ECUMENICAL PHARMACEUTICAL NETWORK

Programme: **Maximizing access to essential medicines for church health services and their clients**

Project: **Malawi baseline**

Report: **Results of Malawi baseline survey**

Activity dates: **3rd–25th April 2005**

Maximizing Access to Essential Medicines for Church Health Services and Their Clients

Baseline Survey

Malawi

The Malawi baseline team, comprised of staff seconded from EPN member organizations, EPN staff, and the project consultant. Left to right, Jafary Liana (Christian Social Services Commission, Tanzania), Kwame Chiwaya (Christian Health Association of Malawi), Kodjo Tsogbe (APPROMESTO, Togo), Emmanuel Nfor (Cameroon Baptist Convention-CBC), Heather Budge-Reid (EPN consultant), Peace Nyankojo (Mission for Essential Medical Supplies-MEDS, Tanzania), Stephen Essuman (Catholic Pharmaceutical Service-CPS, Ghana), Eva Ombaka (EPN), Isaac Annan (Catholic Pharmaceutical Service-CPS, Ghana), Robert Chana (Presbyterian Church in Cameroon), Hans Peter Bollinger (EPN), Sister Nympha (Christian Health Association of Malawi).

- Tool 1–Church health service self-assessment survey: 35 responses.
  - Tool 2–Desk review
- Tool 3–Guided self-assessment workshop and focus group: 10 carried out.
  - Tool 4–Drug supply organization self-assessment survey: Incomplete.

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EXECUTIVE SUMMARY

The EPN Guidelines project is part of the EPN programme entitled 'Maximizing access to essential medicines for church health services and their clients'. The first stage of the project was completed in Malawi where researchers from five countries were trained (in order to carry out work in Cameroon, Ghana, Malawi, Togo, and Tanzania). The first phase of the project identifies the baseline in each EPN guideline area and feeds this information back to an in-country group that can then decide which EPN guidelines should be prioritized and what further work should be undertaken.

This summary of results provides the baseline for compliance with EPN guidelines in Malawi, and is drawn from the results of the tools used. Wherever possible, results are simply scaled up to cover all church health services (CHSs) in Malawi—this means that the compliance indicator is not a quantifiable certainty but is simply an indication of the level of compliance. A zero value shows that no facility was found that complied with that EPN guideline—it is possible that a facility does exist, but was not surveyed. Thus, a zero value only indicates a very low number of compliant facilities. A 'no' value indicates that something on a national scale does not exist.

The guided self-assessment workshops provided an indication of the priorities perceived by CHSs, in terms of which aspects of their challenges were perceived as having the greatest impact on increasing access. These priorities are indicated with an 'X' to the far left of Figure 1 (overleaf).
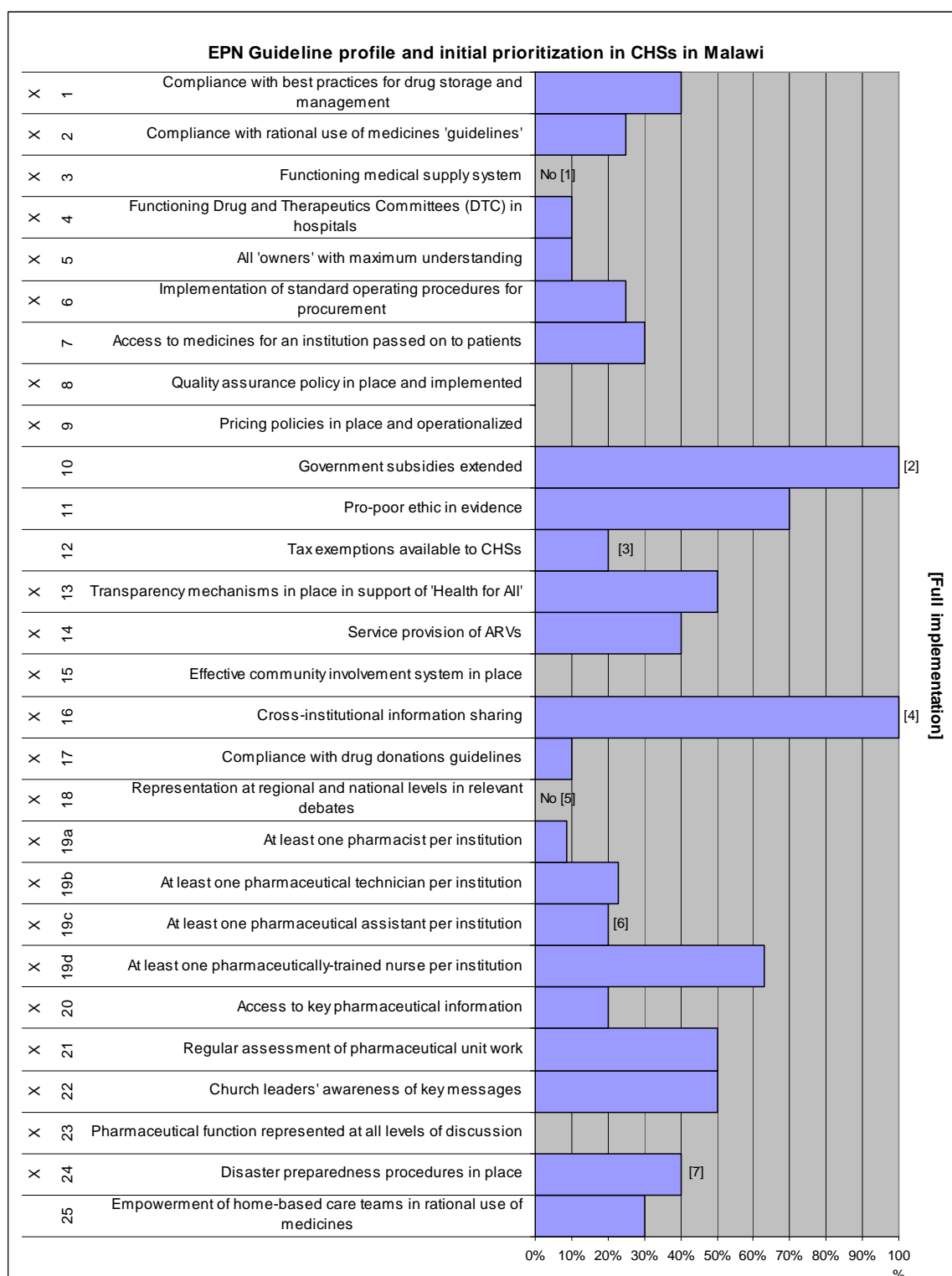
Overall conclusions

Based on the results of the guided self-assessment workshops, it is clear that the dominant trend for church health facilities is a worsening of their situation or, at best, little change. Informal discussions indicate that the departure of missionary health staff, the continuing brain drain, and the increasing poverty of a population frequently facing famine, all contribute to this situation.

However, the workshops also produced indications that there was a willingness to change, as well as recognition of the need to change. There were also important examples of success and improvement, in particular areas, in particular facilities. However, while one facility might be able to implement a particular SOP, a different facility would fail to implement in that particular area but succeed in another. These examples indicate that many solutions to church health service problems in Malawi do indeed lie within Malawi, and that the capturing of these experiences and the passing on of these approaches within the country could itself successfully increase access to health care through church health services.

Church health services (CHS) in Malawi provide approximately 37% of the available health care. All CHS hospitals and a proportion of clinics were given the opportunity to respond to the survey, with a total of 60 facilities contacted. A 58% response rate (35 facilities responded) was achieved for the survey. It is believed that the results are valid for general trends, but it is recognized that a higher response rate would provide a more accurate picture, particularly for clinics. Such problems were considered during the analysis of the results. All 10 planned guided self-assessment workshops were carried out, as were the 10 focus groups. Common results across these activities have been scaled up to inform the overall analysis.

Figure 1: EPN Guideline compliance

EPN Guideline profile and initial prioritization in CHSs in Malawi

	#	Item
×	1	Compliance with best practices for drug storage and management
×	2	Compliance with rational use of medicines 'guidelines'
×	3	Functioning medical supply system — No [1]
×	4	Functioning Drug and Therapeutics Committees (DTC) in hospitals
×	5	All 'owners' with maximum understanding
×	6	Implementation of standard operating procedures for procurement
	7	Access to medicines for an institution passed on to patients
×	8	Quality assurance policy in place and implemented
×	9	Pricing policies in place and operationalized
	10	Government subsidies extended [2]
	11	Pro-poor ethic in evidence
	12	Tax exemptions available to CHSs [3]
×	13	Transparency mechanisms in place in support of 'Health for All'
×	14	Service provision of ARVs
×	15	Effective community involvement system in place
×	16	Cross-institutional information sharing [4]
×	17	Compliance with drug donations guidelines
×	18	Representation at regional and national levels in relevant debates — No [5]
×	19a	At least one pharmacist per institution
×	19b	At least one pharmaceutical technician per institution
×	19c	At least one pharmaceutical assistant per institution [6]
×	19d	At least one pharmaceutically-trained nurse per institution
×	20	Access to key pharmaceutical information
×	21	Regular assessment of pharmaceutical unit work
×	22	Church leaders' awareness of key messages
×	23	Pharmaceutical function represented at all levels of discussion
×	24	Disaster preparedness procedures in place [7]
	25	Empowerment of home-based care teams in rational use of medicines

x-axis: 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

[Full implementation]

[1]	Incomplete research, but the indications are that the answer may be no.
[2]	The Government of Malawi pays for basic salaries for medical staff, training, education, public infrastructure, and medicine/health campaigns, but offers few subsidies on the costs of medicines, which are free at government hospitals.
[3]	In fact, tax exceptions on medicines are available and used by all, but this is not common knowledge. So this result should actually be 100%.
[4]	A system exists, but the information is poorly used.
[5]	A system exists, but it is rarely used.
[6]	These results need to be read in the context of the training received by staff in each type of post. The table below shows that pharmaceutically-trained nurses, for example, have a wide variety of training, or are lacking training in key areas.

How many pharmaceutically-trained people work in your facility?	Pharma-cist	Pharm. tech.	Pharm. asst.	Pharm. trained nurse	Total no. of staff
Overall number working in responding CHS facilities	3	9	18	42	72
Trained in quantification of drug needs	2	8	7	12	29
Trained in drugstore management	2	8	7	20	37
Trained in quality assurance	2	8	6	15	31
Trained in rational use of medicines	2	7	8	25	42
Trained in unit costing	2	4	1	12	19
Trained in record and data management	2	8	7	28	45
Trained in appropriate financial management	2	3	5	5	15
Trained in compounding of drugs (e.g., syrups and ointments)	2	8	6	14	30
Trained in dispensing	2	8	8	32	50

[7]   There appears to be a great deal of confusion between disaster preparedness and emergency medical procedures, so it is thought that this result should be much lower.

The Christian Health Association of Malawi (CHAM) reports that the church health care facilities in Malawi number 33 hospitals and 132 clinics at the time of research. The government pays all health personnel salaries in CHSs and some allowances such as housing and transport. Government health facilities offer free health care (including consultation and medications), while the CHSs charge. In many areas, the CHS is the sole provider of health care.

Three issues emerged relating to the methodology.

- First, straightforward questions such as 'do you implement rational use of medicines guidelines' often provoked a positive response (taken literally, what 'rational' person would say no?) However, on examination of responses to further 'test questions' in the survey, it became clear that the answer was actually 'no'.
- Second, despite a request to complete the survey during a management committee meeting or to have the most senior staff member complete it, this often did not happen—as indicated by the high number of 'don't know' or incomplete responses.
- Third, the institutions responded very positively to the EPN visits (despite some organizational problems). The workshop and focus group participants were all excited about being asked and also about the process of asking. The survey process, on the other hand, indicates the need for training on teamwork for the institutions.

The issue of direct and indirect EPN Guideline impact

A clear entry point is when a need for intervention meets the capacity to intervene. The issue of indirect, but still important, impacts needs to be part of the analysis of a response to CHS-identified needs and problems. For example, while EPN cannot do anything **directly** about increasing institutional resources, the implementation of some of the EPN guidelines would *indirectly* increase resource availability:

- **EPN Guidelines**
  - Pricing policies in place and operationalized.
  - Compliance with drug donations guidelines.
  - Implementation of standard operating procedures for procurement.
  - Access to credit (for some patients).

- **Indirect impacts**
  - Improved financial stability, income, and resource availability and efficiency in some areas.
  - Reduced likelihood of closure.
  - Reduced theft (of pharmaceuticals).

Indirect impacts would also contribute to the improvement of quality of care in relation to, for example:
- Improved skills—in a number of areas, particularly pharmaceutical-related.

- Reduced staff turnover and brain drain, through increased staff commitment and motivation, particularly in pharmaceutical-related areas.
- Improved training, MIS systems, and the simplification of a wide range of procedures.

As identified through force field analysis in the workshops, increased resources would produce the biggest lift, and improved management would reduce the biggest constraint. The force field analysis shows a direct relationship between these areas. However, while human resources provide the second biggest lift, only the staff training aspect was identified as a crucial constraint—these two areas are only partly linked and indicate that increased training would be the priority area of the human resource challenge.

Two further aspects were identified as constraints and had no matching lifting aspects—client poverty and government politics and policies. While both of these issues are important and EPN guidelines would indicate that the relationship with government could be improved, the issue of client poverty itself is beyond the bounds of the EPN guidelines and indeed the work of EPN.

An analysis of the problem tree exercise allows us to match EPN guidelines to problem solving. The statements in **bold** below are those causes and effects that were prioritized through the problem tree analysis.

1.	Compliance with best practices for drug storage and management. **Improved financial management.** **Reduction of expired medicine usage.** **Improved revenue base (pricing and medicine costs).** **Reduced theft of medicines.** **Reduced stock-outs.**
2.	Compliance with rational use of medicines 'guidelines'. **Increased patient treatment compliance.**
3.	Functioning medical supply system. **Improved resource allocation and availability.** **Reduced stock-outs.**
4.	Functioning Drug and Therapeutics Committees (DTC) in hospitals. **Use and success of DTC meetings.**
5.	All 'owners' with maximum understanding of roles, best practice, and management information, understanding of revolving fund concept and implementation of methods of increasing access for the poorest. **Improved leadership, management, and strategic planning.**
6.	Implementation of standard operating procedures for procurement. **Reduced cost of medicines.** **Reduction of operating costs.** **Increased medicine availability.** **Improved resource allocation and availability.** **Reduced stock-outs.**
8.	Quality assurance policy in place and implemented. **Improved services.**
9.	Pricing policies in place and operationalized. **Improved funding strategies (pricing).**
13.	Transparency mechanisms in place in support of 'Health for All'. **Improved transparency and confidence in the institution.**
14.	Service provision of ARVs. **Treatment of opportunistic infections.**
15.	Effective community involvement system in place. **Increased community involvement.**
16.	Cross-institutional information sharing, including provision of information to national drugs policy and national health management information systems. **Improved government understanding and commitment.**
17.	Compliance with drug donations guidelines. **Improved resource allocation.**

18.	Mechanism in place to allow for representation at regional and national levels in relevant debates. **Improved government understanding and commitment.** **Improved leadership, management, and strategic planning.**
19.	At least one pharmaceutically trained person per facility. **Availability of qualified personnel and quality services (in pharmaceutical related areas).**
20.	Access to key pharmaceutical information. **Availability of qualified personnel and quality services (in pharmaceutical related areas).**
21.	Regular assessment of pharmaceutical unit work. **Improved leadership, management, and strategic planning.**
22.	Church leaders' awareness of key messages. **Improved leadership, management, and strategic planning.**
23.	Pharmaceutical function represented at all levels of discussion. **Improved leadership, management, and strategic planning.**

Potential priorities

There appears to be an issue of understanding of pharmaceutical terminology, particularly where certain terms that have particular pharmaceutical meanings are being interpreted literally, such as 'rational use of medicines'. The survey showed that many people answered 'yes' to the question 'does your facility comply with rational use of medicines practices', when their answers to other 'test questions' showed the answer to be 'no'.

In nearly all EPN guideline areas there is at least one hospital that indicates it has implemented the EPN guideline. This means that a significant impact could be achieved through networking efforts and sharing local examples, rather than only through external guidance.

The EPN guidelines can also be linked to leading problems through the force field analysis. Below are four issues identified as areas where greatest positive change could be achieved, partnered with a corresponding EPN guideline.

1. While it is extremely difficult to do anything directly about increasing institutional resources, the implementation of some of the EPN guidelines could indirectly increase resource availability.

    - Pricing policies in place and operationalized.
    - Compliance with drug donations guidelines.
    - Implementation of standard operating procedures for procurement.

2. The inclusion of further EPN guidelines in the work would directly respond to the hospital-based recognition for improved management.

    - Compliance with best practices for drug storage and management.
    - Functioning Drug and Therapeutics Committees (DTC) in hospitals.
    - All 'owners' with maximum understanding of roles, best practice, and management information, understanding of revolving fund concept and implementation of methods of increasing access for the poorest.
    - Quality assurance policy in place and implemented.
    - Transparency mechanisms in place in support of 'Health for All'.
    - Pharmaceutical function represented at all levels of discussion.
    - Disaster preparedness procedures in place.

3. The particular importance of training of human resources would be reflected in the need to train staff as part of the above EPN guidelines and to support the implementation of other EPN guidelines, for example:

    - Compliance with rational use of medicines 'guidelines'.

- At least one pharmaceutically trained person per facility.
- Access to key pharmaceutical information.
- Regular assessment of pharmaceutical unit work.

4. The identification of government policies and politics could be addressed in part by the implementation of EPN guidelines, for example:

- Effective community involvement system in place.
- Cross-institutional information sharing, including provision of information to national drugs policy and national health management information systems.
- Mechanism in place to allow for representation at regional and national levels in relevant debates.
- Church leaders' awareness of key messages.

1 BRIEF INTRODUCTION TO MALAWI

The current health situation in Malawi is dominated by immediate food shortages. A broader look at data from http://www.unicef.org/infobycountry/malawi_statistics.html (sourced from UNICEF, World Bank, IMF, UN Population Division) and WHO Roll Back Malaria and StopTB programmes gives the following picture.

Adult HIV prevalence rate (15–49 years), end 2003, estimate	14.2
Estimated number of people living with HIV, 2003 (in thousands), adults and children (0–49 years)	900,000
Estimated number of people living with HIV, 2003 (in thousands), children (0–14 years)	83,000
Estimated number of people living with HIV, 2003 (in thousands), women (15–49 years)	460,000
HIV prevalence rate in young (15–24 years) pregnant women in capital city, 2003, median	18.0
Life expectancy at birth (years), 2003	38
Under-5 mortality rate (per thousand), 2003	178
Population (thousands) under age 18,2003	6,386
Population (thousands) under age 5,2003	2,250
Population annual growth rate 1970–1990 (%)	3.7
Population annual growth rate 1990–2003 (%)	1.9
GNI per capita (US$), 2003	170
GDP per capita average annual growth rate (1960–1990) (%)	1.5
GDP per capita average annual growth rate (1990–2003) (%)	1.0
Average annual rate of inflation (1990–2003) (%)	31
% of population living below $1 a day (1992–2002)	42
% of central government expenditure allocated to health (1992–2004)	7
Tuberculosis: all new cases including HIV-positive cases (2003)	53,053 [442 per 100,000 population]
Tuberculosis: all deaths, including HIV-positive cases (2003)	13,008 [107 per 100,000 population]
Malaria: endemic in 97% of the population of Malawi—cases in 2001	2,323,629 [20,080 per 100,000 population (1 in 4)].

[Data from http://www.unicef.org/infobycountry/malawi_statistics.html (sourced from UNICEF, World Bank, IMF, UN Population Division) and WHO Roll Back Malaria and StopTB programmes.]

Objectives of Ministry of Health Policy (National Health Plan 1999–2004)
At the time of the study, the objectives of the Ministry of Health Policy (National Health Plan 1999–2004) were (Government of Malawi – http://www.malawi.gov.mw/health/mohpobj.htm):
- Range and quality of health services for mothers children under the age of five years expanded
- Better quality health care provided in all facilities
- Health services to general population strengthened expanded and integrated
- Efficiency and equity in resource allocation increased
- Access to health care facilities and basic services increased
- Quality of trained human resources increased, improved equitably/efficiently distributed
- Collaboration and partnership in health sector strengthened
- Overall resources in health sector increased

Since the study the government has taken on a new health policy that includes a sector-wide approach focus.

The Christian Health Association of Malawi (CHAM) reports that the church health care facilities in Malawi number 33 hospitals and 132 clinics at the time of research. The government pays all health personnel salaries in church health services (CHSs) and some allowances such as housing and transport. The government facilities offer free health care (including consultation and medications), while the CHSs charge. In many areas, the CHS is the sole provider of health care.

2 RESPONSE RATES AND VALIDITY OF RESULTS

EPN categorizes health facilities as follows:
- Hospitals have 50 or more beds
- Clinics have between 1 and 49 beds
- Health posts have no beds.

Church health services in Malawi provide approximately 37% of the available health care. All CHS hospitals (excluding one private hospital) and a proportion of clinics (CHAM does not distinguish between clinics and health posts) were given the opportunity to respond to the survey, with a total of 60 facilities contacted. A 58% response rate (35 facilities responded) was achieved for the survey. As a result, it is felt that the results are valid for general trends, but it is recognized that a higher response rate would provide a more accurate picture, particularly for clinics. Such problems were considered during the analysis of the results.

The percentage figures used in this report are "the percentage of facilities that responded to the particular question", as not all questions were answered in every returned survey. Where a large number of respondents did not answer a particular question, this is noted.

2.1 Descriptions of the respondents

Of the 32 hospitals surveyed, 20 responded, together with 11 clinics and 4 health posts. 'NA' indicates 'no answer given'.

Name of facility	Number of beds	Number of outpatients
Likuni Hospital	231	66,000
St. John's Hospital	225	NA
Nkhoma Hospital	220	16,000
Trinity Hospital	200	30,000
St. Joseph's Hospital	196	9,776
Mulanje Mission Hospital	189	55,257
St. Gabriel's Hospital	168	35,000
Holy Family Mission Hospital	164	17,000
St. Anne's Hospital	140	NA
DGM Hospital	135	4,501
Embangweni Hospital	130	13,961
Ekwendeni Mission Hospital	120	12,000
St. Luke's Hospital	120	NA
Mua Catholic Hospital	118	NA
Madisi Mission Hospital	117	20,000
Kapiri Hospital	93	30,862
Katete Rural Hospital	86	NA
Nsipe Health Centre	57	5,912
Sister Theresa Catholic Hospital	50	NA
St. Michael's (Guilleme) Rural Community Hospital	50	12,971
Kankao Health Centre	45	4,443
Kasina Health Centre	45	7,099
Mangomera Health Centre	34	4,215
Bembeke Health Centre	23	6,129

Name of facility	Number of beds	Number of outpatients
Mlanda Health Centre	15	4,000
Mayaka Health Centre	14	17,046
Baptist Medical Clinic	10	NA
Kaphatenga	10	NA
Senzani Health Centre	10	1,886
Koche Health Centre	6	NA
Nkhorongo Health Centre	5	5,140
Howard Parker Sharp Health Centre	0	NA
Lake View Health Centre	0	NA
Mvera Mission Health Centre	0	8,404
Phalula Health Centre	0	8,891
Grand Total	**3,026**	**396,493**

3 TOOL 1: SELF-ASSESSMENT SURVEY AND TOOL 2: DESK REVIEW RESULTS

Two issues were apparent from a methodological perspective.

1. There appears to be an issue of understanding of pharmaceutical terminology, particularly where certain terms that have particular pharmaceutical meanings are being interpreted literally, such as 'rational use of medicines'. The survey showed that many people answered 'yes' to the question 'does your facility comply with rational use of medicines practices', when their answers to other 'test questions' showed that their facility did not actually comply with such practices.

2. Despite a request to complete the survey during a management committee meeting or to have the most senior staff member complete it, this often did not happen—as indicated by the high number of 'don't know' or incomplete responses. This indicates a need to develop team approaches to management.

The majority of respondents are in need of assistance in a number of EPN guideline areas, but there are clear examples of local successes. The role of identifying and transferring this local knowledge will be crucial to future work.

The results of the survey are presented below in summary and compiled against the EPN guidelines and their indicators. Where the indicator comes from the desk review carried out by CHAM (the Christian Health Association of Malawi), that answer is included.

3.1 Compliance with best practices for drug storage and management

Of the facilities that actually answered this question, 81% answered 'yes'. However, when asked further questions to verify this response, it became clear that far fewer facilities were actually compliant with this EPN guideline, based on chosen indicators.

- 56% (18 out of 31 facilities that answered the question) indicated there is a checklist for good storage conditions for medicines, and 89% *of this group* said that it was actually in use.

- 44% have written SOPs for procurement, and only 57% *of this group* actually implemented them fully (the remainder *of this group* responded that they were 'partially implemented').

- 45% have written SOPs for issuing of medicines to pharmacies or wards, with the majority of these facilities indicating that they are implemented.

- Facilities were asked how often stock-taking reports on drugs are compiled.

Once a day	9%
Once a week	9%
Once a month	31%
Once every 3 months	9%
Once a year	6%
Occasionally	3%
Never	23%
No answer	11%

- Of the sample list of essential medicines provided in the survey, facilities experienced stock-outs of the following items most commonly.

Do you ever run out of any of the following essential medicines?	Yes
Amoxicillin	35%

Do you ever run out of any of the following essential medicines?	Yes
Ferrous salts	35%
Chlorpheniramine	34%
Whitfield ointment (benzoic acid compound)	34%
Folic acid tablets	32%
Povidone iodine	31%
Tetracycline eye ointment	27%

- Facilities also experienced stock-outs of a number of other essential medicines.

Do you ever run out of any of the following essential medicines?	Yes
Oral rehydration salts (ORS)	21%
Quinine injection	21%
Paracetamol tablets	18%
Mebendazole tablets	16%
Aspirin	12%
Cotrimoxazole	12%

- Overall incidence of equipment stock-outs was significantly higher, with up to 54% of facilities reporting stock-outs of items such as, for example, 'gloves surgical latex rubber sterile' and 'syringe disposable with needle 10cc'.

- Only 19% have carried out a study of the percentage of the Essential Drugs List that their facility has access to (regardless of stock-outs). They found that, on average, 80% of items on the Essential Drugs List were available.

3.2   Compliance with rational use of medicines 'guidelines'

- While 94% indicated that they comply with rational use of medicines practices, only 10% (three of the facilities that answered the question) have ever carried out a study of the percentage of medicines prescribed in their facility that are on the Essential Drugs List.

- Only 28% had carried out a study of the average number of medicines prescribed per consultation (only 18% were also able to give a result—and the average number of items per prescription for these facilities was as high as five).

- 24% indicated they have a rule governing the maximum number of items per prescription

3.3   Functioning medical supply system

- While it appears that all essential medicines are available to the majority of facilities, there seem to be a number of problems and inefficiencies in the institutional mechanisms—including time spent on individual price negotiations, etc.

- When asked to name their suppliers, the following names were given. There appears to be no single or particular system used, with the most popular suppliers being reported by 50% of facilities.

Supplier	Users
CHAM	17
CMS	17
InterMed	16
PharmaVet	13
Private companies/others	8
IDA (Netherlands)	6
SADM	6

Supplier	Users
MedVet	4
AHS (Adventist Health Service)	3
Nkhoma Hospital (supplies h/cs)	2
IntraMed	2
PharmaChem	2
DHO-Mzimba District Hospital	1
PanPham	1
PharmaCare	1
PharmaNova	1
PolyChem	1
Safe-Motherhood	1
UniChem Pharmacy	1
UstraPharma	1

- Only 30% of facilities join together to order medicines in bulk in order to reduce costs. 39% undertake their own price negotiations with producers or importers.

- Facilities gave their most important medicine supplier an average score of 8 out of 10 for availability and cost but only 5 out of 10 for transport mechanisms.

- Facilities gave their second most important suppliers an average score of 6 out of 10 for availability and cost and 5 out of 10 for transport mechanisms.

- 76% believe that the full range of essential medicines is available to them. Given the high stock-out incidence, this would imply that there were problems in the ordering process or with cash flow for procurement (for example) that influence the accessibility of medicines for facilities (only one respondent mentioned stock-outs at their supplier).

3.4 Functioning Drug and Therapeutics Committees (DTC) in hospitals

- Only 49% (17) of the responding facilities actually answered the question as to whether there was a functioning DTC in their facility, with 59% (10) *of this group* giving a positive answer. Of these 10, seven meet on a weekly or monthly basis and most of them keep minutes, but only five have a terms of reference for the committee and only four could name the date of the last meeting. Six were able to describe the members of the committee.

- When asked if their facility has a copy of written standard treatment guidelines, only 54% (19) of responding facilities answered the question. *Of this group*, 95% said 'yes', but only 58% of them implement the guidelines.

- Only 39% (7) of the 18 facilities that answered the question have a printed copy of their own locally adapted formulary.

3.5 All 'owners' with maximum understanding of roles, best practice, and management information.

- 57% have a Board or committee made up of people other than staff who have overall responsibility for the running of the facility and they meet, on average, every 3 to 6 months.

- Only 12% (2) of the 17 boards or committees have received training.

- Eleven facilities were able to describe the information given to the board as follows.

	What information reports do board or committee members receive?
1.	Health problems the community is facing
2.	Minutes of the proceedings
3.	Their roles as board members

	What information reports do board or committee members receive?
4.	Annual reports, annual budgets, quarterly [?]
5.	Plans, annual reports, accounts reports, policy reports.
6.	Minutes of management meetings, quarterly financial reports
7.	Management memorandum, budget overviews, audit report, annual report
8.	Financial, annual reports, patient fees
9.	Financial, medical, nursing and general reports at quarterly board meetings.
10.	Budgets, annual reports, monthly/quarterly financial reports
11.	Management accounts, quarterly; audited reports, annually; progress reports, quarterly

- 61% have an annual planning process that identifies such things as budgets, shortfalls, targets, or plans for growth or improvement.

- Only 27% use a revolving fund.

- When asked how long they thought their facility could survive and maintain standards with current levels of funding, 15 facilities gave no answer, 7 did not know, and the rest gave the following responses.

	How long do you think your facility can survive and maintain standards with current levels of funding?
1.	Funding levels vary
2.	It can fail anytime since we have no funds and the sales from drugs are not enough to keep going. People are poor.
3.	The facility can die instantly without the support
4.	The funding is not enough to support all the services, e.g., personal emoluments, drugs, and other running costs.
5.	By the Grace of God for ever
6.	Not very long
7.	Difficult to predict, it will depend on the future changes in the economic environment.
8.	Three months
9.	One year
10.	One or two years
11.	Donors not supportive on drugs. Hospital dependent 89% on fees. Funds doing down so fast, to survive only 20 months.
12.	Many years
13.	We are on a stable financial basis

3.6 Implementation of standard operating procedures for procurement

- 44% have written SOPs for procurement, and 57% *of this group* actually implement them.

3.7 Improvement in access to medicines for a facility, passed on to patients

- 32 facilities responded to the question asking how does their facility set the price people must pay for medicines. A wide variety of responses were given, with only a few of them relating to a formula or a policy.

How do you set the price people must pay for medicines?	Number
Depends on the cost of the drugs from the supplier	8
CHAM and Synod guidelines	3
A committee sets the drug charges. The drug charges are reviewed annually.	3
Medicines are charged at subsidized prices for ordinary patients and at a profit for private patients.	2
The price is set at the diocese	2

How do you set the price people must pay for medicines?	Number
We charge cost of drugs	2
Areas of location—within or outside catchment area. Income of the patient.	1
Consultation with community and other CHAM hospitals in Malawi	1
Management team proposes the prices, which are presented to the Synod Medical Board for approval.	1
Nkhoma Hospital provides a price list.	1
Based on the price of the medicine. Try to make it affordable for the community	1
We consider what people can manage and the purchasing price.	1
There is a fixed price for medicines (K 200)	1
Buying price plus 50%	2
According to the orders	1
Based on the cost price	2
Through budgetary services by comparing cost of medicines with revenue.	1

- 19 facilities described the way they set the prices of consultations in the following manner.

How do you set the price people must pay for consultations?	Number
A flat fee is charged (K10/K30/K40/K200 per person)	4
Do not charge	3
Only for medical examinations and medical reports	2
Prices set by AHS	2
Based on cost	1
Management team proposes the prices which are presented to the Synod Medical Board for approval.	1
There is a committee composed of health staff and community which sets the price	1
Consultation with community and other CHAM hospitals in Malawi	1
Yes, with other stakeholders and health providers in similar settings with ourselves.	1
A committee sits to decide on the price	1
Depends on the health worker they meet and the type of service requested.	1
According to age	1

- If a particular medicine suddenly cost a facility less, 35% would charge less for it and 65% would keep the price the same and use the additional income somewhere else in the facility. None of the facilities would keep the price the same and use the additional income for the church.

- On average, facilities estimated that 65% of the population in the areas served can afford the prices charged for medicines and 76% can afford the prices charged for consultation.

3.8   Quality assurance policy in place and implemented

- The absence of written SOPs suggests that the majority of facilities that responded do not have a quality assurance policy in place.

3.9   Pricing policies in place and operationalized

- Results indicate that there is no common practice for setting prices and that very few facilities set prices in a formal way.

3.10   Government subsidies extended

- All medical staff salaries are covered by the government. Salaries may then be topped up by a facility and all essential non-medical staff must be paid by the facility.

- There is no tax relief on medicines and no expenditure by the government on institutional infrastructure – although some facilities indicated that they thought they received government subsidies on some medicines.

3.11 Pro-poor ethic in evidence

- 74% indicated that they help people who cannot afford the costs of seeking or receiving treatment and 60% of this group indicated that treatment was given free to the poorest. In addition, the following descriptions were given.

Does your hospital or clinic help people who cannot afford the costs of seeking or receiving treatment?
Treatment at reduced cost or they do not pay. Children pay a flat rate of K 100/admission. Maternity mothers pay K 250 flat rate.
AIDS people, orphans, old people, receive free treatment if they can't pay. Sick people get treatment on credit if they can't afford the cost, of which mostly it is never paid back.
We give free treatment to the disabled. We write off debts for those who fail to pay the whole bill. We do not charge interest for outstanding debts
Sometimes they get free treatment and some are advised to bring the money later.
People are asked to pay in kind, e.g., to bring maize
By providing them treatment on credit.
Allow them credit facility with no deadline for paying
Treating them on credit.
Medicine provided, invoice to be paid later. Medicine provided, payment with next visit.
For the people who cannot afford the bills, hospital bills are brought to the hospital administrator (after initial assessment of the poverty factor). There is a book where the names of people who fail to pay are entered and then they are given an invoice.
An alternative drug is provided

- On average, facilities estimated that about 26% of people treated could not pay when they have been asked to.

- On average, 64% of funds for the responding facilities come from user fees— including medicines sales (it is assumed that the total funding figure does not include government-paid salaries). A very small number contribute funds to the church.

- 74% of facilities have exemption policies (where certain types of people, e.g., staff, epileptics, or orphans get free treatment), but only 37% indicated that they had a system of different prices for different people (means testing that allows the poorest cheaper access to medicines). This is despite the fact that most state they have a pro-poor ethic.

- Exemption polices most frequently cover staff, but also include a range of other people, including AIDS patients, older poor people, orphans, epileptics, disabled poor patients, psychiatric patients, sexually transmitted infections, malnourished children, disaster victims, emergency maternity cases, home-based care, and TB patients.

3.12 Tax exemptions available to CHSs

- None were detailed, although nine facilities indicated a government subsidy for some medicines.

3.13 Transparency mechanisms in place in support of 'Health for All'

- 45% produce audited financial statements, but only 47% *of these reports* include pharmacy-related activities separately from other activities.

- 82% produce annual reports, but only 41% *of these reports* include pharmacy-related activities separately from other activities.

- 50% have written staff recruitment policies.

- 28% have a monitoring and evaluation policy but only four facilities indicated that it was implemented. (Nine facilities were not sure what was meant by 'monitoring and evaluation').

3.14 Service provision of ARVs

- Only 29% (10) facilities provide ARVs, with a further 29% (10) planning to start before the end of the year.

- In total, 1,397 people are receiving ARVs through the facilities that responded.

- Drop-out rates are low, but not zero.

- ARVs appear to be mostly free to the facilities, through financial or medicines donations or project funds.

3.15 Effective community involvement system in place

- While 33% (10) of facilities indicated the involvement of the community, focus group results indicated that, even when a system is in place, it is often not effective. Focus group discussion indicated a desire for more involvement.

- Five of these 10 facilities indicated a community representative on the management/advisory committee and the other five worked with the community on specific projects.

3.16 Cross-institutional information sharing

- See Tool 2: Desk review.

3.17 Compliance with drug donations guidelines

- Out of 35 responses, 31% facilities stated that they complied with drug donation guidelines, 40% stated that they did not comply, and 29% did not answer the question. However, all 35 facilities indicated that they do accept donations. Only 23% of facilities had copies of the international drug donation guidelines.

- There are clearly problems around the language used on donated medicines packaging, with only 48% indicating that there is always text in the language of the staff and patients.

- Medicines donations come from a variety of sources, at least some of which are not following drug donation guidelines.

Source of donations	No. of mentions
CHAM	10
Action Medeor	8
Government	5
CADECOM (Catholic Development Commission in Malawi)	4
Church-related (including from USA/Holland)	4
USA	4
Individuals (including elective students from abroad)	3
ADRA (Adventist Development and Relief Agency)	2
InterCare, Leicester, UK	2
Canada	1
Citihope International	1
Collaboration Santé Internationale (CSI)	1

Source of donations	No. of mentions
CORDAID	1
CURE	1
ECHO	1
Friends of Mua	1
Germany	1
Global Fund	1
Health Partners International (Canada)	1
Italy	1
Ministry of Health	1
Netherlands (through IDA)	1
Nkhoma Hospital	1
Occasional	1
Other organizations (local and overseas)	1
PCUSA	1
Pro-Phalombe	1
SM	1
Spain	1
St. Luke's Foundation	1
STI	1
UK	1
UNICEF	1
USPG	1
Varies from year to year	1

3.18 Mechanism in place to allow for representation at regional and national levels in relevant debates

▪ See Tool 2: Desk review.

3.19 At least one pharmaceutically trained person per facility

Results show that there is a shortage of trained staff and also show that the level of pharmaceutical training varies within different cadres of staff. Clearly there is both a problem of quantity and quality of pharmaceutically trained staff in the church health sector.

How many pharmaceutically-trained people work in your facility?	Pharm acist	Pharm. tech.	Pharm. asst.	Pharm. trained nurse	Total no. of staff
Overall number working in responding CHS facilities	3	9	18	42	72
Trained in quantification of drug needs	2	8	7	12	29
Trained in drugstore management	2	8	7	20	37
Trained in quality assurance	2	8	6	15	31
Trained in rational use of medicines	2	7	8	25	42
Trained in unit costing	2	4	1	12	19
Trained in record and data management	2	8	7	28	45
Trained in appropriate financial management	2	3	5	5	15
Trained in compounding of drugs (e.g., syrups and ointments)	2	8	6	14	30
Trained in dispensing	2	8	8	32	50

The distribution of pharmaceutically qualified staff (recognized cadres) and pharmaceutically trained staff (including cadres and other trained staff) is shown below.

	Pharma-cist	Pharm. tech	Pharm. asst	Pharm. nurse	No. of facilities	No. with pharm. qualified staff	% with pharm. qualified staff	No. with pharm. trained staff	% with pharm. trained staff
Total staff	3	9	18	42					
Across no. of facilities	3	8	7	22					
Hospitals	15%	40%	35%	50%	20	14	70%	18	90%
Clinics	0%	0%	0%	73%	11	0	0%	8	73%
Health posts	0%	0%	0%	100%	4	0	0%	4	100%
Overall	9%	23%	20%	63%	**35**	14	**40%**	30	**86%**

[Note]   Statistics for health posts are based on a very small sample (only four responded to the survey).

3.20 Access to key pharmaceutical information (available in the pharmacy area, and available in the facility

- There are a number of important publications missing from pharmaceutical areas—many of which are distributed free of charge by the publishers.

Publication available in pharmacy?	Yes	No
Essential Drugs List (national or WHO)	61%	39%
National (or WHO) formulary	78%	22%
Standard treatment guidelines	88%	12%
New and obsolete drugs list	16%	84%
List of drugs registered in the country	52%	48%
International medicines pricing indicators	19%	81%
Managing drug supply manuals.	42%	58%

- Overall, a lack of publications characterizes most responding facilities.

Publication available in facility?	Yes	No
National drug policy	48%	52%
DTC/PTC guidelines	25%	75%
WHO essential medicines publications	30%	70%
Rational use of medicines information	60%	40%

3.21 Regular assessment of pharmaceutical unit work

- Only 50% of respondents undertake regular assessments of pharmaceutical work, even though 63% indicated that pharmaceutical functions and needs are discussed at all levels in the facility.

3.22 Church leaders' awareness of key messages

- See the analysis of the focus group discussions.

3.23 Pharmaceutical function represented at all levels of discussion

- There is little, if any, evidence that such discussions take place.

3.24 Disaster preparedness procedures in place

- 34% indicated that they have disaster preparedness plans. However, this relatively high number may indicate a confusion of understanding between 'medical emergency' (e.g. disease outbreak, traffic accident) and 'disaster' (widespread and sudden events, such as flooding or massive population movement in times of war).

3.25 Empowerment of home-based care teams in rational use of medicines

- 62% have home-based care teams, and 48% *of those teams* have been trained in the rational use of medicines. This result may be artificially high due to confusion around

the meaning of the term 'rational use of medicines' (see the introduction to this section).

4 TOOL 2: DESK REVIEW

Although not completed in terms of all questions or attachments, below is the full text submitted to this report. Note to reader: yellow highlighting indicates missing data.

1	In Malawi, how many church-owned facilities are there of the following types?	
	Hospitals?	Number: 18 + 15
	Clinics?	Number: 132 (including health posts)
	Health posts?	Number: see above

2	What percentage of available health care is provided by church health services?	Percentage: 37%

3	Sharing information
	Please list the ways that health facilities in general share information. For example, is there a central statistics service that collects information from health institutions and then makes it public? (Likely to be government-run.)
	What percentage of CHSs contribute information to this system?
	Which mechanisms involve CHSs?
	What information do the CHSs contribute and how often?
	Is there a separate CHS-based information sharing system? If so, please give examples of what information they share and who is part of the system.
	HIS-CHAM. 100% of CHSs contribute information to the system, through monthly HMIS reports, covering maternity and child health; OPD attendances; TB monthly and quarterly; HIV tests monthly
	What evidence is there that clinics share information with hospitals within their referral group (or CHS)?
	Minutes, meeting referral sheets.

		Yes	No
4	Is there a national drugs policy?	X	
	If yes, please attach a copy.		

5	Debate and representation
	Are there any mechanisms in place to allow for representation of the following at regional and national levels in relevant debates?
	Hospitals, clinics, and health posts?
	Regional meetings, CHAM, District Health
	Doctors, nurses, pharmacists, or pharmaceutically-trained staff?
	Workshops, meetings
	Is there ever open public debate about health-related policies? If yes, please describe the two most recent debates.
	No
	Are pharmaceutical functions and needs SUFFICIENTLY represented at local, regional, and national levels?
	No

6	Government support	Yes	No
	Do any government health subsidies exist?	X	
	If no, from your perspective, why not?		

6	Government support	Yes	No
	If yes, are they available to CHSs?	X	
	If yes, what percentage of the national health budget is used for subsidizing medicines in CHSs?	Percentage: 10%	
	What percentage of trained pharmaceutical personnel in CHSs are trained by the government?	Percentage: 100%	
	What percentage of pharmaceutical personnel in CHSs are trained by the CHSs through in-service training?	90%	
	What amount does the government spend on CHS infrastructure development (in US$)?	Amount: 0	

		Yes	No
7	Is there national guidance or law to encourage compliance with drug donations guidelines?	X	
	<mark>If yes, please describe the key points that differ from the interagency guidelines.</mark>		

		Yes	No
8	Are CHSs covered by any tax exemptions?	X	
	If no, please list any other facilities in the health sector, or not-for-profit sector, that do benefit from tax exemptions.		
	No difference		
	If yes, please list CHSs that benefit from tax exemptions.		
	All church-related health facilities		
	If yes, is there any evidence that exemptions have been requested but refused (evidence of application letters, acceptances, and rejections)?		
	No		

9	Of the following essential drugs and supplies, which are made in your country?	Yes	No
	[Essential medicines]		
	Amoxicillin tablets or capsules		X
	Aspirin tablets	X	
	Chlorpheniramine tablets		X
	Co-trimoxazole tablets	X	
	Ferrous salts		X
	Folic acid tablets		X
	Mebendazole tablets		X
	Oral rehydration salts (ORS)		X
	Paracetamol tablets	X	
	Povidone iodine	X	
	Procaine penicillin injection		X
	Quinine injection		X
	Sulfadoxine-pyrimethamine tablets	X	
	Tetracycline eye ointment		X
	Whitfield ointment (benzoic acid compound)	X	
	[Supplies for clinics]		
	Gloves, examination latex non-sterile disposable		X
	Syringe disposable with needle 10cc		X
	Syringe, disposable with needle 5cc		X
	Bandage, crepe		X
	Gauze, absorbent		X
	Tape, plastic adhesive microperforated		X
	[Supplies for hospitals]		
	Surgical sutures		X

9	Of the following essential drugs and supplies, which are made in your country?	Yes	No
	Gloves, surgical latex rubber sterile		X
	I.V. giving set		X
	I.V. cannula 20G		X
	Urine collection bag for adults 2000cc		X

		Yes	No
10	Are other (non-CHS health services) governed by any pro-poor ethics, e.g. sliding scales of charges, etc.?		
	Government?	X	
	If yes, please describe.		
	Free health care in District Hospital, paying OPD and wards in Central Hospital, and free OPD and wards.		
	NGOs?		X
	If yes, please describe.		
	Other faiths?		X
	If yes, please describe.		

		Yes	No
11	Have there been any advocacy campaigns relating to health issues (not public health campaigns)?	X	
	If yes, please describe.		
	Service agreements with government, inclusion of CHAM hospitals in providing ARVs free		
12	Have there been any advocacy campaigns started by the CHSs that aim for changes in how CHSs or the health sector is treated by government?	X	
	If yes, please describe.		
	MOU where CHS health workers get same conditions as government health workers.		
13	Have there been any advocacy campaigns that included the CHSs alongside other health services that aim for changes in how CHSs or the health sector is treated by government?		X
	If yes, please describe.		

14	Please attach copies of any research carried out in the last two years concerning access to essential medicines in Malawi.
	No research

15	Is there any other pharmaceutical or access issue you would like to suggest that we look at?
	Local manufacture of ARVs; training of pharmaceutical personnel.

4.16 Cross-institutional information sharing

- CHAM (Christian Health Association of Malawi) estimates that 100% of CHSs contribute information to their management information system. However, content and frequency of contributions is patchy and it is unclear how this information is then used for the benefit of contributors.

4.18 Mechanism in place to allow for representation at regional and national levels in relevant debates

- CHAM indicates that there are mechanisms in place, but that they are rarely used.

5 TOOL 3: GUIDED SELF-ASSESSMENT RESULTS

5.1   Methods used

This work took place in 10 hospitals across Malawi. Following training of facilitators, each hospital received a visit from a facilitator who led them through a process using spider diagrams, force field analysis, and problem tree analysis. This produced answers to the following questions, in sequence.

1. What is the current situation and how has it changed over the last three to five years? (spider diagram)

2. Given the current situation, what issues have the greatest constraining effect and what issues have the potential to have the greatest positive impact? (force field analysis)

3. What are the causes and effects of those issues with the greatest constraining effect? (problem tree exercise)

4. What are the recognized priorities among the EPN guidelines, and are there any missing guidelines?

As a result, this baseline study indicates the priorities for interventions, as identified by the hospitals themselves.

Guided self-assessment techniques were used because they bring four benefits to the process.
1. The participating facility gains the development of its own insight.
2. Comparable results are produced.
3. Ownership of inputs to the study lies with the participating facilities.
4. The baseline study benefits from not just a factual picture but also a picture of the perceptions and needs of health facilities, and thus the priority entry points for future activities.

5.2   Initial conclusions

1. While the challenges are increasing, there are examples of successful responses to challenges and implementations of individual EPN guidelines issues. However, the responses are by no means nationwide within the CHS and much could be gained from making lessons learnt available to individual facilities.

2. The issue of indirect, but still important, impacts needs to be part of the analysis of a response to needs and problems identified by CHSs. For example, while EPN cannot do anything directly about increasing institutional resources, the implementation of some of the EPN guidelines (listed below) would indirectly increase resource availability:
   - Pricing policies in place and operationalized.
   - Compliance with drug donations guidelines.
   - Implementation of standard operating procedures for procurement.
   - Access to credit (for some patients).

   Indirect impact would also contribute to the improvement of quality of care in relation to, for example:
   - Improved skills—in a number of areas, particularly pharmaceutical-related.
   - Reduced staff turnover and brain drain, through increased staff commitment and motivation, particularly in pharmaceutical-related areas.
   - Improved training, MIS systems, and administrative activities.

3. Work to implement EPN guidelines would directly respond to the recognition of CHSs of the need for improvement. The EPN guidelines listed below appear to be a priority in terms of perceived need by hospitals.
   - Compliance with best practices for drug storage and management.
   - Compliance with rational use of medicines 'guidelines'.
   - Functioning medical supply system.
   - Functioning Drug and Therapeutics Committees (DTC) in hospitals.
   - All 'owners' with maximum understanding of roles, best practice, and management information, understanding of revolving fund concept and implementation of methods of increasing access for the poorest.
   - Implementation of standard operating procedures for procurement.
   - Quality assurance policy in place and implemented.
   - Pricing policies in place and operationalized.
   - Transparency mechanisms in place in support of 'Health for All'.
   - Service provision of ARVs.
   - Effective community involvement system in place.
   - Cross-institutional information sharing, including provision of information to national drugs policy and national health management information systems.
   - Compliance with drug donations guidelines.
   - Mechanism in place to allow for representation at regional and national levels in relevant debates.
   - At least one pharmaceutically trained person per facility.
   - Access to key pharmaceutical information.
   - Regular assessment of pharmaceutical unit work.
   - Church leaders' awareness of key messages.
   - Pharmaceutical function represented at all levels of discussion.
   - Disaster preparedness procedures in place.

4. This part of the guided self-assessment also suggests that some EPN guidelines are not a priority at this time.
   - Improvement in access to medicines for a facility passed on to patients.
   - Government subsidies extended.
   - Pro-poor ethic in evidence.
   - Tax exemptions available to CHSs.
   - Service provision of ARVs.
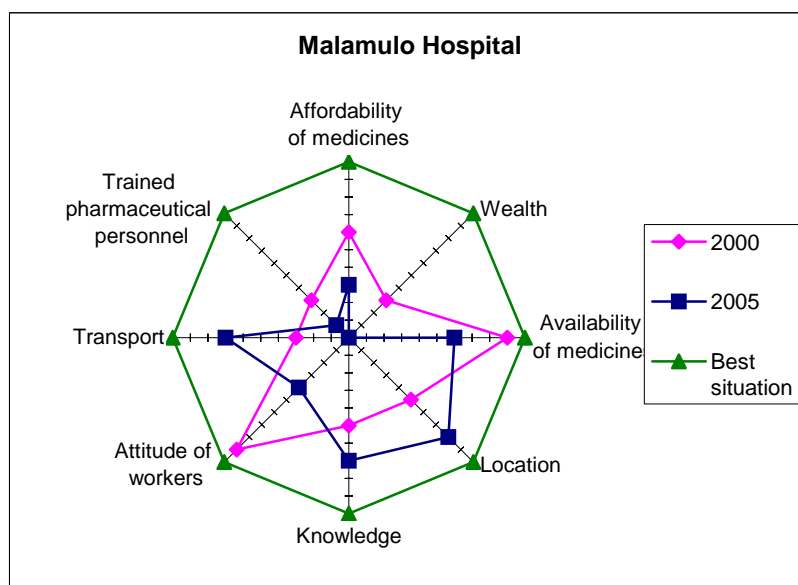   - Empowerment of home-based care teams in rational use of medicines.

6 TOOL 3-A: SPIDER DIAGRAMS

A spider diagram was developed by each hospital for the self-prioritized factors affecting the hospital. Scores were allocated for each factor "as it is now" and "as it was 3–5 years ago". As a result, it is possible to see which are the key factors and their trend over time. This is an important part of the effort to identify the baseline and a trend analysis.

6.1 Example spider diagram: Malamulo Hospital, Makwasa

6.1.1 Brainstorming, categorizing, and ranking factors

	Ranking	2000	2005	Change
1. Affordability of medicines	21 votes	6	3	Reduced
2. Wealth	18 votes	3	0	Reduced
3. Availability of medicines	12 votes	9	6	Reduced
4. Location	6 votes	5	8	Improved
5. Knowledge	3 votes	5	7	Improved
6. Attitude of workers	3 votes	9	4	Reduced
7. Transport	2 votes	3	7	Improved
8. Trained pharmaceutical personnel	1 vote	3	1	Reduced
9. Cultural values	0 votes	----	----	

6.1.2 Reasons for changes in factors

1. Affordability of medicines	- Prioritization. - Misallocation of funds to health services. - Donations have minimized. - Cost of purchase from pharmaceutical companies is very high. - Inadequate drugs in central medical stores. - High procurement cost.
2. Wealth	- Widening gap in poverty. - Political changes, GDP has gone down. - Climatic factors, drought. - Killer diseases – HIV/AIDS => orphans. - Unemployment. - Lack of good governance – corruption.

3.	Availability of medicines	▪ Inflation. ▪ Currency fluctuations. ▪ More diseases.
4.	Location	▪ No real change
5.	Knowledge	▪ More education, curriculum of primary school includes health. ▪ Media has improved.
6.	Attitude of workers	▪ Pressure of work. ▪ Remuneration packages. ▪ Personality. ▪ Lack of job satisfaction. ▪ Irresponsibility. ▪ Environment – work. ▪ Use of untrained workers.
7.	Transport	▪ Good maintenance of roads. ▪ Increase of vehicles, bicycles.
8.	Trained pharmaceutical personnel	▪ Brain drain. ▪ Dying from HIV/AIDS. ▪ Cheap labour.

6.2   Overall priority factors

A composite list of the 'spider legs' reveals a ranked order of importance of the factors.

No.	Factor	Rank
1	Affordability of medicines	1
2	Availability of medicines	2
3	*Transport*	*3*
4	*Attitudes of people*	*3*
5	Patient knowledge	4
6	*Location*	*4*
7	Trained personnel	5
8	*Wealth*	*5*
9	*Donations*	*6*
10	*Finances*	*6*
11	Inventory management	6
12	RDU	6

From the list above, we can see that the factors that are shaded and in italics (numbers 3, 4, 6, 8, 9, and 10) are factors that can only be indirectly affected by the implementation of the EPN guidelines. This does not reduce the impact of the EPN guidelines as, for example, reduced costs of medicines could free up funds for transportation, or the proper management of drug storage could also reduce costs, etc.

6.3   'Also-mentioned' factors

The following were also gathered through the spider diagram methodology and many appear to relate particularly to one facility and were not repeated in other discussions.

Factor	Mentions
Facilities	2
Government regulations	2
Quality of drugs	2
Suppliers	2
Supply of medicines	2
Trained pharmaceutical personnel	2
Hospital management	2
Attitude of workers	1
Communication	1

Factor	Mentions
Environment	1
Literacy	1
Need	1
Pilferage	1

Although important on an institutional level, these factors will not be carried forward in this national analysis.

6.4   Trend analysis

A composite of the trends revealed in the different spider diagrams indicates the following overall trends.

| Factor	Trend	Comment
1. Affordability of medicines	Decreased	This reflects both increased expense, and demand
2. Availability of medicines	Both better and worse	While private suppliers have become more common and access to the government supplier is easier, their service is criticized, drug costs have risen, and donations fallen
3. Transport and location (combined)	Both better and worse	Improved communication has reduced the isolation but the deteriorating road network has increased transport problems
4. Attitudes of people	Improved	It is felt that there were fewer problems with traditional beliefs
5. Patient knowledge	Slight improvement	Mainly through campaigns
6. Trained personnel	Both better and worse	Improved training, recruitment, and advertising has helped but the brain drain and poor salaries have made things worse as have the departures of missionary health staff
7. Wealth	Worse	Poverty is perceived to be increasing.
8. Donations	Worse	These are seen to be falling in terms of finances, but not so much in terms of medicines.
9. Finances	Both better and worse	Falling income but improving management
10. Inventory management	Both better and worse	Two out of three hospitals felt there had been a drop in inventory management. This may be due to the loss of trained staff. One hospital has improved its management.
11. RDU	Some improvement	Two hospitals indicated improvement, partly through better-trained staff, and another indicated no change.

6.5   Initial conclusion on spider diagrams

The results indicate that, although there are a number of increasing problems, there are examples within Malawi of adaptation and meeting these challenges. As such, the role of the Network will be extremely important in passing on details of these positive initiatives. While there are some issues (such as the deterioration of road networks) that cannot be addressed by the EPN guidelines, there are clear indicators for the type of work that can be undertaken.
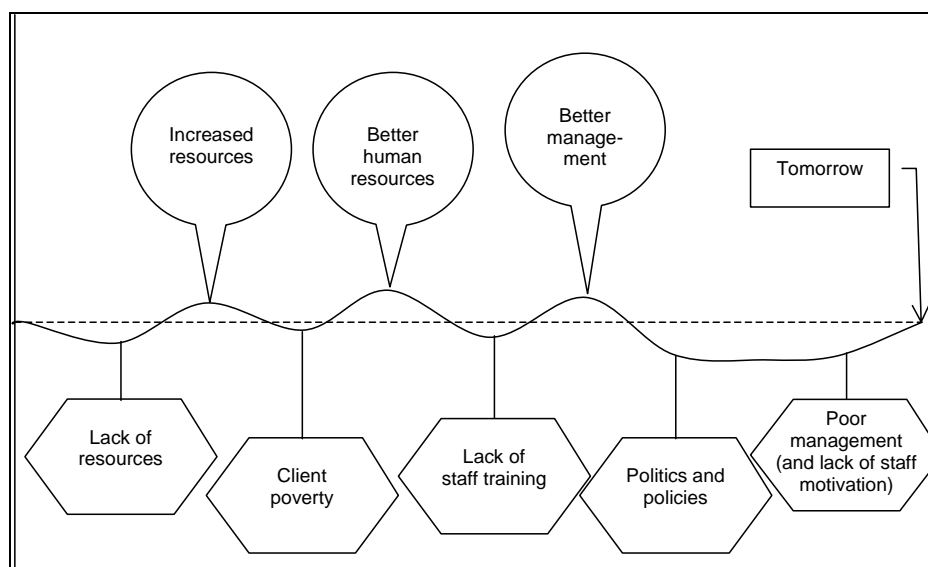
7 TOOL 3-B: FORCE FIELD ANALYSIS

Given the current situation, what issues have the greatest constraining effect and what issues have the potential to have the greatest positive impact?

7.1 Example force field diagram: Holy Family Hospital
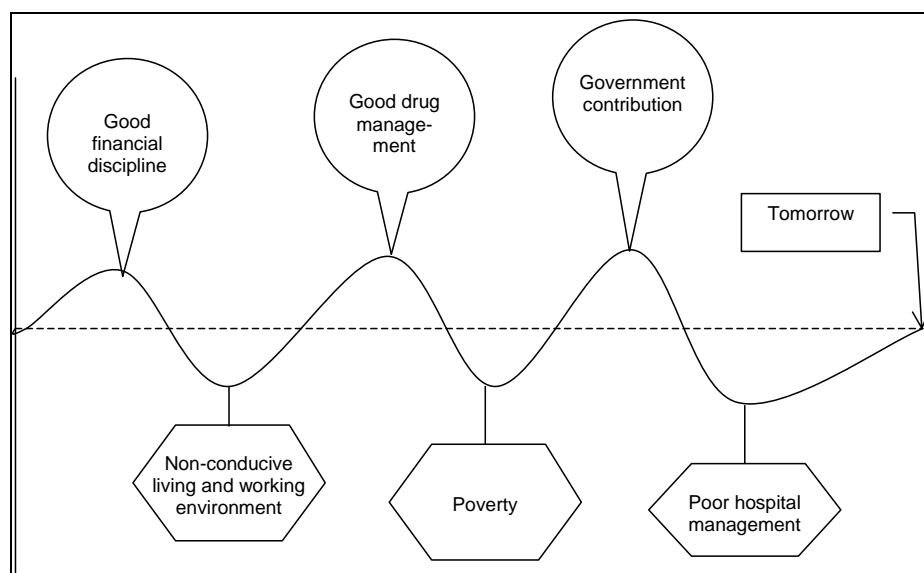
7.2 Combined force field diagram

7.3 Overall greatest constraints (stones)

An analysis of the prioritized constraints from the 10 workshops shows poor management, followed by lack of training, client poverty and lastly, lack of resources. When the other prioritizations are taken into account, the resulting ranked list is as follows.

1. **Poor management (including lack of staff motivation)**
2. **(Joint) Lack of resources**
2. **(Joint) Lack of staff training**

3. **Client poverty**
4. **Politics and policies.**

7.4 Greatest positive impact (balloons)

Analysis of the identification of the top three influences with the most likelihood of having a positive impact also resulted in a prioritized list. A review of other priorities mentioned, but not ranked in the top three, resulted in the same list but in a different order. Drawing these two lists together gave an overall ranking as follows.

1. **Increased resources**
2. **Better human resources**
3. **Better management.**

1. **Increased resources** included, of course, better equipment and increased financial resources available to the facility, but it also included increased income generation for the facility and reduced prices of medicines to the facility, with these factors resulting in an improved service. While the perceived lack of resources and reducing available resources were prioritized, income generation for the facility was seen as a close second.

2. **Better human resources** focused clearly on the need for more training and better overall standards of education of staff. However, the issues of staff commitment and retention were clearly significant, with increased pay being mentioned much less.

3. **Better management** focused on the need to motivate staff. However, specific responsibilities of management such as encouraging team work, leadership, and supervision were identified, with specific knowledge of financial management, medicines management, Drug and Therapeutics Committees (DTC) and standard operating procedures also being identified as highly regarded.

7.5 Overall force field analysis

Increased resources would produce the biggest lift, and improved management would reduce the biggest constraint. The force field analysis shows a direct relationship between these areas. However, while human resources provide the second biggest lift, only the staff training aspect was identified as a crucial constraint, which would indicate that increased training would be the priority area of the human resource challenge.

Two further aspects were identified as constraints and had no matching lifting aspects—client poverty and government politics and policies. While both of these issues are important and certainly, for example, EPN guidelines would indicate that the relationship with government could be improved, the issue of client poverty itself is beyond the bounds of the EPN guidelines.

7.6 Initial conclusions on force field analysis

A clear entry point is where the need for intervention meets the capacity to intervene

1. While EPN can do nothing directly about increasing institutional resources, the implementation of some of the EPN guidelines would indirectly increase resource availability.

   - Pricing policies in place and operationalized.
   - Compliance with drug donations guidelines.
   - Implementation of standard operating procedures for procurement.

2. The inclusion of further EPN guidelines in the work would directly respond to the hospital-based recognition for improved management.

   - Compliance with best practices for drug storage and management.
   - Functioning Drug and Therapeutics Committees (DTC) in hospitals.

- All 'owners' with maximum understanding of roles, best practice, and management information, understanding of revolving fund concept and implementation of methods of increasing access for the poorest.
- Quality assurance policy in place and implemented.
- Transparency mechanisms in place in support of 'Health for All'.
- Pharmaceutical function represented at all levels of discussion.
- Disaster preparedness procedures in place.

3. The particular importance of training of human resources would be reflected in the need to train staff as part of the above EPN guidelines and to support the implementation of further EPN guidelines, for example:

- Compliance with rational use of medicines 'guidelines'.
- At least one pharmaceutically trained person per facility.
- Access to key pharmaceutical information.
- Regular assessment of pharmaceutical unit work.

4. The identification of government policies and politics could be addressed in part by the implementation of EPN guidelines, for example:

- Effective community involvement system in place.
- Cross-institutional information sharing, including provision of information to national drugs policy and national health management information systems.
- Mechanism in place to allow for representation at regional and national levels in relevant debates.
- Church leaders' awareness of key messages.

These four issues (above) are very closely related and the fact that they were identified as the leading issues that would bring greatest positive change indicates a willingness to gain the benefits from the implementation of some of the EPN guidelines.
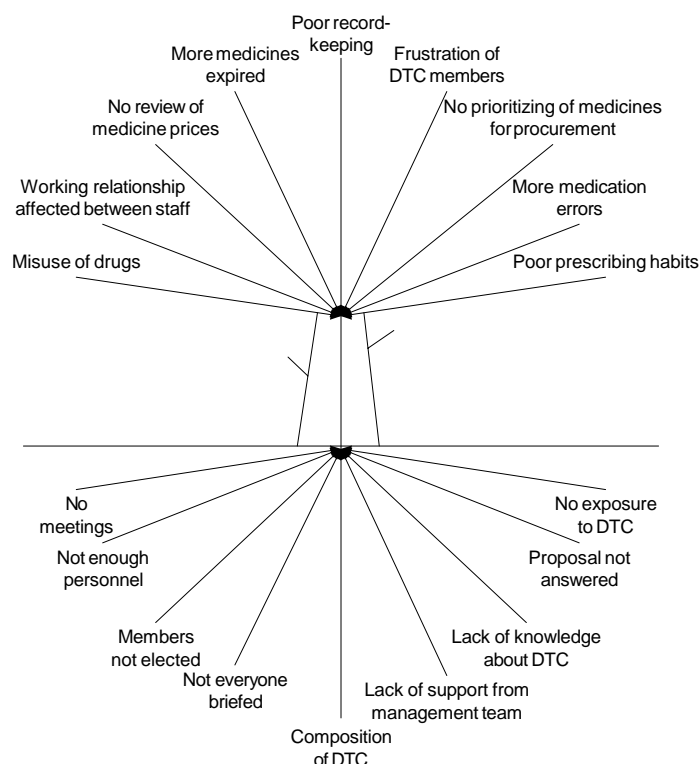
This part of the guided self-assessment also suggests that some EPN guidelines are not a priority at this time.

- Functioning medical supply system.
- Improvement in access to medicines for a facility passed on to patients.
- Government subsidies extended.
- Pro-poor ethic in evidence.
- Tax exemptions available to CHSs.
- Service provision of ARVs.
- Empowerment of home-based care teams in rational use of medicines.

8 TOOL 3-C: PROBLEM TREE ANALYSIS

Participants in the one-day workshop were asked to choose the most important problems and construct a cause and effect problem tree. This produced a total of 19 different problem trees. A process of analysis was then carried out, first, merging similar trees together and second, an entry point analysis.

8.1 Example problem tree: Mulanje Mission Hospital: DTC not functioning

Poor record-keeping

More medicines expired

Frustration of DTC members

No review of medicine prices

No prioritizing of medicines for procurement

Working relationship affected between staff

More medication errors

Misuse of drugs

Poor prescribing habits

No meetings

No exposure to DTC

Not enough personnel

Proposal not answered

Members not elected

Lack of knowledge about DTC

Not everyone briefed

Lack of support from management team

Composition of DTC

The use of **bold** and *italics* below relates to the entry point analysis detailed later in this section.

8.2 Individual poverty

This issue was covered by four trees, which were merged together as follows.

Causes	Effects
▪ *Lack of credit* ▪ Unemployment ▪ Lack of agricultural inputs ▪ Illiteracy ▪ Ignorance ▪ Poor salaries ▪ Decreasing education ▪ Poor geographical location ▪ Lack of creativity ▪ Increased imports rather than exports ▪ HIV/AIDS pandemic ▪ Government does not have enough money to support the nation	▪ **Poor drug compliance** ▪ **Theft of drugs** ▪ **Decreasing drug availability** ▪ **Decreasing affordability of drugs** ▪ *Bills not settled* ▪ *Closure of hospital* ▪ High disease prevalence rate ▪ Reduced support ▪ Reduced hospital attendance ▪ Inflation ▪ Increasing mortality and morbidity ▪ Hunger ▪ Increased number of orphans ▪ Reduced production from available resources ▪ Inadequate education

8.2.1 Problem: Lack of education

Problems around access to education were related to individual poverty.

Causes	Effects
- No money - Lack of interest - Lack of schools - Cultural beliefs	- Illiterate - Lack of human resource (health personnel) - Lack of knowledge - Resistance to change behaviour

8.3 Institutional poverty

The issue of institutional poverty was covered by seven trees, which were merged as follows.

Causes	Effects
Misuse and misallocation of resources **Poor working environment** **Poor management and planning** **Inadequate skill output** **Poor commitment of government** **Lack of correct information** **Poor revenue collection** *Lack of incentives* *Non-availability financial resources* *Lack of institutional income-generating activities* *Lack of commitment by staff* - Donor fatigue and dependency - Dumping - Corruption and theft by health workers - Lack of reinforcement of working conditions - Poor maintenance of infrastructure - Inadequate staff houses	**Poor quality of care** **Expired drugs being used** **Unavailable but existing resources** **Poor sanitation** **Lack of professional discipline** **Inadequate supervision** *High staff turnover* *Inefficiency* - Lack of entertainment and housing - Reducing number of clients - Strike - Scaling down of services - Brain drain - Demotivation - Lack of education - Low salaries - Increase in vandalism and robbery - Increase in mortality and morbidity - Partially-trained or unqualified staff - Shortage of drugs and equipment

Related to institutional poverty, but identified as important, are donor fatigue and inadequate training.

8.3.1 Donor fatigue

Causes	Effects
Lack of transparency *Poor management of donor funds* - Absence of donor's representative - Donor attitudes changing - Lack of community contribution - Poor communication - Reliance on donors	**Reduced income** **Staff retrenchment** **Frustration of community** *Frustration of staff* - Increasing mortality and morbidity - Poor patient care - Uncompleted project - Reduced services

8.3.2 Inadequate training

Causes	Effects
Poor resource allocation - Donor fatigue - Poor economic environment - Poor geographical position	**Poor quality services** **High operating costs** *High risk of diseases* *Frustration* *Poor attitude to patients* *Theft* - Use of cheap labour - Poor patient attendance

8.4 High staff turnover

Two trees covered this area.

Causes	Effects
- **Misallocation of funds** - **Poor leadership** - **Lack of funding strategies (fundraising)** - *Lack of revenue base for pay* - Lack of conducive environment (economic environment) - Corruption - Inadequate housing - Lack of career path - Poor environment - Geographical position - Poor hospitality - Poor salaries	- **Poor quality care** - **Shortage of staff** - *Brain drain* - *Poor quality care* - Increased theft - Poor motivation - Negative attitude towards patients/workers - Low staff productivity - Job dissatisfaction - Closure of some services - Loss of staff

8.4.1 Problem 3: HIV/AIDS drains resources

Causes	Effects
- **Treatment of opportunistic infections** - **Time consuming for care givers** - Killing of productive age group - Increased deaths	- **Polypharmacy** - **Inadequate qualified staff** - Poverty - Orphans - More spending on welfare (e.g., coffins, transport) - Spend more on preventive measures (i.e., counsellors)

8.5 Management

8.5.1 Leadership problems

The combining of two trees gave the following causes and effects.

Causes	Effects
- *Poor training* - *Lack of commitment* - Inadequate salary packages - Poor communication - Lack of vision - Bureaucracy - Non-consultative decision-making - Poor interpersonal relations - Lack of support - Lack of experience	- **No staff development** - **High cost** - *High staff turnover* - *Poor service delivery* - *Financial problems* - Frustration - Demotivation/poor morale - Poor productivity - Confusion - Decrease in reputation/dignity - Closure

8.5.2 DTC not functioning

Causes	Effects
- **No meetings** - **Not enough personnel** - **Members not elected** - **Not everyone briefed** - **Composition of DTC** - **Lack of support from management team** - **Lack of knowledge about DTC** - **Proposal not answered** - **No exposure to DTC**	- **Misuse of drugs** - **Working relationship affected between staff** - **No review of medicine prices** - **More medicines expired** - **Poor record-keeping** - **Frustration of DTC members** - **No prioritizing of medicines for procurement** - **More medication errors** - **Poor prescribing habits**

8.5.3 Negligence

Causes	Effects
▪ *Unrealistic goals* ▪ *Lack of skills* ▪ *Lack of supervision* ▪ Lack of correct information ▪ Lack of motivation ▪ Lack of commitment ▪ Lack of job satisfaction ▪ Lack of recognition	▪ **Increased cost of medicines** ▪ **Poor decision making** ▪ *Poor quality of services* ▪ Reduced patient attendance ▪ Diminished trust ▪ Negative influence on co-workers ▪ Reduced staff morale

8.5.4 Poor MIS

Causes	Effects
▪ **Lack of qualified personnel** ▪ **Lack of training** ▪ *Outmoded MIS systems* ▪ Laziness ▪ No team work ▪ Complicated procedures ▪ Low morale	▪ **Stock-outs** ▪ Low patient take-up ▪ Low cure rates ▪ High mortality ▪ High staff turnover

8.6 Entry points

These are points where need and capacity come together in an environment that supports a particular change. EPN understands that just because there is a need does not necessarily mean there will be an easily identifiable entry point. Just because there is a willingness to intervene does not necessarily mean that the intervention addresses a need or supports an objective.

Entry points among the causes and effects listed above have been highlighted in the problem tree section (above) in two ways—indicating **direct** influence and *indirect* influence.

The implementation of the EPN guidelines would have an indirect effect on the following areas that were identified in the problem tree analysis.
- ▪ *Access to credit (for some patients)*
- ▪ *Improved skills (in a number of areas)*
- ▪ *Reduced staff turnover and brain drain*
- ▪ *Increased staff commitment and motivation*
- ▪ *Improved training in certain aspects*
- ▪ *Improvement of MIS systems*
- ▪ *Improved financial stability, income, and resource availability, and efficiency*
- ▪ *Reduced likelihood of closure*
- ▪ *Reduced theft (of pharmaceuticals)*
- ▪ *Improved quality of care*
- ▪ *Simplification of a wide range of administrative procedures.*

The implementation of particular EPN guidelines would have a direct influence on a number of areas. The EPN guidelines are listed below, along with the possible direct results that could be addressed in relation to the problem tree analysis.

Twenty of the 25 EPN guidelines appear to be prioritized at this stage.

1.	Compliance with best practices for drug storage and management.
	     Improved financial management.
	     Reduction of expired medicine usage.
	     Improved revenue base (pricing and medicine costs).
	     Reduced theft of medicines.
	     Reduced stock-outs.

2.	Compliance with rational use of medicines 'guidelines'. **Increased patient treatment compliance.**

3.	Functioning medical supply system. **Improved resource allocation and availability.** **Reduced stock-outs.**	
4.	Functioning Drug and Therapeutics Committees (DTC) in hospitals. **Use and success of DTC meetings.**	
5.	All 'owners' with maximum understanding of roles, best practice, and management information, understanding of revolving fund concept and implementation of methods of increasing access for the poorest. **Improved leadership, management, and strategic planning.**	
6.	Implementation of standard operating procedures for procurement. **Reduced cost of medicines.** **Reduction of operating costs.** **Increased medicine availability.** **Improved resource allocation and availability.** **Reduced stock-outs.**	
8.	Quality assurance policy in place and implemented. **Improved services.**	
9.	Pricing policies in place and operationalized. **Improved funding strategies (pricing).**	
13.	Transparency mechanisms in place in support of 'Health for All'. **Improved transparency and confidence in the institution.**	
14.	Service provision of ARVs. **Treatment of opportunistic infections.**	
15.	Effective community involvement system in place. **Increased community involvement.**	
16.	Cross-institutional information sharing, including provision of information to national drugs policy and national health management information systems. **Improved government understanding and commitment.**	
17.	Compliance with drug donations guidelines. **Improved resource allocation.**	
18.	Mechanism in place to allow for representation at regional and national levels in relevant debates. **Improved government understanding and commitment.** **Improved leadership, management, and strategic planning.**	
19.	At least one pharmaceutically trained person per facility. **Availability of qualified personnel and quality services (in pharmaceutical related areas).**	
20.	Access to key pharmaceutical information. **Availability of qualified personnel and quality services (in pharmaceutical related areas).**	
21.	Regular assessment of pharmaceutical unit work. **Improved leadership, management, and strategic planning.**	
22.	Church leaders' awareness of key messages. **Improved leadership, management, and strategic planning.**	
23.	Pharmaceutical function represented at all levels of discussion. **Improved leadership, management, and strategic planning.**	

9 TOOL 3-D: FOCUS GROUPS

Ten focus groups were carried out with religious leaders from local communities as participants.

9.1 A system of effective community involvement

A small number of hospitals appeared to have a system for community involvement (for example, hospital board representation or a community health committee). However, when effectiveness was considered in terms of the communities' perceived involvement, the result for all the hospitals is actually 'no'.

All groups of participants stated a desire for community involvement, with 50% clearly stating that they felt this would improve hospital services and 50% indicating that they felt it would improve relations and services. Some even felt it would increase the likelihood of bill payment. Many groups commented that they did not know whether the hospital had a problem or not, and therefore could not help.

There was clear recognition and praise for those hospitals that carried out activities beyond the hospital walls, for example, public health activities, emergency outbreak responses, public health education, food donations in famines, and occasional free medicines or treatments. Of particular mention was one hospital that helped local groups write applications for health-related funding. Despite the majority of hospitals being involved in some way in acting in the community, this cannot be counted as the same as community involvement.

Community involvement at best was evidenced through blood donations and community cleaning of the hospital grounds on special occasions, neither of which should be counted as community involvement in the running of the hospital. One group noted that there was not even a suggestion box at the hospital. There was no evidence of awareness of a complaints procedure in any hospital. In one case, it was recognized that the hospital did communicate with local chiefs, but that this did not result in community involvement.

All groups showed some indication of not understanding how charges were set, nor why. For example:

- In the case of an ambulance given by the government: "so why do we still have to pay?" The groups all indicated that a greater understanding of the situation would reduce resentment and increase commitment to the hospital.

- A number of hospitals "seem to have a random approach" to how they deal with non-payment of bills: "some people they chase, others they don't".

- The charging of a gate fee (at the hospital entrance) for people seeking medical assistance.

- All the hospitals had failed to make their system of charges and how they were calculated transparent. The majority of groups commented on the fact that medicines are cheaper at the village or town pharmacy: "the medicines are from the government, so why should we pay?"

- It was assumed by most people that charges were made to cover salaries—there was no knowledge of the government's support of medical staff salaries and confusion about what is covered and not covered by the government. This confusion leads to a lack of trust and comments such as "the hospital is a place of business, but it does not care about the people".

- Despite these issues, the majority of hospitals received full praise for their services, although it was clear that in most cases the church hospital was the place of last resort, because of the high cost of treatment and the long distance to the free government hospital. The poorer a person is, the more likely they are to go to the government hospital—where the treatment is perceived as not being as good.

- The problem of non-payment of bills and the policy of holding corpses and mothers (for maternity costs) until bill payment raised a lot of debate (and resentment).

- Ownership of the hospitals was not clear, with one group saying that the doctor owned the hospital and all groups showing confusion on the role of the government, and no mention of church involvement.

9.2   Church leaders' awareness of the issues

Given the low level of community involvement described above and the confusion around ownership, bill payment, and pricing, it might be assumed that church leaders' awareness of

hospital issues would be low. However, it is just as possible that those church leaders involved in the running of the hospital did not attend the focus group.

On more general issues, such as the availability and cost of drugs, the participants were aware of issues through the experiences of their parishioners. All were confident that most drugs were available most of the time at the church hospital, and compared this situation to that of government hospitals where there appear to be frequent stock-outs.

Concerns were also expressed about access to medical assistance on public holidays; the fact that food was not available for patients at one hospital; and that a number of hospitals did have stock-outs.

No group complained about the length of time it took to obtain medicines—with one participant mentioning that at certain times of day there was a queue.

All groups indicated that they knew where else to go first for help, before coming to the church hospital, for example, traditional healers, and had a knowledge of comparative prices at other medicine outlets. In one case, concerns were expressed over a perceived 'back door' availability of treatment (giving priority to favoured patients), and others recommended that a more flexible and transparent system of fee setting and collection should be made public.

10 APPENDIX 1: RAW SELF-ASSESSMENT SURVEY RESULTS

Please see separate spreadsheet.

11 APPENDIX 2: RAW GUIDED SELF-ASSESSMENT RESULTS

Please see separate report of results for each hospital.