ECUMENICAL PHARMACEUTICAL NETWORK

Programme: Maximizing access to essential medicines for church

health services and their clients

Project: Ghana baseline

Report: Results of Ghana baseline survey

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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 phase of the project identifies the baseline in each 'EPN guideline' area and feeds this information back to an incountry group that can then decide which 'EPN guidelines' should be prioritized and what further work should be undertaken. The baseline is drawn from the use of four tools: church health service self-assessment survey; guided desk review; guided self-assessment workshop and focus group; and drug supply organization self-assessment survey.

This report of results provides the baseline for compliance with the 'EPN guidelines' in Ghana, and respondents represent over 2,545 beds and 694,500 outpatients. It is a statistically sound report for Catholic health services in the southern and central regions of Ghana (only 8% of respondents are from northern facilities).

The northern region of Ghana is known to have greater problems in health care provision – however, the only assumption we can make for this region is that positive results found in the other regions will be lower in the north, and therefore, if there is a problem in the other regions, this problem will be greater in the north.

Faith-based health services in Ghana provide approximately 40% of the available health care. The Christian Health Association of Ghana (CHAG) reports that the church health care facilities in Ghana number 56 hospitals and 83 clinics at the time of research (CHAG does not distinguish between clinics and health posts).

Table 1 Faith-based health care in Ghana, by faith

	Percentage of health
Faith	care in Ghana
Catholic	27%
Other Christian churches	11%
Muslim	1-2%

Thirty-four hospitals (including all 32 Catholic hospitals) and 30 of the 66 Catholic clinics were given the opportunity to respond to the self-assessment survey, with a total of 64 facilities contacted. A 41% response rate (26 facilities responded) was achieved for the survey.

If it is assumed that Catholic health services are representative of faith-based health services in Ghana, then these results can be scaled up to present a picture of church health services across Ghana.

Overall conclusions

Taking into account the results from all the tools used, the overall trend for church health services in Ghana appears to be one of improvement. Good results were seen in a number of areas:

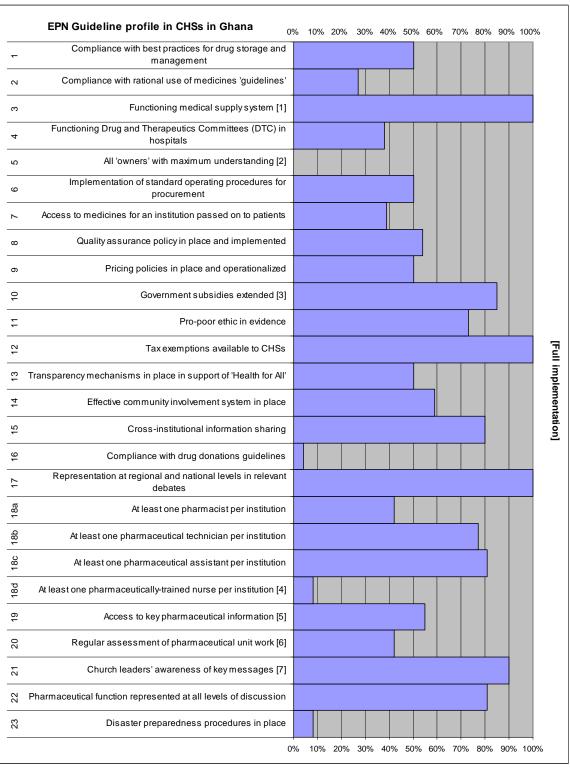
- Government support of the church health services (although it seems that some facilities are not taking up the opportunity of having salaries paid).
- Information sharing and representation opportunities indicate that there is a good degree of integration between the government and church health services.
- Good community involvement (although this could be improved at some hospitals where there is an interesting link between lack of community involvement and a perception of poor staff-patient relations and nepotism). Where community links are strong, links to church leaders are also strong.
- A functioning drug supply system is in existence.

 Relatively high levels (compared with other African countries) of pharmacists, pharmaceutical technicians, and pharmaceutical assistants per hospital.

On the more worrying side, the baseline does not cover the North of the country (an area understood to face bigger problems in health and health services) and there appeared to be problems for a number of 'guidelines' even in the southern and central areas.

- Only 50% of hospitals have a functioning DTC.
- A large number of hospitals accept medicines donations, but there is almost no adherence to drug donation guidelines.
- There is relatively low level of implementation of standard operating procedures, and while the main drug supply organizations do use SOPs, this is not reflected in the health services.
- There appears to be almost no training of hospital board members in the issues and possibilities of their decision-making.
- Health facilities themselves identified poor management and staff training as key problem areas that affect services. Lack of financial resources acted as a cause and an effect of these problems and thus a vicious circle is identified, whereby a lack of funds prevents a facility from improving itself in order to improve revenues and funding.

Figure 1: 'EPN Guideline' compliance in Ghana¹



- [1] Yes, but there is room for improvement in several areas.
- [2] Although focus groups indicated some knowledge, only one hospital trained its board.
- [3] 85% of respondents get a salary subsidy from the government, which is available to all CHSs.
- [4] Availability of information varies, with few facilities having a full selection of documents.
- [5] 58% said 'yes', but only 42% gave a frequency more regular than once a year.
- 6] High awareness of issues and suggested solutions was shown in focus group discussions.
- [7] Given the high numbers of other qualified staff, the low number of trained nurses is not significant here.

¹ 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 does not exist on a national scale.

1 BRIEF INTRODUCTION TO GHANA

A look at data from http://www.unicef.org/infobycountry/ghana statistics.html (sourced from UNICEF, World Bank, IMF, UN Population Division) gives the following picture.

Regional disparities between the north and south of the country are dramatic, partly due to poverty and to lack of, and poor access to, services. For example, although child health has been steadily improving, the infant mortality rate in northern Ghana is twice as high and the under-five mortality rate is three times as high as in the capital region. Malaria, acute respiratory infections, diarrhoea, malnutrition and measles remain the five leading killer diseases of children, and malaria accounts for 40% of all outpatient visits.

Total population (2004)	21,664,000
Adult HIV prevalence rate (15–49 years), end 2003, estimate	3.1%
Estimated number of people living with HIV, 2003 (in thousands), adults and children (0–49 years)	350,000
Estimated number of people living with HIV, 2003 (in thousands), children (0–14 years)	24,000
Estimated number of people living with HIV, 2003 (in thousands), women (15–49 years)	180,000
Life expectancy at birth (years), 2004	57
Under-5 mortality rate (per thousand), 2004	112
GNI per capita (US\$), 2003	380
GDP per capita average annual growth rate (1970–1990)	-2.2%
GDP per capita average annual growth rate (1990–2004)	1.9%
Average annual rate of inflation (1990–2004)	26%
% of population living below \$1 a day (1992–2003)	45%
% of central government expenditure allocated to health (1993–2004)	7%
Immunization 2004: 1-year-old children immunized against: Tuberculosis (TB) (BCG)	92%
Tuberculosis incidence (Ghana Health Service, 2005)	30,000
Malaria: 1999-2004: % under-fives with fever receiving anti-malarial drugs	63%

[Data from http://www.unicef.org/infobycountry/malawi_statistics.html (sourced from UNICEF, World Bank, IMF, UN Population Division).]

A broad range of essential medicines are manufactured within Ghana (including the tracer products listed in Table 2), but most medical supplies are imported.

Table 2 Tracer essential medicines manufactured in Ghana

Amoxicillin tablets or capsules	Oral rehydration salts (ORS)
Aspirin tablets	Paracetamol tablets
Chlorpheniramine tablets	Povidone iodine
Co-trimoxazole tablets	Quinine injection
Ferrous salts	Sulfadoxine-pyrimethamine tablets
Folic acid tablets	Whitfield ointment (benzoic acid compound)
Mebendazole tablets	

Ministry of Health, Government of Ghana

The stated objectives of the Ministry of Health are to address the inequalities between and within regions and districts emergency care, diseases eradication, elimination, financing

policy and health insurance, chemotherapy and HIV/AIDS and quality care. Seven priority areas have been identified:

- HIV/AIDS and sexually transmitted diseases,
- Malaria.
- Guinea worm.
- Tuberculosis,
- Reproductive and child health,
- Expanded Programme of Immunisation, and
- Emergency care.

The government offers subsidies to church health services for the payment of salaries of professional medical staff and offers tax exemption on medicines for CHSs. It also reimburses costs for delivery of babies (making treatment free to mothers), and some facilities appeared to respond that health costs for children under five and adults over 70 were also reimbursed by the government.

The government also contributes approximately USD 200,000 per year towards CHS infrastructure development. All pharmaceutical personnel are trained through publicly-funded institutions.

CHAG estimates that 80% of church health services contribute service output data and some financial data to the government-run health management information system.

Church health services (CHSs)

Faith-based health services in Ghana provide approximately 40% of the available health care. CHAG reports that the church health care facilities in Ghana number 56 hospitals and 83 clinics at the time of research (CHAG does not distinguish between clinics and health posts).

Table 3 Faith-based health care in Ghana, by faith

Percentage of he	
Faith	care in Ghana
Catholic	27%
Other Christian churches	11%
Muslim	1-2%

The Catholic faith runs 32 hospitals (57% of CHS facilities) and 66 clinics (80% of CHS facilities).

CHSs, through CHAG, have contributed to debate around the national health insurance scheme, to ensure that it does not disenfranchise the poor nor collapse district-level mutual schemes. They have also lobbied for a better understanding between government and church health services, resulting in the signing of an Memorandum of Understanding in 2003.

CHS staff have also been involved in regional and national debates around issues such as a new malaria policy and stakeholders in health.

Drug supply organizations (DSOs)

Ghana has a strong DSO sector, including government, faith-based, and commercial organizations. On the faith-based side, the Catholic Drug Centre also works closely with three Diocesan Hospital Pharmacies to supply and distribute medicines.

Medicines management

The government and Christian DSOs experience stock outs of 10–20% of essential medicines, which is significantly more than the commercial DSOs.

Expired stock is generally cleared out regularly, although the government-run Central Medical Stores states this is done once per year. All responding DSOs use bin and stock cards.

Responding DSOs all have written SOPs for procurement and receiving delivery of medicines, and a quality assurance policy in place. This is in strong contrast with most of their customers in the church health services.

Some DSOs have their own quality control laboratory (including the Catholic Drug Centre), and others use the Ghana Food and Drugs Board facility.

Pricing

All DSOs claim that pricing policies are in place, but most were unable to state that they have a documented pricing policy (formula and accounting process, and accounting for windfalls), although price lists are in evidence.

Transparency mechanisms in support of "Health for All" appear to be in place.

Donations

The Catholic Drug Centre does not accept donations, although the Central Medical Stores does (mostly from expatriate individuals). This contrasts with many individual CHSs accepting and receiving donations from a range of sources.

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.

Thirty-four of the 56 CHS hospitals and 30 of the 83 clinics were given the opportunity to respond to the survey, with a total of 64 facilities contacted. A 41% response rate (26 facilities) was achieved for the survey.

Of the facilities given the opportunity to respond to the survey, 94% of the hospitals and 100% of the clinics are run by Catholic denominations. Thus, this report is based on the situation within Catholic church health services (57% of hospitals and 80% of clinics are run by Catholic denominations).

If it is assumed that Catholic health services are representative of faith-based health services in Ghana, then these results may be scaled up to present a picture of church health services across Ghana.

There is a recognized disparity in the provision of health care between the northern and southern regions of Ghana, and less than 8% of the facilities that responded to the survey are from the northern regions. Thus, this report is not representative of the situation within CHSs in the northern regions of Ghana.

The percentage figures used in this report are "the percentage of facilities that responded explicitly 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

Out of the 34 hospitals contacted (of which 32 were Catholic), 21 responded. Of the 66 Catholic clinics in Ghana, 30 were contacted and five responded.

Name of facility	Number of beds	Number of outpatients
St Dominic's Hospital, Akwatia	375	69,938
Holy Family Hospital, Nkawkaw	227	70,503
Battor Catholic Hospital, Battor	222	48,000
St Martin de Porres Hospital, Eikwe	175	85,000

		Number of
Name of facility	Number of beds	outpatients
St Patrick's Hospital, Offinso Ashanti	164	28,638
St Anthony's Hospital, Dzodze	160	36,500
St John of God Hospital, Sefwi Asafo	150	28,093
St Francis Xavier Hospital, Assin Fosu	140	62,413
St John of God Hospital, Duayaw	135	41,380
Mathias Hospital, Yeji	120	22,077
Anfoega Catholic Hospital, Anfoega	105	9,916
West Gonja Hospital, Damongo	100	12,000
St Theresa Hospital, Nkoranza	93	31,763
Methodist Hospital, Wenchi	92	31,933
Catholic Hospital, Ftarmh, Asankragwa	88	-
St Mary's Hospital, Drobo	86	35,000
St Joseph's Hospital, Nkwanta	73	8,750
St Joseph's Hospital, Jirapa	-	27,372
St Martin's Hospital, Agroyesum	-	-
Mary Theresa Hospital, Dodi-Papase	-	-
St Elizabeth Hospital, Hwidiem	-	-
Presbyterian Primary Health Care, Dormaa	-	-
St Joseph's Clinic & Maternity Home, Kwahu-Tafo	21	45,224
Salvation Army Clinic, Cantoment	15	•
St Andrew's Clinic (Maternity/Dental), Kodiabe	4	-
Notre Dame Clinic, Nsawam	-	-
Total	2,545	694,500

3 RESULTS FOR 'EPN GUIDELINES'

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 CHAG (the Christian Health Association of Ghana), that answer is included.

(See Appendix 4 for a detailed description of data sources and methods of analysis used for each guideline).

3.1 Compliance with best practices for drug storage and management

Overall score: 50%

Of the 26 respondents, 85% answered 'yes' to this question. However, when asked further questions to verify this response, it became apparent that some of these facilities were not actually compliant with this 'EPN guideline', based on chosen indicators.

- 58% (15 out of 26) of respondents have a checklist for good storage conditions for medicines existed *and* implement it.
- 50% (13 out of 26) of respondents have written SOPs for procurement *and* implement them (a further 19% implement them partially).
- 62% (16 out of 26) of respondents have written SOPs for issuing of medicines to pharmacies or wards *and* implement them (a further 12% implement them partially).
- Facilities were asked how often stock-taking reports on drugs are compiled. 77% indicated that reports were compiled at least once every three months.

Once a week	23%
Once a month	46%
Once every 3 months	8%
Once a year	12%
No answer	12%

 Of the sample list of essential medicines provided in the survey, few respondents experienced widespread stock-outs.

Do you ever run out of any of the following essential medicines?	Yes
Povidone iodine	27%
Tetracycline eye ointment	19%
Quinine injection	15%

Equipment stock-outs were similarly infrequent.

Do you ever run out of any of the	
following essential supplies?	Yes
Tape plastic adhesive microperforated	15%
Surgical sutures	15%
Urine collection bag for adults 2000cc	15%

 50% 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, 92% of items on the Essential Drugs List were available to them.

3.2 Compliance with rational use of medicines 'guidelines'

Overall score: 27%

- 85% responded that they comply with rational use of medicines practices, and 58% had carried out a study of the percentage of medicines prescribed in their facility that are on the Essential Drugs List.
- 62% had carried out a study of the average number of medicines prescribed per consultation, with an average of 3.6 items per prescription.
- Only 27% indicated they have a rule governing the maximum number of items per prescription.

3.3 Functioning medical supply system

- Overall score: 100%
- When asked to name their suppliers, 77% of respondents named the Catholic Drug Centre or a Diocesan Hospital Pharmacy as one of their top two suppliers.
- A further 20 suppliers (not listed below) were mentioned only once. It was noted by several respondents that competition between suppliers in Ghana has helped to reduce medicines prices. The Catholic Drug Centre is also working to provide affordable medicines, including through the Diocesan Hospital Pharmacies.

	Supplier	Users
1.	DHP (Sunyani/Kumasi/Wa)	13
2.	Ernest Chemist Ltd.	13
3.	Catholic Drug Centre	13
4.	Regional Medical Stores	10
5.	Letap Pharmaceuticals	7
6.	KinaPharma	7
7.	Kama Health Services Ltd.	7
8.	Gokals	5
9.	Tobinco Pharmacy	5
10.	Baron Health Care	3
11.	Open market	3
12.	M & G Ltd.	3
13.	Daamass Co. Ltd.	3 2 2
14.	Intravenous Infusion Ltd	
15.	Salom Pharmacy	2
16.	UK Chemist	2
17.	Vicdoris Pharmacy	2
18.	Palb Pharmaceuticals	2
19.	Unichem	2

- Only 15% of respondents join together to order medicines in bulk in order to reduce costs, and 54% undertake their own price negotiations with producers or importers.
- Respondents gave their most important medicine supplier an average score of 7.5 out of 10 for availability, 7.7 for cost, and 5.8 for transport mechanisms.
- Respondents gave their second most important suppliers an average score of 7.9 out of 10 for availability, 7.3 for cost, and 6.2 for transport mechanisms.
- 58% of respondents believe that the full range of essential medicines they require is available to them from their suppliers. This contrasts with responses to 'Have you ever carried out a study of the percentage of the Essential Drugs List that your facility has access to?', where the 50% of respondents that had carried out a study had access to an average of 92% of the EDL.

3.4 Functioning Drug and Therapeutics Committees (DTC) in hospitals

- Overall score: 38%
- Of the responding facilities, 21 were hospitals. The results for this 'guideline' refer to this group specifically.
- 52% of respondents say they have a DTC. Most of these DTCs meet monthly or quarterly, keep minutes, and have adapted the EDL to local needs. However, only eight (38%) also have a terms of reference for the committee.
- 43% of respondents indicated that the DTC had adapted the essential drugs list to fit local needs.
- 100% of respondents have a copy of written standard treatment guidelines, which are either fully (62%) or partially (38%) implemented.
- 43% of respondents have a printed copy of their own locally adapted formulary.

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

- Overall score: 0%
- 54% of respondents 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 4 months.
- Only 1 of the 10 hospital boards or committees have received training (4% of all respondents).
- Six respondents were able to describe the information given to the board as follows.

	What information reports do board or committee members receive?
1.	Annual budget for the hospital and the annual report and HMT meeting minutes of the hospital
2.	Annual quarterly financial reports
3.	Annual reports, quarterly reports, financial statement of the institution and general matters
4.	Annual, quarterly, finance, developmental and data of the inpatient and out patients.
5.	Information reports about the facilities and services available at the hospital, management, administration, functional committees, finance, constraints, performance indicators, staffing and accommodation problems.
6.	Performance output reports; financial reports

- 81% have an annual planning process that identifies such things as budgets, shortfalls, targets, or plans for growth or improvement.
- 50% use a revolving fund.
- When asked how long they thought their facility could survive and maintain standards with current levels of funding, respondents described their situation as follows.

	How long do you think your facility can survive and maintain standards with current levels of funding?		
1.	Forever		
2.	All things being equal, forever		
3.	In the long term		
4.	To the foreseeable future		

	How long do you think your facility can survive and maintain standards
	with current levels of funding?
5.	The facility can survive all the way even though it could be better off with
	more funding
6.	As long as it is possible, though sometimes it is difficult
7.	Just survive for a long time
8.	We can continue as long as the government subventions pays the salaries of our professional staff
9.	Five years
10.	Five years
11.	Two years
12.	Throughout the year
13.	If disparities in salaries are not addressed immediately, then less than one
	year
14.	Can survive and maintain standards with current level of funding for about four months
15.	It is not easy for the hospital to survive and maintain standards with current levels of funding. However, being a mission hospital with the objective to provide the quality healthcare for the poor and the deprived as well as the marginalised in society, the church would continue to care for the poor people despite the many constraints facing the hospital in the areas of finance, infrastructure, transportation and medical equipment
16.	Difficult to say due to unstable economic conditions and politics
17.	We are collapsing gradually due to insufficient flow of funds
18.	We don't know

3.6 Implementation of standard operating procedures for procurement

Overall score: 50%

50% of facilities have written SOPs for procurement and implement them. (19% implement them partially).

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

Overall score: 39%

- If a particular medicine suddenly cost a facility less, 39% of respondents would charge less for it and 54% would keep the price the same and use the additional income somewhere else in the facility. No respondents would keep the price the same and use the additional income for the church.
- Respondents estimated that, on average, 83% of the population in the areas served can afford the prices charged for medicines and 90% can afford the prices charged for consultation.

3.8 Quality assurance policy in place and implemented

Overall score: 54%

- 62% of respondents have written SOPs for receiving delivery of medicines and implement them fully. (12% have SOPs and implement them partially).
- 54% of respondents have written SOPs for issuing of medicines to pharmacies or wards *and* implement them. (19% have SOPS and implement them partially).

3.9 Pricing policies in place and operationalized

Overall score: 50%

- Responses suggest that there are standardized practices in place for setting prices, using fixed mark up margins or pre-defined pricelists (from the health insurance scheme).
- When asked 'How does their facility set the price people must pay for medicines?', 50% of respondents were able to show a clear understanding of how prices were calculated.

How do you set the price people must pay for medicines?		
We use the national health insurance price list	2	
40% mark up on the total cost price	1	
Medicines from Regional Medical Stores – 30% mark up; On medicines	1	
from CDC and open market – 40% mark up		
25% mark up on the cost of drugs and supplies bought from our suppliers	1	
15% mark up	1	
Mark up on 10–15% on medicines purchased	1	
Brand name drugs = 10% mark up; Generic drugs = 20% mark up	1	
10% markup on cost price	1	
5% mark up on expensive drugs; 10% mark up on cheaper drugs like 8		
cedis per tablet each		
Cost of medicines bought plus transportation cost plus storage cost.	1	
For the insured clients, we are using process set by the NHIS in their		
pricelist. If there are changes in cost price, we discuss with the district HIS.		
For the uninsured clients, we change prices when cost prices from		
dealer/suppliers changes.		
Based on cost of medicines plus what the NHIS chooses as the price		
Through price review committee		
Small overhead cost added to the actual cost of the drug		
Mark up on medicine price, determined through discussions		

 Respondents described the way they set the price of consultations in the following manner.

How do you set the price people must pay for consultations?		
We use the national health insurance price list	2	
1) We are using NHIS pricelist with insured clients 2) For uninsured clients	1	
we use prices set by the Diocesan Health Service Board		
According to the DHC of the Diocese	2	
By the agreed cost for CHAG tariff	1	
8,000 cedis	1	
Arbitrarily set at 5,000 cedis, subject to revision.	1	
Flat fee for all patients and cases at the OPD		
Based on cost of OPD cards, medicine bags, etc. Plus what other facilities		
charge		
After consultations with other Catholic mission hospitals and clinics.	1	
Fixed dependent on the level of MO being seen, e.g., MA, nurse, MO,	1	
PMO, etc., hours of consulting, and type of medical problem		
It depends on whether the patient is seeing a specialist or coming for	1	
general treatment		
Reviewed regularly by charges committee		
Through price review committee	1	

3.10 Government subsidies extended

Overall score: 85%

 85% of respondents indicated that the government paid, on average, 69% of salary costs.

3.11 Pro-poor ethic in evidence

Overall score: 73%

• 96% indicated that they help people who cannot afford the costs of seeking or receiving treatment and 73% 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?

Buruli ulcer exemptions; reliance on donated drugs; free delivery of babies

- 1) Paupers 2) Registered under-five's, pregnant mothers, and the aged (70 years and above)
- 1. Prescriber to determine status. 2. Consider solely or refer to Administration for free treatment (with assistance of welfare officer). 3. Provide service and document as 'free treatment'
- a. Such people are declared paupers and all costs waived b. Some members of staff pay the cost from their own personal resources

For diabetic drugs no percentage mark up and have their free lab. test. For others they are given for no cost.

1) Diabetic patients drug subsidized 2) Poor and sick treated free

Guarantee system helps people to pay cost later in instalments whilst those who can't afford to pay at all are screened by the chaplain and recommended for free treatment

A guarantee letter is signed by a worker or a relative before a patient is discharged

Payment by instalment

We treat them and give them time to come and pay

People in abject poverty or indigent are allowed to go free of charge, after investigation. Those who are capable to pay but cannot pay immediately, are given reasonable time to pay in instalments.

1. Those who cannot pay their bills are being exempted as charity. 2. Others who cannot afford full cost of treatment are also made to pay half of the cost.

By writing off debts owed by people who cannot pay

Poor fund and charity services

The hospital has a fund for charity

We budget for charity about certain amount from the clinic income. So that increase of urgent need we can use

We have sick and poor fund to use for the poor from IGF

We treat people regardless of whether they can pay or not. There are some who cannot settle all their bills but we let them go. There are some very poor people we do not ask to pay because sometimes we have to give them money even to eat.

Give medicines for free or whatever they can afford to pay

By providing free treatment

Through poor fund box. Donations from philanthropist

Sometimes paupers are allowed to go home without paying their bill.

Poor and sick fund available for the poor

- Respondents estimated that, on average, 15% of people treated could not pay when they have been asked to.
- Respondents indicated that their funding is provided by, on average, 52% from user fees and 38% from sales of medicines. 27% of facilities contribute funds to the church.
- 81% of facilities have exemption policies (where certain types of people, such as staff, diabetics, or the poor, get free treatment), but only 12% 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 indicate they have a pro-poor ethic.

 Various facilities also offer exemptions to patients aged under-five and over-70, patients with HIV/AIDS, TB, diabetes, or buruli ulcer, and for hospital staff and relations.

3.12 Tax exemptions available to CHSs

- Overall score: 100%
- Tax exemptions on medicines are available to CHSs.

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

- Overall score: 50%
- 81% of respondents have an annual planning process.
- 39% produce audited financial statements and include pharmacy-related activities separately from other activities.
- 23% produce annual reports and include pharmacy-related activities separately from other activities.
- 69% have written staff recruitment policies and either fully or partially implement them.
- 38% have a monitoring and evaluation policy and either fully or partially implement it.

3.14 Effective community involvement system in place

- Overall score: 59%
- 50% of respondents indicated involvement of the community, and 67% of focus groups described community involvement systems, including community representatives on the facility management/advisory committee, community consultation via surveys or meetings, and outreach projects.

3.15 Cross-institutional information sharing

- Overall score: 80%
- According to the guided desk review, 80% of CHSs contribute to a national management information system.

3.16 Compliance with drug donations guidelines

- Overall score: 4%
- 89% of respondents accept drug donations.
- 39% of respondents claim to comply with drug donation guidelines and only 27% have a copy of suitable drug donation guidelines.
- There are problems around the language used on donated medicines packaging, with only 35% of respondents indicating that text on packaging was 'always' understandable to staff and patients.
- Analysing these responses, only 1 respondent (4% of the total) that accepts drug donations also has a copy of guidelines, complies with them, and always received drugs labelled in a language they can understand.
- 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
Action Medeor	3
Diocesan Catholic Secretariat	3
InterCare (UK)	3
Germany	2
WorldVision International	2
Austrian leprosy organization	1
Brothers of St John of God, Irish and Spain	1
provinces. Italian volunteers	
German Rotary volunteers	1
Holland	1
IDA	1
Individuals and philanthropists	1
Inhabitants living abroad, practising as health	1
professionals	
Ireland	1
Sisters' Hospital (London)	1
St Jansdal Hospital	1
The last donation (four years ago) came from	1
Tie Kwahu citizens residing in NY. USA.	
Tulsi Trust (Indian organization)	1
UNICEF	1

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

Overall score: 100%

• The guided desk review describes debate at various levels.

3.18 At least one pharmaceutically trained person per facility

Overall score: 100%

 Of the 25 (out of 26) facilities that answered this question, all have at least a pharmaceutical technician or a pharmacist, on the staff.

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	12	54	40	5	111
Trained in quantification of drug needs	12	36	11	4	63
Trained in drugstore management	12	41	12		65
Trained in quality assurance	12	45	15	4	76
Trained in rational use of medicines	12	42	11		65
Trained in unit costing	12	48	15	1	76
Trained in record and data management	12	41	14		67
Trained in appropriate financial management	9	16	3	2	30
Trained in compounding of drugs (e.g., syrups and ointments)	11	48	13		72
Trained in dispensing	11	50	33	5	99

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

Overall score: 55%

 Several useful publications are missing from pharmaceutical areas – many of which are distributed free of charge by the publishers.

Publication available in pharmacy?	Yes
Essential Drugs List (national or WHO)	89%
National (or WHO) formulary	65%
Standard treatment guidelines	92%
New and obsolete drugs list	31%
List of drugs registered in the country	31%
International medicines pricing indicators	19%
Managing drug supply manuals.	46%

Publication available in facility?	Yes
National drug policy	85%
DTC/PTC guidelines	42%
WHO essential medicines publications	39%
Rational use of medicines information	65%

3.20 Regular assessment of pharmaceutical unit work

Overall score: 42%

• 58% claimed to undertake regular assessments of pharmaceutical work, but only 42% also indicated a frequency more regular than once a year.

3.21 Church leaders' awareness of key messages

Overall score: 90%

 From the write-up of the focus group discussions, it is apparent that there is a significant level of awareness.

3.22 Pharmaceutical function represented at all levels of discussion

Overall score: 81%

 81% of respondents indicated that pharmaceutical functions and needs are discussed at all levels in the facility.

3.23 Disaster preparedness procedures in place

Overall score: 8%

42% indicated that they have disaster preparedness plans. However, these plans refer mostly to the outbreak of fire on the premises, rather than wider scale disaster, such as flooding or massive population movement in times of war. Only 8% of respondents mentioned plans for 'disease outbreak'. The wording of the question in the survey has now been amended to clarify the nature of a 'disaster'.

4 TOOL 3: GUIDED SELF-ASSESSMENT RESULTS

4.1 Methods used

This work took place in 9 hospitals across Ghana. Following training of facilitators (in Malawi), 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 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.

5.1 Overall combined spider diagram

A composite list of the 'spider legs' from all the workshops reveals an order of importance of the factors based on the number of times they were mentioned.

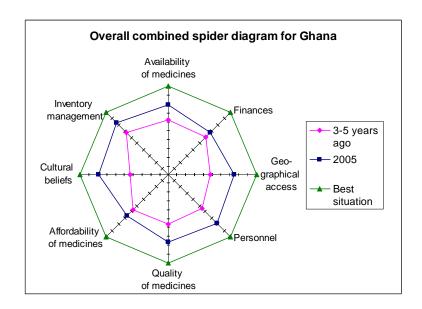
5.1.1 Brainstorming, categorizing, and ranking factors

Table 4 Spider diagram factors

Factor	Mentions	3-5 years ago	2005	Change
Availability of medicines	9	6.2	7.9	Improved
Finances	9	6.0	6.7	Improved
Geographical access	9	4.8	7.4	Improved
Personnel	9	5.4	7.8	Improved
Quality of medicines	9	5.6	7.7	Improved
Affordability of medicines	8	5.6	6.6	Improved
Cultural beliefs/patient	7	4.3	7.9	Improved
knowledge				
Inventory management	3	6.7	8.3	Improved
Compliance/adherence	2	4.0	5.0	Improved
Infrastructure	2	4.5	6.0	Improved
Internal information	2	5.0	6.5	Improved
Administration/ management	1	3.0	5.0	Improved
Morbidity pattern	1	6.0	2.0	Worsened
Regulations/ legal framework	1	5.0	5.0	No change

^{*} Factors below the darker line were not carried forward to the spider diagram.

Figure 1



5.2 Overall priority factors

In Table 4 above, the factors that are shaded and in italics 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 financial resources, or the proper management of drug storage could reduce costs and lead to an improvement in finances, etc.

5.3 Trend analysis

In each workshop, participants were asked to give reasons for and describe trends in the changes in factors affecting access to medicines. These are combined in Table 5 to give overall trends.

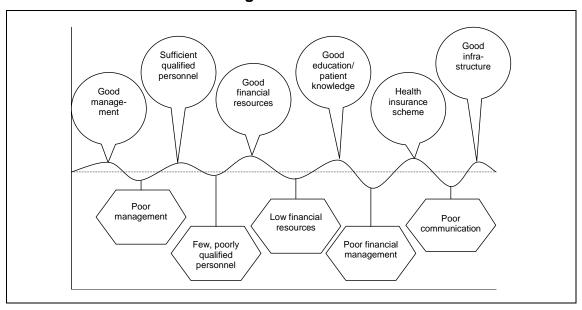
Table 5

Factor	Mentions	Change	Reasons
Availability of medicines	9	Increase	 Improved inventory management and planning (personnel) More drug manufacturers, suppliers, and supplies, and credit available and negotiable Suppliers deliver to the door
Finances	9	Increase and decrease	 Improved management and services and increased patient attendance. Government exemptions and donor-pooled funds (important as they are more timely than government funds). Delayed payment of government allocations and health insurance reimbursements. Debtors, increased utility bills, and debts to suppliers
Geographical access	9	Increase	 Improved road network noted by all hospitals Some hospitals have improved outreach services Drugs now available by delivery
Personnel	9	Increase	 General improvement in availability and quality of medical and pharmaceutical staff More in-service training and upgrading of staff Better exchange and availability of information
Quality of medicines	9	Increase	 Better management and staffing Good inventory and procurement systems Good sources of supplies from reputable suppliers
Affordability of medicines	8	Increase and decrease	 The National Health Insurance Scheme (NHIS) has helped along with increased competition among suppliers. Malaria treatment costs have increased and donations have reduced, and poverty still leads to a perception of high medicines costs.
Cultural beliefs/ patient knowledge	7	Improved	 Improved general education and health education, including health programming and advertising on radio and TV. Improved patient counselling by prescribers and dispensers
Inventory management	3	Increase	Computerization, fewer stock outs

6 FORCE FIELD ANALYSIS

Main question for initial brainstorm: "Given the current situation, what issues have the greatest constraining effect and what issues have the potential to have the greatest positive impact?"

6.1 Combined force field diagram



6.2 Overall greatest constraints (stones)

An analysis of the prioritized constraints from the workshops shows poor management, followed by lack of staff training as the most significant by a clear margin of mentions and votes cast.

- 1. Poor management
- 2. Few qualified personnel
- 3. Low financial resources
- 4. Poor financial management
- 5. Poor communication

6.3 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 a very similar list. Again, the top two were prioritized by a significant margin.

- 1. Good management
- 2. Sufficient qualified personnel
- 3. Good finances
- 4. Good education/ patient knowledge
- 5. Health insurance scheme
- 6. Good infrastructure
- **1. Good management** covered a general approach, but included specific areas such as team work, priority setting, supervision and monitoring, and internal control systems.

2. Sufficient qualified personnel focused clearly on the benefits of more training of staff, particularly continuous and in-service training, and motivation was recognized as a significant positive force.

7 PROBLEM TREE ANALYSIS

Participants in the one-day workshops were asked to choose the most important problems and construct a cause and effect problem tree. This produced a total of 13 different problem trees. A process of analysis was then carried out, first, merging similar trees together and second, an entry point analysis.

Low **Effects Branches** productivity High morbidity and mortality Lack of funds Poor patient management Unemployment Few skilled personnel Location of Inadequate facility training Causes Roots

Bad management

Figure 2 Example problem tree: St Martin de Porres Hospital – Few skilled personnel

Below is a table showing the number of trees merged under each problem heading.

Table 6 Numbers of merged problem trees

Lack of motivation

Low financial resources	6
Poor infrastructure	(1)
Misappropriation of funds	(1)
Poor management	5
Poor public education	1
Few skilled personnel	1

Details of the merged trees are laid out below, where the frequency of mention of specific causes and effects determines the order of the list of factors in each table.

7.1 Problem: Low financial resources

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

Causes

- Unpaid bills
- Poor management
- NHIS problems
- Utilities costs
- Poor government support/ policy
- Misappropriation of funds
- Wastage
- Poor quality of service
- Reduced donor funds
- Poor services
- Poor personnel
- Poor customer service
- Maintenance costs

Effects

- Poor motivation
- Increased morbidity
- Poor quality of service
- High staff turnover
- Low productivity
- Stock out
- No access to medicines
- Low attendance
- Lack of infrastructure

The following problems were also related to financial resources problems.

7.1.1 Problem: Poor infrastructure

Causes

- Attitude of staff
- Lack of a maintenance schedule
- Lack of funds

Effects

- High rate of equipment breakdown
- Loss of confidence
- Low quality servicing

7.1.2 Problem: Misappropriation of funds

Causes

- Lack of auditing
- Poor skills in financial management
- Poor supervision
- Lack of accountability
- Greediness
- Povertv
- Peer influence
- Indiscipline
- Collusion

Effects

- Bankruptcy
- Partial or total collapse
- High mortality and morbidity
- Low production
- Unemployment

7.2 Problem: Poor management

A combination of five trees gives the following causes and effects.

Causes

- Poor communication
- Lack of training
- Autocracy
- Poor team work
- Fear
- Poor setting of priorities
- Poor recruitment
- Poor record keeping
- Poor interpersonal relationship
- Poor guidelines
- Lack of supervision
- Lack of finances
- Internal conflicts
- Improper evaluation
- Divide and rule
- Bureaucracy

Effects

- Lack of motivation
- High mortality and morbidity
- High staff turnover
- Corruption
- Failure of facility
- Staff dissatisfaction
- Wastage
- Deterioration in infrastructure
- Factions
- Lack of funds
- Low patient attendance
- Misunderstanding and fights
- Patient dissatisfaction
- Poor finances
- Poor quality service
- Poor service delivery

7.3 Problem: Poor public education

Problems around public education were related to individual and governmental poverty.

Causes	Effects
 Lack of financial resources 	High staff turnover
 Ineffective communication 	High cost of treatment
 Bad planning 	 Low national productivity
 Poor motivation 	 High morbidity and mortality
 Inadequate resource personnel 	

7.4 Problem: Few skilled personnel

Causes	Effects
 Bad management 	Lack of funds
 Inadequate training 	 High morbidity and mortality
 Lack of motivation 	Low productivity
 Location of facility 	 Poor patient management
,	 Unemployment

8 FOCUS GROUPS

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

8.1 A system of effective community involvement

There was an interesting link between community involvement and positive perceptions of the facilities.

Six focus groups described a significant level of community involvement

Although only two groups mentioned a community member on the hospital board, they all described some form of 'communal labour' or community contributions:

- We usually work hand-in-hand with the hospital.
- The community periodically provides communal labour on hospital premises, at least twice a year.
- The youth in the community have provided security in the event of threats of armed robbery attacks
- The church periodically donates blood to the hospital
- The chief agreed to release land for the hospital's use.
- The presence of the health insurance scheme has brought the community and the hospital closer together.

There is significant respect for hospital staff, their treatment of patients, their availability in emergencies, and the lack of nepotism.

- The services are about the best
- Staff are hard working and caring
- A committed hospital team.
- Staff are very caring and friendly.
- There are always doctors on night duty
- Attendance is sometimes as high as five hundred people per day, yet the hospital staff respond to them all.
- Prescriptions are always fulfilled
- Patients do not have to pay extra money to get treated well and are treated efficiently without hurrying through the processes
- Nepotism is not observed in their service delivery even if it is present, it is negligible.
- Staff are dedicated and are not involved in any suspicious activities.

This was the case even where the community was aware of staff shortages. (Both the following quotes are from the same group).

- Hospital is perceived to have a shortage of staff, which leads to delays in services.
- Staff are seen to be friendly.

Assistance with payment, such as arrangements for credit or payment in kind through labour, is appreciated by communities, and is discussed with some hospitals at a community level.

 The hospital sometimes agrees for patients who cannot pay for treatment to render some form of service, including weeding round the hospital premises, as a form of payment.

Several communities benefit from outreach awareness programmes on HIV/AIDS and from health programming broadcast on FM radio, and some hospitals also provide home-based care teams.

- Hospital provides free transportation for referral.
- The hospital embarks on health talk programmes on local FM stations.

One group was keen to have a member of the community on the board of directors, and another felt:

The community contribution to the hospital is however very low because most people don't see the hospital as their own.

Three focus groups described a lack of community involvement

These groups also showed less understanding of the issues and poorer impressions of services.

- There is a perceived lack of respect for the people in the community by hospital staff.
- Hospital staff often shout at them.
- Even when the community embarks on communal labour and a member sustains any injury, he is made to bear the cost of treatment. Hence, the community is no longer willing to undertake such activities.
- The community feels the hospital is neglecting their social responsibility by not allowing the school children to drink from their well.
- No opportunity to register concerns, i.e., no suggestion box. It has long been removed.

With these groups, the perception is that staff do not care about the people, treatment is slow and substandard even in emergencies, others may get treated in preference, and medicines do not work.

- Hospital staff are known not to give the best services to patients.
- Favouritism in treatment of patients by nurses.
- Leaking of information on patients to community.
- There is bound to be victimization when one insists on one's own rights.
- Drugs given to patients mostly do not work because most patients complain even after treatment.
- The community believes that there are a lot of bureaucratic bottlenecks at the hospital.

8.2 Church leaders' awareness of the issues

The focus groups were conducted with church leaders, and their open discussion of a range of issues relating to medicines pricing and availability, staffing and service levels, and community involvement suggest a high level of awareness.

8.2.1 Suggestions for improvements

Suggestions for improvements include: additional health education (including in areas where it is already being provided, often by FM radio).

- Education in preventive medicine should be intensified.
- They should train first aid teams in schools.

Additional health staff, support from the government, and changes in hospital management (mainly from focus groups where there was no perceived community involvement):

- Drug prices should be brought down.
- Nurses should be tolerant to patients.

Improvements in infrastructure, including mosquito nets in wards, mortuaries, and a water closet (for which people were prepared to pay a fee):

They urged the hospital to provide guesthouses for visitors, since mostly they fall on the community for accommodation.

Improving relations and increasing community involvement with the hospital:

- The hospital should take advantage of the monthly traditional council meeting to send their concerns to their community.
- There should be education to change the perception that the hospital has money and hence people don't pay their fees.
- The hospital should develop a rotation system for the minister of the Gospel from various church denominations in the area to lead the morning devotions. This could help change people's perceptions about the facility.

-END-

9 APPENDIX 1: TOOL 1-RAW SELF-ASSESSMENT SURVEY RESULTS

Please see separate Epi Info database.

10 APPENDIX 2: TOOL 3-RAW GUIDED SELF-ASSESSMENT RESULTS

Please see separate reports of results for each hospital.

11 APPENDIX 4: ANALYSIS METHODS FOR INDICATORS

Table 8 lists the EPN Access to Medicines Guidelines and the sources of data that will be used to estimate the level of compliance in a country. The 'analysis method' refers to one of the approaches described in Table 7.

Table 7 Analysis methods

Analysis			
method	Description		
A	Find the percentage of all respondents that answered the question. If there is a supplementary 'is it implemented' type question, then use the percentage of respondents that answered the supplementary question.		
В	Take the lowest percentage score from the range of questions given.		
С	Find the percentage of respondents that answered all the questions in the range		

	given.	
D	Make a judgement based on the textual data given.	
E	Find the average percentage score from the range of questions given.	
F	Take the highest percentage score from the range of questions given.	

Table 8: EPN Guidelines and data sources

		Data source	
		[SAS = Self-assessment	Analysis
	Guideline	survey]	method
1.	Compliance with best practices for drug storage and management.	SAS Q 2.3	В
2.	Compliance with rational use of medicines guidelines.	SAS Qs 3, 6.5	В
3.	Functioning medical supply system.	DSO surveys – all guestions	D
		SAS Q 4	
4.	Functioning Drug and Treatment Committees (DTC) in hospitals.	SAS Q 5	С
5.	All 'owners' with maximum understanding or	Focus groups	D
	roles, best practice, and management information.	SAS Q 7.5	
6.	Implementation of standard operating procedures for procurement.	SAS Q 2.9	А
7.	Improvement in access to medicines for an institution, passed on to patients.	SAS Q 6.12.1	А
8.	Quality assurance policy in place and implemented.	SAS Qs 2.10–2.11	В
9.	Pricing policies in place and operationalized.	SAS Q 6.10	D[1]
10.	Government subsidies extended.	Guided desk review Q 6	F
		SAS Qs 6.14-6.15	
11.	Pro-poor ethic in evidence.	SAS Q 6.1-6.4	Е
12.	Tax exemptions available to CHSs.	Guided desk review Q 8	Α
13.	Transparency mechanisms in place in support of 'Health for All'.	SAS Qs 7.1–7.3	Е
14.	Effective community involvement system in place.	Focus groups	Е
		SAS Q 7.4	
15.	Cross-institutional information sharing.	Guided desk review Q 3	А
16.	Compliance with drug donations guidelines.	SAS Qs 4.7-4.11	С
17.	Mechanism in place to allow for representation at regional and national levels in relevant debates.	Guided desk review Q 5	D
18.	At least one pharmaceutically trained person per institution.	SAS Q 8.2	Α
19.	Access to key pharmaceutical information.	SAS Qs 8.4–8.5	Е
20.	Regular assessment of pharmaceutical unit work.	SAS Q 8.6	А
21.	Church leaders' awareness of key messages.	Focus groups	D
22.	Pharmaceutical function represented at all levels of discussion.	Guided desk review Q 8 SAS Q 8.7	А
23.	Disaster preparedness procedures in place (e.g., for earthquake, flood, influx of refugees, conflict).	SAS Q 7.6	A
[4]		•	•

^[1] Make a judgement as to what percentage of respondents demonstrate a pricing policy. For example, a fixed mark up, such as 15%, is a policy, but 'discussion or consultation with others' does not constitute a policy.

Table 9 lists sections of the written description of the report and the sources of data to be used to develop them.

Table 9: Baseline and data sources

Baseline description	Data source
National situation for CHSs	Guided desk review
Details of drug supply systems	DSO survey
Trend analysis for access to essential medicines	Workshop exercises
Brief organizational review of CHS hospitals	Workshop exercises and focus groups
Possible ways forward	Workshop exercises and focus groups