



REPUBLIC OF NAMIBIA
Ministry of Health and Social Services

Health Extension Program
M&E Framework

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LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ART	Anti-retroviral Treatment
CBO	Community Based Organization
DDT	Dichlorodiphenyltrichloroethane
EDD	Estimated Delivery Date
HIV	Human Immunodeficiency Virus
HEP	Health Extension Program
HEW	Health Extension Worker
HF	Health Facility
HH	Household
HIS	Health Information System
ITN	Insecticide Treated Net
LQAS	Lot Quality Assurance Sample
M&E	Monitoring and Evaluation
MDG	Millennium Development Goals
MoHSW	Ministry of Health and Social Welfare
MUAC	Mean Upper Arm Circumference
PNC	Postnatal Care
SOP	Standard Operating Procedure
TB	Tuberculosis
VHC	Village Health Committee
WASH	Water, Sanitation, and Hygiene

1. Introduction

Clearly describing a program is an important first step in conducting Monitoring and Evaluation (M&E) activities. A clearly described program is easier to monitor and evaluate. It also facilitates the use of M&E data to improve the program. Designing the M&E framework is one way to develop a clearer understanding of the goals and objectives of a program, with emphasis on short-term, and long-term measurable objectives. Hence, this M&E framework for the health extension program (HEP) in Namibia was developed with the aim to:

- Articulate program goals and measurable objectives (short-term, intermediate, and long-term)
- Define relationships between program inputs, activities, outputs, outcomes, and impacts
- Clarify the relationship between program activities and external factors
- Facilitate the development of sound M&E plans and implementation of M&E activities

As this M&E framework was developed at the implementation stage of the HEP, documents such as the master plan, indicators and data collection tools, standard operating procedure (SOP), and National Health Information System (HIS) were reviewed to construct the framework.

A result framework is chosen as the most appropriate framework for the HEP. We also used the logic model to clarify key processes in indicator selection and data source.

2. Health Extension Program (HEP) Goal and Objectives

It is not possible to monitor, and much less to evaluate, the progress towards goals unless the program goal and objectives are clear. One of the key objectives of M&E in the context of the Namibia HEP is to help manage the resources and activities of the program to enhance impacts along a continuum, from short to long term. This requires clarity of desired goals, and the desired results of various activities.

Goal: To improve the health and quality of life in households and communities in Namibia.

The achievement of the HEP goal will have great contribution to the country's effort of achieving national targets in health and HIV and meeting the Millennium Development Goals (MDGs) (goal 4, 5, 6): ***To create a healthy society and reduce rates of maternal and child morbidity and mortality.***

Specific Objectives:

- To increase access to, and coverage of, preventive and promotive health care services
- To strengthen and expand the continuum and quality of care and support including bi-directional referral from the health facility to the community
- To build capacity of local communities through awareness and training of Community Based Organizations (CBOs) i.e. youth, women's, men's, and church groups, to promote healthy lifestyles
- To undertake community based monitoring of identified key indicators

Key strategy:

Improving awareness, knowledge, attitudes and practices related to the prevention, promotion, treatment and rehabilitation of common conditions.

Philosophy:

To bring services closer to the community, and ensure equitable distribution of community and household centered health care and social welfare services.

3. Focus Areas

The HEP is focused on health promotion, with some simple, curative activities related to first aid, childhood pneumonia and malaria.

The package of services includes:

1. Water, sanitation and hygiene (WASH)
2. First aid
3. Maternal and neonatal health
4. Child health
5. HIV and AIDS
6. TB
7. Malaria
8. Social welfare
9. Disability prevention and rehabilitation
10. Health education

4. M&E in the Context of HEP In Namibia

The purpose of M&E in this program is to document evidence of the outcomes and general impact of the HEP interventions. Keeping track of implementation and gathering indicative data are critical for assessing HEP success.

Ultimately, accomplishments will depend on:

- How target ideas are developed and shared
- How HEWs are motivated and supported to learn and use M&E tools to the best of their ability
- How a reasonable level of accountability can be established

Beyond these dependencies, the M&E process can also contribute to the policy and advocacy dialogue, and help to illustrate the changes due to the HEP interventions.

Examples of questions that M&E can answer include:

- Was the HEP implemented as planned?
- Did the target population benefit from the program, and at what cost?
- Can improved health outcomes be attributed to the HEP efforts?
- Which program activities were more effective, and which activities were less effective?



Figure 4.1. Purpose of M&E

5. Results Frameworks

Results frameworks, sometimes called “strategic frameworks,” diagram the direct causal relationships between the incremental results of the key activities, and all the way up to the strategic objective and goal of the intervention. This clarifies the points in an intervention at which results can be monitored and evaluated.

Basic assumptions considered in the construction of the results frameworks include the following:

- Intermediate results are categorized based on the package of services of HEP
- Before achieving the broader strategic objective, a set of “lower level” intermediate results must first be reached
- Health promotion activities are, basically, activities that result in outputs in most result areas
- Process is considered cross cutting for most of the intermediate results

5.1. Data Sources and Attributions

The data sources for output level indicators are basically the health extension program HIS, such as the routine records and reports of HEWs. Few outcome indicators can be extracted from the routine HEP program data. Please refer to **Annex 1** for the health extension program HIS indicators and their definitions, which are basically the sources of output and few outcome indicators included in the results matrix.

Measurement of outcome level indicators suggested in the results framework and attributing achievements to HEP requires rigorous evaluation tools. The evaluation tools measure how well the HEP activities have met expected objectives and/or the extent to which changes in outcomes can be attributed to the program. The evaluation of HEP requires data collection at the start of a program (to provide a baseline) to track progress in key outcomes at the end (or in the middle) of the HEP. A control, or comparison group, selected from areas where HEP is not implemented may need to be used in order to measure whether the changes in outcomes can be attributed to the HEP.

The basic assumptions of linkages of outputs and outcomes in the results framework is that achieving key results in outputs will have significant contribution in increasing coverage in outcomes in HEP catchment areas, including districts and regions and ultimately at national level. The notion is that HEWs effort in health promotion and referral will have greater effect in changing communities’ health seeking behavior and increasing demand and utilization of services, such as: Antenatal Care (ANC), safe delivery, postnatal care, immunization, family planning, and child nutrition.

When population based surveys (non-routine data sources) and routine data sources (HEWs records) are suggested, one has to consider the advantages and disadvantages of the two data sources. Data collection from routine sources is useful because it can provide information on a timely basis. For instance, it can be used effectively to detect and correct problems in service delivery. However, it can be difficult to obtain accurate estimates of catchment areas or target populations through this method, and the quality of the data may be poor because of inaccurate record keeping or incomplete reporting. Non-routine data have two main limitations: collecting them is often expensive, and this collection is done on an irregular basis. In order to make informed program decisions, program managers usually need to receive data at more frequent intervals than non-routine data can accommodate.

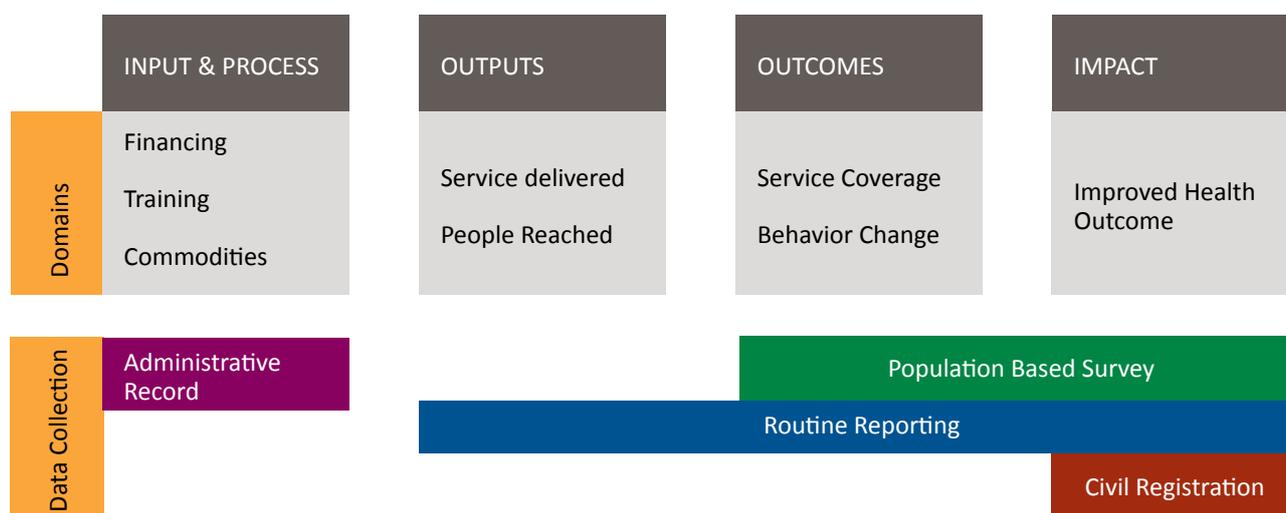


Figure 5.1. M&E Logic Model for Health Extension Program in Namibia

5.2. Indicators

A reasonable guideline recommends one or two indicators per result, at least one indicator for each activity, but no more than 10 to 15 indicators per area of significant program focus. To that end, there is a need to come up with a list of core 10 to 15 indicators through a consultative process, after first identifying and agreeing on high impact interventions in the HEP and pilot testing the HEP health information system (HIS) indicators.

The output and a few of the outcome indicators included in the result framework table are taken from the HEP HIS indicators (see **Annex 1**). After a pilot test of these indicators of about six months, and after taking into account high impact interventions, all stakeholders should come together to identify core HIS indicators that will ultimately be linked to the National HIS.

5.3. Scope of Evaluation in the Context of Namibian HEP

Evaluation is a time-bound exercise that attempts to assess systematically and objectively the **Relevance**, **Performance** (effectiveness, efficiency and timeliness), and **Success** (impact and sustainability) of an ongoing and completed program.

All stakeholders should decide why and when an evaluation is needed for the HEP. At this early stage of the HEP in Namibia, evaluation may help assess early signs of program success or failure. If an evaluation is conducted at the mid-point of the HEP, it may serve as a means of validating or filling in the gaps in the initial assessment of relevance, effectiveness and efficiency.

The following table summarizes the scope of evaluation in the context of the Namibian HEP.

Focus Area	Purpose	Measurement
Relevance	Are the HEP objectives valid and pertinent? Are the HEP objectives responding to the needs and priorities?	Development issue Local, national, regional context

Focus Area	Purpose	Measurement
Performance	What progress is being made by the HEP relative to its objectives?	Effectiveness (have the intervention's objectives been achieved?) Efficiency (Have the available means been optimally exploited?) Timeliness (the execution of interventions as per the planned timeline)
Success	What has the HEP done to bring about change?	Impact (what wider effects have been caused by the HEP, in terms of reducing morbidity and mortality?) Sustainability (It implies the probability of long-term benefits or the resilience of the risk of the net benefit flows over time) Capacity development (The impact of the HEP in enhancing the capacity of community based health care system and health system strengthening in general)

Table 5.1. Focus Areas of Evaluation of the HEP

5.4. Data Quality Assurance

Data quality checks should be carried out at all stages of data collection, capturing, analysis and reporting. In order to ensure data quality, the HEP must have an M&E data management system. This is the set of standard operating procedures and actions put in place to track the data flow, and to reduce the probability of errors being introduced into the data at any stage.

The HEP has taken steps putting in place a data management system to ensure accurate and reliable information collected through the routine data collection and reporting. The following table summarizes the Data Quality Assurance plan of the HEP.

Dimension of Data Quality	Definition and Purpose	Methods	Current Status and Recommendation
Accuracy	How close the measurement comes to measuring the variable we are interested in Accurate data have minimal errors and bias	For checking data accuracy in monthly reports use LQAS Limit transcription error by entering electronic data twice and checking for any inconsistencies and conduct random checks of data that have been entered to check for accuracy	Accuracy of monthly reports of HEWs is checked using LQAS

Dimension of Data Quality	Definition and Purpose	Methods	Current Status and Recommendation
Reliability	Data are reliable when they are measured and collected consistently over time	<p>The reliability of data depends on having an information system with standard protocols and procedures</p> <p>Reliable data require standardized, written instructions for data collection and reporting</p>	<p>The HEP has developed standard protocols of data collection, storage, analysis and reporting for routine data collected by HEWs</p> <p>Conduct centralized training sessions for HEWs and supervisors in data collection and reporting</p>
Completeness	<p>Completeness means that the HEP information system captures all of the eligible persons, services, sites, or other units that it is supposed to measure</p> <p>The resulting data should represent the complete list of variables and not just a fraction of the list</p>	To ensure completeness of data, make sure that all source documents are fully completed with all of the relevant information and all relevant sites within the HEP report information about all of their services/activities not just a fraction of them	<p>Completeness and timeliness are HEP HIS indicators</p> <p>Reports at different levels are checked for completeness and reported using these indicators</p>
Timeliness	Data are timely when they are reported to the next level in time to meet reporting deadlines	To ensure timeliness reporting schedules should be in place showing the exact dates each party are supposed to report to the next level	HEP routine data flow and reporting schedules are developed
Precision	Precision means that data have sufficient detail to measure indicators according to the indicator definition	Data collection forms should be designed to collect precise data and that the appropriate level of detail is reported to higher levels	Standard forms are developed to record and report HEP routine data
Confidentiality	Personal information is not disclosed inappropriately, and personal data in hard copy and electronic formats are treated with appropriate levels of security	<p>To maintain confidentiality:</p> <p>Keep paper records in locked cabinets; protect electronic files and databases with passwords; only allow access to personal data for the staff members who need it; train HEWs and staff to respect confidentiality and not to share confidential information with other clients</p>	Included in data collection and reporting protocol

Table 5.2. Data Quality Assurance Plan

5.5. Data Analysis and Sharing

Guidelines for data analysis, reporting and use for routine data in HEP, including programmatic output and some outcome indicators is developed. A protocol outlining the process of non-routine data collection and analysis for most of the outcome level indicators need to be developed by MoHSW in consultation with partners.

Overall Goal: To improve the health and quality of life in households and communities in Namibia				
	Result	Indicator	Means of Verification	
			Measurement tools/Data source	Freq. of reporting
Key Result Area I: WASH				
Outcome	Improved use of safe water	Proportion of HHs with hand washing facility	HEP records/reports	Annually
	Improved latrine coverage	Proportion of HHs using latrine	HEP records/reports	Annually
Output	Increased latrine construction	# of new latrines constructed	HEP records/reports	Monthly/quarterly
	Increased availability of hand washing facility	# of new hand washing facilities in place	HEP records/reports	Monthly/quarterly
Key Result Area II: Maternal Health				
Outcome	Increased use of reproductive health services by mothers	ANC coverage	Population based ¹ survey/Facility records	1-3 years
		Skilled birth attendance coverage	Facility registers/reports	Annually
		Postnatal Care (PNC) coverage	Population based ¹ survey/Facility records	1-3 years
		Contraceptive prevalence rate	Population based survey/DHS	3 years
		Contraceptive acceptance rate	Facility registers/reports	Annually
		Still birth rate (institutional and at household in HEP catchment areas)	Facility registers and HEP reports for death occurring at home	Annually
Output	Increased follow up for mothers by Health Extension Workers (HEWs)	Proportion of pregnant mothers who are visited by HEW at least 4 times before delivery	HEP records/reports	Annually
		Proportion of mothers who are visited by HEW within 24-48 hours after birth	HEP records/reports	Monthly/quarterly
		Proportion of pregnant mothers with birth plan	HEP records/reports	Monthly/quarterly
		Proportion of home deliveries	HEP records/reports	Monthly/quarterly

¹ When population based survey (non-routine data source) and routine data sources (facility records) are suggested one has to weigh the advantages and disadvantages of the two data sources.

	Result	Indicator	Means of Verification	
			Measurement tools/Data source	Freq. of reporting
Key result area VII: Social welfare				
Outcome	Improved access to services for children	Immunization coverage	Facility registers/reports	Annually
		Low birth weight proportion	Facility registers/reports HEP records/reports (for home deliveries)	Quarterly/annually
		Proportion of moderate/severe malnutrition amongst under 3's (using Mean Upper Arm Circumference (MUAC))	HEP records/reports	Quarterly/Annually
		Proportion of babies who are exclusively breast fed	Population based survey HEP records/reports in HEP catchment areas	2-3 years Quarterly/annually
Output	Increased follow up of children by HEWs	# of under 5 children weighed/MUAC measured by HEWs	HEP records/reports	Monthly/quarterly
		# of under 5 pneumonia cases detected and referred by HEWs	HEP records/reports	Monthly/quarterly
Key result area IV: HIV & AIDS				
Outcome	Improved use of HIV prevention and care services	HIV testing and counseling coverage	HEP records/reports	Quarterly
Output	Improved health pro-motion and follow up on HIV by HEWs	# of ART defaulters referred and followed up by HEWs	HEP records/reports	Monthly/quarterly
		# of HIV + clients on ART who are followed by HEWs	HEP records/reports	Monthly/quarterly
Key Result area V: TB				
Output	Improved follow up of TB case finding, referral and follow up by HEWs	# of suspected TB cases identified & referred by HEWs	HEP records/reports	Monthly/quarterly
		# of TB treatment defaulters referred and followed up by HEWs	HEP records/reports	Monthly/quarterly
		# of TB contacts traced and referred by HEWs	HEP records/reports	Monthly/quarterly

	Result	Indicator	Means of Verification	
			Measurement tools/Data source	Freq. of reporting
Key result area VI: Malaria				
Outcome	Improved access to malaria prevention and treatment services	New malaria cases amongst children under 5 years of age	HEP records/reports	Quarterly/Annually
		New malaria cases amongst people 5 years of age and older	HEP records/reports	Quarterly/Annually
Output	Improved health promotion and follow up on malaria by HEWs	Proportion of residual DDT house spraying in HEP catchment areas	HEP records/reports	Annually
		Proportion of pregnant women and children under 5 sleeping under a Insect Treated Net (ITN)	HEP records/reports	Monthly/Quarterly
Key result area VII: Social welfare				
Outcome	Improved social welfare of the community	Prevalence of substance abuse	Population based survey	3-5 years
		Prevalence of suicide	Population based survey	3-5 years
		Proportion of eligible HHs not receiving social grant	Population based survey HEP records/reports	1-3 years
Output	Improved social welfare promotive and preventive services	# of family violence detected and referred by HEWs	HEP records/reports	Monthly/quarterly
		# of substance abuse detected and referred by HEWs	HEP records/reports	Monthly/quarterly
		# of suicidal thoughts/behavior detected and referred by HEWs	HEP records/reports	Monthly/quarterly
Key result area VIII: Disability prevention and rehabilitation				
Outcome	Improved wellbeing of people with disability	Proportion of people with disability with assistive devices	Population based survey	3-5 years
		Proportion of people with disability who receive rehabilitation services	Population based survey	3-5 years
Output	Improved disability detection and promotive services	# of people with disability identified and referred (by type of disability) by HEWs	HEP records/reports	Monthly/quarterly
		# of people referred for assistive devices by HEWs	HEP records/reports	Monthly/quarterly
		# of people referred for rehabilitation services by HEWs	HEP records/reports	Monthly/quarterly

	Result	Indicator	Means of Verification	
			Measurement tools/Data source	Freq. of reporting
Key result area IX: Program management ²				
Process	Coordinated response	Established and functional national HEP steering committee	Program reports	Periodically
		Established and functional regional HEP steering committee	Program reports	Periodically
		Availability of HEP strategy	Program reports	Periodically
		Availability of HEP SOP	Program reports	Periodically
		# of regions oriented on HEP	Program reports	Periodically
		# of HEWs per region and by population	Program reports	Periodically
		Established and functional Village Health Committee in target communities	Program reports	Periodically
		# of CBOs trained or oriented on HEP to promote healthy lifestyle	Program reports	Periodically
	Enhanced capacity of HEWs	# of TOTs conducted	Program reports	Periodically
		# of HEWs trained per region	Program reports	Periodically
		# of refresher trainings conducted	Program reports	Periodically
		HEWs dropout rate	Program reports	Periodically
	Increased coverage and bi-directional referral linkages	Number of people reached through the HEP	Program reports	Annual
		# of regions covered through HEP	Program reports	Annual
		% of referral cases who received services at health facilities	Program reports	Quarterly
	Adequate supplies and equipment	Availability of tracer drugs and equipment	Program reports	Monthly/quarterly
	Established and functional community based health information system	# of supervisory visits received by HEWs quarterly	Program reports	Quarterly
		Completeness and timely submission of routine reports	Program reports	Monthly/quarterly
		Accuracy of reports	Program reports	Quarterly
		# of monthly health facility review meeting with HEWs	Program reports	Monthly/quarterly
# of quarterly meeting conducted at district level		Program reports	Quarterly	

Table 5.3. Result Matrix for HEP in Namibia
²Quality of services will be assessed through supportive supervision

6. Performance Framework

The following table (*Table VI-1 HEP HIS Indicators and Data Source*) is a template for tracking the performance of the health extension program. The baseline value and target setting need to be completed with the participation of all key stakeholders. If baseline data are unavailable for some indicators, it can be established during the first year of implementation through surveys or using HIS data (service records/routine data).

	Results	Indicator	Baseline		Target					Means of Verification		
			Value (year)	Source	Year1	Year2	Year3	Year4	Year5	Measurement tools	Freq. of reporting	
KEY RESULT AREA 1: WASH												
Outcome	Improved safe water access and use	Proportion of HHs using safe water									HEP records/reports	Annually
		Proportion of HHs with hand washing facility									HEP records/reports	Annually
	Improved latrine coverage	Proportion of HHs using latrine									HEP records/reports	Annually
Output	Increased latrine construction	# of new latrines constructed									HEP records/reports	Monthly/quarterly
	Increased availability of hand washing facilities	# of new hand washing facilities in place									HEP records/reports	Monthly/quarterly

	Results	Indicator	Baseline		Target					Means of Verification		
			Value (year)	Source	Year1	Year2	Year3	Year4	Year5	Measurement tools	Freq. of reporting	
KEY RESULT AREA 2: MATERNAL HEALTH												
Outcome	Increased use of health services by mothers	ANC coverage									Population based survey/Facility records	1-3 years
		Skilled birth attendance coverage									Facility registers/reports	Annually
		PNC coverage									Population base survey/facility records	1-3 years
		Contraceptive prevalence rate									Population based ³ survey/DHS	3 years
		Contraceptive acceptance rate									Facility registers/reports	Annually
		Still birth rate (institutional and at household in HEP catchment areas)									Facility registers and HEP reports for death occurring at home	Annually
Output	Increased follow up for mothers by HEWs	Proportion of pregnant mothers who are visited by HEW at least 4 times before delivery									HEP records/reports	Annually
		Proportion of mothers who are visited by HEW within 24-48 hours after birth									HEP records/reports	Monthly/quarterly
		Proportion of pregnant mothers with birth plan									HEP records/reports	Monthly/quarterly
		Proportion of home deliveries									HEP records/reports	Monthly/quarterly

	Results	Indicator	Baseline		Target					Means of Verification		
			Value (year)	Source	Year1	Year2	Year3	Year4	Year5	Measurement tools	Freq. of reporting	
KEY RESULT AREA 3: NEONATAL & CHILD HEALTH												
Outcome	Improved access to services for children	Immunization coverage									Facility registers/reports	Annually
		Low birth weight proportion									Facility registers/reports HEP records/reports (for home deliveries)	Quarterly/annually
		Proportion of moderate/severe malnutrition amongst under 3s (Using MUAC)									HEP records/reports	Quarterly/Annually
		Proportion of babies who are exclusively breast fed									Population based survey HEP records/reports in HEP catchment areas	2-3 years Quarterly/annually
Output	Improved follow up of children by HEWs	# of under 5 children weighed/MUAC measured by HEWs									HEP records/reports	Monthly/quarterly
		# of under 5 pneumonia cases detected and referred by HEWs									HEP records/reports	Monthly/quarterly

³ When population based survey (non-routine data source) and routine data sources (facility records) are suggested one has to way the advantages and disadvantages of the two data sources.

	Results	Indicator	Baseline		Target					Means of Verification		
			Value (year)	Source	Year1	Year2	Year3	Year4	Year5	Measurement tools	Freq. of reporting	
KEY RESULT AREA 4: HIV & AIDS												
Outcome	Improved use of HIV prevention and care services	HIV testing and counseling coverage									HEP records/reports	Quarterly
Output	Improved health promotion and follow up on HIV by HEWs	# of ART defaulters referred and followed up by HEWs									HEP records/reports	Monthly/quarterly
		# of HIV + clients on ART who are followed by HEWs									HEP records/reports	Monthly/quarterly
KEY RESULT AREA 5: TB												
Output	Improved follow up of TB case finding, referral and follow up by HEWs	# of suspected TB cases identified by HEWs									HEP records/reports	Monthly/quarterly
		# of TB treatment defaulters referred and followed up by HEWs									HEP records/reports	Monthly/quarterly
		# of TB contacts traced and referred by HEWs									HEP records/reports	Monthly/quarterly

	Results	Indicator	Baseline		Target					Means of Verification	
			Value (year)	Source	Year1	Year2	Year3	Year4	Year5	Measurement tools	Freq. of reporting
KEY RESULT AREA 6: MALARIA											
Outcome	Improved access to malaria prevention and treatment services	New malaria cases amongst children under 5 years of age								HEP records/reports	Quarterly/ Annually
		New malaria cases amongst persons 5 years of age and older								HEP records/reports	Quarterly/ Annually
Output	Improved health promotion towards malaria prevention	Proportion of residual DDT house spraying in HEP catchment areas								HEP records/reports	Annually
		Proportion of pregnant women and children under 5 sleeping under an ITN								HEP records/reports	Monthly/ Quarterly
		New malaria cases amongst children under 5 years of age								HEP records/reports	Quarterly/ Annually
KEY RESULT AREA 7: SOCIAL WELFARE											
Outcome	Improved social welfare of the community	Prevalence of substance abuse								Population based survey	3-5 years
		Prevalence of suicide								Population based survey	3-5 years
		Proportion of eligible HHs not receiving social grant								Population based survey HEP records/reports	1-3 years

	Results	Indicator	Baseline		Target					Means of Verification		
			Value (year)	Source	Year1	Year2	Year3	Year4	Year5	Measurement tools	Freq. of reporting	
Output	Improved social welfare promotive and preventive services	# of family violence detected and referred by HEWs									HEP records/reports	Monthly/quarterly
		# of substance abuse detected and referred by HEWs									HEP records/reports	Monthly/quarterly
		# of suicidal thoughts/behavior detected and referred by HEWs									HEP records/reports	Monthly/quarterly
KEY RESULT AREA 8: DISABILITY PREVENTION AND REHABILITATION												
Outcome	Improved wellbeing of people with disability	Proportion of people with disability with assistive devices									Population based survey	3-5 years
		Proportion of people with disability who receive rehabilitation services									Population based survey	3-5 years
Output	Improved disability detection and promotive services	# of people with disability identified and referred (by type of disability) by HEWs									HEP records/reports	Monthly/quarterly
		# of people referred for assistive devices by HEWs									HEP records/reports	Monthly/quarterly
		# of people referred for rehabilitation services by HEWs									HEP records/reports	Monthly/quarterly

	Results	Indicator	Baseline		Target					Means of Verification		
			Value (year)	Source	Year1	Year2	Year3	Year4	Year5	Measurement tools	Freq. of reporting	
KEY RESULT AREA 9: PROGRAM MANAGEMENT												
Process	Coordinated response	Established and functional national HEP steering committee									Program reports	Periodically
		Established and functional regional HEP steering committee									Program reports	Periodically
		Availability of HEP strategy									Program reports	Periodically
		Availability of HEP SOP									Program reports	Periodically
		# of regions oriented on HEP									Program reports	Periodically
		# of HEWs per region and by population									Program reports	Periodically
		Established and functional Village Health Committee in target communities									Program reports	Periodically
		# of CBOs trained or oriented on HEP to promote healthy lifestyle									Program reports	Periodically

	Results	Indicator	Baseline		Target					Means of Verification		
			Value (year)	Source	Year1	Year2	Year3	Year4	Year5	Measurement tools	Freq. of reporting	
Process	Enhanced capacity of HEWs	# of TOTs conducted									Program reports	Periodically
		# of HEWs trained per region									Program reports	Periodically
		# of refresher trainings conducted									Program reports	Periodically
		HEWs dropout rate									Program reports	Periodically
	Increased coverage and bidirectional referral linkages	Number of people reached through the HEP									Program reports	Annual
		# of regions covered through HEP									Program reports	Annual
		Proportion of referral cases who received services at health facilities									Program reports	Quarterly
	Adequate supplies and equipment	Availability of tracer drugs and equipment									Program reports	Monthly/quarterly

	Results	Indicator	Baseline		Target					Means of Verification		
			Value (year)	Source	Year1	Year2	Year3	Year4	Year5	Measurement tools	Freq. of reporting	
Process	Established and functional community based health information system	# of supervisory visits received by HEWs quarterly									Program reports	Quarterly
		Completeness and timely submission of routine reports									Program reports	Monthly/quarterly
		Accuracy of monthly reports									Program reports	Quarterly
		# of monthly health facility review meeting with HEWs									Program reports	Monthly/quarterly
		# of quarterly meeting conducted at district level									Program reports	Quarterly
		# of regions covered through HEP									Program reports	Annual
		Proportion of referral cases who received services at health facilities									Program reports	Quarterly
	Adequate supplies and equipment	Availability of tracer drugs and equipment									Program reports	Monthly/quarterly

	Results	Indicator	Baseline		Target					Means of Verification		
			Value (year)	Source	Year1	Year2	Year3	Year4	Year5	Measurement tools	Freq. of reporting	
Process	Established and functional community based health information system	# of supervisory visits received by HEWs quarterly									Program reports	Quarterly
		Completeness and timely submission of routine reports									Program reports	Monthly/quarterly
		Accuracy of monthly reports									Program reports	Quarterly
		# of monthly health facility review meeting with HEWs									Program reports	Monthly/quarterly
		# of quarterly meeting conducted at district level									Program reports	Quarterly

Table 6.4. HEP HIS Indicators and Data Source

ANNEX

	Indicator	Definition	Interpretation, Formula, $\frac{\text{numerator}}{\text{denominator}}$	Data source
1.1	# of accidents/ injuries managed or referred	The number of accidents and injuries identified and managed or referred by HEW during home visit in a given time period	Accidents or injuries include: broken bones, burns, bleeding and wounds, bites, poisoning, pain and/or fever, and emergencies.	Daily register (HEP form 1)
1.2	Proportion of Households (HHs) using latrine	The proportion of households using latrines in a given time period	Formula: The number of households using a latrine divided by the total number of households in the catchment area. $\text{latrine coverage} = \frac{\text{number of HHs using a latrine}}{\text{total number of households}} \times 100$	Daily register (HEP form 1) or HH census register (HEP form 3)
1.3	Proportion of households with hand washing facility	The proportion of households using hand washing facility in a given period of time	Formula: The number of households using hand washing facility divided by the total number of households in the catchment area. $\begin{aligned} & \text{HHs with hand washing facility} \\ &= \frac{\text{number of HHs using hand washing facility}}{\text{total number of households}} \times 100 \end{aligned}$	Daily register (HEP form 1) or HH census register (HEP form 3)
2.1	Proportion of pregnant mothers who are visited by HEW at least 4 times before delivery	The proportion of pregnant mothers who are visited by HEW at least 4 times before delivery in a given period of time	Formula: The number of pregnant mothers who are visited by HEW at least for times before delivery divided by the total number of deliveries in the catchment area in a given time period. $\begin{aligned} & \text{proportion of pregnant mothers} \\ & \text{visited by HEW at least 4 times before birth} \\ &= \frac{\text{number of preg. mothers visited at least 4 times before birth}}{\text{total number of deliveries in the catchment area}} \times 100 \end{aligned}$	Daily register (HEP form 1) or MNH individual form (HEP form 2)

	Indicator	Definition	Interpretation, Formula, $\frac{\text{numerator}}{\text{denominator}}$	Data source
2.2	Proportion of mothers who are visited by HEW within the first 24-48 hours after birth	The proportion of postnatal mothers who are visited by HEW within 24-48 hours after birth	<p>Since up to 50 per cent of maternal deaths occur after delivery, a HEW should visit all mothers (especially those who gave birth at home) as soon as possible within the first 24-48 hours after birth. The HEW should assess the mother's general condition and recovery after childbirth and identify any special needs.</p> <p>Formula: The number of postnatal mothers who are visited by HEW within the first 24-48 hours after birth divided by the total number of mothers who completed the first week of postnatal period in the catchment area in a given time period.</p> <p><i>proportion of pregnant mothers visited by HEW at least 4 times before birth</i></p> $= \frac{\text{number of postnatal mothers visited within the first 24-48 hr after birth}}{\text{total number of mothers in the first week of postnatal period in the catchment area}} \times 100$	Daily register (HEP form 1) or MNH individual form (HEP form 2)
2.3	Proportion of pregnant mothers with birth plan	The proportion of pregnant mothers with a birth plan in a catchment area, in a given time period	<p>Formula: The number of pregnant mothers with birth plan 4 weeks before estimated delivery date (EDD), divided by the total number of pregnant mothers in the catchment area in a given time period.</p> <p><i>proportion of mothers with birth plan</i></p> $= \frac{\text{proportion of mothers with birth plan birth plan 4 weeks before EDD}}{\text{total number of mothers in the first week of postnatal period in the catchment area}} \times 100$	Daily register (HEP form 1) or MNH individual form (HEP form 2)

	Indicator	Definition	Interpretation, Formula, $\frac{\text{numerator}}{\text{denominator}}$	Data source
2.4	Proportion of home deliveries	The proportion of home deliveries (including live and still births) in a given community/catchment area in given time period	Formula: The number of home deliveries (including live and still births) divided by the total number of deliveries in the catchment area. <i>proportion of home deliveries</i> $= \frac{\text{number of home deliveries}}{\text{total number of deliveries in the catchment area}} \times 100$	Daily register (HEP form 1) or MNH individual form (HEP form 2)
3.1	Proportion of stillbirths (for home delivery)	The proportion of stillbirths from total home births in a given time period in a catchment area	Formula: The number of stillbirths divided by the total number of home births (live and still) in the catchment area in a given time period. <i>proportion of stillbirth</i> $= \frac{\text{number of stillbirth}}{\text{total number of home births (still and live) in the catchment area}} \times 100$	Daily register (HEP form 1) or MNH individual form (HEP form 2)
3.2	Low birth weight (LBW) proportion (for home deliveries)	The proportion of live born babies who weigh less than 2500 g in a given time period	Formula: The number of live born babies (for home deliveries) who weigh less than 2500 g divided by the total number of home live births that were weighed in the catchment area by HEW during a given time period. <i>LBW proportion</i> $= \frac{\text{number of liveborns weighing < 2500g}}{\text{total number of live births weighed}} \times 100$	Daily register (HEP form 1) or MNH individual form (HEP form 2)

	Indicator	Definition	Interpretation, Formula, $\frac{\text{numerator}}{\text{denominator}}$	Data source
3.3	Proportion of neonatal deaths (for death occurred at home)	The proportion of deaths that occurred at home in neonates in a catchment area in given period of time	<p>The deaths can be disaggregated by death within the first 6 days of life (early neonatal death), which suggests the quality of obstetric care, and deaths within one month of neonatal life; the early neonatal death rate mainly defines the quality of obstetric care in the Namibian set up; the three main causes are prematurity, birth asphyxia, and neonatal sepsis; however, there are many other potential causes.</p> <p>Formula: The early neonatal death rate is calculated as the number of deaths that occurred at home within the first 6 days of life divided by the total number of live births during a given time period in the catchment area.</p> <p style="text-align: center;"><i>early neonatal death rate</i></p> $= \frac{\text{number of deaths in 0 to 6 days of life occurring at home}}{\text{total number of live births in the catchment area}} \times 100$ <p>Formula: The proportion of neonatal death is calculated as the number of deaths within the first 30 days of life occurring at home divided by the total number of neonates during a given time period in the catchment area.</p> <p style="text-align: center;"><i>proportion of neonatal deaths</i></p> $= \frac{\text{number of neonatal deaths occurring at home}}{\text{total number of neonates in the catchment area}} \times 100$	Daily register (HEP form 1)

	Indicator	Definition	Interpretation, Formula, $\frac{\text{numerator}}{\text{denominator}}$	Data source
4.1	Proportion of children with malnutrition	The proportion of children under 5 years identified as moderately or severely malnourished using MUAC	<p>Formula: The proportion of children under 5 with moderate or severe malnutrition divided by total number of under 5 children whose MUAC recorded.</p> <p style="text-align: center;"><i>proportion of children with malnutrition</i></p> $= \frac{\text{number of MUAC reflecting moderate or severe malnutrition amongst under 5s}}{\text{number of MUAC recorded amongst under 5s}} \times 100$ <p>The malnutrition can be disaggregated as moderate and severe:</p> <p style="text-align: center;"><i>proportion of children with moderate malnutrition</i></p> $= \frac{\text{number of children under 5 with moderate malnutrition}}{\text{total number of under 5s whose MUAC recorded}} \times 100$ <p style="text-align: center;"><i>proportion of children with severe malnutrition</i></p> $= \frac{\text{number of children under 5 with severe malnutrition}}{\text{total number of under 5s whose MUAC recorded}} \times 100$	Daily register (HEP form 1)

	Indicator	Definition	Interpretation, Formula, $\frac{\text{numerator}}{\text{denominator}}$	Data source
4.2	Proportion of babies who are exclusively breast fed	Proportion of babies who are exclusively breast fed at 6 months of age in the catchment area in a given time period	Formula: Number of babies who are exclusively breast fed at 6 months of age divided by the total number of babies who reached 6 months of life in the catchment area in a given time period. <i>proportion of babies exclusively breast fed</i> $= \frac{\text{number of children under 5 with severe malnutrition}}{\text{total number of babies who reached 6 months of life in the catchment area}} \times 100$	Daily register (HEP form 1)
4.3	# of new under five pneumonia cases	The # of under 5 years old children with pneumonia detected by HEWs		Daily register (HEP form 2)
4.4	Proportion of children under five years who died (for death occurring at home)	The proportion of deaths that occurred at home in under 5 children in a catchment area in a given period	Formula: The number of deaths that occurred at home in under 5 children divided by the total number of under 5 years children in the catchment area in a given period. <i>proportion of children under 5 who died (with death occurring at home)</i> $= \frac{\text{number of under 5s (with deaths occurring at home)}}{\text{total number of under 5s in the catchment area}} \times 100$	Daily register (HEP form 1)
5.1	# of clients who received HIV counseling	The number of individuals who received HIV pre-test counseling from the HEW in a given time period	Formula: The number of individuals who received pre-test counseling from HEW during a given time period; this indicator suggests the utilization of HTC services.	Daily register (HEP form 1)

	Indicator	Definition	Interpretation, Formula, $\frac{\text{numerator}}{\text{denominator}}$	Data source
5.2	HIV testing rate	The proportion of individuals who received pre-test counseling who received HIV testing in a given time period.	<p>This indicator suggests the outcome of counseling.</p> <p>Formula: The number of individuals who received an HIV test from HEW during a given time period divided by the number of individuals who received pre-test counseling from HEW during the same time period.</p> $\text{HIV testing rate, \% clients tested} = \frac{\text{number of clients tested for HIV}}{\text{total number of clients who received counselling in the same period}} \times 100$	Daily register (HEP form 1)
5.3	HIV positivity rate	The proportion of individuals tested who was HIV positive in a given time period	<p>This indicator shows the HIV prevalence amongst those tested.</p> <p>Formula: The number of individuals who tested positive for HIV during a given time period divided by the number of individuals who received an HIV test from HEW during the same time period.</p> $\text{HIV positivity, \% clients tested with positive results} = \frac{\text{number of clients tested positive for HIV}}{\text{total number of people tested for HIV in the catchment area}} \times 100$	Daily register (HEP form 1)
5.4	# of HIV + clients on ART	The number of HIV+ clients on ART identified during a home visit by HEW in a given time period	This indicator identifies the HIV positive clients for adherence support and follows ups by HEWs.	Daily register (HEP form 1)
5.5	# of ART defaulters referred and followed up	The number of ART defaulters identified by HEW during home visits in a given period of time that are referred to health facility and followed up	This indicator identifies defaulters for adherence support by HEW.	Daily register (HEP form 1)

	Indicator	Definition	Interpretation, Formula, $\frac{\text{numerator}}{\text{denominator}}$	Data source
6.1	# of suspected TB cases identified	The number of suspected TB cases identified by HEW during home visits in a given period of time	This indicator identifies suspected cases for early diagnosis and treatment.	Daily register (HEP form 1)
6.2	# of TB treatment defaulters referred and followed up	The number of TB treatment defaulters identified by HEW during home visits that are referred to health facility and followed up in a given period of time	This indicator identifies defaulters for adherence support by HEW.	Daily register (HEP form 1)
6.3	# of TB contacts traced and referred	The number of TB contacts traced by HEW during home visits and referred for screening in a given period of time	This indicator identifies exposed cases for early diagnosis and treatment.	Daily register (HEP form 1)
6.4	# Number of patients supported with DOT	The number of patients who are on DOT supported by HEWs in a given period of time		Daily register (HEP form 1)
7.1	# of new malaria cases	The # of new malaria cases detected by HEWs using rapid test in a given period of time		Daily register (HEP form 2)
7.2	Percentage of pregnant women sleeping under a ITN	The proportion of pregnant women sleeping under a ITN in malarious catchment area in a given period of time	<p>Formula: Number of pregnant women sleeping under a ITN divided by the total number of pregnant women in a given period in the catchment area.</p> <p><i>% of pregnant mothers sleeping under ITN</i></p> $= \frac{\text{number of pregnant mothers sleeping under ITN}}{\text{total number of pregnant mothers in the catchment area}} \times 100$	Daily register (HEP form 1)

	Indicator	Definition	Interpretation, Formula, $\frac{\text{numerator}}{\text{denominator}}$	Data source
7.3	Percentage of children under 5 sleeping under a ITN	The proportion of children under 5 sleeping under a ITN in malarious catchment area in a given period of time	Formula: Number of under 5 children sleeping under a ITN divided by the total number of under 5 children in a given period in the catchment area. $\% \text{ of children under 5s sleeping under ITN}$ $= \frac{\text{number of children under 5s sleeping under ITN}}{\text{total number of under 5s in the catchment area}} \times 100$	Daily register (HEP form 1)
7.4	Percentage of residual DDT house spraying in a given community/village	Proportion of HHs sprayed with residual DDT in a malarious community/village in a given period of time	Formula: Number of HHs sprayed with residual DDT divided by the total number of HHs in a malarious catchment area in a given period of time. $\% \text{ of HHs sprayed}$ $= \frac{\text{number of HHs sprayed with residual DDT}}{\text{total number of HHs in the catchment area}} \times 100$	Daily register (HEP form 1)
8.1	# of family violence detected	The # of family violence detected by HEWs during home visits in a given period of time		Daily register (HEP form 1)
8.2	Proportion of eligible HHs not receiving social grant	The proportion of eligible HHs not receiving social grant in a given time period in the catchment area	Formula: Number of eligible HHs not receiving grant divided by the total number of eligible HHs in a given time period in the catchment area. $\text{proportion of HHs not receiving grant}$ $= \frac{\text{number of eligible HHs not receiving social grant}}{\text{total number of eligible HHs in the catchment area}} \times 100$	Daily register (HEP form 1)
8.3	# of substance abuse detected and referred	The number of alcohol abuse cases detected and referred by HEWs during home visits in a given time period		Daily register (HEP form 1)
8.4	# of suicidal thoughts/behavior detected and referred	The number of suicidal thoughts/behaviors detected and referred by HEWs during home visits in a given time period		Daily register (HEP form 1)

	Indicator	Definition	Interpretation, Formula, $\frac{\text{numerator}}{\text{denominator}}$	Data source
9.1	# of people with disability identified and referred	The number of people with disability identified and referred by HEWs during home visits in a given period of time, disaggregated by type of disability		Daily register (HEP form 2)
9.2	# of people referred for assistive devices	The number of people referred for assistive devices in a given period of time		Daily register (HEP form 1)
9.3	# of people referred for rehabilitation services	The number of people referred for rehabilitation services in a given period of time		Daily register (HEP form 1)
10.1	# of health promotion activities conducted	The number of health promotion activities conducted by HEWs in their catchment areas in a given period of time	<p>The forum where the health promotion activities conducted include: during home visits (individual) or groups (social gatherings, community conversations, etc.); count the number of forums (Individual or Group) to report the number of health promotion activities.</p> <p>For reporting purpose group education is defined as a health education involving groups other than HH members; it could include education conducted in community or social gatherings, schools, etc.; health education during a HH visit with an individual or more than one household member is considered interpersonal communication (IPC).</p>	Daily register (HEP form 1)
11.1	# of other community health care providers (CHCPs) in the catchment area (disaggregated by type)	The number of community health care providers in the catchment area in a given time period disaggregated by type	The types of CHCPs include: TBAs, CBDs.	Daily register (HEP form 1)
11.2	Percentage of referral cases who received services at referral health facilities	The proportion of clients referred by HEWs who complied and received services at referral health facilities in a given time period	<p>Number of clients referred by HEWs who complied and received services at referral facilities divided by the total number of clients referred by HEWs in a given time.</p> <p><i>% of referred clients who received services</i></p> $= \frac{\text{number of referred clients who received service}}{\text{total number of clients referred}} \times 100$	Referral form (HEP form 7)

	Indicator	Definition	Interpretation, Formula, $\frac{\text{numerator}}{\text{denominator}}$	Data source
11.3	Availability of tracer drugs and equipment at clinics	<p>The proportion of months in the time period under consideration for which given tracer drug/equipment was available when needed. The availability can be averaged over several tracer drugs/equipment to give a general picture of availability.</p> <p>Tracer consumable items⁴:</p> <ol style="list-style-type: none"> 1. Conforming bandage, 75mm 2. Rolled cotton wool, 50g 3. Sterile gauze swab, 75mm² 4. Adhesive plaster, 25mm x10m 5. Oral rehydration salt, 27gm 6. Savlon[®] liquid antiseptic, 125ml 7. Antibacterial soap / green bar soap, 300gm 8. Vaseline[®] aqueous cream, 200gm 9. Paracetamol 500mg tablets, 100 count 10. Paracetamol syrup, 100ml 11. Betadine[®] cream, 25/20gm 12. Calamine[®] lotion, 100ml 13. Gentian violet 0.50%, 20ml 14. Antiseptic powder, 200gm 15. Latex exam gloves, medium, non-sterile, 25 pairs 16. Condoms, lubricated latex, 25 count 	<p>Tracer drugs/equipment should always be available. If a tracer drug/equipment was unavailable, the cause should be investigated. Any month in which a drug/equipment is unavailable is experienced, even for only 1 day, is reported as a month in which the drug was unavailable when needed.</p> <p>Availability (monthly) is calculated as the number of tracer drugs/equipment that were available whenever needed for clients / patients during the month divided by the total number of tracer drugs/equipment.</p> <p>To calculate the availability for any number of months, the sum of the monthly numerators is divided by the sum of the monthly denominators; availability for specific tracer drug/equipment can also be calculated using the formula.</p> $\text{tracer drugs / equipment availability} = \frac{\sum \text{tracer drugs} \times \sum \text{months available}}{\sum \text{tracer drugs} \times \sum \text{total number of months in time period}} \times 100$	HF archive
11.4	# of supervisory visits received	Number of supportive supervision visits received, with written feedback provided either at the time of supervision or within one week of supervisory visit		Daily register (HEP form 1)

	Indicator	Definition	Interpretation, Formula, $\frac{\text{numerator}}{\text{denominator}}$	Data source
11.5	Completeness and timely submission of routine reports	The number of routine reports that were received by the health facility/DHO within the time specified	<p>80% completeness is a minimum level of acceptability; a lower level of completeness compromises the reliability of data; as with timeliness, 80% is a minimum level of acceptable timeliness.</p> <p>Completeness: Number of reports received from HEWs during a given time period divided by the number of reports expected.</p> $\text{completeness} = \frac{\text{total number of reports received}}{\text{total number of reports expected}} \times 100$ <p>Timeliness: Number of reports received from HEWs according to schedule during a given time period divided by the number of reports expected.</p> $\text{timeliness} = \frac{\text{total number of reports received on time}}{\text{total number of reports expected}} \times 100$	Monthly/quarterly HF report
11.6	Accuracy of reported data	Proportion of correspondence between data reported and data recorded in registers and patient/client records, as measured by a LQAS	<p>Discrepancies between data reported and events recorded in registers is a major source of error and poor quality data; LQAS provides a quick and reliable method for comparing compiled and recorded data; compiled, reported data should correspond with LQAS results within 80%.</p> <p>12 samples from registers will be used; should be applied during supervision.</p> $\text{proportion of samples within 80\%} = \frac{\text{total number of samples within 80\%}}{\text{total number of samples taken}} \times 100$	Monthly/quarterly Health Facility (HF) report

⁴ Durable materials are not expected to be stocked; this list does not include drugs for malaria and pneumonia as these drugs are not yet selected

