The influence of a community-based health programme

The Share & Care programme and the use of medicines in Nepal

Author:
Rozemarijn de Rooij
Student no.: 1935232
Master Health sciences - International Public Health
Vrije Universiteit Amsterdam
Karuna Foundation
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Supervisors:
Archana Shrestha
Merel Schreurs
Huib Cornielje/Wim van Brakel

Karunafoundation
Saving children from disability, one by one

Address : Brunita J. Gemmekelaan 9
2252 TJ Voorschoten Netherlands
Phone: +31612077056
E-mail: rozemarijn_de_rooij@hotmail.com

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Content

Summary

The mission of the Karuna Foundation is to prevent disability among children. One of their programmes is Share & Care, a micro-insurance system. Next to the provision of refunds, it improves the health services including provision of additional medicines. The Karuna Foundation implemented the Share & Care programme in several Village Development Committees (VDCs) in Nepal. This thesis reports about a research project that was executed in the two pilot VDCs Mechchhe and Hansposa.

Problem definition A significant part of the budget of Share & Care is allocated to medicines that are provided additionally to the ones provided by the Ministry of Health. To create an efficient use of budget it is important to prevent over-prescription and prescription of medicines that are not necessary. There should be no difference in approach to members and non-members by the Auxilliary Health Worker and the available medicines should be from the National list of essential medicines Nepal.

Objective: To evaluate the medicine package provided by Share & Care.

Research question: *'How does the Share & Care programme influence the use of medicines for members and non-members of Share & Care in the two pilot-communities Mechchhe (Kavre) and Hansposa (Sunsari)?'*

This question was answered by looking at six different topics: prescription patterns, common diseases, availability of medicines, handling of medicines by the patient, perception towards medicines, changes due to Share & Care as seen by the community members.

Methodology In this research project quantitative and qualitative methods were used. Literature research was performed to gain background information. The fieldwork was executed with the help of trained interviewers. It consisted of a patient exit interview, an interview with local medical staff and a Focus Group for members and non-members. Furthermore the medicine stock in the pharmacy was evaluated.

Results and conclusion The Share & Care programme influences the use of medicines. The Share & Care programme broadened the availability of medicines and there is an increase in the use of medicines. However, it is noted that approximately half of the medicines available in the pharmacy are not on the National list of essential medicines. The research project showed that members are not differently treated compared to non-members concerning diagnosis and prescriptions. The medical staff and the community members in majority see a positive influence on the availability and quality of medicines as a result of the implementation of Share & Care.

Abbreviations

AHW	Auxilliary Health Worker
ARI	Acute Respiratory Infection
DDA	Department of Drug Administration
DHO	District Health Office
EPI	Expanded Programme on Immunisation
FG	Focus Group
FGD	Focus Group Design
HFOMC	Health Facility Operation and Management Committee
HP	Health Post
LRI	Lower Respiratory tract Infection
MCHW	Maternal and Child Health Worker
MoH	Ministry of Health
NPR	Nepali Rupee
OR	Odds Ratio
PCS	Pearson Chi-Square
PHC	Primary Healthcare Centre
SHP	Sub Health Post
SPSS	Statistical Package for Social Sciences
URI	Upper Respiratory tract Infection
VDC	Village Development Committee
VHW	Village Health Worker
WHO	World Health Organisation

1. Introduction

1.1 Contextual background

Nepal

Nepal is a landlocked country in South East Asia. The Human Development Index for Nepal is 0.553, which gives the country a rank of 144th out of 182 countries with data (UNDP Human Development Reports, 2009). Nearly 85% of the people live in villages, in remote and difficult to access terrain. The population is predominantly children and the growth rate is high. Looking at the Millennium Development Goals, some targets such as for water and sanitation and immunisation have been achieved or are likely to be achieved. But others, like the control of mortality and nutrition remain a challenge. For women, nearly 15% of life's equivalent healthy years are lost due to diseases. Among children, under-nutrition is wide-spread. Nearly a quarter of deaths occur in children less than five years. Major causes of death in this age group are infections. Among adults, diseases of the respiratory system are the major causes of deaths. Basic facilities such as safe drinking water and sanitation, doctors, nurses and beds continue to be inadequate, particularly in rural areas (WHO Regional Office for South-East Asia, 2007). The government is working to improve the health situation in the country. All primary health provision in Nepal is free of costs, including 26 medicines from the National list of essential medicines Nepal. These are provided by the government to the (sub)health posts.

Nepal is divided into 14 zones, which are subdivided into 75 districts. The districts contain nine to thirteen Illakas, which is a term similar to region, and each Illaka consists of several Village Development Committees (VDCs) and municipalities. The VDCs are further divided into nine wards.

A district contains health posts (HPs), Sub Health Posts (SHPs), Primary Healthcare Centres (PHCs) and hospitals (WHO Regional Office for South-East Asia, 2010). Every Illaka contains at least one HP or PHCC and the other VDCs have a SHP. The SHPs report to the HP or PHCC. And these report to the District Health Office (DHO). Every Illaka also has a Female Community Health Volunteer, a Trained Traditional Birth Attendant, a Primary Healthcare Centre Outreach Clinic and an Expanded Programme on Immunisation (EPI) clinic.

In a SHP there are several job positions. There is the Incharge, this is an Auxiliary Health Worker (AHW). He/she has been trained for 18 months in elementary curative and preventive medicine. Next to the Incharge, there is a Maternal and Child Health Worker (MCHW) and a Village Health Worker (VHW). The SHP personnel works with limited resources in remote areas. The VHW goes once a month to the outreach clinics and EPI clinic to provide services.

Medicines

The proportion of a population with access to affordable essential drugs on a sustainable basis is a Millennium Development Goal indicator (Millennium Declaration, 2008). It is estimated that one-third of the world's population lacks access to essential medicines. This percentage is even higher in poor parts of Asia (WHO, 2004). On the other hand, worldwide more than 50% of all medicines are not prescribed or used in a rational way (WHO, 2002). In 1979 the department of drug administration (DDA) was established in

Nepal. It has developed and distributed books on the rational use of medicines and developed standard treatment schedules for HP and SHP to encourage and enforce rational use of drugs. The DDA developed and published training manuals for HP and SHP on medicine quantification, prescribing and dispensing practice to be used for training health workers (WHO Regional Office for South-East Asia, 2010). Another product of the DDA is the National list of essential medicines Nepal, now at fourth revision, dated 2009. Essential medicines are defined by the World Health Organisation as 'those drugs that satisfy the health care needs of the majority of the population; they should therefore be available at all times in adequate amounts and in appropriate dosage forms, at a price the community can afford'. Many countries, including Nepal, developed their own list, based on the list of the WHO with the needs of their people (WHO, 2003). In Nepal the most common allopathic medicines that are prescribed are antibiotics and paracetamol. A lot of self-medication with home remedies is used, especially in rural areas (Shankar et al., 2003a).

The government of Nepal supplies a basic package of medicines to the HPs and SHPs. A HP receives 32 medicines from the National list of essential medicines Nepal (Government of Nepal, Ministry of Health and Population, Department of Drug Administration, 2009) and a SHP receives 26 medicines. If there is a birthing centre, the HP/SHP receives in addition three extra medicines. Until recently medicine supply from the Ministry of Health (MoH) in Nepal was organised as a push system. The medicines were periodically delivered without inquiry whether they were needed. This system is in transition now towards a pull system. The SHP has to request the medicines itself, to prevent medicines being unused and supply the required medicines (Karki, 2010b).

The Karuna Foundation and Share & Care programme

Karuna Foundation Nepal is an International Non-Governmental Organization working in Nepal, with a head office in Arnhem, The Netherlands. The main goal of Karuna Foundation is prevention of avoidable disability and improvement of the quality of life of children with a disability. One of the projects of the Karuna Foundation is the Share & Care programme which is implemented in several communities in Nepal (Karuna Foundation Website, 2010). Share & Care is a community based programme aiming to strengthen existing health services and facilities by empowering communities through a micro-insurance scheme. The community shares the health risks, responsibility and cost of improved health services (Karki, 2010a). It is led by a Health Facility Operation and Management Committee (HFOMC), which consists of at least one representative from every ward. The members of the HFOMC are trained to obtain administrative and financial management skills, and organisational coordination skills. The HFOMC hires a programme coordinator who is responsible to carry out the activities in close collaboration with the Incharge and AHW (Karuna Foundation, 2008a).

The Share & Care programme consists of several elements:
- Organisation development, which includes training of the HFOMC;
- Upgrading of the health facilities;
- Community based health insurance;
- Community Based Rehabilitation of children with disabilities;
- Health promotion and disability prevention;
- Livelihood programme.

To become a member of Share & Care, each household contributes a by the community predefined payment and the entire household becomes a member. This membership has to be renewed every year. Share & Care benefits the members, but also the non-members. The SHPs are renovated and improved and there is an AHW. The programme also provides additional medicines on top of the 26 essential medicines provided by the MoH, on demand of the community. These are accessible for the entire community. Members get the additional medicines refunded as well as the referrals up to a certain amount (Karki, 2010a). Non-members have to pay for the additional medicines and hereby deliver income to Share & Care.

In the first year, the Karuna Foundation contributes 50% of the running costs of the Share & Care programme, including the additional medicines. In the second year it contributes 30%. After two years the programme should be able to run entirely on its own with the community contributions (Karuna Foundation, 2010).

Research project

This research project will focus on the medicine use in two VDCs; Mechchhe in Kavre district and Hansposa in Sunsari district. Mechchhe contains 1218 households with approximately 9214 people living in the area. In 2008, 452 households became member of Share & Care with a contribution of 1000 NPR per household. Three additional health workers were provided and 75 additional medicines were made available (Karuna Foundation, 2008a). Maximum refund is 5000 NPR per person a year. In 2009 there were 468 households member (Karuna Foundation, 2009). Hansposa contains 4265 households with approximately 20879 people living in the VDC (Karn, 2008). In 2008, 594 households became member of Share & Care with a contribution of 1100 NPR per household. Four additional health workers were provided and 100 additional medicines were made available (Karuna Foundation, 2008a). Maximum refund is 21100 NPR per household per year. Right now there are 873 members (Karuna Foundation, 2009).

In this thesis when Share & Care is mentioned, it is referring to the Share & Care programme. Member and non-member refers to the membership of Share & Care.

1.2 Problem definition

The Share & Care programme is designed to have community risk sharing and also community spending of the micro-insurance fund. It is important for such a programme to have an efficient use of budget. One of the big expenses is medicines. These are partly delivered by the MoH. The Share & Care programme provides additional medicines, which are free of cost for members. It is important for efficiency that there is no over-prescription or prescription of medicines that are not necessary or not on the National list of essential medicines of Nepal. It should also be avoided to have medicines available that are not used. Finally, there should not be a difference in prescription patterns for members and non-members of Share & Care unless this arises from financial inability to pay the medicines in the non-member group. Until now, the efficient use of the budget allocated to medicine use has not been evaluated. This research project will look into these topics and hereby evaluate part of the community based health insurance and the upgrading of the health facilities.

1.3 Objective

To evaluate the medicine package provided by Share & Care by obtaining information on the availability of medicines, the use of medicines within the household, morbidity patterns among Sub Health Post patients and the prescribing patterns of the Auxiliary Health Worker for members and non-members of Share & Care in the two pilot-communities Mechchhe (Kavre) and Hansposa (Sunsari).

1.4 Main research question

'How does the Share & Care programme influence the use of medicines for members and non-members of Share & Care in the two pilot-communities Mechchhe (Kavre) and Hansposa (Sunsari)?'

The main research question will be answered following several sub research questions:

1. 'What are the differences in prescription patterns for members and non-members of Share & Care?'
2. 'What are the most prevalent diseases in the two communities during the data-collection season?'
3. 'What are the available medicines in the Sub Health Post and are they appropriate for the needs of the community?'
4. 'Which medicines belong to the government supply from the National list of essential medicines Nepal?'
5. 'How are medicines handled within the household?'
6. 'What is the perception of community-members towards medicines?'
7. 'What is the influence of Share & Care on medicine use according to the community members?'
8. 'What is the influence of Share & Care on medicine use according to the Auxiliary Health Worker and Incharge?'

1.5 Conceptual framework

A conceptual framework was designed in order to create an overview of the research project and the topics it is covering (figure 1). This research project addresses six topics that will be explored:

- Prescription patterns
- Common diseases
- Availability of medicines
- Handling of medicines by the patient
- Perception towards medicines
- Changes due to Share & Care as seen by the community members

- The sub questions follow these topics. Within the results the differences between members and non-members will be looked at for the different topics. Only important differences or similarities will be taken into the conclusion.

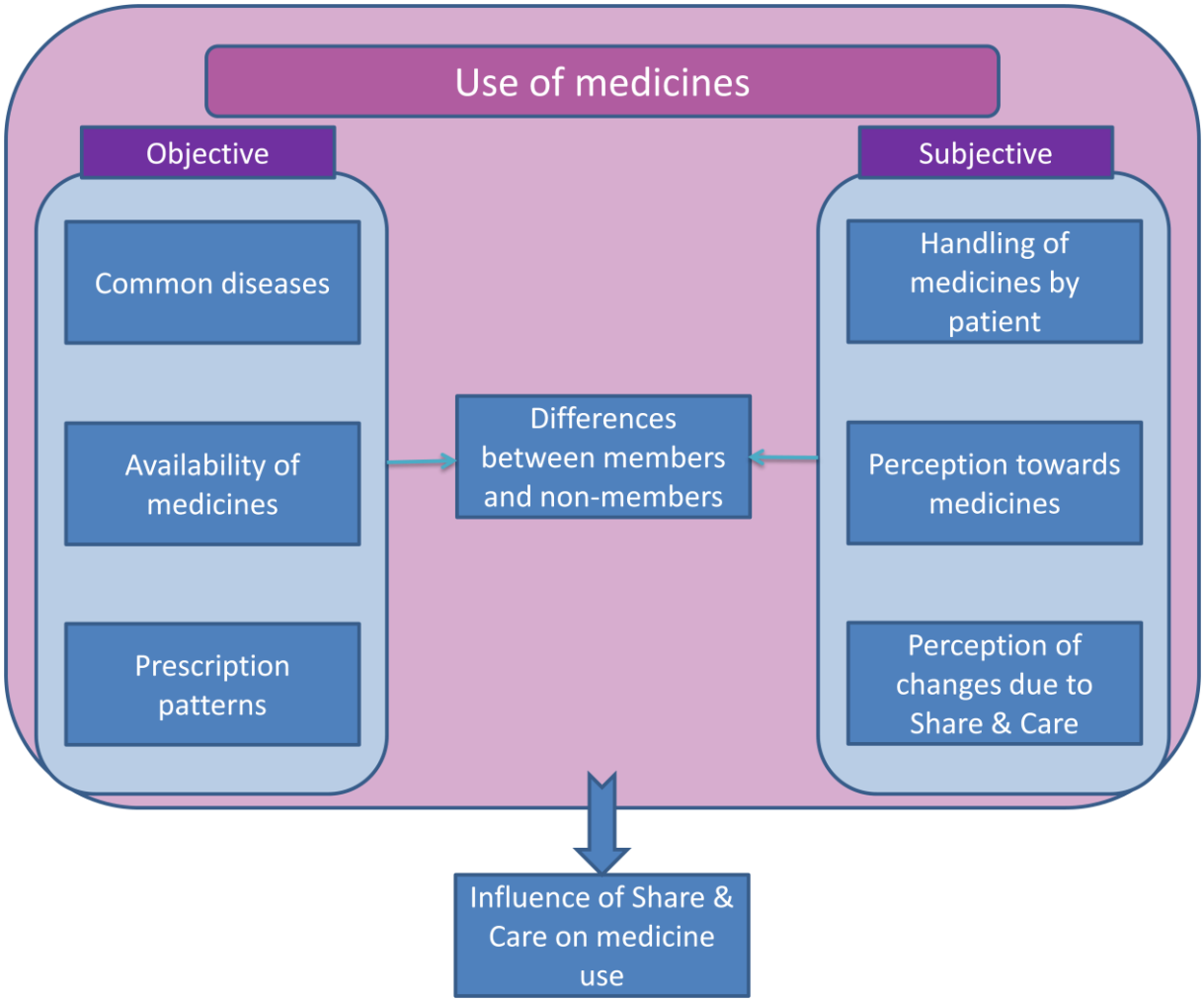

Figure 1 The conceptual framework

2. Methodology

2.1 Study design

The research project had a cross-sectional design. The data collection took place from 10 April until 17 April 2010 in Hansposa and from 25 April until 29 April 2010 in Mechchhe.

Among community members who visited the SHP as patients information was collected on their diagnosis, prescription, perception towards medicine, use of medicine and the influence of Share & Care on local health services. At the SHP data was collected on stock supply of medicines and on behaviour and perceptions of the health workers towards medicine.

2.2 Study area

The research took place in Hansposa and Mechchhe, both pilot VDCs where Share & Care was first implemented by the Karuna Foundation.

Hansposa is a VDC in the Sunsari district in the Terai region of Nepal, which is a flat area. In Hansposa there is a SHP in ward 9 and a sub-centre in ward 2. The major part of the data collection took place at the sub-centre.

Mechchhe is a VDC which belongs to the Kavre Palanchowk district in the hills. It is the furthest VDC in this district and accessibility is not optimal. The nine wards of Mechchhe are vested on different altitudes and electricity is absent. All the data were collected at the SHP, located in ward 5. The SHP is almost the highest point in the VDC.

2.3 Study population

The study population during this research consisted of patients that visited the SHP/sub-centre in Mechchhe and Hansposa. In both VDCs the visit frequency to the SHP is 25 per day on average.

The baseline study of Mechchhe, performed in 2008 before the implementation of Share & Care, showed that 74,6% of the inhabitants belong to the caste Tamang. A total of 74.6% of the participants (n=1225) were found to be illiterate in 2008 and 79.1% was found to have no education at all. 12.5% of the participants was found to be destitute, with the majority of destitutes living in ward 5 and 8. Moreover, 61.8% of the participants was grouped in the poor category, with equal distributions per ward. In case of health problems, it was striking that 61.8% consulted a traditional healer first (Karuna Foundation, 2008b).

According to the baseline survey of Hansposa, conducted in 2007 before the implementation of Share & Care, the main castes in this VDC are Chhetri, Tharu and Rai. The survey showed that 41% (n=4129) of the participants had no education. In case of medical problems, 73,5% mentioned that they went to the hospital for the first consult (Karn, 2008).

Seen the level of education of the population, a well thought interviewing method and FG method were required.

2.4 Data collection and analysis – Qualitative methodology

2.4.1 Training of interviewers/translators

Interviewers/translators, further noted as interviewers, assisted during the interviews and Focus Groups (FG) of the research project. First of all because the study population are Nepalese people who cannot speak English sufficiently. Furthermore due to time and budget restraints it was necessary to have extra people for the fieldwork. The interviewers were Nepalese Bachelor graduates of Public Health from Tribhuvan University, Kathmandu, Nepal.

Prior to the fieldwork the interviewers received a five days training, including a field training in the VDC Narayansthan in Kavre district which is one of the VDCs where Share & Care is implemented. The training included interview techniques and FG techniques. The interview for the research project was used in role plays in English and also in Nepalese. The training also included practising the FG belonging to the research project. The whole training showed that the interviewers were capable of producing reliable data. It also tested the questionnaires and FG for their validity and applicability. There appeared some problems with the comprehensibility and validity of both the methodologies, whereupon the questionnaire and Focus Group Design (FGD) were adjusted by the researcher.

2.4.2 Patient exit interview

A patient exit interview was conducted with all patients that visited the SHP/sub-centre in the field research period. The results from this interview were used for qualitative analysis as well as quantitative analysis.

Study characteristics

Sample

All patients that visited the SHP/sub-centre were asked to be a participant of the interview. This was a mixture of members and non-members. There were no exclusion-criteria, except for interviewees that turned out to be incapable of answering the questions in a comprehensible way. Patients were allowed to refuse participation.

Variables of interest for descriptive and statistical analysis

- Member or non-member of Share & Care
- Receiving a prescription
- Number of prescriptions
- Number of prescriptions in last six months
- Name of prescriptions
- Sex
- Age
- Diagnosis
- Centre

Furthermore questions were asked about:

- requesting medicines and the granting of the requests
- what patients do with the medicines that are prescribed.

Variables of interest for qualitative analysis

- changes that occurred in the use of medicines since the implementation of Share & Care
- whether patients were content with the outcome of the visit
- feelings when not receiving a prescription at the visit to the SHP
- handling of left-over medicines

Measurement methods

For five days interviews were conducted with all patients that visited the SHP/sub-centre and saw the AHW. The interview was conducted following a structured questionnaire with open and closed questions, see appendix 2. Diagnosis and prescriptions for this visit were taken from the notes of the AHW. In Hansposa patients received a paper with all the information on it, in Mechchhe the interviewer looked it up in the archives of the AHW. An interviewer who was trained beforehand held the interview with every patient that just had an appointment with the AHW. Participation was voluntarily and patients could reject to cooperate. The interview took approximately 10 minutes, the same time as a visit was presumed to be. The interview was confidential and data were processed anonymously. The entire questionnaire form had to be completed by the interviewer. Generally participants did not feel uncomfortable answering the questions. They asked questions when something was unclear. The quality of the interview and filled out questionnaires was maintained with evaluations every day and continuous checking of the forms.

Guidelines for the interview can be found in appendix 1 and were distributed and explained to the interviewers during the training.

Data analysis

The answers to the questions were evaluated using the statistical computer software programme Statistical Package Social Sciences version 18.0 (SPSS, 2010). A descriptive outcome was made, followed by several cross tabulations that were computed to investigate the data and a possible association between the determinants and different outcome variables.

Many different diagnosis came up in the interview forms. These were categorised into six categories: family planning (depo injection, pregnancy test, ante-natal check-up), infections (abscess, typhoid, tonsillitis, skin infection, eye/ear infection), fever, gastro-intestinal (gastritis, diarrhoea, a. dysentery), respiratory (Acute Respiratory Infections (ARI), Upper Respiratory Infections (URI), Lower Respiratory Infections (LRI), cough, pneumonia) and others (joint problems, cuts & bruises, chest pain, body pain).

The number of prescriptions were categorised into two categories: up to two prescriptions (>=2) and more than two prescriptions (>2). This was done because the standard deviation of the distribution of prescriptions was very large and the sample size was quite small.

The answer to number of prescriptions received in the past six months included the prescriptions of this visit. The outcome was categorised into up to four prescriptions (<=4) and more than four prescriptions (>4). The reason for this was that the

standard deviation was very large compared to the mean and median and the sample size was quite small. Next to this, the answers were not very accurate.

The age of the patients was borderline normally divided in Hansposa and not normally distributed in Mechchhe. To make a comprehensive descriptive and analytical analysis, age was categorized into up to five (<=5), six to fourteen (6-14), fifteen to 49 (15-49), and older than fifty (>=50) years old. These categories were chosen, because they represent the phases of life: the reproductive age group is together, the small children, the children and the elderly.

Univariate logistic regression was used to examine the association between possible determinants and receiving a prescription, number of medicines per prescription, number of medicines received in the past six months and membership. An association was considered significant when $p<0,05$. The odds ratios (OR) show the strength of association between the determinant and the outcome measure. An OR above one indicates an increased likelihood of having the outcome in the first column and an OR below one indicates a decreased likelihood of having the outcome in the first column. Both are compared to the baseline category of that variable. Possible confounders or effect modifiers were not looked into with specific test, because this would be of little value.

The outcome of the open questions were written down in English and analysed. The same answers came up frequently. They were grouped together under labels.

A list was made with all the medicines given in the week of interviews. This in order to see which medicines were given most. The generic names were put into the database. Some medicines were not traceable, probably because of recording mistakes by the interviewer. Also some medicines were not on the list made of the available medicines in the pharmacy.

2.4.3 Focus Group Design

One FG was held, because in this way the participants could stimulate each other in developing and discussing different ideas. In the FG, the participants shared understandings were revealed, using their own words and expressions.

Characteristics of study design

Sample

A FG was designed, which was held for a group of members and a group of non-members of Share & Care. In this way a difference between the two groups could be noticed. The minimum number of participants was five and there were no exclusion criteria.

Variables of interest

- The expectations of community members when going to the SHP to see the AHW
- The perception towards medicines of both members and non-members
- The influence of Share & Care on medicine use according to members and non-members

Measurement methods

The FGs were conducted by a facilitator and a note taker, both trained interviewers, following a FGD (see appendix 4). The answers were put on sticky notes and placed on a flip over.

Data analysis

The Focus Group was not recorded due to lack of material. The notes were however taken carefully and discussed with the researcher. Also the flip over was photographed as extra material. Both were analysed, the outcome is given in a descriptive manner.

2.4.4 Interview with Incharge and Auxilliary Health Worker

An interview was held with the Incharge and the Auxilliary Health Worker to gain more insights in the medicine use in and around the SHP.

Characteristics of study design

Sample

An interview was conducted with the AHW and Incharge of the SHP.

Variables of interest

The availability of medicines was of interest as well as the opinion of the AHW about Share & Care concerning the use of medicines.

Measurement methods

The interview was conducted by the researcher in English and if the AHW did not speak English an interviewer conducted the interview, following a structured questionnaire with open and closed questions (appendix 3). The questionnaire form had to be completed.

Data analysis

The outcome of the open questions and closed questions were combined, written out and described. This was done by summarising the answers, because they followed straightforward questions.

2.5 Data collection and analysis - Quantitative methodology

2.5.1 Evaluation of the medicine stock in the pharmacy

The medicine stock of the SHP was counted and analysed.

Characteristics of study design

Sample

The whole medicines stock, as pointed out by the Incharge/AHW/pharmacist, was included. In Hansposa this was only done for the sub-centre, because it was not permitted to count the medicine stock in the SHP.

Variables of interest

- the different medicines in stock

- the amount of medicines in stock

- the expiry dates of the medicines in stock

- A division between medicines provided by the government and medicines provided by Share & Care

Measurement methods

The content of the SHP/sub-centre was counted with help from the pharmacists. Data recorded were the brand name, the generic name, the expiry date and the amount available.

Data analysis

All the medicines were looked up and the indication for what it is used was added to the data. Then the medicines were compared to the National list of essential medicines Nepal. This list gives the medicines that are essential for a SHP, for a HP, for a PHC and for the district hospital. First the data were analysed using the list very strictly, then also the medicines essential for the HP and PHC were added as allowed. If the dose was different than stated on the National list, the medicine was labelled as not on the list. The same for combinations with one medicine that is on the list en others that are not. Also when the administration method is different (tab / syrup) the medicine was labelled as not on the list. An Excel-file with descriptive data was made to share with the Karuna Foundation.

3. Results

3.1 Results Hansposa

3.1.1 Results quantitative questions patient exit interview

Table 1 shows frequencies of the characteristics of the interviewees.

Table 1: Characteristics of interviewees

Characteristics interviewees		
General		
Number of patients		130
Centre		20,8% SHP/79,2% sub-centre
Sex		53,8% female
Age	<=5	20,8% (27)
	6-14	17,7% (23)
	16-49	43,8% (57)
	>=50	17,7% (23)
Most from ward		2
Share & Care		
Member of Share & Care		70,8% (92)
Knows Share & Care		73,8% (96)
Prescriptions		
Received one/more prescriptions		88,5% (115)
Range of number of prescriptions		0-5

Diagnosis

Infections were the most frequent diagnosis seen (22,8%), followed by gastro-intestinal diseases (21,7%) and respiratory diseases (12,0%). The infections were very diverse, from eye infections to abscesses. Within gastro-intestinal diseases diarrhoea was most frequent. There was furthermore vomiting, vomiting and diarrhoea and gastritis. When the database was split for membership, pretty much the same results showed. Members have the highest frequency for infections (22,8%), gastro-intestinal diseases (21,7%), followed by respiratory tract diseases (12,0%). Non-members also have the highest frequency for infections (34,2%), followed by gastro-intestinal tract diseases (21,1%).

The categorised diagnosis groups contained too small numbers for statistical testing, so fever and family planning were put into others.

Number of medicines

Table 2: Number of medicines per prescription

Number of medicines per prescription	Number of patients (n=130)
0	15 (11,5%)
1	26 (20,0%)
2	34 (26,2%)
3	32 (24,6%)
4	22 (16,9%)
5	1 (0,8%)

Table 2 shows the number of medicines per prescription. The mean number of medicines per prescription is 2,18.

Associations

The associations between receiving a prescription and possible determinants are explored in table 3. Except for centre, no significant associations were found.

Table 3: Associations between receiving a prescription and possible determinants

Factor	**No prescription** (n=15)*	**Prescription** (n=115)	**Univariate analysis****
Membership			
Yes	13 (14,1)	79 (85,9)	1
No	2 (5,3)	36 (94,7)	0,338 (0,072-1,575)
Sex			
Male	6 (10,0)	54 (90,0)	1
Female	9 (12,9)	61 (87,1)	1,328 (0,444-3,973)
Age			
<=5	1 (3,7)	26 (96,3)	1
6-14	3 (13,0)	20 (87,0)	3,900 (0,377-40,367)
15-49	6 (10,5)	51 (89,5)	3,059 (0,350-26,765)
>=50	5 (21,7)	18 (78,3)	7,222 (0,777-67,136)
Diagnosis			
Gastro-intestinal	1 (3,6)	27 (96,4)	1
Infections	3 (8,6)	32 (91,4)	2,531 (0,249-25,768)
Others	10 (18,9)	43 (81,1)	6,279 (0,760-51,854)
Respiratory	1 (7,1)	13 (92,9)	2,077 (0,120-35,894)
Centre			
Sub-centre	15 (14,6)	88 (85,4)	1
SHP	0	27 (100)	0,0***

*number (row percentage), ** Odds ratios (logistic regression) + 95% confidence intervals,
*** significant association with p<0,05

Table 4:Associations between number of medicines per prescription and possible determinants

Factor	**>2 medicines** (n=56)*	**<=2 medicines** (n=74)	**Univariate analysis****
Membership			
Yes	43 (46,7)	49 (53,3)	1
No	13 (34,2)	25 (65,8)	0,593 (0,270-1,300)
Sex			
Male	26 (43,3)	34 (56,7)	1
Female	30 (42,9)	40 (57,1)	0,981 (0,489-1,968)
Age			
<=5	12 (44,4)	15 (55,6)	1
6-14	13 (56,5)	10 (43,5)	1,625 (0,530-4,984)
15-49	21 (36,8)	36 (63,2)	0,729 (0,288-1,849)
>=50	10 (43,5)	13 (56,5)	0,962 (0,314-2,949)
Diagnosis			
Gastro-intestinal	20 (71,4)	8 (28,6)	1***
Infections	18 (51,4)	17 (48,6)	0,424 (0,148-1,216)
Others	16 (30,2)	37 (69,8)	0,173 (0,063-0,474)***
Respiratory	2 (14,3)	12 (85,7)	0,067 (0,012-0,376)***
Centre			
Sub-centre	45 (43,7)	58 (56,3)	1
SHP	11 (40,7)	16 (59,3)	0,886 (0,375-2,096)

*number (row percentage), ** Odds ratios (logistic regression) + 95% confidence intervals,
*** significant association with p<0,05

Table 4 shows results of a similar analysis, exploring associations between number of medicines per prescription and possible determinants. Diagnosis shows a significant association with number of medicines per prescription. Gastro-intestinal, others and

respiratory are significantly associated. Most of the patients with diagnosis gastro-intestinal received >2 medicines, whereas most patients with the diagnosis others and respiratory received >=2 medicines. No significant association was found between number of prescriptions in categories and being a member. There is however a difference visible in the crosstab, the majority of non-members received 2 or less medicines, while in the member group it is equal.

Table 5: Associations between number of medicines in the past six months and possible determinants

Factor	**>4 medicines** (n=42)*	**<=4 medicines** (n=56)	**Univariate analysis****
Membership			
Yes	30 (45,5)	36 (54,5)	1
No	12 (37,5)	20 (62,5)	0,720 (0,303-1,709)
Sex			
Male	21 (44,7)	26 (55,3)	1
Female	21 (41,2)	30 (58,8)	0,867 (0,389-1,931)
Age			
<=5	14 (77,8)	4 (22,2)	1***
6-14	7 (35,0)	13 (65,0)	0,154 (0,036-0,651)***
15-49	13 (31,7)	28 (68,3)	0,133 (0,036-0,483)***
>=50	8 (42,1)	11 (57,9)	0,208 (0,049-0,874)***
Diagnosis			
Gastro-intestinal	14 (60,9)	9 (39,1)	1
Infections	12 (46,2)	14 (53,8)	0,551 (0,177-1,720)
Others	12 (31,6)	26 (68,4)	0,297 (0,101-0,875)***
Respiratory	4 (36,4)	7 (63,6)	0,367 (0,083-1,625)
Centre			
Sub-centre	32 (42,7)	43 (57,3)	1
SHP	10 (43,5)	13 (56,5)	1,034 (0,403-2,654)

*number (row percentage), ** Odds ratios (logistic regression) + 95% confidence intervals, *** significant association with p<0,05

Table 5 shows results of a similar analysis, exploring associations between number of medicines in the past six months and possible determinants. 98 Interviewees gave a number as answer to how many medicines they received in the past six months, these data were included in the calculation. A significant association was found between age and number of medicines in the past six months. Children <=5 years old received in majority >4 medicines, while the other patients received in majority <=4 medicines. There was also a significant association found between the diagnosis others and number of medicines in the past six months. Most of the patients with the diagnosis others received <=4 medicines. No significant association was found between number of prescriptions in the past six months and membership. The numbers however show that the non-members received in 62,5% of the cases <=4 medicines, in the member group this was 54,5**%.**

Table 6: Associations between membership and possible determinants

Factor		**Non-member** (n=38)*	**Member** (n=92)	**Univariate analysis****
Sex				
	Male	20 (33,3)	40 (66,7)	1
	Female	18 (25,7)	52 (74,3)	0,692 (0,324-1,478)
Age				
	<=5	6 (22,2)	21 (77,8)	1
	6-14	5 (21,7)	18 (78,3)	0,972 (0,254-3,726)
	15-49	21 (36,8)	36 (63,2)	2,042 (0,711-5,863)
	>=50	6 (26,1)	17 (73,9)	1,235 (0,337-4,532)
Diagnosis				
	Gastro-intestinal	8 (28,6)	20 (71,4)	1
	Infections	13 (37,1)	22 (62,9)	1,477 (0,507-4,302)
	Others	14 (26,4)	39 (73,6)	0,897 (0,323-2,495)
	Respiratory	3 (21,4)	11 (78,6)	0,682 (0,150-3,109)
Centre				
	Sub-centre	16 (15,5)	87 (84,5)	1***
	SHP	22 (81,5)	5 (18,5)	23,925 (7,902-72,435)***

*number (row percentage), ** Odds ratios (logistic regression) + 95% confidence intervals, *** significant association with p<0,05

Table 6 shows results of a similar analysis, exploring associations between membership and possible determinants. A significant association was found between centre and membership.

Treatment

279 Medicines were prescribed in total to the interviewees. Most prescribed was Paracetamol (9,7%) and Metronidazole (7,2%). Furthermore Cetirizine (5,4%), Amoxycilline (4,7%), Nimesulide (4,3%) and the combination Ibuprofen, Paracetamol (4,3%).Of these medicines, Nimesulide and Cetirizine are not on the National list of essential medicines Nepal.

Use of medicines by patient

The interviewees were asked about two subjects for the quantitative analysis: requesting medicines and the use of medicines at home. Outcome can be seen in table 7, 8 and 9.

Table 7: Percentage of patients who requested medicines in the past

Question	Yes	No
Patient requests medicines from additional list of medicines	13,8%	86,2%
Patient requests medicines for someone else than himself	13,8%	86,2%
Patient requests medicines for someone else by pretending disease	3,1%	96,9%

Evaluation showed that 22,3%, being 29 out of 130 interviewees responded “yes” to one or more of the questions whether medicines were requested. From this selection 48,3% indicated they received medicines, 20,7 % stated that they sometimes received medicines and the remainder did not receive the medicines. It is noted that seven patients who requested medicines from the additional list of Share & Care and two persons requesting medicines for others were not served.

Table 8: Use of medicines within the household

Question	Member	Non-member
Patient or household member is using medicines now	51,1% (n=90)	23,7% (n=38)
Patient consumes all units of medicine	98,8% (n=89)	84,2% (n=38)
Patient has left-over medicines at home	54,3% (n=92)	42,1% (n=38)

There were no obvious differences between the member and non-member group in their answers to the questions from table 8, except that non-members are using less medicines at this moment. Differences did show up when the interviewees were asked what they did with the left-over medicines. The outcome is shown in table 9. Interviewees that answered that they have no left-over medicines were excluded from the calculation, which led to 41 members and 22 non-members.

Table 9: Use of left-over medicines

Question	Member (n=41)	Non-member (n=22)
Patient stores left-over medicines	17,1%	50,0%
Patient gave in past left-over medicines to household members	14,6%	40,9%
Patient gave in past left-over medicines to other people outside household	7,3%	33,3%

Table 9 indicates that more non-members store medicines and give them to other people compared to the members.

3.1.2 Results qualitative questions patient exit interview

Outcome tables can be found in appendix 5.

Changes that occurred in the use of medicines after the implementation of Share & Care

The interviewees were asked if they thought Share & Care had caused a change in the use of medicines in the VDC. The answers were put into categories and it was counted how many times a similar answer came up. There were also answers that did not refer to the use of medicines. These are however displayed in the outcome table as a different category.

Of the members who were interviewed, 64 answered that Share & Care influenced the use of medicine in the VDC. The two answers that came up most were that members get the medicines for free and that members get the medicines at a discount, which was answered 34 times. Other answers stated that members get good medicines, members get medicines at 10% discount and members get medicines easily. In the other categories, changes that came up were: members get treatment without medicines, members get treatment easily, there is good service for members, it is more comfortable, members get benefits, members get more facility, members are benefitted and members get referral.

'Members are free of cost to take medicines.'

'Members get so many benefits during treatment.'

Of the non-members who were interviewed, 18 answered that Share & Care had an influence on the use of medicines. Five non-members stated that members get the medicines at a discount, one could mention that it is a 10% discount. Three mentioned that the medicines are free for members. Other answers included that members are benefited and members get referred.

'Members get medicines at a 10% discount.'

Comparison between members and non-members
Where the members said that they can get free medicines, the non-members only mentioned the discount on medicines for members. A noticeable thing is that both groups mention that members get referred. It is not clear whether they meant that the members get a refund for this, or that members get referred by the health worker whereas non-members get referred less often.

Content with the outcome of the visit to the SHP

The interviewees were asked if they were content with the outcome of the visit to the SHP. They could choose out of four answers: very satisfied, satisfied, not satisfied and don't know. They answered the question as seen in table 10.

Table 10: The satisfaction of patients with the outcome of the visit to the SHP/sub-centre

Content with outcome visit	Members (n=92)	Non-members (n=38)
Very satisfied	27 (29,3%)	7 (18,4%)
Satisfied	62 (67,4%)	28 (73,7%)
Not satisfied	2 (2,2%)	1 (2,6%)
Don't know	1 (1,1%)	2 (5,3%)

Percentagewise more members answered very satisfied compared to the non-members, but if you add the categories very satisfied and satisfied it is comparable.

Then the interviewees were asked if why they were content or not. The four answers are analysed separately. The answers were categorised and it was counted how many times a similar answer came up.

The members mentioned most that the SHP gives good medicines as a reason why they are very satisfied. Further it was mentioned twice that the SHP is nearby and the staff is cooperative, that they give good treatment and better treatment. It was five times stated as a reason that patients are referred if needed. Other reasons that came up included that good service is provided, there is no need to go to another place, you can get cheap medicines, they provide better medicines and you can get medicines easily.

'They provide good medicines and refer if necessary.'

The non-members stated as a reason three times that the SHP gives them effective medicines, two persons said they give good medicines. Further it was mentioned that they provide free medicines, they give good treatment, provide good service and that it is nearby.

Within the group 'satisfied' the most heard answer by members was that the SHP provides good medicines, followed by the provision of effective medicines. Furthermore it was mentioned that the SHP gives free medicines, that the medicines

are available, that they give the medicines, that cheap medicines are provided and that medicines are provided at discount. In the other categories, it was stated several times that it is nearby, that the health workers refer if needed and that the staff is cooperative. Six patients said that good treatment was provided.

'Because I am well treated in this centre.'

'The medicines are more effective here than at the SHP.' One member said, who came to the sub-centre.

Non-members said mostly that the SHP is nearby and that they give medicines. It was also heard that they provide good or effective medicines and free medicines. One non-members mentioned that they provide medicines at discount. Furthermore they said simple diseases are treated, the treatment provided is good, the diseases are treated, there are good facilities and the health worker refers if necessary.

'It is nearby and we get free medicines.'

There was one member who was 'not satisfied' and stated that a delivery case should be referred to Biratnagar. One non-member was 'not satisfied' and said there are not many medicines.

One non-member 'didn't know' and said that the medicines do not work every time.

Comparison between members and non-members
Both groups mention most frequently the medicines as reason why they are satisfied. Free medicines are not only mentioned in the member group, but also in the non-member group. This is probably referring to the medicines provided by the government. People appreciate that the sub-centre/SHP is nearby and that the staff is cooperative. One non-member also mentions that the medicines are at discount, which is not the case.

Feelings when you do not receive a prescription at the visit at the SHP

The interviewees were asked how they would feel if the health worker would not give them a prescription for medicines, but chose another treatment option. Of the members who were interviewed, 91 answered the question, of the non-members 37 answered the question. Many answers came up in both groups.

The members responded most frequently that they would feel unhappy, angry or bad. Further they mentioned that they would get angry, would be disappointed, dissatisfied and visit another place. Individual answers included that they would never visit the SHP again, come back another day or search for another option. Only six members would reside with the decision of the health worker. Some members said that they would think there are no medicines available or would feel there is a lack of management or weak management committee. Two persons said they would feel it is a waste of money and one would feel it is a waste of money and time being a member of Share & Care. Other answers were that they would think the centre is going to be closed down and that it would not happen because the health worker always gives medicines.

'I expect for medicine.'

'I get angry and go to other place.'

The non-members mentioned most frequently that they would feel or get angry, but as many non-members mentioned that they would feel neutral or satisfied about it. Other answers heard several times were that they would feel bad or sad and that they would visit another place. Individual answers included that they would be disappointed, feel unhappy, feel sorry, go for the other option of treatment, request kindly, think there are no medicines available and don't believe that the health worker would do that.

'I would feel there is no medicines.'

Comparison between members and non-members
The difference between the two groups is that more non-members would reside with the decision of the health worker. The members show mostly disappointment and question the management of the sub-centre/SHP and wonder why there are no medicines given. The non-members question it too and would be disappointed, but 38% of them would feel satisfied or neutral. This is in the member group only 9%.

What is done with left-over medicines

The interviewees were asked what they do with left-over medicines, to see how medicines are handled within the household. 91 Members and 29 non-members answered the question.

Over half of the members said that they do not have left-over medicines. Of the other half most of them state that they return the medicines to the pharmacy, hospital or sub-centre. About 13% of them keep the medicines and about 9% throws the medicines away.

'I keep it on a cool and dark place and use if needed.'

Close to half of the non-members stated that they do not have left-over medicines. Of the non-members who do have left-over medicines, most of them said they would throw them away, but also they said they would keep them or return them to the pharmacy.

'I keep it at home for further use in case there is repetition of the disease.'

Comparison between members and non-members
About 55% of the members said that they do not have left-over medicines. In the non-member group this is around 46%. This could be a coincidence, but it seems like the non-members have left-over medicines more often. It is notable that quite a percentage returns the medicines, considering that they get the medicines per unit and don't get many.

3.1.3 Results interview with Incharge and Auxilliary health worker

Both the AHW and the Incharge work in the sub-centre/SHP since the start of Share & Care. There was a third AHW, but he was not interviewed.

They tell that there are a lot of places where you can buy medicines. There are private clinics and private pharmacies throughout Hansposa. This might influence the prescriptions. On the other hand, people also come to the pharmacy who did not see the health worker, to get medicines. The money earned in this way, goes to Share & Care.

The Incharge orders the medicines and decides what is going to be ordered. The order is placed at the District Health Office and on the market. Different brands are ordered, depending on what is the cheapest at that time. All the orders are recorded in a book, in which can be seen that there are over 571 different medicines and supplies that sometimes get ordered. There is also a list with the delivery from the government which contains 55 items. The medicines are ordered every three months, says the Incharge, the other health worker says it is every two weeks.

They both agree that the supply from the MoH is not sufficient considering the amount and the different medicines. The Incharge tells that the medicines from the government have to be divided between the SHP and the sub-centre and that it is not sufficient at all. So they also order medicines that are on the government list to supplement the stock.

Both men say that the additional medicines provided by Share & Care are the right ones. But they also feel that sometimes medicines are missing. The Incharge says that people do not get the full course of medicine at once because it is given without any cost. The other health worker mentions Clavus, Augmentin and Zoferone as missing.

The Incharge says that people request medicines, but he cannot mention a concrete example.

They both answer that Share & Care has an influence on the use of medicines. The Incharge tells that people have easy access to medicines that before they had to get at the market. The other health worker tells that people can get the medicines at discount.

3.1.4 Results Focus Group Design

Focus Group members

The FG was held in the SHP in ward 9 in a room of the VDC committee. The group consisted of seven men and two women in the age 20 to 46 years old. They were all motivated to join voluntarily. The FG was led by facilitator and there was one note taker. The discussion was held in a comfortable setting where everyone listened to each other. The facilitator made sure everyone could give input and stimulated the ones that were a bit quiet. Also the questions were clarified by the facilitator and questions from the participants were answered in a non-suggestive matter. The FG lasted around 30 minutes and all the topics were covered. The answers were put on a flip over. Prioritisations were made, but this turned out to be pretty difficult. An attempt was made though.

Expectations when going to the SHP/sub-centre

The members came up with a list of expectations:

- An easy way to get service
- Provision of good treatment
- Treatment in a nearby place to our home
- 24 hours service of good doctors
- Treatment for all illnesses
- Upgrading of your health
- Service to the local people
- Good medicines

- Gain good health
- Facility to many different things
- A delivery service
- An emergency service
- Every member of a house gets treatment
- High service, good service and quick service

The most important expectations that came up after prioritisation were:

1. Good medicines
2. Every member of a house gets treatment
3. 24 hours service of good doctors

The importance of medicines for the health system

Members said that medicines are very important because they are the treatment. They gave several reasons why medicines are important:

- There is provision of medicines at the SHP
- For treatment of disease
- To get healthy
- Medicines can start at a weak dose and then go to a stronger dose

Changes in the use of medicines since the implementation of Share & Care

Members mentioned several changes that occurred since the implementation of Share & Care:

- The availability of medicines increased at the SHP
- Outside the SHP they provide strong medicines and here they give the normal dose so it takes a long time for the treatment to work
- Some medicines are not available here
- Not all medicines are available like they mentioned initially
- Only one brand of medicine is available
- There is an increase in the use of medicines
- You will receive a 10% discount on the medicine price as a member
- The medicines are available whenever they are required

Focus Group non-members

The FG was held in the sub-centre in ward 2, in the room of the Share & Care staff. The group consisted of three men and two women in the age 20 till 45 years old. They were all motivated to join voluntarily. The FG was led by one facilitator and there was one note-taker. The atmosphere was calm and everyone listened to each other. Sometimes the group got a bit excited and talked through each other. The facilitator then made sure everyone would come back to the main discussion and would ask if there were other insights or opinions. The FG lasted around 30 minutes and all the topics were covered. The answers were put on a flip over with sticky notes. An attempt was made to prioritise the answers, but sometimes it was hard to come to a consensus.

Expectations when going to the SHP/sub-centre

The non-members made a list of expectations:

- Treatment of illness
- Good medicines
- Good facility for low cost
- Qualified doctors
- Cure of illness after using medicines
- Expired medicines should not be given
- Duty should be fulfilled by staff
- Medicines should be available at the sub-centre/SHP
- Free facility
- Good behaviour of staff

They prioritised as following:

1. Qualified doctors
2. Good facility for low cost
3. Good behaviour of the staff
4. Good medicines
5. Medicines should be available at the sub-centre/SHP
6. Treatment of illness

The importance of medicines

The non-members said that medicines are important for the health system. They mentioned several reasons why they are important:

- Medicines develop faith of the people for the treatment
- They are important for the illness and its treatment and cure
- There are appropriate medicines
- It is good treatment
- It gives convincing power for the staff
- It depends upon the illness
- It shows good service when the medicines work
- The validity of medicines should be maintained
- It gives faith in the health organisation

'It gives faith in the health organisation. When someone gets cured by the medicines provided, it shows that it works and that the health worker knows.'

After prioritisation the following list came up:

1. They cure illness
2. It gives faith
3. It is good treatment
4. Right medicine
5. They are valid medicines

Changes in the use of medicines since the implementation of Share & Care

The non-members mentioned several changes that occurred since the implementation of Share & Care:

- Door to door recruitment where they mention that there are more medicines now and that you can get them with a discount
- Members get a discount on medicines
- Low costs for the medicines

- Medicines are easily available
- Saving in money and time
- There is more facility and service

Comparisons between members and non-members

The members named good medicines as their top one expectation when going to the SHP, while the non-members placed this at number four. The non-members had qualified doctors and good facility for low cost as top priorities.

Both the members and non-members said that medicines are important for the health system. They both said they are important because they cure the illness. Non-members mentioned frequently that medicines give faith in the treatment and health organisation. The members did not have many reasons why medicines are important.

Many changes for the use of medicines were mentioned that occurred after the implementation of Share & Care. Members said that the availability of medicines increased at the SHP, but also that not all medicines are available. Furthermore they mentioned that there is an increase in the use of medicines and that you can get them whenever it is required. Lastly they mentioned that they can get the medicines with 10% discount. The non-members talked about the door-to-door recruitment and that the people of Share & Care explain the availability of medicines and the discount you can get as a member. Furthermore they say that the medicines are easily available now at a low cost. This saves money and time.

3.1.5 Results medicine count

All the medicines were counted in the pharmacy and an effort was made to define which medicines came from the MoH and which ones are provided by Share & Care. This turned out to be a very difficult distinction. The MoH provides very little medicines and in Hansposa they have to be divided between the SHP and the sub-centre. Most medicines from the MoH are assigned to the SHP. The pharmacy content of the SHP however could not be counted, because an official consent form, which the researcher did not have, was necessary and the SHP was closed for most of the stay in Hansposa.

There were 173 medicines available at the sub-centre of Hansposa, of which 2 were not recorded. The Incharge said that all the medicines in the pharmacy are from the essential list. But 130 medicines were not on the National list of essential medicines Nepal for a SHP (75%), 125 not for a HP(72%), 107 not for a PHC (62%), 97 not for a district hospital (56%). This means that more than half of the medicines that were present in the pharmacy were not on the National list of essential medicines at all.

There were some notable aspects. Of generic medicines multiple brands were available, especially for antibiotics and painkillers. The Incharge explained that they will order what is cheapest at that time. If you take the exact same generic medicines, but under different brands, together, it turns out that 77,9% of the available medicines were not on the National list of essential medicines Nepal for a SHP, 75,2% was not on the list for a HP, 65,1% was not on the list for a PHC and 59,1% was not on the list for a district hospital. This shows that more medicines that are on the list were available in different brands. But it also shows that

percentagewise even more medicines that were present in the pharmacy were not from the National list of essential medicines.

There were also medicines available that are a combination of two or more generic medicines, this counted mainly for antibiotics and painkillers. There were a few medicines that were expired, they were removed as soon as they were found. There was a separate disposal bin for the expired medicines.

3.1.6 General observations

Hansposa has a lot of private pharmacies and clinical centres. This means that before the implementation of Share & Care, patients were also able to get all the medicines even without consultation, if they could afford it.

The implementation of Share & Care led to a sub-centre in ward 2 with a big pharmacy. This pharmacy has a lot of medicines available and sells also to other visitors than patients who saw the AHW in the sub-centre. In this way Share & Care earns money. The members can get the medicines for free up to NPR 1000. After this they start paying for the medicines, but get them with 8% discount (Giri, 2010). The SHP in ward 9 also has the medicines available. Both centres share the medicines they receive from the MoH and they get supplemented by the medicines bought by Share & Care. The Incharge and AHW decide which medicines get ordered. There is no real protocol for this and a lot of medicines were not from the National list of essential medicines Nepal. Next to this it seems that the pull system to acquire medicines from the MoH is not fully used.

The treatments seemed not very consistent to the diagnosis made. Many different medicines were prescribed for the same diagnosis irrelevant to age or place. A striking finding was that there were a lot of medicines prescribed to the children diagnosed with chicken pox. Usually this disease is self-limiting and no treatment is necessary besides symptom prevention like itching.

3.2 Results Mechchhe

3.2.1 Results quantitative questions patient exit interview

Table 11 shows frequencies of the characteristics of the interviewees.

Table 11: Characteristics of interviewees

Characteristics interviewees		
General		
Number of patients		105
Sex		55,2% female
Age	<=5	8,6% (9)
	6-15	16,2% (17)
	16-49	49,5% (52)
	>=50	25,7% (27)
Most from ward		3, 4 and 8, none from 2
Share & Care		
Member of Share & Care		80,0% (84)
Knows Share & Care		58,1% (61)
Prescriptions		
Received one/more prescriptions		94,3% (99)
Range of number of prescriptions		0-5

Diagnosis

The most prevalent diagnoses were infections (25,7%) and fever (21,0%), followed by gastro-intestinal diseases (12,4%). The group infections contain a variety of diagnosis like abscess, eye infection and tonsillitis. Within the group gastro-intestinal diseases, the most prevalent was gastritis, a. dysentery and diarrhoea. Notable is the diagnosis body pain, which is very unspecific. The members got the diagnosis infections (27,4%) and fever (20,2%) the most. The non-members had the diagnosis fever (23,8%) and infections (19,0%) the most. After running the statistical tests it turned out that the numbers of some categories were too small, so respiratory and family planning were also placed into the category others.

Number of medicines

Table 12: Number of medicines per prescription

Number of medicines per prescription	Number of patients (n=130)
0	6 (5,7%)
1	53 (50,5%)
2	24 (22,9%)
3	15 (14,3%)
4	6 (5,7%)
5	1 (1,0%)

Table 12 shows the number of medicines per prescription. The mean number of medicines per prescription was 1,67.

Associations

Table 13: Associations between receiving a prescription and possible determinants

Factor	**No prescription** (n=6)*	**Prescription** (n=99)	**Univariate analysis****
Membership			
Yes	5 (6,0)	79 (94,0)	1
No	1 (4,8)	20 (95,2)	0,790 (0,087-7,147)
Sex			
Male	2 (4,3)	45 (95,7)	1
Female	4 (6,9)	54 (93,1)	1,667 (0,292-9,532)
Age			
<=5	0	9 (100)	1
6-14	1 (5,9)	16 (94,1)	0,0
15-49	3 (5,8)	49 (94,2)	0,0
>=50	2 (7,4)	25 (92,6)	0,0
Diagnosis			
Fever	0	22 (100)	1
Gastro-intestinal	0	13 (100)	0,0
Infections	2 (7,4)	25 (92,6)	0,0
Others	4 (9,3)	39 (90,7)	0,0

*number (row percentage), ** Odds ratios (logistic regression) + 95% confidence intervals,
*** significant association with p<0,05

The associations between receiving a prescription and possible determinants are explored in table 13. No significant associations were found.

Table 14: Associations between number of medicines per prescription and possible determinants

Factor	**>2 medicines** (n=22)*	**<=2 medicines** (n=83)	**Univariate analysis****
Membership			
Yes	19 (22,6)	65 (77,4)	1
No	3 (14,3)	18 (85,7)	0,570 (0,152-2,145)
Sex			
Male	10 (21,3)	37 (78,8)	1
Female	12 (20,7)	46 (79,3)	0,965 (0,375-2,481)
Age			
<=5	2 (22,2)	7 (77,8)	1
6-14	1 (5,9)	16 (94,1)	0,219 (0,017-2,828)
15-49	14 (26,9)	38 (73,1)	1,289 (0,239-6,965)
>=50	5 (18,5)	22 (81,5)	0,795 (0,125-5,045)
Diagnosis			
Fever	4 (18,2)	18 (81,8)	1
Gastro-intestinal	5 (38,5)	8 (61,5)	2,812 (0,593-13,336)
Infections	8 (29,6)	19 (70,4)	1,895 (0,485-7,400)
Others	5 (11,6)	38 (88,4)	0,592 (0,142-2,473)

*number (row percentage), ** Odds ratios (logistic regression) + 95% confidence intervals,
*** significant association with p<0,05

Table 14 shows results of a similar analysis, exploring associations between number of medicines per prescription and possible determinants. No significant associations were found.

Table 15: Associations between number of medicines in the past six months and possible determinants

Factor	**>4 medicines** (n=6)*	**<=4 medicines** (n=14)	**Univariate analysis****
Membership			
Yes	5 (35,7)	9 (64,3)	1
No	1 (16,7)	5 (83,3)	0,360 (0,032-4,006)
Sex			
Male	37 (33,3)	10 (66,7)	1
Female	1 (20,0)	4 (80,0)	0,500 (0,044-5,737)
Age			
<=5	0	2 (100)	1
6-14	0	6 (100)	0,0
15-49	3 (42,9)	4 (57,1)	0,0
>=50	3 (60,0)	2 (40,0)	0,0
Diagnosis			
Fever	2 (40,0)	3 (60,0)	1
Gastro-intestinal	1 (33,3)	2 (66,7)	0,750 (0,038-14,972)
Infections	21 (77,8)	6 (22,2)	5,247 (1,416-39,017)***
Others	3 (50,0)	3 (50,0)	1,500 (0,136-16,542)

*number (row percentage), ** Odds ratios (logistic regression) + 95% confidence intervals,
*** significant association with p<0,05

Table 15 shows results of a similar analysis, exploring associations between number of medicines in the past six months and possible determinants. 72,4% of the patients stated that they received many medicines in the past half year. These patients were excluded from the calculation. A significant association was found between the diagnosis infections and number of medicines in the past six months. The majority of patients diagnosed with infections received >4 medicines.

Table 16: Associations between membership and possible determinants

Factor	**Non-member** (n=21)*	**Member** (n=84)	**Univariate analysis****
Sex			
Male	9 (19,1)	38 (80,9)	1
Female	12 (20,7)	46 (79,3)	1,101 (0,420-2,892)
Age			
<=5	5 (55,6)	4 (44,4)	1
6-14	1 (5,9)	16 (94,1)	0,050 (0,004-0,557)***
15-49	9 (17,3)	43 (82,7)	0,167 (0,037-0,749)***
>=50	6 (22,2)	21 (77,8)	0,229 (0,046-1,129)
Diagnosis			
Fever	5 (22,7)	17 (77,3)	1
Gastro-intestinal	2 (15,4)	11 (84,6)	0,618 (0,102-3,765)
Infections	4 (14,8)	23 (85,2)	0,591 (0,138-2,537)
Others	10 (23,3)	33 (76,7)	1,030 (0,303-3,499)

*number (row percentage), ** Odds ratios (logistic regression) + 95% confidence intervals, *** significant association with p<0,05

Table 16 shows results of a similar analysis, exploring associations between membership and possible determinants. A significant association was found between the age groups 6-14, 15-49 and membership. The majority in these groups are member.

Treatment

176 Medicines were prescribed in total. Most prescribed were the painkillers Flexon, which is a combination of Ibuprofen and Paracetamol, and Paracetamol in different brands. Also Nimesulide, a NSAID, was prescribed several times. Furthermore Metronidazole, an antibiotic ranked high, together with Ciprofloxacin and Amoxycillin. Vitamin B-Complex was prescribed several times. Lastly Pheniramine, an antihistaminic, was prescribed 6,9% of all the medicines prescribed that week and in combination with another product another 4% could be added. Cetirizine, another antihistaminic, is 5,7% of all given medicines. Of these medicines Nimesulide, Cetirizine and Pheniramine are not on the National list of essential medicines Nepal.

Use of medicines by patients

The interviewees were asked about two subjects for the quantitative analysis: requesting medicines and the use of medicines at home. Outcomes can be seen in table 17, 18 and 19.

Table 17: Percentage of patients who requested medicines in the past

Question	Yes	No
Patient requests medicines from additional list of medicines	77,1%	22,9%
Patient requests medicines for someone else than himself	23,8%	76,2%
Patient requests medicines for someone else by pretending disease	4,8%	95,2%

Evaluation shows that 41,0%, being 43 out of 105 interviewees responded “yes” to one or more of the questions whether medicines were requested. From this selection 95,3% indicated they received medicines, 2,3 % stated that they sometimes received medicines and the remainder did not receive the medicines.

Table 18: Use of medicines within the household

Question	Member	Non-member
Patient or household member is using medicines now	40,5%	33,3%
Patient consumes all units of medicine	94,0%	85,7%
Patient has left-over medicines at home	7,1%	14,3%

Table 18 shows that more non-members have left-over medicines at home, but compared to members, non-members are using less medicines right now.

Interviewees that answered that they have no left-over medicines were excluded from the calculation, which led to six members and three non-members. The numbers are displayed in table 19, but n=9 and not much weight can be given to these outcomes.

Table 19: Use of left-over medicines

Question	Member (n=6)	Non-member (n=22)
Patient stores left-over medicines	83,3%	33,3%
Patient gave in past left-over medicines to household members	16,7%	0,0%
Patient gave in past left-over medicines to other people outside household	0,0%	0,0%

3.2.2 Results qualitative questions patient exit interview

Outcome tables can be found in appendix 6.

Changes in use of medicine after the implementation of Share & Care

The interviewees were asked whether they thought Share & Care had caused changes to the use of medicines after its implementation. 56 members and 2 non-members said that they had seen changes. They came up with several answers, from which not every answer was about medicines. The answers were first categorised in answers on medicines, answers on treatment and answers about service. Then the frequency and different answers were analysed.

The members mentioned most frequently that members get free medicines. Also free medicines in general was several times stated. The members mentioned six times that members get medicines at discount and it was heard that members get

medicines for free if they are in lack of money. Other answers were that you can get medicines easily, get the medicines you want, members get more medicines and get more medicines for free, it provides medicines and treatment and that there are more medicines than before. In the other categories it was mentioned several times that members get more benefits and that members get referral to the hospital in case of need. Furthermore answers included access to treatment, free treatment, members get treatment easily in lack of money and members get more facility.

'Members get medicines for free at any time in case of lack of money.'

'Members get referral to the hospital in case of need.'

Of the non-members, one did not know which changes there were. The other mentioned that members get more benefits.

Comparison between members and non-members
The members mentioned six times that members get medicines at discount, which is not the case in Mechchhe. Furthermore it is apparent that members think they get easier treatment and medicines even if they lack money. The non-member group did not know Share & Care and if they knew they could not really mention changes. This shows that the knowledge of Share & Care among non-members is not very big.

Content about visit made to the SHP

All the interviewees were asked if they were content with the outcome of the visit to the SHP. They could choose out of four answers: very satisfied, satisfied, not satisfied and don't know. The outcome can be seen in table 20.

Table 20: Satisfaction of patients with the outcome of the visit to the SHP

Content with outcome visit	Members (n=84)	Non-members (n=21)
Very satisfied	24 (28,6%)	6 (28,6%)
Satisfied	59 (70,2%)	14 (66,7%)
Not satisfied	*1 (1,2%)*	*0 (0,0%)*
Don't know	0 (0,0%)	1 (4,8%)

Both groups answered percentagewise quite similar. The vast majority is satisfied or very satisfied.

The answers on why they are content with the visit will be analysed per option. Within the options, categories are made.

Most of the members who answered that they were 'very satisfied', said this was because they were provided with effective medicines. Frequently mentioned was also that the SHP gives good medicines and that they give good treatment. Other persons said that they treat the diseases of the community, they refer if needed and it is nearby. Furthermore it was said that the health workers are cooperative, there is no need to go to Kathmandu and that the SHP preserves the community's health.

'The health worker is cooperative and provides effective medicines.'

The non-members said that the SHP gives good medicines, provides effective medicines, provide medicines, gives good treatment and that the health workers are cooperative.

Most members who were 'satisfied', said that the SHP provides effective medicines. It was also frequently mentioned that they give good medicines. A lot of more reasons came up, like that there is availability of medicines, that they give medicines at any time, that they give medicines the community wants, that the members get free medicines and that it provides medicines and treatment. In the other categories there were also a number of reasons: they give good treatment, it is for the community's health, it cures the disease and the SHP is nearby were several times mentioned. Individual answers comprised that it is there for the treatment of disease, a patient got cured after going to the SHP, it is easily accessible, it benefits the community's health and it provides lots of facilities.

'We got cured after coming here.'

The non-members also said that the SHP provides effective medicines and that they give good medicines. Furthermore the non-members mentioned that they give good treatment and that it cures the disease. Individual answers that were given were that they give medicines at any time, that it is for their health and that it is easily accessible.

The member who was 'not satisfied' said that the medicines are not effective. The non-member who 'didn't know', could not give a reason for this.

Comparison between members and non-members
Both groups mentioned medicines frequently as a reason why they are satisfied. But also other reasons were set out. The patients were quite community minded and look at the SHP from a community view. Cure was important to both groups. It was also mentioned that it is nearby, which is notable in an area like Mechchhe.

Feeling if not receiving a prescription

To see the importance of getting medicines, the interviewees were asked how they would feel if the AHW did not give them a prescription. 84 Members and 21 non-members answered the question. The answers were put into the categories disappointment, alternative and reside.

The members would feel in majority bad or sad. Furthermore some said they would feel unhappy or angry. One person stated that he/she would feel really bad. It was once mentioned that a person would be satisfied and go for the other treatment option.

'I would be satisfied and go for the other option.'

Eleven members would be satisfied and two say it won't have any effect on their feelings.

The non-members would be disappointed in majority too, saying they would feel bad, sad or unhappy. Two non-members would be satisfied and one said it would have no effect.

Comparison between members and non-members
Both groups would not like the idea that they would not get a prescription. This shows that medicines play an important role in the visit to the SHP and that people expect them. In both groups around 14% of the visitors would reside with the decision of the health worker.

Handling of left-over medicines

The interviewees were asked what they do with left-over medicines, to see how they handle the medicines within the household. Only nine of the interviewees turned out to have left-over medicines, 78 members (92,9%) and 18 non-members (85,7%) said they did not have left-over medicines.

Of the people who did have left-over medicines, two members said that they keep it and one added that he/she gives it to others if needed. Furthermore two said they throw them away and one said he/she will use it the next time.

Of the non-members, two said they will keep it and one said he/she will throw them away.

3.2.3 Results interview with Incharge and Auxilliary Health Worker

Both health workers have worked for a long time at the SHP and know the situation well. Even though you can get medicines at other places, most of them are very far away. The SHP is therefore the main location to go for treatment or medicines. In the week of the research project, a lot of medicines were out of stock. This was however the first time in two years that that happened, told the Incharge. In the same week, the new delivery arrived. These were medicines from Gautam medicine suppliers, Kathmandu. The Incharge orders the medicines once every two months and they are according to him ordered in Banepa.

The opinions differed whether the MoH provides enough medicines, the AHW agreed, the Incharge did not. You could wonder if this answer is correct, also considering that the AHW had a private pharmacy before Share & Care was implemented. Both men were agreeing that Share & Care adds a lot of useful medicines and that no medicines are really missing. So far there is no real protocol for what medicines are ordered and the Incharge is the one who decides.

Both health workers stated that patients request medicines. Most requested are the painkillers De-cold (paracetamol and ibuprofen) and Nims (nimesulide = NSAID).

On the question what influence Share & Care has on the use of medicines since its implementation, they both said that there is an influence. The Incharge mentioned that people get the right medicines now at the right time with the right dose. The other health worker said that patients do not have to go to another place anymore, because Share & Care supplements the medicines provided by the MoH to the need of the community.

3.2.4 Results Focus Group Design

Focus Group for Members

The FG was held at the SHP on the front porch. There were many people who would like to participate. The group consisted of nine men and one woman in the age of 21 to 45 years old. The Group was led by one facilitator and there were two note-takers. The flip over and sticky notes were used to display the answers and to prioritise. The group was calm and listened to each other. They added to each other and shared their opinions. The facilitator encouraged the more quiet participants to share their opinions. The atmosphere was relaxed and there was space for a laugh. Everyone had patience when somebody dwelled off a little. The facilitator listened to the answer

and steered the conversation back towards the real question. The facilitator made sure the topic stayed on medicines and not on the other components of Share & Care.

Expectations when going to the SHP

Expectations mentioned by the members were:

- Immediate medicines
- Receiving good treatment
- Becoming free from the disease
- Good medicines that can treat the diseases easily
- Good quality medicines
- Nice response from the health worker

Prioritisation showed that good quality medicines and good treatment are the most important expectations.

The importance of medicines for the health system

Members said that medicines are important and they gave several reasons.

'Medicines are important, because they treat our disease.' One participant mentioned, which was agreed by the group.

Other reasons that came up were:

- The people believe in the medicines as a treatment
- The medicines given are according to our problems
- Medicines fight against the bacteria and other organisms
- If the health worker states the right diagnosis, we will get the right medicines and get better

Prioritisation showed that medicines are mostly important because they fight against organisms and treat the disease.

Changes in the use of medicines since the implementation of Share & Care

Members mentioned several changes that occurred:

- There are more medicines available
- Share & Care gives the people an idea how to solve disease
- There is nearby service in two places now, where you can get treatment
- An awareness programme is launched on disease and treatment
- The treatment of simple disease is easy and on time
- Pregnancy tests are available now
- There is good treatment for children
- People became aware of the usefulness of medicines above the traditional healer
- The consumption of medicines is increased

'Before we didn't have much medicine and it was difficult for us to get medicines.'

Focus Group non-members

The FG is held at the SHP on the front porch. Because it was difficult to find participants who are non-member due to the geography of the region, the Group

was a bit smaller than the member group. This is also because around the SHP most people are member. The group consisted of five men and one women in the age of 25 to 54 years old. The FG was led by one facilitator and there were two note-takers. The flip over and sticky notes were used to display the answers and to prioritise. One men who joined seemed intoxicated. However, he did not disturb the group extensively and he did share his opinion. The other participants were not very concentrated and the facilitator tried to keep everyone's attention and to stick to the topics. She urged the people to not get up and explained that the FG would not take much longer. The facilitator listened carefully and pointed out everyone to state their mind.

Expectations when going to the SHP

The non-members stated various expectations:

- Strong medicines and a cure of illness
- The health worker making the correct diagnosis
- Getting good medicines
- A qualified doctor
- A laboratory
- A stretcher

Prioritisation showed that the most important expectations are:

1. A qualified and experienced doctor
2. Good medicines
3. The correct diagnosis

The importance of medicines for the health system

Non-members stated that medicines are very important. They gave several reasons why they are important:

- To cure the disease
- To reduce the effect of the disease
- To protect the people from diarrhoea
- To be free from mental tension
- To be strong
- To gain energy

Prioritisation revealed that the cure of disease and the reducing of the effects of disease are the main reasons that medicines are important.

Changes in the use of medicines since the implementation of Share & Care.

The non-members mentioned four changes that occurred for the use of medicines since the implementation of Share & Care:

- There are ineffective medicines
- There are more expired medicines
- There are more medicines available
- There is more staff available for 24 hours per day

Comparisons between members and non-members

For the expectations when going to the SHP, both the members and non-members mentioned good medicines and good treatment. The non-members gave a higher priority to a good and qualified doctor, the members to good quality medicines.

Both groups think that medicines are important. They both state that medicines cure the disease. Non-members mention reducing the effects of disease, where members mention that medicines fight the bacteria and organisms.

On the topic of changes in the use of medicines after the implementation of Share & Care the two groups came up with different answers. The members mention that there are more medicines available and that Share & Care shows the importance of medicines and encourages people to go to the SHP for treatment. They also say that the consumption of medicines is increased. Non-members however say that there are more expired and ineffective medicines. They do say that there are more medicines available.

3.2.5 Results medicine count

At arrival the Incharge said that the pharmacy was quite empty and that this was the first time in two years that there was a shortage of medicines. But medicines would be delivered soon. The first count was done and when the medicines arrived, the extra medicines were also recorded. Most of the medicines were provided by Share & Care. Only a small amount came from the MoH and these medicines were mostly loose tablets which were not traceable to a name.

In the pharmacy many different medicines were available. In total there were 145 medicines of different brands present. These medicines were compared with the National list of essential medicines Nepal. The list has different categories, namely medicines for the HP, for the SHP, for the PHC and for the district hospital. Of the medicines available in the pharmacy of the SHP, 92 (63,4%) were not on the essential list for a SHP, 84 (57,9%) were not on the list for a HP, 72 (49,7%) not for a PHC and 69 (47,6%) not for a district hospital, which means they were not on the list at all.

There were some generic medicines available from different brands. If you take out the exact same generic medicines, this will diminish the list by 25 medicines. It turns out that 64,7% of the medicines was not on the National list of essential medicines Nepal for a SHP, 58,8% was not on the list for a HP, 50,4% was not on the list for a PHC and 48,7% was not on the list for a district hospital.

There were also medicines available that are a combination of two or more generic medicines, this counted mainly for antibiotics and painkillers. There were a few medicines that were expired, but these were just loose ampoules or tablets.

3.2.6 General observations

Based on initial observations from Karuna Foundation, before the implementation of Share & Care, there was a private pharmacy next to the SHP. This means that medicines were well available. Inquiry tells that in that time the health worker prescribed quite high doses of medicines and also a lot. Until certain extent this has ruined the rational use of medicines in Mechchhe (de Gaay Fortman, 2010). When Share & Care was implemented, the person who ran the pharmacy had to shut down his pharmacy and it was decided to give this person a permanent job as AHW.

A lot of different medicines were delivered during the research fieldwork. It was noticeable that the order contained different brands for the same generic medicine. Also some of the medicines that should be provided by the MoH came in. It is questionable whether the pull system to acquire medicines is used to full extent, or whether it suited the person who ordered the medicines better to just order them from the Share & Care money to avoid administrational hazard.

For the group fever, the treatment was studied. The treatment varied heavily. Mostly given was Flexon (nine times), which is Ibuprofen 400mg and Paracetamol 500mg. Three patients received De-cold, which is Paracetamol 500mg, Phenylephrine hydrochloride 7,5mg, Chlorpheniramine maleate 4mg. Nine patients received two medicines (41%) and three patients received three medicines (14%). Furthermore some patients received antibiotics. There was no distinct difference in treatment for different ages. Since the diagnosis 'fever' is not very specific it is hard to see what the treatment is based upon. However, you could say that the diagnosis should be written more specifically, because fever itself does not require antibiotic treatment.

Within the group gastro-intestinal tract diseases, the treatment was not consistent at all. Different medicines were given to the patients with gastritis, as well as the patients with a. dysentery and diarrhoea.

4. Discussion and limitations

4.1 Discussion

The aim of this study was to see if there is an influence of the Share & Care programme on the use of medicines and if differences exist between members and non-members, with an objective of evaluation of the medicine package. It is noted that for medical treatment, health workers should treat members and non-members equally.

Prescriptions

In Hansposa there was a significant association between diagnosis and the number of prescriptions. This shows that the AHW did not diagnose randomly. In Mechchhe there was no significant association between diagnosis and receiving a prescription. This could be due to the small sample size and coincidence. It could also indicate that the AHW did not work systematically. The Incharge in Mechchhe was not present during the research, so the AHW did all the diagnosis and prescriptions. Results about diagnosis and prescriptions might have differed if the Incharge was there, as he is a much more educated and experienced professional.

No significant differences were found in prescription patterns for members and non-members of Share & Care in both villages. This indicates that the AHW does not treat the members different than the non-members concerning prescription behaviour. There was however a difference visible in Hansposa; it seems that members received more medicines percentagewise than non-members in this visit and also in the past six months. More research would be needed to see if this difference is genuine or just occurred due to the small sample size, especially for non-members.

In Mechchhe 72,4% of the patients stated to have received many medicines in the past half year without giving an exact number, which makes it difficult to interpret. The assumption is that this occurred because of lack of motivation from the interviewer. The other answers were taken into calculation. Because there were only a few patients who actually gave a number to the question, the number to work with gave valuable information, but not a lot of weight can be given to it.

Multiple variables were tested for associations between each other. This gives an indication on possible relationships between the different variables and the effect they can have. However, confounders and effect modifiers were not looked into with statistical tests because of the small sample size. The value of the outcome for this research project would be too small.

It is noted that in Mechchhe medicine requests were almost always granted by the AHW. This might be due to walking distance, but it can lead to abuse of the Share & Care programme if members request medicines for non-members, which they get for free.

In Hansposa the children up to five years old received significantly more medicines in the past six months than the other age groups. The reason that small children received more medicines could be that childhood mortality is very high in Nepal and the urge to treat therefore is high as well (Lamichhane et al., 2006). But it could also indicate over-prescription due to overestimation of the severity of disease.

The number of medicines per prescription was quite different between the two VDCs. In Hansposa one to four medicines were prescribed in almost equal percentages. In

Mechchhe half of the patients received one medicine and one fifth two medicines. The percentages of Mechchhe are consistent with literature, where also one and two medicines are most given in primary healthcare (Shankar et al., 2003b). It is not clear why percentagewise more medicines are prescribed in Hansposa. This could indicate over-prescription and more research might be useful on this topic. It is preferable to keep the number of medicines per prescription as low as possible to minimize the risk of drug interactions, non-compliance and the development of bacterial resistance, which is becoming a problem. And next to this to reduce the costs (Bajracharya et al., 2004).

Diseases

The most prevalent diseases occurring in the VDCs differ because of geographical differences. In Hansposa infections had the highest frequency. Second were the gastro-intestinal tract diseases, with diarrhoea as most frequent. In Mechchhe infections were also the most frequent given diagnosis, followed by fever. Infections were there significantly associated with receiving more than four medicines in the past six months.

The top five diseases for Kavre district are ARI, URI, headache, gastritis and fall/injuries. Pyrexia (fever) of unknown origin are on the tenth place (District Health Office Kavre, 2009). In Hansposa the top five diseases are pyrexia of unknown origin, intestinal worms, ARI/LRI, impetigo/boils/furunculosis and gastritis. Diarrhoea is not in the top ten (District Health Office Sunsari, 2009). The patients interviewed during this study have a somewhat different disease pattern which might be explained by the fact that merely patients visiting the SHP were interviewed, which is not a representative sample of the diseases prevalent in the community as people might be ill but not visit the SHP.

Because no significant association between diagnosis and membership was found, this indicates that the AHW is not influenced by the knowledge of a patient's membership status while deciding a diagnosis

Available medicines

The medicine count showed that a lot of medicines were not on the National list of essential medicines Nepal. There were many different brands available and no protocol for ordering medicines appeared in place. Since the ordering of medicines absorbs a considerable part of the budget from Share & Care, this area should be contained and better managed. Observations seemed to indicate that there was no consistent prescribing behaviour to certain diagnosis. More research is required to support this statement. The AHW could also need more training to prevent over prescription and use the medicines efficiently. Use of drugs from the essential drug list should be promoted for optimal use of limited financial resources, to have acceptable safety and to satisfy the health needs of the majority of the population (Mohanty et al., 2010).

It is noted that the stock was only counted once and this could be at a time the stock was not representative for the usual stock. In Mechchhe it was observed that a lot of medicines were delivered, also the same generic medicines from a different brand. Possible hypothesis is that the Incharge who ordered the medicines wanted to take advantage of the fact that this year Karuna is still contributing for the costs of Share & Care. Next year the whole programme has to be financed by the community. The same may count for Hansposa, which is also in the second and last year of contribution from the Karuna Foundation.

It was very hard to identify the government supply in both pharmacies. In Mechchhe it seemed there was hardly any provision by the MoH. In Hansposa it was stated that the supply was not sufficient and that most medicines from the MoH would go to the SHP instead of the sub-centre. It is noted that medicines from the MoH were not separately stocked in Hansposa. As was already observed, the small available number of medicine delivered by the MoH could also have arisen because the pull system to request medicines is not used properly.

Perception towards medicines

Another factor in the use of medicine is how the medicines are further handled in the household and how left-over medicines are handled. Many of the interviewed persons stated that they did not possess left-over medicines. Of the interviewees who stated that they had left-over medicines, many stated that they would return the medicines to the pharmacy or SHP. This might show that there is knowledge about the handling of left-over medicines. On the other hand you could question why they have left-over medicines since they get them per unit and not in a box. In Hansposa non-members were using less medicines and they had more medicines stored to give to others than the members. This could be due to the fact that they have to pay for the medicines and are thinking economical. In Mechchhe the number of interviewees who gave an answer to these question were too small to draw conclusions.

If patients have left-over medicines, this could indicate that they did not finish the course of medicines, which is important especially for antibiotic treatment. It can be assumed that self-medication occurs with the left-over medicines either for themselves or others. The therapeutic amount is less than prescribed in both cases, which could make the treatment fail and the agent of the disease is not completely eliminated. Here the risk of bacterial resistance occurs (Levy, 1998).

The majority of patients that visited the SHP were satisfied, because of the medicines. They judged that the medicines delivered by the SHP, including the medicines provided by Share & Care, are of good quality, effective and available. Also it was mentioned that the medicines are provided free of charge. In Mechchhe the patients looked next to medicines equally to the treatment and other benefits of the SHP. The majority of interviewees stated that they expect medicines when they go to the SHP. When the AHW would decide to give another treatment option instead of medicines, most patients would be very disappointed. Only 15% of the patients would accept an alternative approach. In Hansposa more non-members would reside with the judgement of the AHW. It is noted that the FG participants stated that they expect good medicines and treatment when going to the SHP. They considered medicines to be the solution to cure diseases. For the perception towards medicines, you can conclude from these data that medicines play an important role. No literature was found about the perception towards medicines in rural areas to support this finding.

In Mechchhe a transition was noted by community members from visiting the traditional healer towards consulting the SHP with the expectation of medicines. Research from 1998 showed that rural individuals are four times as likely to utilise a traditional healer as their first choice than urban individuals and within this group, the hill area is more likely to do this than the Terai area (Hotchkiss, 1998). Since then a transition has probably

been going on. The accessibility to a medical facility in the Terai area, like Hansposa, is easier, so this could explain why this area was already further in the transition.

The influence of Share & Care

A majority of the interviewees said that Share & Care had an influence on the use of medicines since its implementation. Most mentioned change was that medicines are free of cost for members. The upgrade of the service and availability was also seen by the community members. This came back in the FG where it was mostly mentioned that there are more medicines available. There is not a lot of difference in opinion between members and non-members, but they talk from their own perspective as being a member with benefits or not being a member and seeing the benefits. In Mechchhe however, 80,0% of the interviewees was member of Share & Care, but only 58,1% of the interviewees stated that they knew the programme. Non-members did not see the influence of Share & Care.

The Incharges and AHWs said that Share & Care had an influence on the use of medicines since its implementation. In Hansposa they said that the people can get the medicines easily and at discount. They also said that sometimes medicines are missing. This shows that they feel Share & Care could be used even better concerning the provision of additional medicines. In Mechchhe they mentioned the availability of medicines and that people do not have to go somewhere else anymore.

4.2 General limitations

The study was carried out in Nepal and therefore had different challenges to cope with. The preparation for the fieldwork was done in The Netherlands, but arriving in Nepal it turned out that this had to dramatically changed because part of the methodology was, contrary to our information, non executable. Interview material had to be designed on short notice. Also it was decided to combine different methods for the data collection. In retrospective this made the research quite complicated and is not advisable for the future.

The questions of the interviews were not validated beforehand or taken from an existing validated questionnaire. They were used in the training of the interviewers and checked for face validity. The interview and FG were piloted in Narayansthan in the week of the training of the interviewers. Ideally a pilot has a sample-size of 10% of the real research project, this goal was not reached due to miscommunication about opening times of the SHP. The pilot and training had as goal to obtain good reliability and validity. The questionnaire was adjusted following the problems that came up during the training and pilot.

The questionnaire for the interviews contained a lot of different questions. Not all questions from the questionnaire were analysed for this thesis, because they are not relevant to the subject or appeared later on to be irrelevant or with insufficient outcome. This was also the case for the data from the medicine count. The data are however of interest to the Karuna Foundation and were shared with them.

The interview had to be translated to Nepali, to create reliable outcomes. A translator was appointed by the organisation. During the interview training and pilot it was concluded that the translation contained quite some mistakes, which were corrected by the interviewers. Effort was made to make the questions equal to the English questions,

but there could however been slight differences and new ambiguities which were hard to identify. At the evaluation of the results one question was judged to be ambiguous because of inconsistent answers and was left out.

During the interview, the researcher had no possibility to check if the questionnaires were filled out correctly. Sometimes incomplete forms and inadequate answers were noted afterwards. Most of the incompletion could be fixed, but it was not possible to get more information to open questions when the answer seemed open to additions. Also the interviewers had to write down the answers in English, which is not their native language. Unfortunately sometimes the answers were up to the interpretation of the researcher in consultation with the interviewer.

The motivation of the interviewers varied per village. In Hansposa, the first VDC for the fieldwork, their will to cooperate and do the best to their extent was much higher than in Mechchhe, which was visited second. This can be seen in the results. The answers to open questions in Hansposa show more variation and the numbers asked are better defined and show more detail than the answers in Mechchhe. This leads to better explained results for Hansposa and sometimes meagre results for Mechchhe.

The focus groups have little value in itself for conclusions. First of all because there were not many participants and this made it hard to generalise the answers. Also, the participants came mostly from the same ward. Research showed that the recruitment of patients to focus groups in primary care is complex (Dyas, 2009). The same experience showed up in this research project, patients were asked to join and accepted, but showing up was a different story. In the future it might be useful to train the AHW on how to introduce the research project and get the participant to see the importance of joining. Also one could think of incentives. Another limitation was that however the interviewers were trained to facilitate the FG, it was the first time they performed such a research method. Therefore the design was very simplified to gain valuable results within the skills of the facilitator and note-taker. And lastly, there was a language barrier for the researcher with the FG. It was hard to follow what the FG participants were talking about or discussing. The note taker did not take many notes and it was hard to interrupt. This led to some missing questions one would like to ask, especially why people say what they said.

The interviewees and participants of the FG could have given socially desirable answers. It was tried to minimise this by assuring that the results would be anonymous and that the research project was done independently of the SHP. The interviews were however conducted next to the SHP, this could have influenced the answers. Some subjects were triangulated with the other research methods, to increase validity.

The recall bias for prescriptions received in the past six months was assumed to be high. When analysing the number of prescriptions in the past six months, this was considered. This outcome is categorised and not taken into a linear test. Other questions were formulated in such a way, that bias would be avoided.

The visit rate of members and non-members to the SHP differed. This could lead to a distorted picture in the analysis and makes the comparison between the groups difficult. It was however not possible to equalise the groups, this could only be done by excluding data-records from one group and this was not feasible because very small numbers would be left. This also led to selection bias. The rate of members in the two VDCs is

much lower than the rate of non-members. However, in this research project, the majority of participants were member. The questions were however about the visit to the SHP, so going into the field to avoid selection bias was not possible.

5. Conclusions and recommendations

5.1 Conclusions

5.1.1 Overall conclusion

The main research question was:

'How does the Share & Care programme influence the use of medicines for members and non-members of Share & Care in the two pilot-communities Mechchhe (Kavre) and Hansposa (Sunsari)?'

The conclusion is that the Share & Care programme influences the use of medicines in the two VDCs. Different aspects can be addressed and not all conclusions are valid for both VDCs. If the conclusion is different for one of the VDCs, this is mentioned.

1. First of all the Share & Care programme broadened the availability of medicines within the SHP. The 26 medicines provided by the MoH are significantly less than the medicines mentioned for a SHP in the National list of essential medicines Nepal. Additions are delivered by Share & Care. Sometimes, however, this is up to a point where one might ask if there are not too many different medicines available, since also medicines were found that are not part of the essential list. The provision of medicines from the MoH seemed inadequate, but it is unclear whether this is also due to the AHW who does not use the pull system to its full extent.

2. Next to this the members can get all medicines for free. In Hansposa this is restricted to 1000 NPR after which they will get a discount on the medicines.

3. In Mechchhe it was revealed that Share & Care enriches the knowledge about medicines, which led to more people acknowledging the use of medicines above the traditional healer.

4. There is an increase in the use of medicines.

5. The research project showed that the members are not differently treated by the AHW compared to the non-members concerning the medicines and prescriptions. It is noted that the non-members have access to all services but pay for their medicines.

6. The AHW, the Incharge and the community members in majority see a positive influence on the availability and use of medicines as a result of the implementation of Share & Care.

5.2 Recommendations

A few recommendations will be given, following the outcome of the research project.

A protocol should be in place for the ordering of the medicines. At this moment the AHW and Incharge are free to order anything they want and it is up to their judgement. Since a lot of money of Share & Care is spent on medicines, this spending should be controlled. The medicines that are ordered should be of the National list of essential medicines Nepal. Of course they can be extended to the lever of a HP or even a PHC, since there is

money and facility available above basic standards. But it is unnecessary to order medicines that are not on the list at all.

In this protocol, there should also be a paragraph about the medicines provided by the MoH. Since Nepal uses a pull system the AHW, Incharge or other authority that orders the medicines, should be aware that the medicines should be requested from the MoH. Depending on the amount a SHP can get, it should be forbidden to order these medicines from the Share & Care budget and sell them, unless there is a lack of provision. They should be free of cost and delivered by the MoH.

The perception that medicines are considered very important, are even seen as the cure to disease and are expected when visiting the SHP, should along the arms of time tried to be changed. Not every diagnosis requires medicines and requests for medicines should not be easily granted. For this also the AHW needs training. The prescription patterns do not seem very consistent and especially in Mechchhe, medicine requests are almost always granted. The AHW should be made aware that over prescription can do harm and extra training in this regard serves a good cause.

Furthermore Share & Care could consider to raise an awareness programme about disease and treatment. Most visitors to the SHP are members of Share & Care. To interest the non-members, it might be good to emphasize that going to the SHP is better than to wait for the disease to go away or go to a tradi tional healer. Then the understanding of the programme might grow and a benefit is that they would get the medicines for free if they became member.

Lastly an awareness programme about left-over medicines might be considered. If patients have left-over medicines, this research project showed that often they throw them out. First of all it is important that people know they should finish the course of medicines. The units are counted and given, so no left-over medicines should appear. Secondly, left-over medicines should not be thrown out, but returned to the pharmacy. Also self-prescription for other members of the household is not a very solid way of practising medicine.

References

Bajracharya S., Panday S., Shakya Y.L. (2004) “Drug prescribing pattern and disease pattern in KMC Duwakot Health Center”, *Kathmandu University Medical Journal*, vol 2, no 1, pp 35-42.

de Gaay Fortman, B. (2010). Inquiry. May 18, 2010.

District Health Office Kavre (2009) “Annual report 2009”.

District Health Office Sunsari (2009) “Annual report 2009”.

Dyas J., Apekey T., Tilling M., Niroshan Siriwardena A. (2009) “Strategies for improving patient recruitment to focus groups in primary care: a case study reflective paper using an analytical framework”, *BMC Medical Research Methodology*, vol 9, no 65.

Giri, Y. (2010). Inquiry. April 17, 2010.

Government of Nepal, Ministry of Health and Population, Department of Drug Administration (2009) “National list of essential medicines Nepal (fourth revision)”.

Hotchkiss D.R., Rous J.J., Karmacharya K., Sangraula P. (1998) “Household health expenditures in Nepal: implications for health care financing reform”, *Health policy and planning*, vol 13, no 4, pp 371-383.

Karki S. (2010a) “Report on Evaluation of Share & Care Program Hansposa and Mechchhe VDCs”.

Karki, S. (2010b). Inquiry. May 19, 2010.

Karn R.R. (2008) “Basic Household and Child Disability Survey Report of Hansposa VDC of Sunsari District”.

Karuna Foundation (2008a) First Year Report 2008.

Karuna Foundation (2008b) “Results Baseline Survey Mechchhe VDC in Timal, Kavre Palanchowk district Sep-Nov 2007”.

Karuna Foundation (2009) Annual Report 2009.

Karuna Foundation (2010) “Introductie van Karuna Foundation en het Share & Care programma”.

Karuna Foundation Website (2010). Entire website. Retrieved February 1, 2010, from www.karunafoundation.nl.

Lamichhane D.C., Giri B.R., Pathak O.K., Panta O.B., Shankar P.R. (2006) “Morbidity profile and prescribing patterns among outpatients in a teaching hospital in Western Nepal”, *McGill Journal of Medicine*, vol 9, no 2, pp 126-133.

Levy S.B. (1998) “The Challenge of Antibiotic Resistance”, *Scientific American,* March 1998.

Millennium Declaration (2010) “Official list of MDG Indicators”, The official United Nations Site for the MDG Indicators. Retrieved 6 July 2010, from http://unstats.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm.

Mohanty B.K., Aswini M., Hasamnis A.A., Patil S.S., Murty K.S.N., Jena S.K. (2010) "Prescription pattern in the Department of Medicine of a Tertiary Care Hospital in South India", *Journal of Clinical and Diagnostic Research*, vol 4, no 1, pp 2047-2051.

Shankar P.R., Kumar P., Theodore A.M., Partha P., Shenoy N. (2003)a "A survey of drug use patterns in Western Nepal", *Singapore medical journal*, vol 44, no 7, pp 352-356.

Shankar R., Kumar P., Rana M., Dubey A., Shenoy N. (2003)b "A comparative study of drug utilization at different levels of the primary healthcare system in Kaski district, Western Nepal", *Journal of the New Zealand Medical Association*, vol 116, no 1182.

Statistical Package Social Sciences version 18.0 (2010) [computer software].

UNDP Human Development Reports (2009) Human Development Report 2009 Nepal, "The Human Development Index going beyond income". Retrieved February 5, 2010, from http://hdrstats.undp.org/en/countries/country_fact_sheets/cty_fs_NPL.html.

World Health Organisation [WHO] (2002) "Promoting Rational Use of Medicines: Core Components", *WHO Policy Perspectives on Medicines*, no 5.

WHO (2003) "The selection and use of essential medicines", *WHO technical report series*, no 914.

WHO (2004) "Equitable Access to Essential Medicines: A Framework for Action", *WHO Policy Perspectives on Medicines*, no 8.

WHO Regional Office for South-East Asia (2007) "11 health questions about the 11 SEAR countries", *Regional Health Situation, Mini-profile*, Health System Nepal, Retrieved February 8, 2010, from http://www.searo.who.int/LinkFiles/Country_Health_System_Profile_8-Nepal.pdf.

WHO Regional Office for South-East Asia (2010) Country Health System Profile Nepal, Health Resources. Retrieved February 8, 2010, from http://www.searo.who.int/EN/Section313/Section1523_6865.htm.

Appendix 1 Instructions for interviewers

Guidelines

Keep this in mind when conducting the interviews;

General

- Always write down your name and the name of the participant
- Always ask for consent before starting the interview, when they do not want to cooperate, they do not have to join!
- Make sure that you always start with the introduction of the questionnaire
- Explain the purpose of the interview
- Explain the format of the interview (open and closed questions, some only for the participant and some for the whole family)
- At the end of the introduction, ask when they have any questions before starting the interview
- At the end of the interview, always check whether you filled in the whole questionnaire, and sign the questionnaire
- Ask for permission to take notes
- Be very precise in writing down the answers, it is better when the interview takes longer and is filled in as precise as possible, then when you rush
- When the answers are vague to you, make sure that you really understand what their answers mean
- Make sure that the setting is comfortable
- Make sure that your outfit is appropriate for the culture
- Your supervisor in the field will be Roze, if you have any questions you can ask her
- The questionnaires will be checked afterwards, if there are missing elements, you may need to redo the interview

Specific

- Write the answers of the open ended questions down in English
- If the answer is the option 'Others' always specify
- Always use the codes of the questions (numbers after the options)
- The question about age, should be written down in years

Appendix 2 Patient exit interview

Patient exit interview Mechchhe / Hansposa

Interviewer initials:

Date: _____/_____/_____

SHP □ Sub-centre

Place: □

My name is ..... I am helping a researcher from the Netherlands, doing a research project on the SHP regarding medicine use and the health worker. She is from the VU university in Amsterdam and this is her graduation project.
Is it okay if I ask you a couple of questions about the visit you just made? It will take about ten minutes. The outcome will be confidential and your name will not be mentioned. It would be of great help if you cooperate. I am very interested in your answers. There are no right or wrong answers. All the information you give is valuable.

Consent interviewee	YES □	NO □

General

1	Name		
2	Sex	Male □	Female □
3	Age		(in years)
4	Ward no.:	No.:	
5	Prescription received?	YES □	NO □ -> 8
6	No. of prescriptions		
7	Prescriptions:		
8	Diagnosis/ICD		
9	Member of S&C?	YES □	NO □

About Share & Care

10	Do you know S&C?	YES □	NO □
11	Do you think S&C has caused changes for the medicine use in this VDC?	YES □	NO □ -> 17

12	What changes? (influence for members and for non-members)			
13	Do you know which medicines are free of cost at the SHP?	YES □	NO □	
14	Do you know S&C provides additional medicines to the SHP wich are free of costs for members?	YES □	NO □	
15	Do you request medicines from the additional medicine list provided by S&C?	YES □	NO □	
16	Do you sometimes request medicines for someone else than yourself?	YES □	NO □	
17	Do you sometimes request medicines for someone else than yourself by pretending the disease?	YES □	NO □	
18	Did you get it?	YES □	NO □	Sometimes □

About SHP

19	How often did you visit SHP in last 6 months including this visit?	
20	Why did you go to SHP?	
21	What did you expect of visit?	no expectations □ diagnosis □ medicines □ physical treatment □ reassurance □ referral □ other □
22	Are you content with outcome of the visit?	very satisfied □ satisfied □ not satisfied □ don't know □
23	Why?	
24	If you did not get a prescription for medicines, what would you think about that?	

About prescription

25	How many medicines did you get prescribed in the last half year including this vist?			
26	Do you or one of your household members use medicines at this moment?	YES □	NO □	
27	Do you have medicines stored at home?	YES □	NO □ -> 33	
28	Which medicines do you have at home?			
29	Do you normally purchase or get the whole dose of medicine?	YES □	NO □	
30	Do you normally consume the whole dose of medicine?	YES □	NO □	
31	What do you do with left-over medicines?			
32	Do you store left-over medicines?	YES □	NO □	
33	Did you in the past give left-over medicines to other members of household?	YES □	NO □	
34	Did you give left-over medicines to other people?	YES □	NO □	
35	Do you use self-prescription?	YES □	NO □	

Appendix 3 Health worker interview Mechchhe / Hansposa

Health worker interview Mechchhe / Hansposa

Interviewer initials:

Date: _____/_____/_____

Place: SHP □ Sub-centre □

My name is Roze. I am a student from the VU university in Amsterdam, The Netherlands. For my graduation, I am doing a research project on medicine use in Mechchhe and Hansposa. I would like to ask you some questions about the availability of medicines at the SHP. It will take about 15 minutes. The answers will be used as background information for the research project and will ask your opinion about things.

Consent interviewee	YES □	NO ☐

General

1	Name		
2	Sex	Male □	Female □
3	Age		(in years)
4	VDC: Ward no.:	VDC:	No.:
5	How long have you been working at this SHP?		(years)
6	Are you the only person in the SHP authorized to prescribe medicines?	YES □	NO □
7	If no, who are authorised to prescribe medicines in the SHP?		

Stock of medicines

8	Are you familiar with the whole stock of medicines available at the SHP?	YES □	NO □
9	Do you know if there are other places where people can buy medicines in this VDC?	YES □	NO □
10	Where?		
11	Does that influence the prescriptions in the SHP?	YES □	NO □
12	Who orders the medicines for the SHP?		

13	Where are the medicines ordered?			
14	Are the medicines always in stock and available to prescribe?	YES □	NO □	Do not know □
15	How often are medicines delivered to the SHP?			
16	When was the last delivery of medicines to the stock?			
17	Do you feel the Ministry of Health provides enough different medicines?	YES □	NO ☐	
18	Do you feel the amount of medicines provided by the Ministry of Health is sufficient?	YES □	NO ☐	
19	Do you feel the additional medicines chosen by Share & Care are the right ones?	YES □	NO ☐	
20	Do you feel medicines are missing in the SHP?	YES □	NO ☐	
21	If so, what medicines do you feel are missing in the SHP?			
22	Do you feel equipment is missing in the SHP?	YES □	NO ☐	
23	If so, what equipment is missing in the SHP?			

Medicine use

24	Do you think S&C has an influence on the medicine use in this VDC?	YES □	NO ☐	
25	What influence does it have?			
26	Do patients request medicines themselves?	YES □	NO ☐	
27	What is often requested?			
28	Do patients try to avoid medicines from the additional medicine list provided by Share & Care?	YES □	NO ☐	

Appendix 4 Focus Group Design

Focus Group Design

1. Introduction (5 min)

The facilitator will start with a brief introduction, introducing who is there and why this focus group is being held. It will be explained that the results are confidential and anonymous. All the information given by the participants is very helpful to the researcher and highly valued.

2. What do you expect if you go to the SHP? (5 min)

The facilitator will give participants the floor, using the popcorn method. The participants will come up with ideas and the facilitator will write them down on post-its and put them on a flip over while grouping them. The participants will get a broad idea on what is important to them when falling ill. This way they will start freely and open minded. Then the expectations will be prioritised using a group discussion.

Now the facilitator will move to the topic medicines. If this is already several times mentioned and high in priority, this confirms the assumption that medicines play an important role. It medicines are not yet on the flip-over, the facilitator will introduce the topic and ask the participants if they feel medicines are related to disease.

3. How important are medicines for the health system/ why are medicines important? (20 min)

The participants will be asked to state their opinion about medicines and to come up with reasons and the facilitator again will ask the group and he/she will write the reasons why medicines are important down on post-its. The facilitator will listen carefully at the answers and ask what participants mean, to check if the summary on the post-it is clear. If it is unclear what a participant means, the facilitator will try to use clarification questions. Similarities in the reasons are found and together with the group are clustered. They will be again prioritised with a group discussion. If it turns out medicines are not considered important at all, the discussion about the reasons why medicines are important will not be held and the focus group will move on to the next part.

A final discussion is started with the final question:

4. What changes have occurred in medicine use in this VDC since the implementation of Share & Care? (10 min)

The facilitator lets the participants come up with answers and writes them on post-its down. The answers will be clustered in a group discussion. If answers come up that don't concern medicine use, they will be acknowledged and put on a separate place, called the Parking Spot. The topic will be shifted back to medicine use and the facilitator will remind everyone the topic is medicines.

5. Closing (2 min)

After the last discussion the facilitator will close the focus group. The participants are thanked for their attendance and their input. If there are any questions, the facilitator is open to them.

Appendix 5 Statistics qualitative analysis patient exit interview Hansposa

What changes did Share & Care cause for the use of medicines?

Members (64)		
Category	**Change**	**Number**
Medicines	Medicines are free for members	18
	Members get good medicines	1
	Members get medicines at discount	34
	Members get medicines at a 10% discount	1
	Members get medicines easily	3
Treatment	Members get treatment without medicines	1
	Members get treatment easily	1
Service	They give good service for members	2
	It is more comfortable	1
	Members get benefits	1
	Members get more facility	3
	Members are benefitted	1
	Members get referral	3
Don't know		6

Non-members (18)		
Category	**Change**	**Number**
Medicines	Medicines are free for members	3
	Members get medicines at discount	5
	Members get medicines at a 10% discount	1
Service	Members are benefitted	1
	Members get referral	1
Blank		9

Why are you content/ not content with the outcome of the visit to the SHP?

Members – very satisfied (27)		
Category	**Reason**	**Number**
Medicines	Get easily medicine	1
	They give effective medicines	1
	They give good medicines	16
	I can get cheap medicines	1
	They provide better medicines	1
Treatment	They give good treatment	2
	They give better treatment	2
	No need to go to another place for treatment	1
Centre	I can get the facility here	1
	They refer if needed	5
	They provide good service	1
	It is nearby	2
	The staff is cooperative	2

Non-members – very satisfied (38)		
Category	**Reason**	**Number**
Medicines	They give effective medicines	3
	They give good medicines	2
	They provide free medicines	1
Treatment	They give good treatment	1
Centre	They provide good service	1
	It is nearby	1

Members – satisfied (62)		
Category	**Reason**	**Number**
Medicines	They provide good medicines	21
	The medicines are available	1
	They give medicines	2
	They provide effective medicines	11
	They give free medicines	2
	They provide cheap medicines	1
	They provide medicines at discount	1
Treatment	Better treatment and check-up	1
	Get treatment at any time	2
	They provide good treatment	6
	They give effective treatment	1
	Simple diseases are treated	1
	I am well treated	2
Centre	It is nearby	7
	Facility is available	1
	Staff is cooperative	7
	They have good facilities	1
	They refer if needed	6
	They provide good service	2

Non-members – satisfied (28)		
Category	**Reason**	**Number**
Medicines	They provide good medicines	3
	They give medicines	6
	They provide effective medicines	3
	They give free medicines	3
	They provide medicines at discount	1
Treatment	They provide good treatment	2
	Simple diseases are treated	2
	They treat the disease	2
Centre	It is nearby	6
	They have good facilities	1
	They refer if needed	1

How would you feel if you didn't receive a prescription?

Members (91)		
Category	**Feeling**	**Number**
Disappointment	Feel angry	15
	Get angry	4
	Feel bad	10
	Disappointed	3
	Dissatisfied	3
	Feel sad	5
	Feel unhappy	18
Alternative	Visit another place	7
	Never visit the SHP again	1
	Come back another day	1
	Search for other option	1
Reside	Go for the other option of treatment	2
	Satisfied	5
	Neutral	1
Other	Curious why they don't provide medicines	1
	Think there are no medicines available	3
	Feel there is a weak management committee	2
	Lack of management	3
	Feel it is a waste of money and time being a member	1
	Feel it is a waste of time	2
	Think maybe the centre is going to be closed down	1
	They always give medicines	1
	Don't know	1

Non-members (37)		
Category	**Feeling**	**Number**
Disappointment	Feel angry	7
	Get angry	1
	Feel bad	5
	Disappointed	1
	Feel sad	4
	Feel unhappy	1
	Feel sorry	1
Alternative	Visit another place	2
	Request kindly	1
Reside	Go for the other option of treatment	1
	Satisfied	5
	Neutral	8
Other	Think there are no medicines available	1
	Don't believe the health worker would do that	1

What do you do with left-over medicines?

Members (91)		
Category	**Answer**	**Number**
No left-over	I don't have left-over medicines	50
Get rid	Dispose them	2
	Do not keep them	1
	Sometimes the children throw them out	1
	Throw them away	4
Return	Return them	5
	Return them to the hospital	1
	Return them to the pharmacy	16
	Return them to the sub-centre	1
Store	Keep them	10
	Keep them in a cool and dark place	1
	Place and use if needed	1

Non-members (35)		
Category	**Answer**	**Number**
No left-over	I don't have left-over medicines	16
Get rid	Dispose them	1
	Throw them away	7
Return	Return them	3
	Return them to the pharmacy	1
Store	Keep them	5
	Keep at home for later use	2

Appendix 6 Statistics qualitative analysis patient exit interview Mechchhe

What changes did Share & Care cause for the use of medicines?

Members (56)		
Category	**Change**	**Number**
medicines	Free medicines	6
	Free medicines for members	26
	Get medicines easily	1
	Get the medicines we want	1
	It provides more medicines to members than to non-members	1
	Members get medicines for free at any time if they are in lack of money	3
	Members get more medicines	2
	Members get more medicines for free	2
	Members get medicines at discount	6
	It provides medicines and treatment	1
	There are more medicines than before	1
Treatment	Access to treatment	1
	Free treatment	1
	Members get treatment easily if they lack money	1
Service	Members get more benefits	5
	Members get more facility	1
	Members get referral to the hospital in case of need	2

Why are you content/ not content with the outcome of the visit to the SHP?

Members – very satisfied (24)		
Category	**Reason**	**Number**
Medicines	They provide effective medicines	10
	They give good medicines	6
Treatment	They give good treatment	6
	They treat our diseases	1
	They refer if needed	1
Centre	It is nearby	1
	They preserve our health	1
	Cooperative health workers	1
	No need to go to Kathmandu	1

Non-members – very satisfied (6)		
Category	**Reason**	**Number**
Medicines	They provide effective medicines	1
	They give good medicines	2
	They provide medicines	1
Treatment	They give good treatment	1
Centre	Cooperative health workers	1

Members – satisfied (59)		
Category	**Reason**	**Number**
Medicines	Availability of medicines	1
	They provide effective medicines	19
	They give good medicines	7
	They give medicines at any time	1
	They give the medicines that the community wants	1
	We get free medicines	2
	It provides medicines and treatment	2
Treatment	They give good treatment	4
	For our health	2
	For treatment of the disease	1
	It cures our disease	2
	We got cured after going	1
Centre	Easy accessible	1
	It benefits our health	1
	It provides lots of facility	1
	It is nearby	4

Non-members – satisfied (14)		
Category	**Reason**	**Number**
Medicines	They provide effective medicines	4
	They give good medicines	2
	They give medicines at any time	1
Treatment	They give good treatment	3
	For our health	1
	It cures our disease	2
Centre	Easy accessible	1

How would you feel if you didn't receive a prescription?

Members (84)		
Category	**Feeling**	**Number**
Disappointment	Feel angry	9
	Feel bad	23
	Feel really bad	1
	Feel unhappy	12
	Feel sad	21
Reside	Go for other treatment option	1
	No effect	2
	Satisfied	11
Don't know	Don't know	5

Non-members (21)		
Disappointment	Feel bad	8
	Feel sad	4
	Feel unhappy	5
Reside	No effect	1
	Satisfied	2
Don't know	Don't know	1