all levels of health workers on the system. 3. Carefully investigate and respond to patient complaints through senior management and agree on a system through which the outcomes will be communicated with an agreed timeframe and system for appeal to higher authority.	• % of facilities with functional complaints management system	
	3. To determine the level of patient and user satisfaction	1. Evaluate the patient satisfaction surveys being carried out in the 18 RBF districts to identify lessons learnt to feed into the development of a national protocol for carrying out patient satisfaction surveys. 2. Develop national protocols to carry out periodic patient satisfaction surveys. 3. Conduct patient satisfaction surveys at all health institutions service by Community Based Organisations and/or PHEs and DHEs to be analysed by health information officers and/or QI committees 4. Constitute a national Consumer HealthCare Advisory Board which regularly provides feedback to the Minister and senior management on consumer issues.	• Revised Patient satisfaction survey tools • Nos. of health facilities conducting patient satisfaction surveys • Patient satisfaction survey result reports	

Strategic Objective	Intermediate Objective	Key Activities	Indicators	Projected Cost
	4. To empower patient and users in the design and management of health service delivery according to their perceived needs	1. Revive health centre committees linked to each rural health facility 2. Advocate for introduction of health committees in urban local authorities 3. Revive community health councils for district hospitals. 4. Strengthen and/or revive Hospital Boards in provincial and central hospitals. 5. Identify and include patient representatives on health centre, provincial and district QI teams.	• % of facilities with functional Health Centre Committees • % of district hospitals with a functional community health council • % of institutional QI teams with patient representation	
	5. To develop and implement informed consent mechanisms for specified health conditions	1. Evaluate the current informed consent system to identify gaps including reviewing all consent forms currently in practice. 2. Revise any consent forms where necessary. 3. Develop a checklist to guide health workers to strengthen dissemination to patients on consenting to surgical interventions. 4. QI institutional teams to monitor consent procedures at each institution on a quarterly basis. 5. QI District teams to monitor consent procedures at RHC level on an annual basis.	• Nos. of health institutions with consent forms and checklists present • Exit interview surveys to monitor whether patients are consented according to protocols	
	6. Ensure privacy and confidentiality at all levels of care	1. Assess the availability of private counselling (visual and auditory) in outpatient and hospital clinical care settings. 2. Develop Provincial plans to address strengthening of the privacy infrastructure and mobilise resources. 3. Emphasise and enforce the principle of patient confidentiality as part of professional code of ethics.	• % of hospitals and clinics with adequate counselling space	
	7. To establish a quality management system relevant to all levels of Health institutions (e.g. ISO 9000), Medical Diagnostic labs (ISO 15189) and Analytical labs (Government Analyst labs ISO 17025)	1. Scale up mentorship programs on accreditation of medical and analytical labs. 2. Train appropriate managers and staff using the Laboratory Management towards Accreditation course (SLMTA). 3. Train clinic and hospital staff on how to comply with the requirements of ISO 9000, 4. Evaluate institutions for accreditation and certification.	• % of labs participating in grading of Labs according to WHO scoring system (stars awarded) • % of Labs accredited • % of Certified Laboratories • Nos. of certified staff on Quality Management System courses • Nos. of non-conformities to standards. • Nos. of Quality Improvement Projects taking place at institutions	

Strategic Objective	Intermediate Objective	Key Activities	Indicators	Projected Cost
To establish and strengthen data recording and reporting system and use data for decision making in quality improvement by 2018	1. To improve data collection and medical records and to promote use of relevant information across all tiers of the health system	1. Develop standard operating procedures (SOP) on data collection, reporting and analysis for quality improvement. 2. Define quality of care indicators (process and outcome) appropriate for monitoring as part of routine HMIS based on the different needs of the national, provincial and district levels. 3. Develop and implement an appropriate integrated electronic patient database that is sensitive to issues of patient confidentiality, security and potential abuse of data. 4. Train people on the information system and provide post-training follow-up. 5. Institutionalise regular analysis of data to identify progress in QI efforts and highlight shortfalls of QI projects. 6. Provincial and District Health Information Officers and Quality Improvement Officers to regularly visit sites to supervise and mentor on data collection, analysis and utilisation. 7. The Health Information Unit at Head Office to regularly visit Central Hospitals to supervise and mentor on data collection, analysis and utilisation.	• % facilities regularly collecting and analysing a core set of quality of care process and outcome measures" (whether via paper- or electronic-based methods) • Number of facilities with list of core quality of care indicators	
	2. To improve reporting systems and feedback mechanisms across all tiers of the health system	1. Strengthen feedback mechanisms in the HMIS for quality improvement for all tiers of the health system. 2. Consider the development of a facility, district, provincial and national dashboard system to track a core set of sentinel quality measures and patient outcomes. 3. Each Province and District to incorporate consolidated QI reports into generic reporting system.	• Number of institutions receiving quality improvement feedback reports • Number of institutions with Dash board system to track core of set sentinel quality measures	
	3. To collect and verify high level performance indicators that demonstrate the quality of health services	1. Develop guidelines for health facilities to analyse and address issues to do with long waiting times, discharge times. 2. Sensitise health facilities on guidelines. 3. Institutions including health facilities to draw up annual plans with measures to reduce waiting times. 4. Carry out periodic scheduled internal audits to monitor progress. 5. Develop guidelines on patient flow management to address issues such as waiting times/Turnaround time/discharge times etc.	• No. of health facilities with guidelines to assess waiting and discharge times • No. of health facilities with annual plans to address waiting time issues • No. of health facilities conducting patient flow management analysis • No. of health facilities with core high performance quality of indicators and guidelines for collection and reporting on indicators	

Strategic Objective	Intermediate Objective	Key Activities	Indicators	Projected Cost
		6. Implementation of SOPs and measuring compliance to the SOP. 7. Scheduled Internal Audits 8. Scheduled Management reviews 9. Define a core number of high level performance quality indicators for different programmatic areas 10. Develop guidelines for collection and reporting on indicators 11. Disseminate and orientate these indicators to health facilities through in-service and on-the-job training 12. Design a reporting system and collect data on a quarterly basis 13. Carry out data quality assessments to verify data 14. Through District and Provincial review meetings analyse data and develop plans to address issues arising 15. Conduct national quality of service assessments	indicators and guidelines for collection and reporting on indicators • No. of health facilities reporting on quality of indicators • National quality of service assessment tool • National quality of service assessment reports	
To improve Patient Safety	1. To harmonise and standardise systems to record and analyse for all adverse events and near misses	1. Develop and harmonise an integrated system for adverse event and near misses reporting in hospitals. 2. Implement the adverse and near misses reporting system across all programs. 3. Utilize this information to inform providers and managers on QI activities.	• Number of adverse events reporting format disseminated • No. health facilities reporting advers events	
	2. To establish and strengthen a safe surgery checklist program in all district, provincial and central hospitals	1. Evaluate the current safe surgery checklists used pre-operatively, intra-operatively and post-operatively. 2. Adopt and adapt safe surgery checklists for routine use in all districts, provincial and central hospitals. 3. Monitor and strengthen implementation of surgery checklists.	• Number of adapted surgical safety checklist disseminated • No. of hospitals using surgical safety checklist • Porportion of surgical site infections at hospitals • Proportion of deaths within 24 hours after surgery at hospitals	
	3. To strengthen infection prevention and control mechanisms in all health institutions	1. Establish standard and functional infection control systems and standards in all health facilities. 2. Disseminate protocols, guidelines and job aides on IPC to sites. 3. Mobilise resources to provide infection control infrastructure and resources in all health facilities. 4. Train and carry out refresher courses for health workers on infection control. 5. Include adherence to infection control in scheduled quarterly support and supervision	• % of health facilities with an infection control plan • Nos. of HWs trained on infection control	

Strategic Objective	Intermediate Objective	Key Activities	Indicators	Projected Cost
	4. To strengthen continuous professional development (CPD) and staff appraisal	1. Evaluate the existing CPD systems for health workers. 2. Revise or adapt national protocols for CPD and staff appraisals and disseminate to all health facilities. 3. Introduce CPD systems for health workers who currently do not have. 4. Train and orientate relevant supervisors and managers to carry out regular staff appraisals and support the development of individual CPD plans which are communicated to the relevant licensing or professional regulatory bodies. 5. Supervisors and managers to carry out annual staff appraisals and link these to award of the annual bonus.	• % of health workers who have had an annual performance appraisal	
	5. To improve safety of medicines	1. Capacitate MCAZ to strengthen pharmacovigilence for all health facilities by strengthening the AE reporting system 2. Disseminate drug adverse event reporting formats to all institutions. 3. Orientate health workers on pharmacovigilence system and reporting. 4. Through the Provincial pharmacists, strengthen health facilities medicines management and dispensing practices through regular site visits, on-the-job training and mentorship.	• Number of health facilities with adverse events reporting formats • No. of health workers oriented on adverse events reporting formats and pharmacovigilance system • No. of supervision visits conducted to strengthen medicine management	
	6. To improve patient safety awareness	1. Disseminate information on patient safety-promote awareness of patient safety through national commemorations, media etc 2. Review and adapt WHO Patient Safety campaign materials and job aids as appropriate for Zimbabwe context (e.g. WHO Hand washing and Injection Safety campaigns)	• Adapted WHO patient safety campaign materials and job aids • No. of times media information on patient safety disseminated	
To improve health workforce capacity, motivation and accountability for	1. Integrate QI capacity building into pre- and in-service training	1. Assess and evaluate current individual programme specific QI approaches in detail and draw up a best practice document on innovations in QI processes in Zimbabwe. 2. Identify QI focal persons at clinic and hospital level to lead the implementation of QI activities through the Plan-Do-Study-Act methodology. 3. Adapt The Kampala-based Regional Centre for Quality in Health Care (RCQHC) set of improvement competency modules. 4. Adapt additional relevant materials for competency based training.	• No. of planned supervision and mentoring visits done • National QA and QI training materials • QI integrated into pre-service curriculum • No. of clinicians trained as trainers through ToT programs	

Strategic Objective	Intermediate Objective	Key Activities	Indicators	Projected Cost
		5. Train clinicians who will develop institutional plans and orient other staff through regular meetings and monitor implementation progress.		
	2. Strengthen integrated support and supervision for all health institutions and facilities by 2015	1. Disseminate the revised national integrated supportive supervision tool to all supervisors and managers. 2. Orientate all supervisors on new supportive supervision tool. 3. Supervisors to carry out quarterly supervisory visits at all health facilities. 4. Action plans to be developed at each health facility based on supervisory visits and monitored on quarterly basis as part of supervisory visits. 5. Evaluate supportive supervisory system on an annual basis.	• No. of planned supervision and mentoring visits done • Supportive supervisory system evaluation tool developed • Supportive supervisory system evaluation reports	
	3. To improve health worker attitudes and satisfaction by raising awareness through dissemination of the Service Charter	1. A follow up on the results of the Health Services Board survey should provide a baseline of staff satisfaction and issues which need to be addressed to improve staff satisfaction. 2. Disseminate the Service Charter to all health providers and orient staff on Code of Ethics. Providers.	• No of service charters disseminated	
	4. Recognize performance	1. Create a standard reward and recognition system at all levels of the health system. 2. Carry out regular reward and recognition District ceremonies involving individual health facilities. 3. Use ceremonial awards and publicity e.g. the current Health Worker of the year awards. 4. Use a competition approach for hospitals. 5. Establish Centres of Excellence.	• Standard reward and recognition system developed • No. of providers recognized and rewarded	
To improve clinical practices and effectiveness of care	1. Strengthen the referral and counter-referral system	1. Strengthen the referral and counter-referral system by disseminating the packages of care for the different tiers of care. 2. Ensure availability of referral sheets, notes, documentation and medical record keeping services at tertiary and central level institutions and develop a system so that information on referred patients is fed back to the referring institution.	• No. of service packages distributed • No. of referral sheets, registers distributed • Analysis report on referral and counter referral systems	
	2. Strengthen licensing and introduce accreditation of hospitals	1. Health Profession Authority to inspect and licence public health institutions according to standards 2. Arrange learning visits to Chitungwiza hospital as a best practice model to encourage other hospitals to become ISO certified.	• No. of hospitals enrolled in accreditation programs	

Strategic Objective	Intermediate Objective	Key Activities	Indicators	Projected Cost
	3. Improve availability, consistency and equitability of services	1. Conduct a mapping exercise to identify remote, poor and vulnerable communities, and analyse access to health services for these communities. 2. Design and implement a programme of targeting services (both preventive and curative) to these communities such as currently being implemented on EPI outreach.	• Service mapping report on remote, poor and vulnerable communities available	
	4. Strengthen clinical audits and peer review	1. Revitalise the clinical audit and peer support systems at both hospital and clinic level 2. Continue to carry out quarterly Provincial Maternal and Perinatal Mortality (MPM) audits. 3. Carry out a rapid assessment to determine good practices in clinical audits. 4. Develop and disseminate guidelines for clinical audits. 5. Disseminate guidelines on MPM audits &strengthen completion of maternal death certification forms. 6. Establish and provide support for Clinical Audit Committees in hospitals. 7. Conduct clinical audits and reviews.	• % of hospitals with audit guidelines • % of hospitals with Clinical Audit Committees • No of hospitals conducting clinical audits and peer review	Supervisory visits
	5. Apply the model for improvement to improve delivery of high-impact evidence-based care	1. Use the model for improvement to set measurable aims related to delivery of evidence-based best practices (with teams regularly testing changes to improve care and track progress against defined indicators)	• % facilities demonstrating adherence with best practices	
To build capacity for continuous quality improvement by 2018	1. To make quality improvement the responsibility of everyone working in the health sector	1. Managers to embed quality improvement issues into all job descriptions which are then assessed during staff appraisals on a regular basis. 2. Regular QI supervisory visits to be undertaken at each level on a quarterly basis - using a quality supervision checklist.	• Number of Quality supervision checklist disseminated • No. quality supervision visits conducted by MoHCC HQ, PHEs and DHEs	
	2. To guide leaders and supervisors in adopting sustainable continuous quality improvement	1. All managers and supervisors at national, district and provincial level to be trained in Leadership and Governance, Management and QI on a sustained basis.	• % of persons in leadership and supervisory positions trained in Leadership and Governance, Public Health, Management and QI	
	3. To establish a mechanism for, encouraging, supporting and strengthening collaboration and coordination of quality improvement efforts	1. Build the capacity of the Quality Assurance Directorate by ensuring adequate staffing and resources are provided. 2. Ensure that the national QI Task Force meets on a quarterly basis to review progress in implementing the QI strategy and policy. 3. Strengthen Provincial and District QI teams to coordinate efforts. 4. Hold bi-annual national QI meetings. 5. Align existing quality improvement initiatives to the National QI policy and strategy.	• National QI steering committee and TWG established • No. of provincial and district level QI task forces • No. meetings conducted by national QI steering and TWGs • National QI approach defined and developed	

Vertical dimension of the national QI strategic framework

Table 5 lays out the specific elements of the vertical dimension of the national QI strategic framework with regard to MOHCC priority health conditions. In each MOHCC priority health care area, leading causes of mortality and morbidity and the associated high-impact interventions able to reduce such mortality are summarised along with proposed improvement activities and quality measures to assess progress toward meeting defined targets. The following are the key priority areas as outlined in the National Strategic Plan:

- Maternal, Newborn and Child Care
- Nutrition
- Priority Communicable Diseases including HIV and AIDS, TB, Malaria, STI, Neglected Tropical Diseases
- Non-Communicable Diseases, Chronic Diseases and Mental Health
- Environmental Health

Table 5: Dimension 2 - Priority health areas and associated high impact interventions, QI approaches, quality of care indicators and projected costs

Priority Health Area and Health Outcome Target	Leading Causes of Mortality and Morbidity	High-impact Clinical Interventions	Key Activities to Support Continuous QI	Indicators Outcome, Process and Input	Projected Cost
Maternal and Newborn Health	Postpartum Hemorrhage	• Active Management of Third Stage of Labour (AMTSL); post-partum monitoring for PPH; prompt management of PPH (uterotonics, manual evacuation if retained placenta; laceration repair; blood transfusion)	• Designate and build capacity of focal QI point person at PHE, DHE and hospital level team and support formation and optimal functioning of facility QI teams • Regularly track and report on quality of care indicators • Maternal, Neonatal death reviews and audits • Promote regular shared learning opportunities • Improve referral system including transportation • Competency based training on assessment of neonate and resuscitation of asphyxiated newborn (Helping Babies Breathe) • Essential newborn care and Kangaroo Mother Care	• MMR ratio • % mothers of children aged 0–23 months in catchment area that saw a skilled provider three or more times during last pregnancy • % of pregnant women who had Blood Pressure Measured at least 2 times during pregnancy • PPH rate and case-fatality rate • % women delivering administered AMTSL • % facilities with adequate stock Magnesium Sulfate • % women with PE/E treated with MgSO4 • % of women delivering in health facilities who are monitored for at least 24 hrs • % of mothers and newborns who received postpartum care at each recom¬mended interval from skilled personnel • Neonatal Mortality rate • % of facilities with equipment for essential post-delivery newborn care • % of facilities designated "Baby Friendly" • % of mothers/family members who can state at least 3 danger signs • % of health facilities that have met with communities concerning maternal and child health matters in the past 3 months	
	Eclampsia	• Magnesium Sulphate			
	Sepsis	• Infection prevention • Antibiotics for prolonged ROM, intrapartum and post-partum maternal fever			
	Obstructed Labour	• Skilled Birth Attendance • Reduced delay in seeking care • Appropriate use of the partograph • Assisted delivery • Caesarian section			
	Newborn Asphyxia	• APGAR to assess management • Up to date resuscitation skills, equipment and supplies			
	Newborn Sepsis	• Post-partum monitoring of newborn (w/increased vigilance if risk factors); IV Antibiotics and shock therapy • Mother's awareness of danger signs			
	Low birth weight/Pre-term birth	• Antenatal corticosteroids • Kangaroo Mother Care			

Priority Health Area and Health Outcome Target	Leading Causes of Mortality and Morbidity	High-impact Clinical Interventions	Key Activities to Support Continuous QI	Indicators Outcome, Process and Input	Projected Cost
Essential Newborn Care; Early Initiation BF	• Unnecessary labour and delivery practices e.g. Episiotomy, • Mechanical assisted deliveries, • Too early weighing of newborn, • Medicated deliveries, • Underlying infections including HIV	• Skin to Skin contact of mother and baby for at least 1 hour after delivery Showing mother how to breastfeed (position and attachment) within 6hrs of delivery Kangaroo care • Rooming in of mother and newborn • Clean cord care; eye care	• Mentorship to improve competence (knowledge and skills) of service providers to support mothers to initiate breastfeeding early. • Supportive supervision to include observation of Infant Feeding Service delivery • Provision of job aids to guide service delivery	• % of mothers initiating breastfeeding within one hour of birth	
Exclusive Breastfeeding	• Poor Suckling reflex, low birth weight, introduction to pre-lacteal feeds, birthing complications, early introduction of solids, congenital deformities, intergenerational transfer of stunting	• Counselling on dangers of mixed feeding, Teaching mothers to position and attach	• Mentorship to improve competence (knowledge and skills) of service providers to Support mothers to initiate breastfeeding early. • Supportive supervision to include observation of Infant Feeding Service delivery • Provision of job aids to guide service delivery • Exit Interviews with patients	• Proportion of mothers delivered at the institution who exclusively breastfed their infants for six months • % of hospitals accredited as baby friendly	
Appropriate introduction of Complementary Feeding and continued Breastfeeding	• Non-availability of nutritious and diverse diets at household level • Short duration of breast feeding/ premature weaning	• Counsel on timely introduction of appropriate balanced diet and continued breastfeeding • Counsel on age appropriate meal frequency • Vitamin A supplementation • Assess weight for height and height for age • Screen for acute and chronic	• Provision of Infant Feeding Counselling cards • Adequate stocks of Vitamin A capsules • Provision of anthropometric equipment and child health cards	• Proportion of mothers with children less than 2 years who were assessed for nutritional status (weight and height measured and nutrition status recorded on Child health Card	

Priority Health Area and Health Outcome Target	Leading Causes of Mortality and Morbidity	High-impact Clinical Interventions	Key Activities to Support Continuous QI	Indicators Outcome, Process and Input	Projected Cost
	• Incorrect and inadequate feeding during and after illness	• Screen for acute and chronic malnutrition • PITC • Deworming			
Management of Malnutrition	• Unavailability of diversified diets at household level, Childhood illnesses inc HIV, Inadequate care by mothers and care givers, acute food shortages at household, poor water and sanitary facilities, poor intake and utilization of nutrients	• Prevention of malnutrition in early childhood through the promotion of improved child feeding, care giving and care seeking, growth monitoring and promotion practices at family, community, and facility level • Therapeutic feeding using F75, F100 and RUTF • Infant and young Child feeding Counselling • Routine Growth Monitoring	• Provision of anthropometric equipment • IYCF Counselling Cards • Provision of job aids, quick reference guides, national protocols, medical supplies • Adequate supplies of F75, F100 and Ready to Use Therapeutic Foods	• Proportion cured, died, defaulter patients vs. the recommended global sphere standards • % children (x site in x time-frame) with acute malnutrition managed according to standard (composite process indicator)	
Child Health **PMTCT Target- <5% maternal HIV transmission**	• Paediatric HIV and AIDS • Poor management of childhood illnesses (diarrhoea, malaria and ARI) • Barriers to immunisation against childhood illnesses due to religious and cultural beliefs	• MER14 and Option B+ • Paeds OI/ART training • Decentralization of OI/ART Services	• Strengthening the human resource capacity for comprehensive paediatric HIV prevention, treatment care and support • Expeditiously commence infants who require ART on treatment • Site trainings on PM and QI • Support and Mentoring visits/QI Coaching • 3monthly cycle CQI projects with reports from sites	• Proportion of HIV positive children (<15yrs) who were initiated on treatment during the reporting period. (From the subset of eligible <15year olds) • Proportion of HIV infected pregnant and lactating mothers initiated on ART on the same day or within • Proportion of HIV exposed infants who had a DNA-PCR HIV test performed at 6-8 weeks of age and received results within a month. • Proportion of HIV exposed infants who received extended NVP prophylaxis	
	Severe Pneumonia	• Antibiotics and Oxygen • Pneumococcal vaccine			

Priority Health Area and Health Outcome Target	Leading Causes of Mortality and Morbidity	High-impact Clinical Interventions	Key Activities to Support Continuous QI	Indicators Outcome, Process and Input	Projected Cost
	Diarrhoea with severe dehydration	• ORT and Zinc • Rotavirus vaccine	• Peer learning visits • Ensuring continuous availability, good quality medicines, diagnostics & supplies for comprehensive paediatric HIV prevention, care, treatment and support services • Effect supervision for comprehensive PMTCT and paediatric HIV prevention, treatment care and support services at all levels • Ensure all first level health facilities should have at least two IMNCI trained health workers • Scale up emergency triaging system (ETAT) to improve identification and management of severely ill children at all levels • Oral rehydration Therapy and Zinc for diarrhoea management	• Proportion of HIV+ infants <2 years old initiated on ART. • % of children under 5 with pneumonia who receive appropriate antibiotic • % of children under 5 with diarrhoea receiving ORT and Zinc • % of infants fully immunized 12-23 months • % patients compelled to purchase prescribed essential medicines at a private pharmacy	
	Severe underlying malnutrition				
HIV and AIDS and TB	Advanced Immunosuppression and TB	• Patient and Clinician reminder systems e.g. TB screening tool • Screening of all HIV infected individuals for TB and Standardized TB treatment • Minimize time taken to identify and initiate ART-eligible patients on life-saving therapy	• Site trainings on PM and QI • Support and Mentoring visits/QI Coaching • 3 monthly cycle CQI projects with reports from sites • Peer learning visits	• Median days from enrollment to ART initiation for eligible patients • % of patients retained on ART at site. (6months Retention) • Proportion of patients whose ART adherence assessment was done at the most recent visit • Proportion of OI/ART patients whose	

Priority Health Area and Health Outcome Target	Leading Causes of Mortality and Morbidity	High-impact Clinical Interventions	Key Activities to Support Continuous QI	Indicators Outcome, Process and Input	Projected Cost
		• Active follow up of defaulters	• Routine monitoring of Early Warning Indicators with feedback to facilities	whose last visit lasted 2 hours or less • # drug stock outs in last quarter for first-line ART drugs or cotrimoxazole • Proportion of patients who had a (routine 6-monthly monitoring) CD4 test performed • Proportion of ART patients screened for TB at the most recent visit.(Using the TB Screening Tool, with documented evidence in ART Register) • % of patients on ART requiring switch to second-line therapy for treatment failure at 12 and 24 months.	
Malaria **95% of all suspected malaria cases to have parasitological confirmation (RDT or microscopy)** **Non-**	• Late Presentation and detection • Inadequate Case Management for severe malaria	• Indoor Residual Spraying • Use of Long Lasting Insecticide Treated Nets • Intermittent Preventive Treatment for malaria • Early diagnosis and prompt effective treatment appropriate for severity of malaria • Community Case Management	• Pre-shipment spraying chemical analysis • Conducting regular (monthly) bioassays on sprayed homes • Periodic bioassays of Long Lasting Insecticide Treated Nets • Ensure availability and use of treatment guidelines • Effective competency based pre-service and in-service training on malaria prevention, control and case management and emphasize correct use of quinine in the treatment of severe malaria blood glucose monitoring and	• Product meeting WHO acceptable standards • Mosquito knockdown rates for sprayed homes • Mosquito knockdown rates for Long Lasting Insecticide Treated Nets • % suspected malaria cases with confirmed diagnosis by RDT or microscopy • % Proportion of under fives receiving treatment within 24 hours of onset of fever • % of all malaria cases treated according to guidelines • % patients with severe malaria who received the correct treatment • % of women receiving Intermittent Preventive Therapy in pregnancy in malaria prone districts	

Priority Health Area and Health Outcome Target	Leading Causes of Mortality and Morbidity	High-impact Clinical Interventions	Key Activities to Support Continuous QI	Indicators Outcome, Process and Input	Projected Cost
			other investigations such as urea and electrolytes • Maintenance of complete and accurate records. • Increase access to quality laboratories though ongoing proficiency testing • Standardized supportive supervision and monitoring guided by QI methodologies including internal quality control systems for RDTs and microscopy • End user verification exercises to include acceptance/satisfaction of clients and communities • Functional Malaria death investigation system • Malaria clinical audits at service delivery point • Focused support and supervision including Community Health Workers • Structured mentorship for provincial, district and health facility level staff • Strengthened support and super	• % of facilities not reporting stock outs of anti malaria medicines and commodities in malaria prone districts	

Priority Health Area and Health Outcome Target	Leading Causes of Mortality and Morbidity	High-impact Clinical Interventions	Key Activities to Support Continuous QI	Indicators Outcome, Process and Input	Projected Cost
Non-Communicable Diseases and Mental Health	Common Risk Factors: • Unhealthy lifestyles which include -Unhealthy diets -Lack of physical activity -Tobacco used -Harmful consumption of alcohol: -Unsafe Sex Practices For the following Conditions -Cardiovascular Disease -Diabetes -Cancer -Injuries and Violence -Chronic Respiratory Diseases - Mental Disorder	Primary Prevention: 1. Health promotion programs and measures e.g. Community sensitization and modification of behavioural and 2. Early Detection(Screening and early diagnosis) of selected NCD (CVD, Diabetes, Cancer, Chronic Respiratory Diseases): - CVDs and Strokes prevention using statins, aspirin for all individuals with >20% -30% risk of CVD event within 10years 3. Secondary Prevention of (3i) CVD: by Appropriate management of Hypertension using beta blocker, aspirin, ACE-I, statins for all persons with ischemic disease 3.ii) Diabetes bundle (define minimum service package/bundle for Zimbabwe) for all patients with diabetes 3.iii) Effective management of NCDs, -according to national guidelines time prevention treatment guidelines • Treatment availability and treatment support to enhance adherence • Early/timely referral and optimal resuscitation • Treatment adequate for type and degree of injury	• Provision of anthropometric equipment • Counselling Diet Sheets • Implement a comprehensive Strategy on NCD prevention and control and Mental Health • Improve resources to support better health literacy on NCDs and Mental Health • Improve screening coverage for NCDs • Patient empowerment to manage and control conditions • Competency based training at pre-service and in-service level • Ensure availability of up to date treatment guidelines, job aids and monitoring checklists • Ensure availability and utilization of patient care cards, registers and other data collection tools for the priority NCDs and promote continuity of care • Procurement and maintenance of standard diagnostic and therapeutic equipment • Maintain adequate stocks of medicines including emergency kits located at all areas in a health facility	• Proportion of adults receiving nutrition assessment and counselling on NCDs • % of patients attending OPD screened for hypertension or diabetes • No. of staff / facility adhering to management protocols • % of patients with controlled BP or blood glucose • % of facilities without stock outs of tracer NCD medicines including emergency supplies • Number of facilities reporting functional referral systems • Average Waiting time between diagnosis of cancer and commencement of either Chemotherapy or Radiotherapy	

Priority Health Area and Health Outcome Target	Leading Causes of Mortality and Morbidity	High-impact Clinical Interventions	Key Activities to Support Continuous QI	Indicators Outcome, Process and Input	Projected Cost
		• Appropriate management of emergencies including injuries at all level of the system. • Mental health awareness at community, facility and policy level • Appropriate use of Psychotropic medication	• Review, improve and support referral systems including transportation • Use of treatment protocols for common mental disorders and mental health service delivery checklist		
Sexually Transmitted Infections	• Urethral and Vaginal Discharge • Genital Ulcer Disease • Syphilis	• Syndromic Management of STIs	• Site trainings on Syndromic STI Management and QI • Production, distribution and display of STI Guidelines • Improve supply chain management of Essential Medicines that includes all STI medicines • Support and Mentoring visits/QI Coaching • Annual cycle CQI projects with reports from sites • Peer learning visits	• % of individuals presenting with specific STIs or STI symptoms in health facilities who are assessed and treated in an appropriate way (according to national guidelines) • % of patients with STIs or STI symptoms who are given advice on condom use, partner notification and who are referred for HIV testing, among all STI patients seeking STI care • % of clients served by HCFs that have a current supply of essential STI drugs and report no stock-outs lasting longer than one week in the preceding 12 months	
Environmental Health, Water and Sanitation	• No or interrupted access to safe water and sanitation • Poor hand washing practices	• Use of latrines • Recommended hand washing practices	• Continued public education and enforcement of Public Health Act and By-laws • Appropriate and innovation in hand washing technologies	• Safe water and sanitation coverage • % of households with soap and hand washing facilities	

It is important to note that the horizontal dimension strategic objectives provide a base for the provision of quality healthcare services in the MOHCC priority areas listed above. Since "quality is everybody's business", the MOHCC QA division and all relevant technical divisions within the MOHCC, collaboratively worked together to define specific intermediate objectives, activities and indicators for defined QI strategic objectives. This helped avoid duplication and ensured that current MOHCC strategies across all divisions are optimally leveraged in support of the national QI strategy.

In order for this strategy to be implemented there is a need to create and maintain an enabling environment through:

- Leadership and commitment at policy level
- Advocacy and communication
- Training and Capacity building
- Ensuring sustainability
- Monitoring and Evaluation mechanisms

2.3 Quality Improvement Principles and Methodologies

Several principles underpin much of the improvement work implemented in high- and low-resource settings.

Core principles of quality improvement include:

- Effective teamwork (at all relevant system levels) that engages managers; providers, staff, patients and relevant stakeholders to achieve a common quality improvement aim;
- An understanding of how systems and processes of care function within a health system and the critical bottlenecks that impede reliable health care processes;
- Use of data (tailored to each system level) to continuously measure and track progress toward an explicit improvement aim;
- An understanding and focus on patient needs; and
- Taking into account the issue of sustainability
- Regular shared learning.

There are many QI methods in the literature that have been used in a number of settings with varying degrees of success. The following 5 methodologies may be used in implementing QI. They have been selected owing to their success in other settings and their relative simplicity to understand and implement.

1. 5S Method
2. Model for Improvement – the Plan-Do-Study-Act (PDSA) model
3. Clinical practice improvement (CPI) method
4. Root cause analysis.
5. Quality Improvement Collaborative

Annexe A provides a brief explanation of how these methodologies may be applied by QI teams for example.

3 Implementation of the QI Strategy

Phased Approach

It will not be possible to implement all QI strategies and approaches at once. Hence a phased approach that recognizes the current operating environment and available resources is proposed. The phased approach also recognizes the importance of demonstrating quick wins in order to obtain buy in from the relevant stakeholders. Accreditation and pay for performance, which is a value based payment system to encourage efficiency and improved quality will occur at later phases the QI movement gains momentum.

Phase 1

- Establish QI teams at provincial, district and centrallevel
- Review and development of standards and guidelines of care where applicable.
- Strengthen licensing procedures and adherence to minimum standards by health facilities.
- Strengthen quality control of medicines, laboratories and radiology facilities.
- Strengthen and capacitate hospitals to adhere to infection control guidelines.
- Introduction of quality improvement work in at least one technical area in a subset of districts in every province. An emphasis will be on Quality improvement training, activities and establishment of facility based quality improvement focal groups, overseeing continuous real-time monitoring of agreed quality of care measures (process measures and outcome measures). Each technical area will outline a 3-5 year plan in which intermediate objectives from the Table 5 (vertical interventions) are sequentially introduced to guide focused improvement work in a selected of districts.
- Introduction of QI skills and methods in pre-service training (with participation of students in ongoing improvement projects to the extent possible).
- Strengthen monitoring of compliance to standards and guidelines e.g. medical audit.
- Establishment of improvement collaborative.

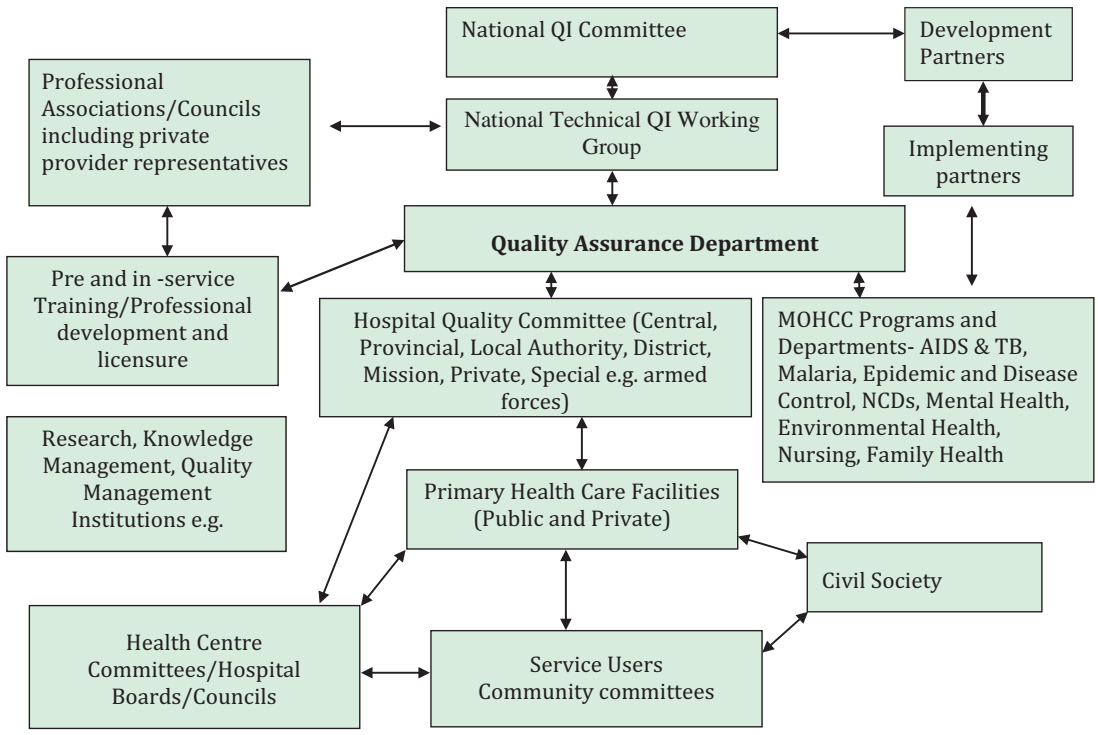
Phase 2

- Institutionalize formal recognition of performance and accreditation of hospitals
- Introduction of pay for performance at central and provincial hospital level

A more detailed operational plan for the horizontal dimension will be developed by the QA and QA directorate of the MoHCC in collaboration with stakeholders while the vertical interventions will be developed by the specific program areas and incorporating relevant QI committees empowered by the MOHCC to ensure maximum engagement and buy-in as implementation begins. The imple-mentation of the QI strategy will utilise existing structures and systems as far as possible. This will enable QI to take off with minimal additional resources and encourage QI activities to be embedded and integrated within the normal operational environment of the MOHCC. It is anticipated that activities will occur across the entire health system from community to quaternary levels, as well as incorporating the private sector. This is in line with the policy of Public Private Partnerships (PPPS) that the Government of Zimbabwe has embraced. In recognition of initiatives on QI in ART, PMTCT and Maternal Health, this strategy seeks to scale up these in an integrated manner that supports an overall health systems strengthening approach.

Each MOHCC technical department will be given responsibility for working in collaboration with relevant professional associations and councils as well as the Quality Assurance Directorate within the MOHCC to define a 5-year operational improvement strategy in their respective technical area, prioritising and sequencing improvement work that are aligned to the strategic objectives outlined in Table 5. Individual technical working groups will develop a detailed operational plan that prioritises and sequences specific improvement aims, indicators, training and supervisory support, for the high-burden conditions in their technical area. This may be rolled out using an improvement collaborative approach at a district or provincial level. Figure 9 illustrates the organisational structure for implementing the QI strategy.

Figure 8: Quality Improvement Relationships



National Level

It is of paramount importance that a National Steering Committee with representation from senior management within the MOHCW as well as relevant stakeholders, oversee and guide the institutionalization of QA/QI processes to support health care service delivery in the country. Ideally this advisory group will be chaired by the Minister of Health and Child Welfare or an appointed representative and will include key representatives from other ministries such as higher education and finance, UN agencies, bilateral partners, health insurance representatives, professional associations, regulatory bodies, civil society, private sector and non-governmental organizations. The National QI Committee drives quality improvement and ensures that QI becomes a nationwide continuous system wide approach.

The National QI steering Committee has five main areas of responsibility:

1. **Strategic Planning:** prioritizing goals so that most critical areas are addressed first.
2. **Overseeing QI implementation:** ensuring that all quality improvement activities are done effectively in line with key quality priorities.
3. **Providing guidance:** overseeing activities to ensure that activities are on track and being responsive to staff, clients and partners during the improvement process. Support and encouragement to the provincial level is necessary to maintain the momentum built.
4. **Resource mobilization:** for building capacity for quality. The national QI committee will be responsible for building sustainable infrastructure that fosters a culture of quality service delivery.
5. **Enforcing accountability:** tracking and reporting on implementation progress using a set of agreed indicators and re-setting implementation course when necessary.

The QI committee will meet quarterly.

A National QI Technical Working Group will be established to provide technical support to the QI committee on the five areas of responsibility outlined above. The group will meet quarterly.

Once the National Technical QI Working Group has been established, sub-groups will be formed to focus on specific goals or priorities. These workgroups will include especially people with expertise in the area of focus.

It is envisioned that there will be 7 working groups, each of which will define a detailed implementation plan and annual targets with respect to their technical area:

1. MNCH:
2. HIV and AIDS, TB and other communicable diseases Neglected Diseases
3. NCDs and Mental health
4. Water and environment

5. Information Systems
6. Commodities and supply chain, including laboratory and pharmacy
7. Client-centered care (with strong client/community representation)

Quality Assurance Department

The Quality Assurance department is mandated to ensure that the quality of services provided is within acceptable standards for the entire sector, both public and private health services. This is to be achieved through facilitating the establishment of internal quality assurance and improvement capacity at all levels. There is therefore need to provide human, material and financial capacity for this critical department to fulfil this mandate.

More specifically the Quality Assurance department is tasked to:

1. Provide overall operational oversight and coordination for QI.
2. Consolidate Quality Management Plans and oversee implementation.
3. Support QI teams developing and disseminating standards and guidelines on QI.
4. Establish data collection systems for performance measurement of QI
5. Provide support to the provincial level for QI through training and provision of technical assistance.
6. Coordinate the planning and resource mobilisation efforts for QI.
7. Work with training institutions and other MOHCC departments to develop and implement the national QI training curriculum and materials.
8. Document quality improvement best practices and identify platforms for information sharing among healthcare facilities and with other interested stakeholders.
9. Act as secretariat for the National QI Committee and lead the QI TWG.
10. To recognise the best performing Province

Other levels

Quality Improvement Committees shall be established at each hospital level. The provincial QI committee will provide overall monitoring and supporting of quality in the respective districts. The Provincial QI teams would be responsible for consolidating all the initiatives from both hospitals and the district QI committees for then sharing to the national. The district QI committee will monitor and support quality at health facility level. Similar structures will be used to monitor quality in the provision of healthcare from urban facilities. Central hospitals will receive oversight of QI from QAD with support from the QITWG. The roles of the QI committees' will include:

1. Guiding implementation of QI Activities
2. Development of local QI implementation plans and budgets, integrating QI plans into broader work plans to the extent possible (e.g. district health plan; facility health plan)

3. Active role in capacity building and learning activities
4. Supervision, mentoring and coaching
5. Monitoring and evaluation of performance of subordinate QI teams
6. Identify best practices to be rewarded and recognized

The Provincial and District Quality focal persons will be secretariat for the QI Committees. The focal persons will be part of a management team where their central position is clear within the organizational structure. They will be involved in the strategic planning process for QI. The quality manager serves as the subject matter expert in quality. In order for the QI focal person to be proactive the QAD will put in place a programme to capacitate them with the necessary change management, knowledge management and communication skills. The QI focal person will also be incorporated in the planning and implementation of QI activities in specific technical areas. The QI focal person with support from the QI Committee will be responsible for checking to ensure that the quality of services meet client expectations.

Roles and Responsibilities of Stakeholders

Government

The MOHCC will provide overall leadership and oversee planning, implementation, monitoring and evaluation of standards on QA/QI in the health sector. Other functions will include:

- Formulate enabling legislation for QA and QI initiatives in the health sector.
- Provide technical guidelines and protocols in support for QA and QI processes.
- Provision of high quality services and maintenance of infrastructure and equipment at all levels of care.
- Create a conductive environment for continuous learning through training and effective mentoring.
- Identify and disseminate indicators and data collection tools on QA and QI.
- Promote operations research that informs policy implementation of QA and QI processes.

Private for Profit Sector (Private providers from different sectors including private hospitals, surgeries, laboratories, pharmacies)

- Complement government efforts in the provision of accessible, affordable and quality health care in line with agreed national standards and guidelines.
- Mobilize and allocate resources to QA/QI approaches in the provision of health services in the workplace.
- Participate in national monitoring and evaluation on QA/QI processes.
- Promote networking among private companies and developing mechanisms of peer review on QA/QI approaches.

- Involve communities in QA/QI processes in the context of social responsibility programmes.
- Assist government leverage on technical expertise such as setting of quality management systems.

Development partners

- Provide technical and financial support for sustainable QA/QI initiatives.
- Advocate for increased global and national commitment to QA/QI processes in the health sector.
- Support operations research on QA/QI approaches.

Community Representatives, Civil Society, Non-governmental Organisations

- Advocate for the rights of the population with respect to equitable access to quality health care services.
- Act as watchdogs to improve accountability to providing quality health services in the country.
- Forge partnerships that promote a culture that demands quality for services provided in communities.
- Implement community based strategies that promote healthy behaviours as well as timely health seeking behavior.
- Articulate community needs and influencing quality policy and the way health services are provided to them.
- Complement government efforts in the provision of quality health care.

Professional Associations

- Self-regulation of individual and institutional standards of practice.
- Contribute to clinical guidelines development.
- Provision of professional recognition of good performance.

3.1 PERFOMANCE MEASUREMENT IN QUALITY

Measurement is a core principle underpinning all improvement and an important tool for driving large-scale improvements in quality of care. An important role of the technical working groups will be to review current indicators tracked in the national HMIS system and as part of existing QI initiatives, make recommendations about specific quality of care and outcome indicators that should be tracked by RHCs, hospitals and as part of the routine Health Management and Information Systems to permit regular tracking and analysis of priority quality of care indicators and facilitate results-based action at all levels of the health

system. Scientifically valid and clinically relevant performance measures have the potential to significantly improve the quality and efficiency of patient care across Zimbabwe. The goal in assessing performance is to create a system that promotes the best clinical standards and ensures the highest quality of patient care through transparency, accountability, and credibility. Unfortunately, the nation is in its infancy of formulating a coordinated strategy for collecting and combining performance data, and thus, lacks an effective method for pinpointing gaps in quality and efficiency across the country. This section of the strategic plan outlines ways of bridging this gap.

Creating systems that collect and use data to improve performance is essential to demonstratingvalue and providing consistent, evidence-based care. Incorporating measurement into daily practice highlights strengths and weaknesses, identifies opportunities to improve delivery of care, and provides insight into whether changes actually lead to improvement. It is recognised that different stakeholders in a system may need information tailored to the specific functions for which they are responsible. Performance measures will be categorized into three basic types: structure e.g. midwife to number of women of child bearing age ratio, process e.g. correct use of partograph, and outcomes e.g. still birth rate.

Quality Assessment Indicators

The following list of specific areas under the domains mentioned above shall guide the development of quality indicators with guidance from the Quality Assurance Department.

Structural Indicators

- Accessibility to health care- geographical coverage and location, distance and time to the health facility, continuity of services, financial etc;
- Availability of trained and competent health workers
- Availability of diagnostic equipment, medicines and supplies
- Work environment organisation
- Logistics management
- Data management, use and dissemination

Process Indicators

- Availability and use of up to date standards, treatment guidelines and protocols
- Organisational management for implementing QI
- Safety to service providers and users
- Infection prevention and control practices
- Testing and documentation of changes
- Client involvement
- Staff engagement, responsiveness and attitude to work

Outcome Indicators

- Health outcomes (e.g. mortality, incidence of complications)
- Equitable health care to reduce outcome variations across the population divide
- Waiting time and crowding at service points
- Adverse events reporting
- Responsiveness in the institution health care system
- Community participation
- Level of initial and continuous utilization of services
- Extent to which health care is delivered in a manner which maximizes resources and avoids waste
- Indicators for standardization
- Indicators for sustainability
- Client and community satisfaction

Sources of Data

Both routine and periodic data collected from facilities and communities will be used to monitor quality of service provided. The nature and detail of the data will depend on agreed performance measures and indicators that will facilitate monitoring, evaluation, research into QI and evidence based decision making for specific interventions.

- **Health Facility Data** - data will be collected routinely using the existing data collection tools and transmission mechanisms using an integrated approach as far as possible.
- It is recognised that in some (many) facilities, established records and registers do not capture necessary information to permit reliable calculation of quality of care measures. In such cases, there may be a need for modest adaptation of records and registers to permit capture of essential data. Indeed, improving quality of facility data and the capacity of facility staff and MOHCC staff to collect aggregate and analyse quality of care data in real time will be a central objective of the national quality improvement strategy.
- **Administrative data** will provide information on health infrastructure, supervision, management meetings, logistics management, human resource profiles, financial resource flows and expenditures at the different levels of the health sector.
- **Vital Statistics** will provide critical information on births, deaths and cause of death.
- **Population Based Surveys** such as the Zimbabwe Demographic and Health Survey will incorporate questions that seek to measure quality of care.
- **Periodic assessments of quality of facility health care services** – in general, there is limited available information about the quality of care of specific services in Zimbabwe. In order to deepen understanding of critical quality of care gaps to help prioritize improvement aims and design of improvement work and to develop a multi-

year operational strategy, individual technical working groups may recommend a one-time assessment of quality of care in a representative number of facilities if resources permit. For neglected diseases and NCDs, in particular, there is scarce high quality data related to quality of health care and prevalence and epidemiology of specific conditions (e.g. for heart failure). Better baseline data may be necessary to inform development of the most rationale operational improvement plan for certain technical areas.

3.2 MONITORING AND EVALUATION

The M&E framework will be streamlined to ensure that maximum value is obtained from the investment on data collection and compilation.

Progress towards the quality objectives will be assessed nationally by reference to Quality Outcome Measures. These measures will be based on a combination of patient and staff reported experiences and outcomes as well as measures of patient safety and clinical effectiveness. Indicators may be selected in line with agreed areas for specific accelerated improvement for each year. A few indicators of quality should be incorporated into the basic health information system. Examples of indicators that may be easy to report on routinely include case fatality rates for major conditions such as pneumonia, head injury and general hospital mortality rates, accuracy and timeliness of reporting. Other considerations include comments on quality of care appearing in the press and parliamentary debates.

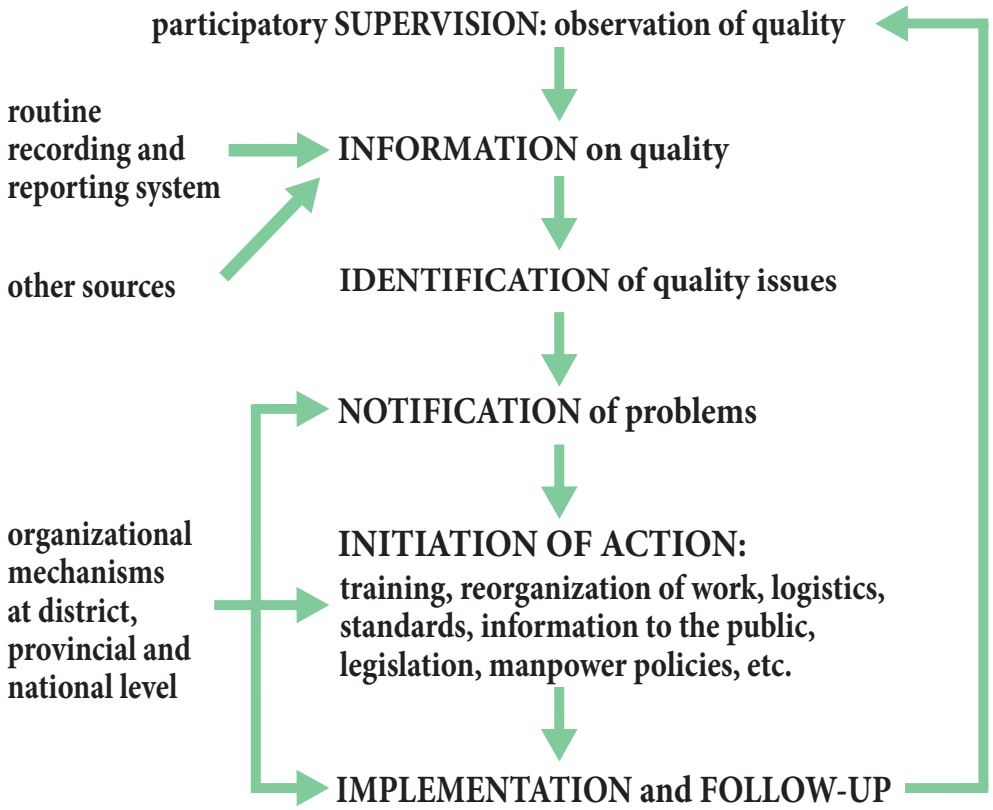
Priority QI initiatives will undergo evaluation to follow up on whether the intended outcomes are achieved. The type of evaluation to be planned for and conducted should reflect the nature and scope of the public investment. Evaluations will be conducted at baseline, mid-term and at final phase. Impact evaluations will be prioritized to assess cost-effectiveness and determine whether or not the investment should be scaled up.

The QA department will work closely with respective programmes and institutions in the planning and conduct of evaluations with a focus on using external or peer evaluators in order to minimize the bias normally associated with self-evaluation. It is very important that the results of the evaluations are shared at widely as possible for example shared at the annual "MODO", Provincial and District Health Team meetings. The MOHCC website also provides a wider platform for the dissemination of evaluation findings. At the highest level, inclusion of QI should be high on the agenda of the weekly Permanent Secretary meetings.

Systematic Monitoring and Correction of Quality

Supervision and the checklists used to conduct systematic monitoring must include simple elements of quality assessment based mostly on direct observation. Supervision should be carried out in a constructive, supportive and not demoralizing manner, recognizing the sensitivities and feelings of those supervised. A standardized quality supervision tool will be developed by the Quality assurance department for all levels of care to assess the quality of services and support them in improving the quality of service provided.

Figure 9: Support and Supervision for Quality Improvement



Data Analysis and Reporting

All levels of the health system will be capacitated to undertake data analysis at local level to enhance evidence based decision making. Performance indicators will be used in the analysis framework in order to describe trends, divergence between planned activities and achieved results. Facilities, districts and provinces will be able to benchmark their performance against those of best performers.
The following methods will be used

- Internal benchmarking will be used to identify to compare practices within the organisation/health facility with accepted best practices as well assessing current practice over time. Visual aids such as line graphs and maps will be used to display this information. Simple statistical techniques will be employed to assess validity of changes noted.
- External benchmarking will be used to compare data between organisations/health facilities to judge performance and identify improvements that have proven to be successful in other organisations/ health facilities and learn from that experience.

Data Dissemination and Sharing

The Health Information and Surveillance Unit will act as the central repository and source of service delivery data at national level. Real-time district level data in the District Health Information System (DHIS) will be consolidated at provincial level and transmitted to the central level. This data will be used by QI teams in situation and problem analysis and

planning QI activities. Other data from patient surveys for example will be collated by province and shared on the MOHCC website.

Data will need to be interpreted in the context of the internal and external operating environment. Service delivery data shall be packaged and displayed at the various health facilities using the HMIS format to be provided for standardization purposes. The timing of information dissemination should fit in the planning cycles and needs of the users. Information will be available through platforms such as the Health Matters Magazine, the MOHCC website, press releases and through electronic and print media.

Client Satisfaction Surveys

Service providers, regulatory bodies such as the Health Professions Authority and professional associations will on a regular basis conduct client surveys to determine the quality of services from the service user's perspective. Standardised tools will be developed by the Quality Assurance department for the different levels of care.

Accreditation, Recognition and Reward

The following strategic approaches to regulation and accreditation of facilities will be used:

- Align regulatory focus with health sector priorities.
- Build on self-regulatory mechanisms for compliance.
- Reduce the costs of regulation via rational sampling, focused accreditation, and tiered inspection.
- Assess/accredit management and internal QA processes and structures.
- Minimize internal costs of response to inspection.

Role of Research in Quality Improvement

The Ministry of Health and Child Care (QAD) in partnership with Academic Institutions and other relevant partners will draft a research agenda that tackles problems in delivering quality of care. Formation of a task force to coordinate and support research is suggested. Potential institutional homes for such a task force include College of Health Sciences, National Institute of Health Research, Medicines Control Authority of Zimbabwe, Standards Association of Zimbabwe and others. This research will use proven scientific methods leading to new or revised interventions as well informing policy relating to access and delivery of health care. One deliberate strategy would be to steer more health professionals in training institutions towards research focused at quality improvement at both programmatic and service delivery point. The task force mentioned earlier will also take the lead in the formulating core sets of standardized performance measures which will guide researchers in evaluating quality in healthcare.

In some areas e.g. NCDs that have historically received fewer resources or attention, a targeted quality of care assessment must be prioritized. This assessment could be very useful to help inform prioritization and sequencing of improvement aims based on leading quality of gaps identified along the continuum of care.

Applied health services research should be expanded and should emphasize the development of knowledge, tools, and strategies that can support quality enhancement at different levels of the health sector. To ensure better understanding and use of research findings a number of platforms will be used to present these. These include district and provincial team meetings, various research symposia such as the Annual Research Day hosted by the College of Health Sciences, National Malaria Conference, Student Seminars, National AIDS conference as well the MOHCC website.

Communication and Knowledge Management

Communication is a key component of the Quality Improvement Strategy, not just in terms of raising awareness about goals and objectives, but as a major driver to motivate and inspire everyone across Zimbabwe to take appropriate action to make their contribution to achieving the shared vision for high quality healthcare services. The key aims of communication are:

- To raise awareness both internally and externally of the Government of Zimbabwe's vision for the MOHCC to ensure the delivery of high quality healthcare services at both public and private institutions.
- Inspire staff and the public to appreciate and understand the role they play in delivering the Quality Improvement Strategy's vision.
- Highlight national and local programmes and services which are helping deliver quality healthcare

The following approaches will be used to achieve these communication aims:

- Position and frame the Quality Improvement Strategy's purpose and vision in through press releases and the electronic media. This will provide more meaning and understanding to the general public of Zimbabwe.
- Use all available approaches (events, publications, campaigns and media) to engage with all stakeholders throughout Zimbabwe at a national and local level informing them of the vision for quality improvement and their role in the achievement of this goal.
- Motivate, inspire, equip and support the people working in the health and related sectors with information about what they can do to help the MOHCC and its partners become a world leader in delivering quality healthcare.

Promoting regular shared learning for rapid uptake and dissemination of emerging best practices will be a high priority for the QI improvement strategy. The provincial quarterly review meetings are an ideal platform to implement this. The Principal Director, Policy, Planning, Monitoring and Evaluation though the Quality Assurance Department (QAD) will arrange platforms that allow and promote regular shared learning across provinces/districts working on similar technical areas. The MOHCC – QAD in collaboration with research institutions, programme managers will oversee the implementation of national level research activities, communication and knowledge management. Provincial and City Medical Directors will be responsible for follow-up of institutional and district based activities.

ANNEXES

ANNEX A:
QUALITY IMPROVEMENT METHODOLOGIES

5-S Method

5S is a management tool which originated in the Japanese manufacturing sector. It is used as a basic, fundamental, systematic approach for productivity, quality, and safety improvement in all types of organisations. Although 5S originated in the manufacturing environment, it translates well to other work situations including hospitals, general offices, telecommunication companies, etc. The 5S are abbreviations of the Japanese words Seiri, Seiton, Seiso, Seiketsu, and Shitsuke. In English, the 5S are translated as Sort, Set, Shine, Standardise, and Sustain.

5-S seeks to create a neat, clean and orderly work environment that allows for the provision of effective, efficient, acceptable and safe health care. It is the initial step and foundation/gateway towards establishing Continuous quality Improvement (CQI or Kaizen in Japanese)-Total Quality Management (TQM) programs.

1. **SORT (S1)**
   Focuses on eliminating unnecessary items from the workplace. This is achieved through categorization of the different items in the working place into three categories i.e. necessary, not necessary and may be necessary. This exercise will also help to address the ''just in case" attitude.

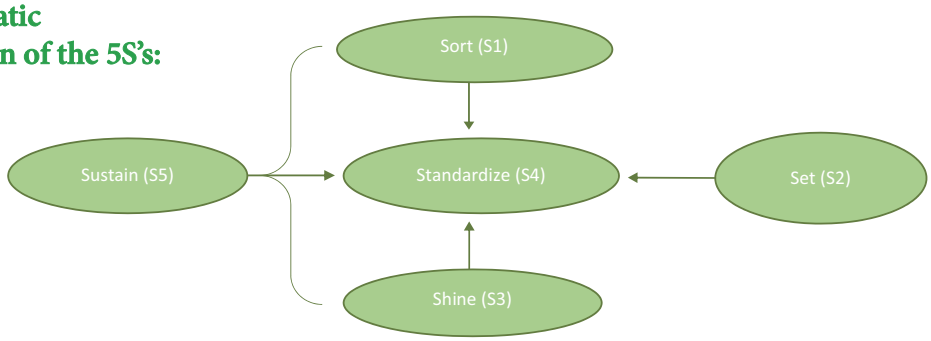
2. **SET (S2)**
   Organizing everything needed in proper order for easy operation matching the work flow. It should be done based on finding efficient and effective storage of necessary item and can be applied using "Can see, Can take out, and can return" philosophy. This will save time and energy spent to look for required items..

3. **SHINE (S3)**
   Cleaning up one's workplace daily so that there is no dust on floors, machines or equipment, etc. to maintain a high standard of cleanness. It creates ownership and build pride in the workers.

4. **STANDARDISE (S4)**
   Maintaining an environment where S1 to S3 are implemented in the same manner throughout the organization. It gives opportunities to employees to take active part in the development of these standards. It can be achieved by developing and using standard operating procedures, work instructions, checklists and symbols among others.

5. **SUSTAIN (S5)**
   Maintaining S1-S4 through discipline, commitment and empowerment. It focuses on defining a new mind set and a standard in workplace. It can be facilitated through regular progress reporting; refresher training; periodic evaluation of the 5S program; appreciation; recognition; awarding and putting a reminder system using 5S corner and newsletter.

Diagrammatic Presentation of the 5S's:



MODEL FOR IMPROVEMENT – PLAN-DO-STUDY- ACT MODEL

The Model for Improvement is a strategy to manage change for improvement that stems from the work of William Edwards Deming. The model, as depicted in Figure 8, includes three basic questions to help structure improvement, which can be addressed in any order:

1. **What are we trying to accomplish?**
2. **How will we know that a change is an improvement?**
3. **What changes can we make that will result in improvement?**

All improvement begins with clear aim(s) as depicted in the model for improvement (what are we trying to accomplish?). Defining measurable improvement aim(s) and indicators to measure progress against aims is essential for supporting the work of local improvement teams (whether a facility-based team or a District Health Management Team). In turn, developing the capacity of managers and providers at all system levels to define meaningful and measurable improvement aims focused on important quality gaps for high-burden conditions linked to regular testing of changes and tracking of quality measures (e.g. monthly run charts) is essential for building a system capable of continuous improvement.

The Plan, Do, Study Act (PDSA) cycle is shorthand for testing a change in the real work setting—by planning it, trying it, observing the results and acting on what is learnt. This is the scientific method used for action oriented learning.

The 3 questions in the model for improvement help to guide subsequent PDSA cycles:

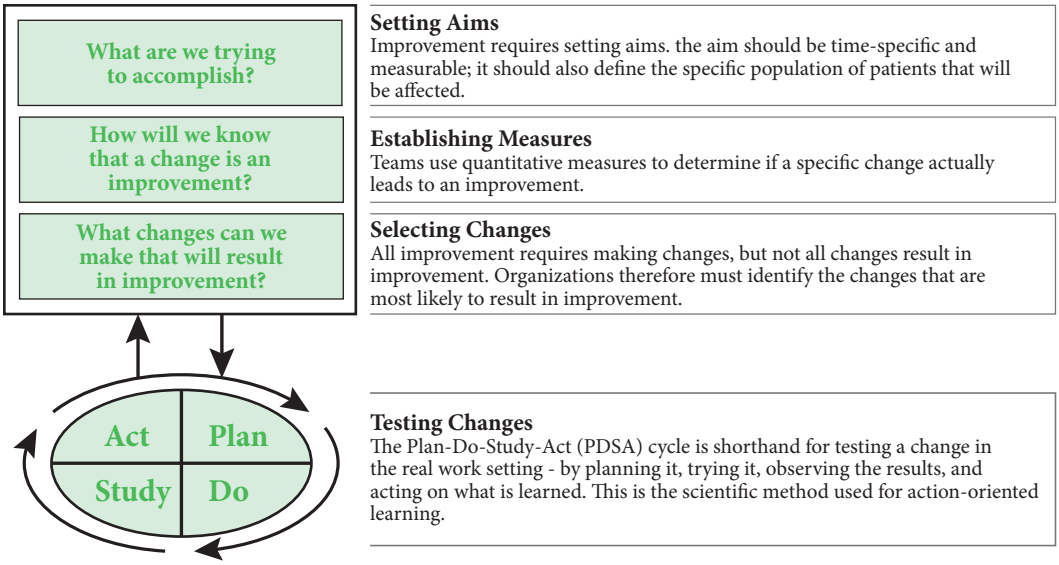
- What are we trying to accomplish? - This question helps to guide and focus the efforts of the healthcare improvement team to work toward a clear and measurable improvement aim. It is important that there is consensus in this team that a problem exists and needs fixing and hence that there is clarity about the aim of the improvement. Information/evidence to support the existence and extent of the problem must be collected, analysed and shared by relevant parties.
- How will we know that a change is an improvement? Improvement toward a defined aim can only be confirmed if clear measures have been established and results demonstrate progress over time; Therefore the team must define clear measures to ascertain whether or not improvement work is achieving (or not achieving) the defined aim.

- What changes can we make that will result in an improvement? This question involves an improvement team brainstorming and testing incremental small tests of change to usual work processes to try to achieve the aim. Successful changes are adopted or adapted; unsuccessful changes are discarded.

Teams new to improvement need ongoing support to identify and test changes to processes of care to improve adherence with best practices. Ideally, team support includes integrated clinical, QI and data-management capacity-building over time. Improvement teams are typically made up of managers, front-line health care workers and staff who possess the necessary deep knowledge of their local systems to be able to identify and test feasible and sustainable changes to "usual processes" to improve care in their local setting.

After testing a change on a small scale, learning from each test and refining the change through several PDSA cycles, the team can implement the change on a broader scale—for example, for an entire pilot population or on an entire unit. Successful implementation of a change or package of changes for a pilot population or an entire unit can permit the team or managers to spread the changes to other parts of the organisation or in other organisations.

Figure 10: Model for Improvement



A key tenet of improvement is that making care better always requires change, although not all change necessarily leads to improvement. Without "change" every system will continue to produce the same results it has always produced. Or, in the words of Deming, "every system is perfectly designed to get the results it gets".

Managing change is central to improvement efforts whether or not such efforts are prospective (e.g. defining aims and proactively testing changes to processes of care to try to reach the aim) or retrospective (e.g. auditing and examining adverse events to identify and correct root problems contributing to poor quality).

While context has a strong influence on which changes may be most feasible and effective for overcoming gaps in a specific setting, categories of quality and system gaps and effective changes (solutions) are often common across settings. Diverse settings can learn from each other to overcome common quality and system gaps. Increasingly, many improvement approaches (e.g. Improvement Collaborative) mobilize teams to work together across health system levels and geographic sites to identify, test and share successful changes for overcoming important quality and system gaps, e.g., weekly simulated resuscitation practice using structured peer to peer observation to maintain provider competence. Promoting regular shared learning among teams helps to accelerate and scale up improvement efforts.

CLINICAL PRACTICE IMPROVEMENT (CPI)

CPI methodology has been widely used by health-care professionals to improve the quality and safety of health care. It does this through a detailed scrutiny of the processes and outcomes in clinical care. The success of a CPI approach depends on the team covering each of the following five phases.

Project phase: The team needs to ask themselves what it is they wish to fix or achieve. They do this by developing a mission statement or objective that describes what it is they wish to do in a few sentences. This is the time to select the team members who should be selected on the basis of their knowledge about the problem. It is important that patients should always be considered as appropriate members of the team at this initial stage.

Diagnostic phase: The team needs to ask if the problem they have identified is worth solving. The team should establish the full extent of the problem by gathering as much information about the problem as possible. A brainstorming exercise by the team will generate possible changes that could lead to an improvement. A decision about how to measure the improvement needs to be resolved during this phase. During this phase the team collects and analyses quantitative and qualitative data of the process being investigated to establish causes of and potential solutions.

Intervention Phase: Each of the solutions have to be tested through a trial and error process by using the PDSA cycles to test changes, observe them and keep the bits that work.

Impact and Implementation Phase: This is the time to measure and record the results of the trials of the interventions. Did they make any difference? All changes are required to be measured for impact so that the change can be said to truly have made a difference rather than a coincidence or a one-off effect. The goal is to introduce a change that has sustained improvement.

Sustaining and Improvement phase: The final phase requires the team to develop and agree upon a monitoring process and plans for continuous improvement. Improvements made now will become failures in the future if there are no plans to sustain the improvements.

This will involve:

- Standardization of existing processes and systems for undertaking work activities
- Documentation of relevant policies procedures protocols and guidelines
- Measurement and review to enable the change to become routine
- Training and education of staff

ROOT CAUSE ANALYSIS

A root cause analysis is a defined process that seeks to explore all of the possible factors associated with an incident by asking what happened, why it occurred and what can be done to prevent it from happening again. This applies especially to severe adverse events such as avoidable deaths.

Root cause analysis will be used to determine the underlying causes of adverse events, incidents or situations. A root cause analysis may be used for example after an incident has occurred to uncover the primary possible causes. As such, it focuses on the particular incident and the circumstances surrounding it. There are many lessons to be gained from this retrospective process that may prevent similar incidents in the future if this is conducted in a systematic way. Techniques such as problem trees, driver diagrams and the 5 Whys technique will be applied in conducting root cause analysis.

Health-care workers will receive instruction in this method as part of QI training at both pre and in-service levels.

For effective root cause analysis the following components are critical:

- Multidisciplinary team which includes community representatives particularly those that may bring out a patient perspective
- Composed of people who can add value because of their knowledge, position in the organisation or unique perspective they bring
- Committed persons trained in root cause analysis

QUALITY IMPROVEMENT COLLABORATIVE

The improvement collaborative is a structured improvement approach that organizes a large number of teams or sites to work together for a 12 to 24 month period to achieve significant improvements in a specific area of care. The collaborative approach combines traditional QI methods of team work, process analysis, and introduction of standards, measurement of quality indicators, training, job aides, and coaching. The collaborative organises regular sharing of results among teams through learning sessions in which teams learn from each other about which changes have been successful and which were not. This results in a dynamic improvement strategy in which many teams working on related problem areas can learn from each other in a way that facilitates rapid

dissemination of successful practices. In its emphasis on spread and scale-up of improvements, the improvement collaborative model offers a powerful new tool for QI.

The following elements are key to successful collaboratives:

- Clear improvement objectives
- Organisational structure
- Change package and clear dissemination plan
- Qualified and functional quality improvement teams
- Monitoring systems for quality of processes and results
- Regular coaching support to quality improvement teams
- Opportunities to share experiences and results obtained from changes made

Improvement Collaborative Phase

The improvement collaborative will typically will go through the following phases:

Preparation: A situation analysis of current quality standards with a focus on identifying root causes of the discrepancy between expected standards and what is obtaining is the first task of the collaborative. Involvement of key stakeholders is critical during this phase. The organisational structure of the collaborative is established as well as the capacity and resource needs. After selection of initial sites a spread and communication strategy and collaborative implementation plan is laid out. This process will take 6 to 8 months.

Implementation: A collaborative will focus on one technical area (e.g. malaria, ART, TB, newborn care etc.). Interventions may also focus on issues of health systems strengthening (safety, health worker responsiveness and performance). The model for improvement will incorporate 4 key elements:

- Specific and measurable aims
- Measurements of improvement that are tracked over time
- Key changes that will result in the desired improvement
- Series of parallel testing plan-do-study-act (PDSA) cycles. PDSA cycles should be short but significant, testing a big change idea in a short timeframe so that a team can identify ways to improve or change the idea.

These stages involve the organisation of content and methods of learning sessions and action periods as well as determine when to synthesise best practices and dissemination.

Learning sessions will typically be a national or provincial / regional workshop for teams to share experiences and learn from one another, learn QI as well as clinical content. Attendees will comprise team representatives from each facility, provincial, district and national stakeholders and trainers.

Documentation of improvement changes or best practices will assist in motivating teams to sustain gains. The implementation stage will last 18-24 months. After completion and demonstration of significant improvements the team may then focus on another technical area.

A spread strategy is a crucial feature of a collaborative. A spread strategy defines how one plans to gets to escalate or disseminate improvements made as a result of a tested and proven change package. In this phase the more experienced initial teams provide support and mentorship to new teams.

The success of collaborative will hinge on qualified, functional and committed quality improvement teams. Through teamwork they will strive to understand their clients, analyse management processes, monitor results, and plan, implement and study changes or innovations to improve performance. These teams are expected to come together at defined intervals as a network with other teams to share results, innovations, and issues, and to learn from one another.

Monitoring is a vital feature of any collaborative. Quality improvement teams shall use a common agreed set of process and outcome indicators to measure quality. Wherever possible, data should come from existing sources and not from a separate data collection system. Occasionally, existing health information collection systems may be slightly modified to capture essential information e.g. waiting time.

It is essential, that the quality improvement teams receive regular support through coaching. A coach will be an experienced person in quality improvement who will in turn help build the capacity of the local team in the collaborative process towards being self-sufficient in QI.

Collaboratives have as their overall goal to provide an improved set of norms, models of care and/or best practices in an organisation for carrying out norms that can be rapidly spread to other sites. Collaboratives provide a mechanism for resolving the operational barriers or obstacles around implementing any set of norms. Thus, a key feature of a collaborative is to arrive at a tested and refined "change package" and/or a set of best practices related to its implementation.

National, Provincial and District Quality Improvement Workshops

The National, Provincial and District Health Executives will facilitate inter-facility learning sessions where QI teams will share their experiences on the methods they used to improve quality, results and lessons learnt. These workshops will include cases studies, interactive illustrated presentations, discussion of common themes, and walk through poster gallery through various team presentations. It is recommended that health care providers in implementing facilities attend these workshops and that a verifiable method of feedback to their facilities is put in place. A suggested frequency of a least bi-annual meeting is suggested. It is important that leadership demonstrates commitment to quality so as to motivate healthcare providers. Recognition and awards for performance should be made at such platforms to help build a culture of quality improvement.

Annex B:

LIST OF PARTICIPANTS IN STRATEGY PLAN FORMULATION

	NAME	DESIGNATION	ORGANISATION
1.	Dr. Dhlakama	Principal Director PPM&E	MOHCC
2.	J. Z. Chiware	Director Quality Assurance	MOHCC
3.	Gerald Shambira	Consultant	UZ/DCM
4.	Joseph Murungu	Deputy ATP Coordinator	MOHCC
5.	Charles Chiku	QA Officer NMRL	MOHCC
6.	Lawrence Mhatiwa	Radiation Office	MOHCC HQ
7.	M. L. Musiyambiri	Director Gvt Analyst	MOHCC
8.	Boniface Machingauta	Provincial Analyst	MOHCC
9.	Sibongile Zimuto	Executive Director	ZINQAP TRUST
10.	Paula Zindi	Deputy Director	G Analyst
11.	Nyasha Masuka	PMD Mat North	MOHCC
12.	Lydia K. Madyira	Data Quality Officer	MOHCC
13.	Janeth Chinyadza	Hospital &Projects	MOHCC
14.	Fabian Mashingaidze	Medical Superintendent Gweru	MOHCC
15.	Joshua Mavambe	Deputy Director Admin	Health Service Board
16.	Gwati Gwati	Planning & Donor Coordination	MOHCC
17.	Slyvia Kudakwashe	HRO - MOHCC	MOHCC
18.	Lyness Majonga	Admin Education DNS	MOHCC
19.	Bernedette Sobuthana	Health Consultant	World Bank
20.	Leonad Mabandi	Director Finance	MOHCC
21.	Eva Muronda	Quality Manager	ZINQAP TRUST
22.	Prosper Shumba	Quality Assurance Officer	NIHR
23.	Joan Marembo	PNO Midlands	MOHCC
24.	Eneti Siyame	Mental Health Manager	MOHCC
25.	Dr. S. N. Zichawo	Treasurer	CPCDZ
26.	Rose Kambarami	Country Director	MCHIP
27.	Margaret Tawodzera	A/food Safety Manager	MOHCC
28.	Petunia Deda	Human Resources Officer	MOHCC
29.	More Mungati	Epidemiologist	MOHCC ATP
30.	Blessing Mutede	PI, MEO	EGPAF
31.	Bekezela B. Khabo	QI, AIDS &TB Unit	MOHCC
32.	J. Javangwe	SNR Registrar	Pathology - MOHCC
33.	V. Makanganise	Nutrition Logistics	MOHCC
34.	Arjanne Rietsema	Country Director	CORdaid
35.	Forward Mudzimu		
36.	Hilary Chiguvare	Technical Director	MCHIP
37.	Kathleen Hill	Consultant	World Bank
38.	Gwati Gwati	Planning & Donor Coordinator	MOHCC
39.	Tendayi Jubenkanda	Project Cordinator	ZIPCOP/BRTI
40.	Jo Keating	Technical Advisor	USAID
41.	Bernard Madzima	Director, Family Health Services	MOHCC
42.	Margaret Nyandoro	Deputy Director, Reproductive Health	MOHCC
43.	Stephen Banda	D/Director, Policy and Planning	MOHCC
44.	Clemenciana Bakasa	Deputy Director, NCDs	MOHCC
45.	Rueben Musarandega	SCE Manager	EGPAF
46.	Joyce Hightower	Patient Safety Officer	WHO
47.	Stanley Midzi	Professional Officer	WHO
48.	Lovemore Marufu	A/Director, Conditions of Service	HSB
49.	Agnes Makoni	Programme Analyst	UNFPA
50.	Petros N. Ndanga	Quality Manager	MCAZ
51.	Reggie Mutsindiri	Senior Inspector	HPA
52.	Alice T. Mazarura		Save the Children
53.	Rachel Gondo	M&E	CWGH
54.	Edgar Mutasa	HL	CWGH