THE ROLES OF LOCAL AUTHORITY PEOPLE IN THE COMMUNITY-CENTERED PROMOTION PROGRAM OF HAND WASHING WITH SOAP IN MULTIETHNIC NORTHERN VIETNAM - A CASE STUDY

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The aim of the study was to examine the roles of the local authority people who acted as core group members (CGMs) in the pilot phase of the community-centered hand washing with soap (HWWS) promotion program which was carried out in a multiethnic Lao Cai province in Vietnam 2014. The special interest of the study focused on CGMs' official role and how their role appeared in practice but also their and communal leaders' point of view about acting as a CGM enhancing HWWS in their communities. The goal was to produce information which helps to utilize the CGM role as effective as possible in this program and the local authority people in activities that promote hygiene behavior change in developing countries.

The primary informants of the study were CGMs themselves (n=18). The positions of the CGMs were the village health worker and the head of the women's union or a similar authority and they were together responsible for carrying out project activities in their own village community. Other informants were the communal leaders (n=4) who were responsible for the local management of the project. The material was collected by studying the project documents, by observing the realization of the project activities and by interviewing the above-mentioned informants. The material that was collected in different sources was analyzed qualitatively with the content analysis.

The CGMs were equipped to the task by offering them two one-day training courses and a comprehensive handbook which contained information and instructions for the carrying out of the project. Only half of the CGMs participated in both training courses. The main methods of promoting HWWS in the community were group meetings and household visits. The project activities were in practice carried out less often than recommended and the implementation deviated from the given instructions also in other respect. In the majority villages the necessity of the project was experienced as questionable whereas especially in the poor highland villages it was seen very necessary but the difficult conditions complicated the carrying out of the project.

In conclusion, it can be stated that the project and its methods were suitable in the context but there was a remarkable difference between the official and the practical role. The guidelines of the project need some reassessment but it is primarily essential to ensure all CGMs decent orientation to the task. The effectiveness of the project relies on motivated and skilled CGMs who have been equipped with sufficient resources. At the following phase, the project should focus on the poorest villages where HWWS is not a general practice yet and special attention should be paid to the supporting and resourcing CGMs in those settings.

Keywords: HWWS, hand hygiene, hygiene promotion, community-centered, development cooperation, ethnic minorities, Vietnam

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Tutkimuksen tavoitteena oli tarkastella kotikylissään vastuuhenkilöinä toimineiden paikallisten viranomaisten roolia yhteisökeskeisen käsienpesuprojektin pilottivaiheessa, joka toteutettiin etnisesti monimuotoisessa Lao Cai –provinssissa Vietnamissa vuonna 2014. Tutkimuksessa oltiin kiinnostuneita kylätason vastuuhenkilöiden virallisesta roolista ja siitä, miten se toteutui käytännössä sekä heidän ja kuntatason vastuuhenkilöiden näkemyksistä tehtävässä toimimisesta. Tarkoituksena oli tuottaa tietoa, jonka avulla vastuuhenkilöiden roolia voitaisiin kehittää mahdollisimman vaikuttavaksi tässä projektissa sekä mahdollisesti muissakin hygieniakäyttäytymisen muutokseen tähtäävissä hankkeissa kehittyvissä maissa.

Tutkimuksen tiedonantajina toimivat ensisijaisesti tutkimuksen kohteena olleet kylätason vastuuhenkilöt (n=18). Vastuuhenkilöt olivat kylän terveystyöntekijä ja naisunionin johtaja tai joku vastaava viranomainen ja he olivat parina vastuussa projektiaktiviteettien toteuttamisesta omassa kyläyhteisössään. Muita tiedonantajia tutkimuksessa olivat projektin johtamisesta paikallisesti vastanneet kuntatason vastuuhenkilöt (n=4). Aineisto kerättiin perehtymällä projektidokumentteihin, havainnoimalla projektiaktiviteettien toteutusta sekä haastattelemalla edellä mainittuja tiedonantajia. Eri lähteistä kerätty aineisto analysoitiin laadullisesti sisällönanalyysilla.

Vastuuhenkilöt varustettiin tehtävään tarjoamalla heille kaksi koulutuspäivää ja käsikirja, joka sisälsi kattavasti tietoa ja ohjeita projektin toteuttamiseen. Vain puolet osallistui molempiin koulutuksiin. Projektin pääkeinot käsien saippuapesun lisäämiseksi yhteisössä olivat ryhmätapaamiset ja kodeissa vierailu. Projektiaktiviteetteja toteutettiin käytännössä suositusta harvemmin ja toteutus poikkesi muiltakin osin annetuista ohjeista. Pääväestön kylissä projektin tarpeellisuus koettiin kyseenalaisena, kun taas etenkin ylängön köyhissä kylissä se nähtiin erittäin tarpeellisena, mutta vaikeat olosuhteet hankaloittivat projektin toteuttamista.

Johtopäätöksenä voidaan todeta projektin soveltuneen kontekstiin, mutta virallinen rooli ja roolin soveltaminen käytännössä erosivat merkittävästi toisistaan. Projektin ohjeistusta tarvitsee joiltain osin arvioida uudelleen, mutta ensiarvoisen tärkeää olisi varmistaa kaikille vastuuhenkilöille riittävä perehdytys tehtävään. Projektin vaikuttavuuden mahdollistavat parhaiten osaavat ja motivoituneet kylätason vastuuhenkilöt, jotka on varustettu riittävin resurssein. Seuraavassa vaiheessa projekti tulisi keskittää köyhimpiin kyliin, joissa käsienpesu saippualla ei vielä ole yleinen käytäntö, ja noissa olosuhteissa työskentelevien vastuuhenkilöiden tukemiseen ja resursoimiseen tulisi kiinnittää erityistä huomiota.

Asiasanat: käsienpesu saippualla, käsihygienia, hygieniakasvatus, yhteisökeskeinen, kehitysyhteistyö, etniset vähemmistöt, Vietnam

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1 INTRODUCTION

In spite of favorable global development pneumonia and diarrhea are still common morbidity and mortality causes among children under age five in developing countries (Global health observatory 2013). Quality of water, sanitation systems and hygiene behavior are all connected to infectious diseases frequency in communities. Promoting the simple and inexpensive hygiene procedure hand washing with soap (HWWS) has proved to be a remarkable effective way to prevent infections in the rural settings of developing countries (Cairncross et al. 2010b, Ejemot-Nwadiaro et al. 2008).

The effective prevention of infections requires that hands are washed with soap after defecation and handling faeces, and before preparing and eating food (Ejemot-Nwadiaro et al. 2008). Major barriers are created by common misperceptions that HWWS is important only after contact with faeces not before handling food (Akter & Ali 2014, Aunger et al. 2010) or that washing hands only with water is enough to make them clean (Halder et al. 2010). In the poorest settings, the barrier might also be the cost of soap or shortage of water (Scott et al. 2007a, Curtis 2005). Studies have shown the existing gap between knowledge and practice: many people in the rural communities of developing countries know the importance of HWWS but do not perform the practice (Rabbi & Dey 2013, Nizame et al. 2013, Curtis 2005). This proves that it is not yet a social norm which it should be in order to become a general practice and promotion interventions are still needed (Curtis et al. 2009).

Vietnam is a populous developing country in Southeast Asia. It has reached remarkable success in development during last decades but its numerous ethnic minorities living mainly in rural areas are still behind in the development compared with the majority (World Bank Group 2015). In 2012 Vietnamese and Finnish non-governmental organizations CERETAD-Health and WaterFinns began the cooperation to carry out a community-centered HWWS promotion program among ethnic minorities in Northern Vietnam. This study aimed to examine the roles of local authority people in the pilot phase of the project in spring of 2014. The goal was to get useful information to develop and utilize their role more effectively in the project but also in general.

2 THEORETICAL FRAMEWORK

2.1 HAND WASHING WITH SOAP PROJECT IN LAO CAI VIETNAM

Vietnam is a developing country in Southeast Asia and one of the most populous countries in the world with its about 90 million population. Vietnam has 53 officially recognized **ethnic minority** groups which "*have different national or cultural traditions from the main population*" (Oxford dictionary of English 2010). Most of the ethnic minorities live in rural areas either in the Northern Mountains or Central Highlands but otherwise the groups differ more or less from each other for example from their population size, their language or their culture. (Country social analysis 2009.)

Due to the economy reform which began in the 1980's the economy of Vietnam has begun to grow and the poverty diminished. Although it has been observed that about two thirds of the ethnic minorities have benefited from the poverty reduction policy, they are still behind in the development compared with the majority. One notable reason for that is their lifestyle. Working on the farm section which is a principal source of livelihood among the ethnic minorities, is clearly connected to the small income and poverty. (Household living standards survey 2010.)

The Northern midlands and mountainous, where Lao Cai province is located, is the poorest region of the country. In 2010, almost 30 percent of population lived under the poverty line when the poverty rate in the whole country was 14 % according to the newest poverty lines of government. Nevertheless as much as 87 % of rural households had access to safe drinking water which was only 3 % less than all households. Only one rural household out of ten had tap water when in urban areas almost 70 % had this privilege. Having a flush toilet was more common covering 40 % of households in rural areas when the national average was 52 %. (Household living standards survey 2010.)

In the summer of 2012, a Finnish non-governmental organization WaterFinns started a development co-operation project with a Vietnamese partner Center for Research, Training and Development of Health Human Resources (CERETAD-Health) in Lao Cai province. The aim of the project is to promote hygiene behavior change in the community, especially

among ethnic minorities. The specific goal is to scale up a basic hand hygiene practice **hand washing with soap** (later **HWWS**) with non-antibacterial soap in the key junctures which are before eating or handling food and after defecation or handling faeces (Ejemot-Nwadiaro et al. 2008). The need for this kind of project was perceived in an earlier study that had shown that the HWWS is still rare in the region (Rheinländer et al. 2010). The funding of the project comes mainly from the Ministry for the Foreign Affairs of Finland.

The content and the methods of the project were chosen based on the earlier research literature. The **community-centered** approach was seen suitable to offer relevant and feasible models to promote HWWS in the communities (Phuc 2013). Community-centered is related to community-based approaches in which the community is seen as a setting, a target, an agent or resources (McLeroy et al. 2003). Community-centered approaches have been claimed to be more than community-based when they are about mobilizing resources within communities, promoting fairness and empowering people to control their health and lives. Community-centered approaches include a variety of practical and evidence-based approaches to work with the communities. (South 2015.)

The main method in this project was to create a core group of local authority people and train and resource them to communicate HWWS in their communities by conducting project activities. From now on the abbreviation **CGM** will be used of the **core group members**. Communal authorities also had representation in the core group. This responsibility had been given in both communes to the head of the health station and the health and education vice chairman of the people committee. They were not responsible for carrying out project activities but managing and supporting CGMs who did the practical work. Communal authorities will be called **communal leaders** to make a distinction between them and CGMs who are the real subject of the interest.

The project was designed to be implemented in three years. The first phase of the project focused on preparations and conducting the base line study. The permission for conducting the project in the area took longer than usually because WaterFinns had not operated in Vietnam earlier. The second phase was finally able to start in February 2014 which was almost a year later than it was planned. It concentrated on piloting the community-centered

promotion of HWWS in the target communes. All nine project villages were picked purposefully to represent the ethnic and socio-economic variety in the area. In addition to the majority people, four different ethnic minorities participated in the project. The pilot phase was monitored and evaluated in order to ensure the effectiveness of the project before moving to the third phase when activities to promote HWWS will be extended to other districts of Lao Cai province. (Phuc 2013.)

2.2 LITERATURE REVIEW

HWWS as preventive of infections

Infections are serious public health problems in developing countries. Especially children under age five are in a vulnerable position in relation to the infectious diseases causing most of their morbidity and mortality. Based on the statistics of WHO the most common cause of death of children under age five is infectious and parasitic diseases with more than 25 %. (Global health observatory 2013.) Most important causes are pneumonia and diarrhea which together cause about two million deaths per year in children under age five (Walker et al. 2013). Diarrhea alone causes more deaths for young children in a year than usually more attention getting HIV/AIDS, tuberculosis and malaria together (Bartram & Cairncross 2010). The seriousness of the problem is especially considerable in Southeast Asia and Africa (Walker et al. 2013) and it is kept extremely regrettable therefore that today the majority of these deaths could be easily prevented (Cairncross et al. 2010a). The significance of the high morbidity rate cannot be underrated either. Prolonged diarrhea causes children a variety of problems like malnutrition and lowered infection resistance, which can badly affect their growth and development (Ejemot-Nwadiaro et al. 2008).

The most common source of the diarrhea is infected faeces which organisms have been transmitted to people through contaminated food or water or in contact with another person or directly with the faeces (Ejemot-Nwadiaro et al. 2008). Three main elements to solve the problems caused by the diarrhea are hygiene, sanitation, and water (Bartram & Cairncross 2010). It has been proved that HWWS is the most effective way to prevent diarrheal diseases reducing the risk by 42-48 % when in the comparison were improved the quality of water (17 %) and excreta disposal (36 %) (Cairncross et al. 2010b). In Cochrane

review the reduction rate was one third (Ejemot-Nwadiaro et al. 2008). Hand washing has been reported lowering the risk of respiratory infection by 16 % as well (Rabie & Curtis 2006). UNICEF and WHO have also mentioned HWWS as one of the means in their strategy for reducing pneumonia and diarrhea morbidity and mortality worldwide (GAPPD 2012). To get the desired effect hands need to be washed with soap after defecation and handling faeces (e.g. cleaning baby's bottom) and before eating and handling food (e.g. preparing food or feeding a baby) (Ejemot-Nwadiaro et al. 2008).

HWWS in developing countries

HWWS is still rare in rural areas of developing countries. Observation studies in different developing countries pointed out that less than half of the caregivers washed their hands after defecation or visiting a toilet and only 17% washed them with soap. The social environment and the norms created by it affect hand washing behavior strongly. (Curtis et al. 2009.) It is a typical perception that soap is needed only when hands are visibly dirty (Biran et al. 2005, Halder et al. 2010). This explains why many people think that the most important moment for HWWS is after eating which is unfortunately the least important moment from a public health perspective (Curtis et al. 2009). One general misbelief is that HWWS is important only after defecation but not before handling food (Akter & Ali 2014, Aunger et al. 2010). Observation studies have noticed that people act according to their beliefs: HWWS is much more common after visiting a toilet than before handling food (Curtis et al. 2009, Rabbi & Dey 2013, Scmidt et al. 2009). It has also been shown that some people think that babies' faeces are harmless and HWWS is not needed after handling those (Biran et al. 2005).

The environment affects people's behavior significantly, especially when it comes to habitual behavior like hand washing. If soap and water are not easily available near the toilet or cooking place, people probably will not do HWWS in the key junctures (Curtis et al. 2009, Nizame et al. 2013). In the developing countries it is regrettably general that there are no proper hand washing facilities at the schools nor in public toilets (Scott et al. 2007a, Greene et al. 2012). In some areas, the shortage of water creates a real barrier to HWWS (Scott et al. 2007a). For very poor people soap can also be too expensive to get or use frequently (Curtis 2005). Also the situation in life has an effect on HWWS behavior. Sometimes hand washing

can simply be forgotten. When people are busy and tired because of hard work they forget to pay attention to things like HWWS (Curtis et al. 2009). Working long days on the fields far from home creates conditions which make performing proper hygiene behavior difficult (Rheinländer et al. 2010). In Ghana mothers with little babies HWWS less after their own defecation than other mothers probably because they hurried to take care of their babies (Scott et al. 2007b).

In addition to inadequate knowledge or difficult living conditions, one significant barrier to perform proper hand hygiene behavior in the developing countries is the gap between knowledge and practice (Rabbi & Dey 2013). Many people in the rural communities are aware of the healthy consequences of HWWS but they do not practice it (Curtis 2005, Nizame et al. 2013). Higher socio-economic status and access to water and soap are connected with the higher frequency of HWWS but they don't guarantee that it is a common practice (Schmidt et al. 2009, Xuan & Hoat 2013). The study that was conducted in Lao Cai province Vietnam indicated that although lowland households had water and soap available HWWS was not a routine performance among adults and they did not guide their children to do so either. In the highlands, the circumstances were less favorable because of poverty and lifestyle. Highlanders work normally away from home all day long which causes difficulties in order to perform adequate hygiene behavior. (Rheinländer et al. 2010.) Xuan and Hoat (2013) studied HWWS among school children in the northern rural Vietnam and reported also good access to water and soap at home but none of the schools had soap available.

Hygiene behavior change promotion

HWWS may be a simple behavior to carry out, but changing hygiene behavior is actually very complicated (Jumaa 2005, Schmidt et al. 2009). The motivations of individuals to practice hygiene are often not primarily based on biomedical facts or a possibility to get sick (Rheinländer et al. 2010) and that is why traditional health education based on knowledge of germs and disease transmission do not bring change in people's hygiene behavior (Scott et al. 2003). An eleven country review pointed out disgust to dirt, nurturing children, feeling comfort and affiliation of society as key motivations to practice HWWS. The last one can serve also as a preventing factor when HWWS is not a social norm which was unfortunately reality in many places. (Curtis et al. 2009.) Promotion programs cannot be successful

without considering the cultural and social aspects of local individuals (Jumaa 2005, Panter-Brick et al. 2006). That is why community-based approaches that notice community priorities and enable the participation of community members are recommended in hygiene promotion (Rheinländer et al. 2010).

Because hand washing is generally a habitual practice that has been adopted in childhood, it is recommended that hygiene education focus on children and their caregivers (Curtis et al. 2009). In Vietnam government, organizations and mass media reach people widely. It has been estimated that in one year a typical Vietnamese rural woman attends 2-12 Women's Union meeting and 2-4 village meetings and is visited by a health worker 1-4 times. They also watch TV and hear messages over loud speaker every day. In addition they give birth mainly in a health faculty and almost all children go to school. (Curtis 2005.) The knowledge alone is not usually enough for changing habitual behavior (Rajaraman et al. 2014). Habit is learned behavior which is performed automatically by cues and usually part of a routine (Curtis et al. 2009). To change old habits, interventions must change the environment so that the old cues will be disrupted and new ones created. Transformation from behavior to habit requires also numerous repetitions in a stable environment. (Verplanken & Wood 2006.)

Village health workers have been seen to be the most potential to promote hygiene behavior change in Vietnamese rural areas because they already exist nearly in every village and they are usually well-known and trusted members of the community. In addition they have an essential general view about hygiene issues in the community. (Rheinländer et al. 2010.) Another potential force in rural communities is Women's Union which has a large and effective network but also enthusiasm and ability to carry out campaigns successfully (Curtis 2005). To be effective programs need more resources to improve the frontline promoters' capacity (Nguyen & Devine 2012).

A group of Danish and Vietnamese researchers (Rheinländer et al. 2012) investigated rural hygiene and sanitation promotion in a multi-ethnic area of northern Vietnam during 2008 and 2009. They were interested both in the strategies and the roles and responsibilities of the different stakeholders. The data was collected by one group interview and interviewing 49 stakeholders individually. Participants represented different sectors (agriculture, health

and education), government supported unions and different administrative levels (village, commune, district and province). The villages of the study represented four ethnic minority groups including communities in lowland and highland. The collected data was analyzed using thematic content analysis. The study found out that despite many players in the area there were still remarkable barriers. According to the study four main barriers were "(1) weak inter-sectorial collaborations, (2) constraints faced by frontline promoters, (3) almost exclusive information-based and passive promotion methods applied and (4) context unadjusted promotion strategies across ethnic groups including a limited focus on socio-economic differences, language barriers and gender roles in the target groups". The study proved that highland villages were in need of more effective hygiene and sanitation promotion. Collaboration among stakeholders was recommended and attention should be paid on increasing frontline promoters' capacity to perform effective behavior change communication. They also stated that socioeconomic and cultural complexity of multi-ethnic population demands supporting more participatory and community-based approaches.

In conclusion, it has been scientifically proved that HWWS is an easy and cost-effective way to promote people's health and decrease infectious morbidity and mortality in rural areas of developing countries. Hygiene behavior change is nevertheless complex and requires in order to succeed paying attention to the local culture, values and socioeconomics. The role of local people who work in the hygiene promotion programs and the coming true of the project in practice are rarely studied topics but important and necessary perspectives when there is a need for effective hygiene promotion.

3 STUDY AIM AND STUDY QUESTIONS

The aim of the study was to examine the roles of the local authority people (CGMs) in the pilot phase of the community-centered HWWS promotion program which was carried out in nine villages of the multi-ethnic Lao Cai province in Vietnam. The word 'role' means "the function assumed or part played by a person or thing in a particular situation" (Oxford dictionary of English 2010). Related concepts are for example a position, a duty, a responsibility and a function (Oxford Paperback Thesaurus 2012). The special interest of this study focused on CGMs' official role and how their role appears in practice but also their own point of view while acting as a CGM promoting hand washing with soap in their communities. The goal was to get new information which helps to utilize the role as effectively as possible in this program and the local authority people in activities that promote hygiene behavior change in developing countries. The ultimate goal of this study, like the entire program, was to further scaling up HWWS in the communes.

Study questions were:

1. What is the official role of the CGMs in the promotion program?
2. How do the CGMs perform their role in practice?
3. How do the CGMs and the communal leaders evaluate CGMs' role in promoting HWWS in their communities?

4 MATERIAL AND METHODS

4.1 STUDY SETTING AND SAMPLE

This study took place in Lao Cai province which is located in the northwestern region of Vietnam. There are several different ethnic minorities living in Lao Cai province which is also one of the poorest provinces in Vietnam (Rheinländer et al. 2010). The project was carried out in nine villages in the area of two communes and there were five different ethnic groups involved in: Kinh (majority), Tày, Dáy, Xa Poh and Dao. The size of the villages varied from 30 to 80 households. According to the baseline study of the project, the average size of the household was 4.7 people and about one third of households had children under age five. The average monthly income of a household was 2 600 000 VND (approximately equivalent to 115 €). (Tuan 2014.) There were considerable differences in the socio-economic status of the different ethnic groups that participated in the project. As a majority people Kinh had the highest status, Tày and Dáy as lowland people were the local middle-class while highland groups Xa Poh and Dao represented the lowest socio-economic status.

The study that was conducted earlier in the same area stated that proper hygiene behavior is not difficult only because of poverty and weak access to clean water and soap but also because it is not seen essential (Rheinländer et al. 2010). The results of the baseline study (Tuan 2014) conformed this statement. Almost all households in the project area had a water source and most households reported having hand washing facility (84 %). Furthermore, almost 90 % had been received information about the importance of hand washing but still less than half (45 %) reported washing hands after visiting a toilet. Most common water source was a stream uphill through gravity flow system (68 %) and about 20 % had a dug well. Nearly all (99 %) boiled water before drinking. Toilets were also common; 83 % of households reported having a private latrine. Hand washing facility was usually located next to the water tank (55 %), inside the bathroom (24 %) or inside the kitchen (14%). People from project villages thought that the most important junctures to wash hands were when hands were dirty (67 %), before eating (61 %) and after working (54 %). The main source of information was television (88 %) but village meetings (42 %) and health workers (40-42 %) were also important sources. (Tuan 2014.)

The study design was qualitative case study. Case study is interested in an individual case, situation or group which is investigated in its natural context. In this study, the individual case was the role of the CGMs. Qualitative study aims to understand and describe real life. Typically, the data have priority and the researcher is the main research tool. This kind of approach requires being sensitive to the context because it is strongly connected with the behavior of people and their interaction with the researcher. (Holloway & Wheeler 2010.)

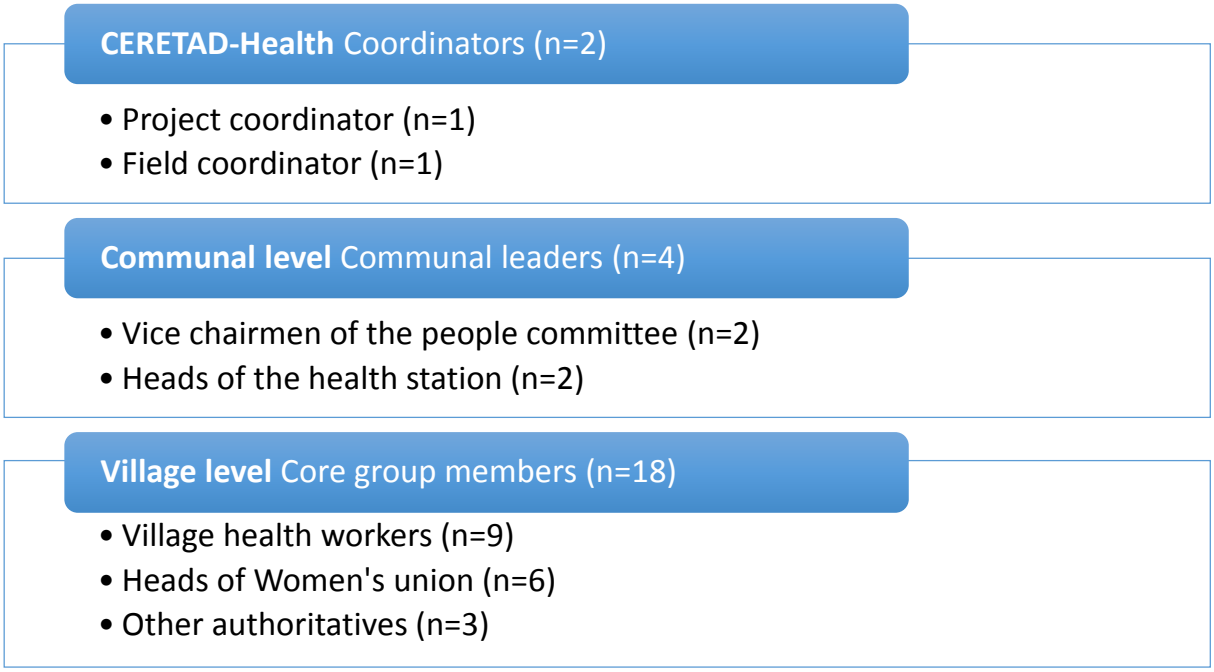

Figure 1. Key actors of the project on different levels

Participants were chosen using 'purposive' sampling when the selection of participants is not random but based on their experience of researched phenomenon (Holloway & Wheeler 2010). The main informants of this study were the CGMs themselves (n=18). Each of nine villages had two core group members; a community health worker and the head of the women's union or another authoritative person (see Figure 1). They had worked on average eight years in their position (range 0-15 years) and had about one earlier experience working in a project. Five of the 18 CGMs were men. Their age varied between 21 and 54 years. To half of them the highest education they had completed was secondary school. Four had completed only primary school, four had done high school and one had college education.

The communal leaders (n=4) who represented communal authorities in the core group were also important informants. Their perceptions mattered because of their essential role in the management of the project. All CGMs and communal leaders were able and willing to participate in the study. Both coordinators from CERETAD-Health also participated actively to the study although they were not actual informants.

4.2 DATA COLLECTION

Because in case study the aim is to get an extensive description of the phenomenon the data was collected using different sources and methods as Figure 2 shows (Holloway & Wheeler 2010). The plans for data collection were made in close co-operation with the project coordinators. The study was introduced to the CGMs and the communal leaders in the project meeting in March 2014. The researcher collected data in the project field for three weeks in April and one week in May. Because the researcher and the informants did not have a common language, the researcher had an assistant on both field trips. Assistants were Vietnamese public health students.

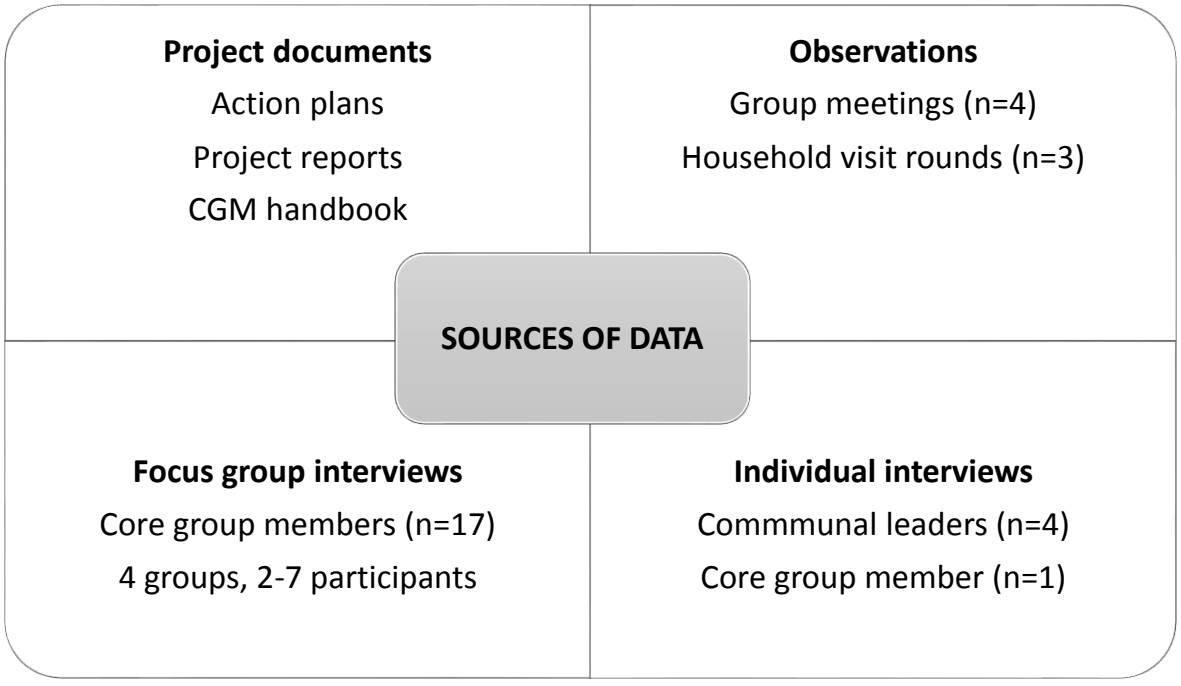

Figure 2. Summary of data

The first method in order to find out answers to the study questions was to explore **project documents**. It happened with the help of project coordinators who were able to complement and clarify the contents of documents on demand. The used documents were the action plans of the project for years 2013 and 2014 and the annual and quarterly project reports from the year 2013. The handbook for CGMs was also very valuable after it was translated from Vietnamese into English. These documents were useful especially for defining the official role of the CGMs.

The second method was **observations** which is an applicable method to be used when there is interest in behavior. It gives an opportunity to see how people behave in real-life situations and if there is a gap between theory and practice which was one of the interests in this study. Observation is usually categorized by the involvement of the observer. In this study, the type of participant observation was 'the observer as participant'. The researcher participated in the activities of the CGMs when they carry out the project but she was not actual work force or a CGM. This kind of approach is suitable when the task and the location are new to the researcher. (Holloway & Wheeler 2010.)

The researcher and the assistant observed constantly when in the field. They visited all the project villages and their aim was to become familiar with the participants and make people get used to their presence. The actual observations were conducted by observing CGMs when they carried out project activities in their communities. In the study introduction CGMs had been instructed to inform the researcher and the assistant of all the project activities which took place during their time in the project field. They were informed of five group meetings and three household visit rounds in April and one group meeting in May. Two of the informed group meetings could not be observed because they overlapped with other activities. In total these made three household visit round observations and four group meeting observations. Two of the group meetings were conducted in the same village. All the other activities were conducted in different villages.

Observations were unstructured and focused on participants' behavior, interaction and activities but also environment. CGMs were informed about an observer role only in a general level. Observations were conducted with the research assistant who interpreted the

communication whenever the used language was Vietnamese. Sometimes CGMs used ethnic languages. Short notes were written during the observation and were completed afterward. Pictures and short videotapes were also taken to support observation notes.

The last method for data collection was **interviews** which are a good way to investigate what people think, feel and experience (Holloway & Wheeler 2010, Moule & Goodman 2009). The CGMs were interviewed in focus groups. By interviewing many people at the same time, time is saved but it also gives an opportunity to share and develop thoughts and ideas during the interview (Addo 2014). The focus group interviews were planned to conduct in four different 4-6 people groups based on ethnic groups. Some CGMs were not able to participate at the appointed time, because of other urgent tasks. Due to this, the groups were carried out ethnically more mixed and the size varied from two to seven people but 17 of the total 18 CGMs participated. The focus group interviews were held in an office room at the health station and each of them lasted about an hour.

The focus group interviews were semi-structured. Although there was interest in the experience, unstructured interview was not seen a suitable option in the context where people are not used to interviews or express their perceptions. The following themes were chosen to be discussed: meaning of the project, making change in the community, perceived barriers, and project evaluation. A few open-ended questions were formed of each theme. (Parahoo 2014.) The research assistant operated as a facilitator of the focus group discussions. He demonstrated the themes and questions to the participants, directed them to stick to the point and tried to make equal participation possible. In some of the groups, the hardest task of the facilitator was bringing about the conversation.

The CGM who was not able to participate focus group interviews was interviewed individually using the same themes and questions. The interview happened at her house and was exceptionally interpreted to the researcher at the moment which made it possible to ask additional questions or correctives. All communal leaders were interviewed individually in their offices or a hotel lobby by the research assistant. Questions were partly the same as for CGMs, but discussions focused on the themes making change in the community and perceived barriers. The assistant performed nearly all the interviews independently, but the

researcher was present in every discussion and took care of the recording. All interviews were recorded and the assistant transcribed them in English afterwards.

4.3 DATA ANALYSIS

Qualitative data analysis is systematic and structured but at the same time complicated process that does not proceed entirely in order. It is common that the researcher moves back and forth between different phases during the analysis process. In the way which is typical of qualitative data analysis it began during the data collection and was time consuming. The researcher wrote analytical notes during the process. (Holloway & Wheeler 2010) The data of this study comprised information from project documents, interviews and observations. Different types of data were analyzed separately according to each study question.

The official role was found out by studying the project documents. During the studying the researcher collected the information that was essential from the point of view of the study question. In several sections the information of documents was supplemented by the project coordinators. In conclusion the researcher made a summary of the collected information and got it approved by the project coordinators to confirm the accuracy of the information. Because of the collection method the material was already categorized and it was not necessary to analyze it more particularly.

The observations which looked into the practical role of CGMs remained fewer than anticipated. For this reason, the amount of observation material was relatively scantly. Data was decided to analyze with the modified deductive content analysis. At first the data was reduced to items and then the created items were organized under the major themes which based on the observation themes. Due to the small amount of data it was not seen essential to continue the analysis process by organizing it in minor themes but to summarize the content of the themes descriptively. (Addo 2014.)

All interviews were analysed together with inductive content analysis. Before analysis, the interviews were transcribed. In this study, the transcription was not complete but focused on the parts that responded to the research questions. The transcription was not verbatim

but already little summed up. After transcribing the data was reduced to 335 items of which 54 were perceptions presented by the communal leaders. Next these items needed to be organized. That required deep and careful familiarizing with the whole data by exploring it repeatedly. Through this essential ideas and themes began gradually to reveal when coding and categorizing was done based on their similarities and differences. (Moule & Goodman 2009, Holloway & Wheeler 2010.) In this study, the categorizing process differed a little from the typical manner because the major categories were named based on the interview themes and questions. Nevertheless, the data of the interviews had to be analyzed as a whole. The researcher was ready to create new major categories if the data would have required that but it was not needed. However, as a result of the analysis many of the items ended up under a different category than where they were originally discussed. Five of the 14 major categories included items only from CGMs and one only from communal leaders.

5 RESULTS

5.1 OFFICIAL ROLE OF CGM

Preparation for the CGM task

Project coordinators created the core group together with the communal leaders who suggested active village authorities who they saw having potential to be effective CGMs. Potential people needed to have enough ability and enthusiasm to communicate effectively with others about health issues. Village health workers were a logical choice. Another main group was active operators in women's union. Communal leaders saw women more effective communicators because they were often more respected in their communities than men. They also prioritized young people because of their better activity, strength and knowledge.

The project coordinators organized three different one-day training courses for CGMs. The first one was held in July 2013 and it was meant for those who participated in collecting base line study data. In addition to the health station staff, five village health workers participated in that phase. The actual training courses for CGM task were held in November and December of the same year. In November, trainers introduced the project, the role of CGMs and IEC (information, education & communication) materials for HWWS using presentation and group discussion. The training course in December included introduction to the IEC materials of the HWWS project and instructions for conducting group meetings and household visits. In addition to presentation and group discussion, the training methods included also active teaching and imitative practice. The first training course in November had a double number of participants compared the latter.

All the CGMs were resourced with a CGM handbook of 32 pages, two picture books and a bunch of checklists for household visits. All these materials were in Vietnamese. The handbook was intended to be a simple tool providing basic knowledge about the importance of HWWS and detailed instructions for all project activities. Meeting instructions included descriptions of the objective, the advance preparation, the required time and the key information. At the end of each instruction there was a table which included detailed

descriptions of the contents, the durations and the necessary supplies of different parts. A household visit guide instructed when to visit, which documents to bring, how much to reserve time, what kind of information to share and how to prepare the visit. Then the visit was explained step by step. The handbook had a community communication part which included instructions on how to arrange a community event about HWWS. This part had several examples of entertaining educational activities like games. The picture books consisted of full-page illustrations and explanations of the key messages of the project and they were meant to be used in different communication activities.

Once a month the CGMs were given their monthly consideration which was 300 000 VND (about 12€). They also got 30 pieces of bar soap per month for distribution for first six months. The amount was in agreement with the guidelines which instructed to have three meetings for ten households per month. The project offered also posters to CGMs to distribute in their communities. In the poster there was a big picture of a child's and an adult's hands in the hand washing situation and small pictures of four key junctures when hands need to be washed with soap. All the pictures were also explained in Vietnamese. Each village got a big poster for a public place and then A4 size sticker posters for all households to share and attach near the hand washing facilities.

CGM responsibilities

The general mission of the CGMs according to their handbook was to encourage households to frequently wash hands with soap and clean water. More specifically that meant organizing group meetings, visiting households, combining HWWS communication with other village activities and reporting operations at the core group meetings.

The group meetings aimed to motivate HWWS behavior and promote knowledge of human health and the transmission of diseases. The guideline was to organize at least three meetings per month, including two meetings with caregivers of children under five and one meeting with the heads of households. The idea was to split the village in groups, having a representation of ten households in each, and organize four different meetings for each group. Each meeting had a different topic. The first one was about washing hands well for the health and development of children, the second one introduced the four key junctures

to wash hands with soap and the third one instructed putting soap in a convenient place to create a habit. The fourth and the last meeting was about assessing the implementation of hand washing with soap. The duration of meetings had been set for 45-60 minutes.

The purpose of the household visits was to encourage families to wash their hands with soap and share information about HWWS but through observation also understand their actual conditions and potential difficulties of performing good hygiene behavior. The visits were suggested to conduct after the first group meeting. The general guide was to visit all households twice a month. Households whose members did not attend the group meetings or were unwilling to accept HWWS were instructed to visit at least two times a month. CGMs were requested to use their own consideration in the choice of the suitable information and communication tools depending on the specific situation of each household. For one visit it was suggested reserving for 10-15 minutes.

CGMs were also encouraged to arrange community events and participate in other village activities and meetings to promote HWWS by combining HWWS activities with them. Their responsibility was also to display and distribute HWWS promoting materials to both public places and households. These activities did not have guidelines on how often they should have been carried out.

Once a month the CGMs had a meeting with the field coordinator. In the meeting each of them reported orally the communication activities that they had conducted and handed completed household visit checklists over the field coordinator. Also the heads of the health stations participated in the meetings. At the end of the meetings, CGMs received their monthly fee. The soaps and the additional communication material for display and distribution were also shared in the core group meetings.

5.2 CGM ROLE IN PRACTICE

General information

Only half of the CGMs reported that they participated in both training courses and at least two did not participate in either of them. All four communal leaders participated in both

training courses. There were some replacements in the core group after the trainings. One of the CGMs was replaced before the actual pilot phase started because the first candidate was not motivated. Because this new person could not participate any training, the field coordinator gave her a short private lesson of the project and its education material. Other replacements happened in May during the data collection. One CGM opted out because she got a baby. Another case was when the communal leaders and the field coordinator were not pleased with the work of the CGM pair from a highland village and chose new people from their village to take the responsibility. These new CGMs did not participate the study.

CGMs organized group meetings usually together. Most of them reported that they had conducted meetings with 20-40 participants. In smaller villages it may have meant that all the households were represented. Many of these big meetings were combined with other topics such as food safety and disease prevention. About a half of the CGMs told that they had organized group meetings also for about ten people. When the meeting was meant for a certain group of people, they were invited individually face to face or by phone. To the big meetings people were invited also via loud speaker system or spreading the information from one person to another. The common frequency of the group meetings was one or two meetings per month. One CGM reported having 3 meetings per month. Reasons for having just one meeting per month were for example that people were busy and lived far from each other. Only one CGM told having many meetings with different topics to the same group. Others reported having mostly different people in different meetings. Once that was justified with a statement that the knowledge level was already good in the community.

CGMs conducted household visit rounds typically alone. Most of the CGM pairs had divided the households of the village in half so that both visited their own half independently. CGMs told that they visited households one or two times per month. One CGM told that she is going to visit those who need more training even 3-4 times and those who already have the HWWS habit only once. The most common tasks on the household visits were checking the location of the soap and sharing HWWS information, like how or when to wash hands with soap or what are the benefits or the four key junctures of HWWS. Many of the CGMs told that they also gave tips about a convenient place for soap and some asked about soap

usage. Some told that they asked about health status too. The giving of the soap or poster or checking if the household have soap or what kind of soap it is emerged as single mentions.

CGMs told that they distributed soaps usually at the meetings but a few did that in pursuance of the household visits. The soap distribution was seen a good inducement to get people participate in the meetings. As a rule it was experienced that the people were reacting positively to the project. They participated in the arranged activities by good per cent but to maintain interest was sometimes difficult.

Observed group meetings (n=4)

Observed group meetings took place in three different villages which means that two of the observations were conducted in the same village. The villages represented the three different socio-economic levels that appeared in the project villages one being a majority village, one a lowland village and one a highland village. All group meetings were arranged on weekday afternoon by both CGMs of the village. In two meetings CGMs conducted communication together whereas in two meetings the other CGM had the main responsibility. CGMs arrived and started the preparations around the time the meeting was reported to start. During the waiting CGMs, for example, cleaned tables in the front, organized seats and prepared tea for participants. During some of the meetings, participants made these preparations when the CGMs got ready by reading their handbook.

All the group meetings were held in the community house of the village. The community house was very simple environment where there were not many distractions except people. There were wooden tables or a stand for the speakers in the front and wooden or plastic seats for the audience. The doors were open during the meeting. That made it easy to join but also let all the noise outside to be heard.

All the group meetings were planned primarily for caregivers which refers to village members who take care of the children. One of the meetings was for all women in the village and others were for about 20 households. People had been invited to the meetings face to face or by a phone call. All the invited did not show up for different reasons. People who lived further from the community, for example, were assumed not to come because of

rainy weather. The number of adult participants varied between 16 and 20 and they represented various age groups. Participants were women with the exception of two male participants. Different-aged children were also present in the group meetings, in others more and in others less.

At the beginning of each group meeting, CGMs introduced and welcomed observers (the researcher and her assistant). Otherwise they did not pay much attention to them. Three of the meetings started late because participants came late. In the highland village, most participants were around in time but it took time to inveigle them inside the house and some decided to stay outside. The meeting at the highland village was held entirely with ethnic minority language which meant that observers could not understand the verbal content but they were able to infer plenty from non-verbal communication. In other meetings, the language was mainly Vietnamese and was interpreted to the researcher by the assistant.

The benefits of the HWWS were the main subject in all the meetings. The meetings consisted also information about the right hand washing technique, the four key junctures of HWWS and how germs enter the body. Some CGMs shared their own experience for example about how they have added HWWS due to the project. During the meetings, CGMs asked the participants some questions about their HWWS knowledge and experience. In the majority village, CGM probed participants' opinion about the impact and the suitability of the project activities. In the lowland village participants were reminded that the first soaps are provided by the project but in future they need to buy them themselves.

In two of the meetings CGMs communicate HWWS by using the picture book they had been given. In two other meetings, CGMs did not use any demonstration tools when communicating although they had the picture books with them. One of the meetings was very interactive. CGM conducted the communication by asking lots of questions and the audience answered actively. Other meetings were not that interactive but the CGMs were speaking mostly alone. They either did not ask that much questions or participants were not willing to answer their questions. In the lowland village, the CGM conducted remarkable part of communication by reading straight from the handbook.

The atmosphere was convivial in most of the meetings. The most interactive meeting in the highland village contained much laughter. In some meetings, people caused distraction by chatting but it did not seem to bother CGMs. Although it was occasionally difficult to hear what the CGM was saying, they did not make an effort to stop it. Children also caused distraction.

The reactions of the audience varied. In the highland village, the audience seemed attracted by the topic and took actively part to the conversation but in the same village some women decided to stay out. In the lowland village participants did not seem very attracted but were chatting, killing insects, trying shoes and playing with kids when the CGM was speaking but some of them answered expressed questions. The audience in the majority village caused least distraction but was quite passive and did not answered any of the expressed questions.

The duration of the HWWS communication varied from 15 to 45 minutes. The group meeting in the majority village seemed to be planned in advance. Others appeared to be more spontaneous. In those cases CGMs read the handbook throughout the meeting; when waiting for participants, when other one was speaking about a different topic or when they were evidently confused because they did not know what to do next.

The bar soaps were handed out at the end of the meeting to all participants. Two of the meetings did not have soap distribution. Tea was served to the participants in three of the meetings. Two of the group meetings were combined with other topics such human trafficking, road safety and HIV. Three of the four meetings were women's union meetings.

Observed household visit rounds (n=3)

Observations included three households visit rounds in different villages which represented also the three different socio-economic levels that appeared in the project villages (majority, lowland & highland). Only one of the observed household visit rounds was conducted by a single CGM. In the lowland village, another CGM came along halfway the round and in the majority village the round was completely conducted by two people. In the latter case, the other person was substituting the other official CGM who was not able to attend. Because all

household visit rounds were carried out in the weekday afternoon people in many households were absent. All the observed rounds were conducted entirely with the Vietnamese language.

In the highland village, the CGMs told that the purpose of the households visit round was to follow-up after the group meeting. This same CGM had clear mission on the visits. This was, for example, the only household visit round where the CGM made notes to the project check lists. The CGM visited 14 households who had all been invited to the previous group meeting and were on this CGM's responsibility. Many of the people were not at home but the CGM planned to visit those households in the evening. When the CGM arrived in a house, the first task was to check if the soap was located near the hand washing facility. If it was not, the CGM advised where to put it. The discussion was conducted primarily with a main caregiver. If the caregiver had not participated the group meeting, the CGM gave her hands-on training about right hand washing technique. After that the CGM discussed the importance of the HWWS with family members and asked about their recent health. One visit lasted about 10 minutes.

Two other household visit rounds appeared to be more unplanned. First, the lowland CGM told that the purpose of the visit round was to check if the household has soap and if the soap is located near the hand washing facilities. Second, the majority CGM's purpose was to check the hand washing facility and the health status. The majority CGM visited six households and the lowland CGM ten households and it seemed that the households were picked randomly. During the visit, these CGMs checked the hand washing facility and the soap location but they did not really communicate with the household members. If they did they did not ask about HWWS or their health status although the majority CGM had mentioned checking the health status as a purpose of the visit. In the lowland village, the CGM told that they do these kind of checking visits often and that is why almost all households had been located their soap well. The durations of these check-up visits were a couple of minutes per each.

Reactions to the visits varied. In the ethnic minority villages, people seemed to be used to visits of this kind whereas in the majority village people were confused about the situation.

Even the CGM was confused which came across that these kind of visits were not done regularly. People's attitude toward CGMs and HWWS information appeared quite neutral, not very excited but not reluctant either. The observers' attendance also brought on reactions which were clearly stronger in the less developed villages. Some people were too shy to say anything when others were very excited to meet a foreign person.

5.3 EVALUATION OF THE CGM ROLE

CGMs and communal leaders evaluated the CGM role from four different perspectives. They considered what the meaning of the project was and how to make a change in the community but also what the perceived barriers were and how the project succeed from its different parts.

Meaning of the project

The meaning of the project included defining CGMs' responsibility in the project and reflecting the importance of the project, the benefits of working in the project and the effects of the project (see Table 1).

The CGMs perceived that their **responsibilities in the project** were to increase HWWS with different activities and be a development promoter. Activities increasing HWWS included communicating HWWS with everyone and everywhere and using different communication tools like posters. Other activities were project methods like visiting households, organizing meetings about HWWS and combining HWWS information with other meetings. Being a development promoter meant changing hygiene behavior and promoting health. Both were mentioned in relation to their own family and community.

"I communicate HWWS to others in my village. Besides, I also make them to have a habit of HWWS to avoid infectious diseases." lowland CGM

TABLE 1. Meaning of the project

RESPONSIBILITY IN THE PROJECT	Increase HWWS with different activities	Communicate HWWS
		Visit households
		Organize group meetings about HWWS
		Combine HWWS information with other meetings
		Use different communication tools
	Be a development promoter	Change hygiene behavior
		Promote health
IMPORTANCE OF THE PROJECT	Project is necessary	Helpful for villages who don't know about HWWS
		Helpful to the community
		Some people need HWWS education
		Necessary for better health
	Lucky to be part of the project	Gratitude for caring
		Local people are enthusiastic
	Not much significance	People already use soap
BENEFITS OF WORKING IN THE PROJECT	Opportunity to develop themselves	Makes them feel privileged
		Enhances their skills
		Extends their relationships
		Increases their knowledge
		Promotes their health
	Well-being for their family	Better family care
		Better family health
	Means to work for their community	They can inform people about HWWS
		They can inform people about preventing infections
		They can protect people from infections
		They can use their enhanced competence to help
		People get soap
EFFECTS OF THE PROJECT	Positive outcomes in everyday life	Better hygiene behavior
		Better disease prevention
		Better health
		Societal development
	Enhanced awareness in all levels	People get better awareness of HWWS
		Leaders understand the importance of HWWS

The opinion about the **importance of the project** varied. It was seen to be necessary because some people needed HWWS education and it was helpful for villages who did not know about it. It was also mentioned being helpful for the community and necessary for better health. CGMs felt lucky to be part of the project. They were grateful for the project and the government that they cared about their communities. Local people' enthusiastic support to the project also strengthened this lucky feeling. Someone did not see the project

very significant. She assumed that the condition will not change much because people already used soap in her village.

"Although in my village people's awareness is quite good, there are some people who need to be communicated." majority CGM

CGMs found many **benefits of working in the project**. First it was an opportunity to develop themselves. They felt privileged when they were chosen and trained to be a CGM. They experienced that working as a CGM enhanced their skills and extended their relationships because they had a chance to communicate with village members. Working in the project also increased their knowledge especially about HWWS and promoted their health. Second it brought well-being to their family through better family care and health. Third it gave them means to work for their community. They could inform people about HWWS and how to prevent infections. They thought that they could protect people from infections when people change their hygiene behavior due to their actions. They told that they can use their enhanced competence to help others. Working in the project also provided soap for their community members.

"I can enhance my knowledge and skill. Therefore, I can help my village." lowland CGM

The perceived **effects of the project** were positive outcomes in everyday life and enhanced awareness at all levels. Positive outcomes were things like better hygiene behavior, better disease prevention and better health. One of the positive outcomes was societal development. It was seen that enhanced health improves, for example, labor productivity and life quality. Thanks to the project, people get better awareness of HWWS but communal leaders mentioned that along with the project the leaders also understand the importance of HWWS.

"The project helps us to prevent infectious diseases. Besides, the number of patients will be reduced. Therefore, we can save much money and our labor productivity is enhanced strongly." lowland CGM

Making change in the community

The theme of making change in the community was dealt with contemplating the most important target group and the best ways to influence in hygiene behavior but also pondering how to maintain HWWS in future (see Table 2).

TABLE 2. Making change in the community

MOST IMPORTANT TARGET GROUP	Position in family	Most influential person in each household
		Mothers
	Age group	Older people
		Middle-aged
		Children
	Occupation	Village authorities
		Teachers
		Farmers
	All are equal	Everyone
BEST WAY TO INFLUENCE IN HYGIENE BEHAVIOR	Meeting households	Frequent households visits
		Observing household visits
		Informing household visits
	Using effective communication method	Group discussion
		Face to face communication
		Frequent communication
		Long-term communication
	Selecting appropriate content for communication	Enhancing knowledge of HWWS
		Integrating HWWS with other topics
	Using practical communication tool	Using loud speaker system
		Using pictures
	Concentrating on relevant people	People who don't HWWS
		People with children under 5
		Everyone
	Through experience	Being a role model
		Giving soap
	Officials' cooperation	Officials working together
MAINTAINING HWWS IN FUTURE	Continuing HWWS communication	Changing awareness is the key
		Maintaining HWWS communication activities
		Communicating HWWS in different meetings
	Developing HWWS communication	HWWS communication need to be enhanced
	Everyone takes responsibility	Officials keep maintaining their responsibilities
		Responsibility to people themselves

The views about the **most important target group** were diverse. They were seen either the most influential people or the group that needed HWWS information most. The target groups were defined based on their position in the family, their age group or their occupation. The most influential person in the family was usually thought to be the head of the household but it also depends on the family. Mothers, especially mothers of children under five, were seen as an important group because they take care of the family and can protect children from infections. Older people were chosen because they are respected by their offspring. Middle-aged were seen to be able to communicate and take care of the family. Children should be taught at school and it was believed that they could impact to their parents' hygiene behavior. Village authorities have a big influence on their communities and teachers have the responsibility to teach children. Farmers have a life style that requires more training about HWWS. It was also thought that everyone is as important and this kind of definition is unnecessary.

"We should communicate HWWS to the women because they often take care of their family." highland CGM

Opinions about **the best way to influence in hygiene behavior** were also various. When the way was meeting households, visits should be either frequent or the purpose of the visits should be to observe their practice or to inform them about HWWS. Many saw the best way being using an effective communication method. Communicating face to face with village members received endorsement but so did group discussions. Communal leaders did not see the group discussion necessary just for households but also for the heads of the villages. Other mentioned methods were frequent communication and long-term communication. One way was to select appropriate content for communication which was either enhancing knowledge of HWWS or integrating HWWS with other topics, as water and sanitation. The latter was seen an opportunity to attract more people. Using a practical communication tool got also support. The loud speaker system was seen useful and pictures were believed to be more effective than written text in the local environment. Some thought that the best way to influence is to concentrate on relevant people; people who do not do HWWS, people with children under five or just everybody. One way to influence was through experience which meant giving people soap to get the experience of feeling clean or the CGM being a role

model that people can monitor. A communal leader suggested the cooperation of the officials at the health station and the local administration.

"We should concentrate on posters. Posters need to have many picture. Therefore, people do not need to read, they still understand the content." highland CGM

The communication was seen the main factor when **maintaining HWWS in future**. First they will keep continuing HWWS communication because changing awareness is the key and it will happen by maintaining HWWS communication activities and communicating HWWS in different meetings. Second they need to develop HWWS communication to be more effective. Third everyone has to take responsibility. Officials like village health workers or health station workers will keep maintaining their responsibilities but it is also important to give responsibility to people themselves, thus avoid dependence on exterior aid.

"However the most important thing is the local people's awareness. Only when they realize the important of HWWS clearly and deeply will they spend money on soap." majority CGM

Perceived barriers

Barriers were discussed from two different aspects: what caused barriers to carry out the project and what caused barriers to perform good hygiene behavior. Also the impact of local culture was considered (see Table 3).

TABLE 3. Perceived barriers

BARRIERS TO CARRY OUT THE PROJECT	Complications with the project activities	Difficult to set the meeting
		Communication activities are time-consuming
	Disregard of local people	People with low awareness do not care
		Difficult to convince people with high awareness
		People who already have the knowledge are not interested
		Lack of soap causes reluctance
	Ethnic minority communities as a working environment	Community work is challenging
		Slow bureaucracy
		Different languages
		People are used to get help outside
	Personal challenges	Insecurity about own competence
		Unexpected family responsibilities
	No barriers	No barriers
		Support of local administration
		Enthusiastic CGMs
BARRIERS TO PERFORM GOOD HYGIENE BEHAVIOR	Low socio-economic status	Poverty
		Low awareness
		Undeveloped living conditions
IMPACT OF LOCAL CULTURE	Ethnic minority culture itself not significant	Ethnic minority culture does not affect
	Variety in life styles	Socio-economic differences
		Different soap using habits

Many **barriers to carry out the project** were pointed out although some thought that there were no barriers at all because CGMs were enthusiastic and they had the support of local administration. Complications with the project activities caused barriers. It was difficult to set the meeting time so that it would work for all the invited. Weekends and evenings were seen more suitable because of working. Communication activities were also held time-consuming because all the households were meant to be visited and sometimes people lived far from each other. One barrier was the disregard of local people. It was difficult to convince people with higher awareness and people who already had the knowledge were not interested. People with low awareness did not care and lack of soap caused reluctance. Ethnic minority communities as a working environment caused barriers too. Community work was seen challenging and bureaucracy among the ethnic communities was slow. In ethnic minority communities people also spoke different languages and they were used to get help outside. Some barriers were caused by personal challenges. Insecurity about their

own competence turned up when communicating HWWS to people with higher awareness. Sometimes unexpected family responsibilities hindered carrying out already planned project activities.

"Many people in my village cannot use Kinh language and they live quite far from each other. Therefore it is quite difficult to communicate HWWS to them." highland CGM
"I feel confused when communicating HWWS to people with higher competence than mine" majority CGM

Only the communal leaders brought out **barriers to perform good hygiene behavior** and their opinions were very congruent. The common denominator to poverty, low awareness and undeveloped living conditions was low socio-economic status.

"The main reason for poor hygiene behavior is the low level of education and awareness of local people." communal leader

The **impact of the local culture** existed through variety in life styles but all agreed that the ethnic minority culture itself was not significant. Socio-economic differences between the villages were wide, some of them being very poor and some quite wealthy. Different soap using habits were connected with the socio-economic differences. In the wealthier villages, most people used soap regularly but in poorer villages people even did not have enough money to buy it.

"Economic condition is quite good and equal in our village." majority CGM
"Poor people do not have enough money to buy soap." lowland CGM

Project evaluation

The evaluation of the project focused on training, resources and methods. It was also compared to other projects (see Table 4).

TABLE 4. Project evaluation

TRAINING EVALUATION	The training was worthwhile	Training was well organized
		Training was necessary
		The content of the training was adequate
		Training enhanced HWWS knowledge
	The understanding of the training varied	Training was easy to understand
		Training was difficult to understand
	There is a need for additional training	Training was not sufficient to everybody
		Personal skills are very significant
RESOURCE EVALUATION	CGM fee is not adequate	CGM fee is not in accordance with the tasks
		CGM fee is not up-to-date
	Soap distribution should be determined by the population of the village	Soap distribution brings about good attitude
		Equal soap distribution is not fair when the village sizes varies
	Present communication tools need fine-tuning	The content of the materials are suitable
		The poster doesn't stay on the wall
		The picture book is impractical
	There is a need to more effective communication tools	Hand loud speakers needed
		Modern communication tools needed
	No capacity to evaluate	Feels oneself incapable of evaluating resources
METHOD EVALUATION	Too early to evaluate	Too early to evaluate effectiveness
	The methods are appropriate	The methods are suitable
		The methods are effective
	The project guidelines need rethinking	The methods are time-consuming
		Households should be visited only once a month
		Household visits should be combined with other activities
		The group size should be smaller
	The project should focus on people who need it most	Visit frequency should be based on knowledge level
		Focus should be on the poorest villages
COMPARISON TO OTHER PROJECTS	Comparison to Water & Sanitation Project	Affects all households like W&S
		Similar information as W&S
		More detailed information than W&S

The evaluation started with **training evaluation**. CGMs thought that the training was worthwhile. It was well organized and necessary. The content of the training was held adequate and the training enhanced their HWWS knowledge which made them capable of communicating HWWS to others. The understanding of the training varied. CGMs from the majority villages estimated it easy but for CGMs from poorer villages it was difficult. There was seen a need for additional training because given training was not sufficient for

everybody. Especially CGMs from remote villages were mentioned to need more training. Another reason was that personal skills were seen very significant from the point of view of the nature of the project activities.

"the quality of the activities depends very much on our talent" highland CGM
"I could have produced activities better if I had been trained about communication skill." lowland CGM

Resource evaluation revealed some defects to fix. The CGM fee was seen not adequate. It was neither in accordance with the task nor up-to-date. These claims were justified with the facts that project activities took a lot of time and required using a motorbike and a cell phone. Prices had also increased lately and that is why the fee that was reasonable some years ago is not reasonable anymore. CGMs opinion was that the number of the soaps should be determined by the population of the village. Soap distribution brought about a good attitude and for that reason was important part of the communication. Equal soap distribution was not seen fair when the village sizes varied much. CGMs wished to get soap enough for all the households in their village. Present communication tools needed to fine-tune. The contents of the communication materials were suitable but the poster didn't stay on the wall and the picture book was impractical and needed to be redesign. There was also a need to more effective communication tools. Hand loud speaker was seen an essential instrument in communication but a communal leader stated that modern communication tools like TV, video and CD are also necessary to make communication more attractive. CGMs from poorer villages felt themselves incapable to evaluate resources.

"Nowadays, prices have been increased rapidly, therefore the expenses for CGMs should be increase to encourage us more when working." majority CGM

When the discussion topic was **method evaluation,** all of the CGMs saw the used methods appropriate. CGMs agreed that they were both suitable and effective. One of the communal leaders noted that it is too early to evaluate the effectiveness of the project. The project guidelines needed rethinking. The methods were found time-consuming to both CGMs and local people. CGMs thought that the frequency of the project activities should be reduced.

Visiting households only once a month would be enough because people are busy and it takes a lot of time. One CGM mentioned that the meeting should also be only once a month so that people do not feel like wasting their time. It was also suggested that household visits should combine with other activities in the village. The last wish according to project guidelines was that the group size should be smaller. An ideal size of a group was from 10 to 15 people which would enable giving more specific information. CGMs pointed out that the project should focus on people who need it most. Household visit frequency should be based on the local people's knowledge level. If they visited people with the good knowledge only once a month, they could visit 3-4 times at homes where they actually need more training. One communal leader stated that the focus should be on the poorest villages in future.

"People in my village are quite busy. Therefore I think we should visit them only once a month." highland CGM
"For those who need to be trained more often, I can see them 3 – 4 times per month if I have time. I can meet them at their house, at the meeting, on the road or anywhere." majority CGM

Comparison to other projects occurred only with the Water & Sanitation Project. Some thought that the information was similar but others thought that in HWWS project the information was more detailed. Both projects got credit for affecting all households in the communities.

"The knowledge of the project is more detail than in the water and sanitation project." highland CGM

6 DISCUSSION

6.1 DISCUSSION OF THE FINDINGS

Framework of the role

According to the results of the study the project coordinators and the communal leaders supposed that village health workers and heads of the women's union have the best potential to perform the CGM task successfully. Researchers who have investigated hygiene promotion in rural areas of Vietnam support this point of view (Rheinländer et al. 2012, Nguyen & Devine 2012, Curtis 2005). In this study village health workers brought out that the hygiene promotion is a part of their task. In an earlier study they experienced that they did not have enough knowledge and skills to train and change the hygiene behavior of the village members (Rheinländer et al. 2012). Women's union has shown to be capable in hand washing promotion but their activities usually involve only women (Rheinländer et al. 2012). Also in this project the informed were mainly women. It is not necessarily a problem because the central role of local women in the water and sanitation programs has been noticed to be a key to success and for lasting results (Fisher 2008).

In this project the village health worker and the head of the women's union (in three villages other authoritative) worked as a pair for their own community. In an earlier study, the village health workers have told that they would more preferably work in cooperation with other stakeholders. Although they participated in different meetings regularly, they experienced that they were left without collegial support and supervision. (Rheinländer et al. 2012.) From this point of view the use of the pair working was an excellent choice. In addition to the fact that they worked in pairs, they met all other CGMs every month at the CGM meeting where they had an opportunity to share their experiences and views of the carrying out the project. Remarkably, this point did not brought out in the interviews.

Two training courses that were arranged for the CGMs formed a comprehensive whole together and various teaching methods were used to ensure the good learning experience. CGMs were mostly satisfied with the training and they understood that their role was very significant and the success of the project relied heavily on their skills. One CGM mentioned

that additional training about communication skills would have enabled to be more effective. The biggest problem with the training courses was that only half of CGMs participated in both of them. As stated above, they formed a whole and something essential remained missing, if a person participated only one of them. The fact that CGMs from highland villages experienced the training too difficult to understand was also problematic. This indicates that the same training is not suitable for all if previous knowledge levels are very different.

The main methods of this project were the group meetings and the household visits. All CGMs viewed these methods suitable for their communities. A previous hygiene promotion study in Bangladesh pointed out that "motivational cluster meetings with large-scale participation and periodic home visits" are essential when the aim is to change hygiene behavior (Akter & Ali 2014). In this project the group meetings were usually conducted together but household visit rounds individually. A previous study confirmed that generally hygiene promotion via community events is not more effective than via mass media because usually mass media reaches people more comprehensively than community events but poor communities in the rural areas make an exception. That is why community events can still be considered a suitable method in this context. (Scott et al. 2008.)

Carrying out the project activities

Three group meetings and two household visit rounds should have been conducted in every village during the month according to the guidelines of this project. When there were nine villages, there should have been 27 group meetings and 18 household visit rounds in a month. The researcher spent altogether four weeks in the project field. During that time, she was reported six group meetings and three household visit rounds. Even though the activities were not likely divided evenly, it can be concluded that the frequency of the activities was not nearly in accordance with the guidelines. In the focus group interviews, most CGMs expressed that it would have been more realistic to instruct to have one or two meetings in month.

In the observed group meetings, the HWWS communication was mainly one-way-information, on the other words the CGM talked and participants listened. In two of the

meetings a notable part of the communication was read directly from the handbook. Understandably, the maintaining of the people's interest in those situations was challenging. The only activating element was asking questions and it must be stated that the highland CGM used that much. Demonstrating the teaching with the pictures improved the concentrating of the audience slightly but all did not use the picture books that the project had equipped them with for this purpose. A recent study which examined Vietnamese school children noticed that the active teaching methods such as games, rewards and HWWS demonstrations made them visibly excited about the teaching of HWWS (Xuan & Hoat 2013). The use of active teaching methods could have been a good solution also for maintaining the interest of these participants. Participatory is recommended also because it enhances the learning process and promotes the increase in the knowledge and a change in the behavior (Onyango-Ouma et al. 2005).

In fact, the instructions of the group meetings in the CGM handbook include active methods but for some reason they were not carried out in practice. In the interviews, CGMs expressed a lot of different opinions about the best way to communicate HWWS but not one of the ways was considered active or participatory. It seems that in spite of the trainings and the instructions the CGMs have not adopted their role as it was officially designed but the main communication methods have remain the same one-way information and educational talk than in the earlier study (Rheinländer et al. 2012).

Also the implementation of group activities seemed to be differing from the instructions. In the guidelines it was instructed to divide the village into the small groups of about ten households and then arrange four meetings with the different contents to the same group of people. In practice, only half of the CGMs told having meetings in small groups and only one CGM told having different meetings to the same group. There is no certainty what the difference between the guidelines and the practice was caused by. The most probable reasons are indifference or that the guidelines were not comprehensively known or understood. The fact that the study demonstrated the CGMs motivated and enthusiastic about the task suggests the latter alternative. The CGMs saw that project was necessary for their communities and they pointed out that working in the project had many benefits for them, their families and their community which made them think they were privileged to be

part of it. The opinion, that required smaller groups in the interviews, confirms that the guidelines were not completely known.

Evaluating the role within the local conditions

The attitudes of local people complicated the carrying out of the project both in the majority and the highland villages. In the majority villages people had high awareness and they did not see the project necessary. Also some of the majority CGMs thought that the knowledge level was already quite good in their villages and the effects of the project would probably remain small. In the highland villages local people did not care about the project. Also in the study that was done in Kenya people in an economically weak position had negative attitude toward HWWS. Poor people thought that using soap for hand washing is wasting, especially among children. (Aunger et al. 2010.) All CGMs thought that the project is very necessary to the poorer communities. A communal leader suggested that in the future the project should concentrate primarily on poor villages. Rheinländer and her partners (2012) gave similar recommendation some years ago.

The soap had a significant role in this project and not least by the attitudes. The soap delivery in the group meetings was an important inducement to local people to participate group meetings but if the CGM did not have soap for everyone people started to show reluctance to the project. The soap delivery was meant to be temporary and the aim was to get people to buy it themselves in future. In practice this is one of the significant challenges. According to the findings of a study conducted in Pakistan, ending the distribution of the free soap decreased the use of the soap significantly (Luby et al. 2009). The soap was an issue also for CGMs. They were dissatisfied with the soap distribution of the project. They thought that it was not fair to give the same amount of soaps to each village because the numbers of the households were so different and varied between 30 and 80. When all the villages got six times 30 bar soaps during the project it makes 180 bar soaps in total. Thus in the smallest village the amount was enough for as much as 6 pieces per household but in the biggest village it was enough only for 2.

The different sizes of the villages cannot be without causing unequal workload to the CGMs, at least if the matter is examined from the point of view of the guidelines. The working

conditions were also quite different. In some villages, the houses were located in a small area close together whereas in the highlands villages people usually lived far from each other. All CGMs thought that the project activities were time consuming. Some thought that the 300 000 VND monthly fee was not enough compared with the time that performing the task required. The correspondence of the monthly compensation and of the use of time has created dissatisfaction also in an earlier promotion program. In Rheinländer and her partners (2010) program the monthly fee was only 40 000 VND. In comparison with it, 300 000 VND can be considered splendid but still especially majority CGMs thought that it was not adequate. The monthly fee appears appropriate also when compared with the ordinary salaries of the CGMs; a village health worker earns about 570 000 VND per month and a head of the women's union earns about 230 000 VND per month. CGMs from the highland villages were not willing to evaluate the fee or other resources.

According to this study, ethnic minority culture itself did not affect the carrying out of the project or the hygiene behavior of people but it was the socio-economic situation of the people. Rheinländer and partners (2010) indicated that the cultural perceptions of hygiene among these ethnic minority groups did not differ significantly from each other or rural majority population in Vietnam. However, hygiene behavior and standards were different according to different socio-economic situations and working schedules (Rehinländer et al. 2010). It is a fact that the undeveloped living conditions of the poor people may limit their hygiene behavior and prevent the effectiveness of the promotion work among those who need it most (Scmidt et al. 2009).

In this project CGMs were local and in many villages they used ethnic languages in communication but it was challenging because all the material was in Vietnamese. The languages of ethnic minority groups have been noticed causing challenges in hygiene promotion also earlier. Especially in the highland villages older people and women speak Vietnamese poorly and that is why highland people have suggested that in future the promotion should be carried out with the ethnic language and by local promoters (Rheinländer et al. 2012).

Lastly the results of the study are examined through four main barriers that Rheinländer and partens (2012) pointed out in their study and were introduced at the end of the literature review. In this project the cooperation of different sectors had been invested in. The local leaders represented both health sector and communal administration and the frontline promoters, in other words village health workers and heads of the women's union who acted as CGMs, were given an opportunity to work together for their community. CGMs were resourced with specific training and support system for their task although it was not sufficient for all. Unfortunately the HWWS promotion conducted by CGMs was still mainly information-based and passive although the guidelines of the project advised otherwise.

According to the results of this study context adjusted promotion strategies had not been enough taken into consideration when designing this project. Although the socio-economic differences between the project villages were considerable, all CGMs were offered the same amount of training, resources and support. The CGM pair that was replaced during this study was from the village which was evidently the poorest of the project villages. Their displacing may have been justified but it is also a fact that operating in that environment has been a lot more challenging than for example in the majority villages. Rheinländer and her partners stated in 2012 that highland villages are the most in need of more intensive and effective hygiene promotion in Vietnam but at the same time they are the least targeted area. That brings about a serious need for the comprehensive training and supervision of frontline promoters to make the hygiene promotion effective. (Rheinländer et al. 2012.) They also need more resources to improve their capacity (Nguyen & Devine 2012).

All CGMs agreed that maintaining HWWS in the future requires maintaining the HWWS communication but especially communal leaders stated that the communication needs to be enhanced to be effective. Rabbi and Dey (2013) also stated that the gap between knowledge and practice can be removed only by raising people's awareness about HWWS in long-term.

6.2 STRENGHTS AND LIMITATIONS OF THE STUDY

Triangulation, which means using different methods in the same study, enhances the validity of the study (Moule & Goodman 2009). In this study, the data was collected by exploring project documents and both interviewing and observing informants. For this reason it gives a diverse view of the phenomenon. The choice of the research methods and the data collection plan were made in the close cooperation with the supervisors. The methods produced information which answers the study questions and thus their choice can be considered succeeded. (Elo et al. 2014.)

Reliable study gives non-coincidental results and reliability is verified by a researcher's accurate explanation how the study was conducted (Holloway & Wheeler 2010). Because data was collected by interviewing and observing it was important to tell in the report how they were actually carried out (Holloway & Wheeler 2010). All the CGMs and the communal leaders participated in the study and the sample can be considered comprehensive with good reason. They also were surely those persons who were able to give most accurate information about the phenomenon. (Elo et al. 2014.)

One significant factor from the point of view of the reliability was that the researcher and the target group did not have a common language and the data collection had to perform with the research assistants. In order for the reliability of the study would not be endangered, the assistant needed to be competent and reliable (Holloway & Wheeler 2010). Two assistants, whom both joined in one data collection trip, participated in the study. They were both Vietnamese public health students and had experience of working with ethnic minorities. They were very competent in many ways but their English skills were at separate levels. The first assistant had only moderate English skills and it was a little challenge, because most of the data was collected during that first trip. To solve the situation it was decided that the assistant does not need to interpret any of the interviews during them but they are recorded and transcribed in English afterwards. For the same reason the transcription was not verbatim but a little summed up.

The making of the study required other compromises too. The researcher spent three months in Vietnam but only four weeks in the field. More time in the field could have enabled deeper familiarizing with the local life and people but also more observations which would have meant more data and deeper understanding about the phenomenon. The main reason that limited the time in the field was the fact that the field work required an assistant and the assistants were limitedly available.

Because interviewing happens in a straight contact with the informants, there is a risk that informants try to give socially acceptable answers because of the presence of the researcher. Focus group discussions were conducted in the office room in the health station and the room of the head of health station was next to it. When he was present, he was able to listen to the discussion. In the opinion of the researcher, this was not an ideal situation, but other parties did not see it problematic. CGMs presented their views surprisingly openly but the one thing to be noticed was that CGM of the poorest villages experienced themselves incompetent to evaluate the resources of the project. (Holloway and Wheeler 2010.) The use of semi-structured interview was obviously a right decision in focus group discussions. The structured interview would have restricted answers too much whereas the unstructured interview would not have brought about a discussion when it also now was challenging at times and required an active role of the facilitator.

It was an interesting point that the individual interview of a CGM gave richer data when compared with other interviews. The richness of the data may have been caused by it that it was the only interpreted interview where the researcher had an opportunity to ask additional questions or correctives. It cannot be left without paying attention that this interviewee also represented majority and her education and wealth were considerably better than average. It is probable that the dynamics of the group interviews would have suffered from a simultaneous interpretation and separately the interviewing of 17 people would have taken a manifold amount of time. Furthermore, the many benefits of the group interview would have been lost.

It is an ethical challenge how much the observed people get to know about the things actually observed. If they knew them exactly, it could influence their performance which

reduces the reliability of the observations. In this study, the participants were informed of the main purpose of the observation but the specific details remained without revealing to maintain the authenticity of the study results. (Moule & Goodman 2009.) On the other hand, a mere presence of the observer causes a risk to the reliability of the results. Spending time with informants before conducting data collection helps informants to get use to the researcher and act more naturally but it was not possible as to a large extent as it would have been wanted. In spite of this the researcher had an impression that CGMs acted in the observed project activities the same way as they would have acted without the observer. In participant observation it is difficult to write notes during the observation and writing notes afterwards based on memory, causes a challenge. Because of that the researcher took photos and short videos in the observation situations to support her memory. (Holloway & Wheeler 2010.)

The result of the content analysis are described in the chapter 5.3. Even though there was interest in primarily the views of the CGMs, the views of the communal leaders were also essential and deserved to get attention. To secure the reliable interpretation of results it has been clearly indicated if a perception was expressed by communal leaders. Below a description of each category is at least one straight quotation from the original material. The citations demonstrate the faithfulness to the material and give a reader an opportunity to evaluate the success of the analysis process. (Elo at el. 2014.)

6.3 ETHICAL CONSIDERATIONS

To be ethically acceptable the study has to follow the responsible conduct which is based on the essential values like “honesty, fairness, objectivity, reliability, skepticism, accountability and openness”. In practice it means that the study is conducted and the results are reported honestly and completely as in this study an attempt has been made to do. Fairness has been shown through respecting others and the work of other researchers during the research process. (Responsible conduct in the global research enterprise 2012.)

In an ethically acceptable study, the participating of the informant is based on ‘informed consent’. It is valid only if the participant has been correctly informed, can make decision freely without any pressure and is competent to make the decision. The project was

introduced to the CGMs by the researcher in the monthly meeting at the beginning of the first data collection trip in April 2014. CGMs were informed of the purpose of the study and what it means in practice if they participate. They were also given an opportunity to ask questions and they were told that they are able to quit at any point. All this information and the contact details of the research assistant had been printed in the paper forms; an English form to be returned to the researcher and a Vietnamese form to the CGMs to keep. All CGMs and both heads of the health stations signed the informed consents after the introduction. The vice chairmen, who were not present, gave their consent orally in a different time. The CGMs may have experienced a pressure to participate but on the other hand by accepting to work in the pilot phase of the project, they had accepted to be monitored. (Moule & Goodman 2009.)

The social responsibility requires that conducting the study do not cause unacceptable harm on the participants and it respects the basic human values like autonomy, freedom and dignity (Responsible conduct in the global research enterprise 2012). These values can be stated coming true in the making of the study. The use of the informed consent is one sign of that. From the start, when in the field, the researcher treated local people respectfully. When she, for example, visited the project villages, she never took photos without asking a permission from the ones to be photographed. With the making of the study, an appreciating and warm relationship formed between the researcher and the participants. At the end of the time in the field, it seemed that they considered the participation in the study as a privilege.

Securing the anonymity of the participants is also essential when researching human subjects. That is why the names of the communes or the villages have not been mentioned in the report. To ensure the anonymity, as identifier information of the participants had been used only the group term (majority, lowland and highland) or their role as a CGM or a communal leader and for example gender and age has not been revealed. (Responsible conduct in the global research enterprise 2012.)

6.4 RECOMMENDATIONS FOR DEVELOPMENT

The gap between the guidelines and the practice pointed out that it is necessary to examine the guidelines critically and redefine them if necessary. The frequency of the project activities, for example, should be able to carry out realistically. It could be worthwhile to do the examining and redefining in cooperation with the CGMs after the project has been completed. It would also be useful to find out the reasons why the handbook content was not well known and IEC material fully utilized so that it could be avoided in the future. However, it can be stated that it is primarily important to make sure that all CGMs get decent orientation for the task.

Village health workers and heads of the women's union turned out to be a good choice for the CGM task but their potential could be promoted by giving them more training about effective communication skills. The use of active teaching methods instead of one-way-information requires a change in the way of thinking and it never happens quickly. It could be also very effective if CGMs who have adopted the active teaching method taught and supported other CGMs.

At the following phase the project should focus on promoting HWWS in the ethnic minority villages where HWWS is not a general practice yet. It would be reasonable to focus resources in this way from the perspective of the cost efficiency. Special attention should be paid to the poor highland villages. The fact that highland villages are more challenging working environment should be taken into consideration. In those settings CGMs need more training and support than others to be effective. Highland CGMs could also be offered a pre-training which ensures them the knowledge level that is needed in order for the training courses to be understandable. Furthermore, it would be justifiable to pay a bigger compensation to a highland CGMs who work according to the guidelines, because in the highland villages they have to spend more time for their responsibilities.

6.5 CONCLUSIONS

The following conclusions can be presented from the results of this study:

1. The project methods were considered suitable but it was discovered that there was a remarkable difference between the official role in terms of the project documentation and the practical role. The implementation of the project activities differed from the guidelines because some of them were found unrealistic to follow but also because they were not comprehensively known or understood.

2. All CGMs were motivated and they understood the importance of the HWWS promotion but their communication skills were moderate and they did not take full advantage of the IEC material. The effectiveness of the project relies on motivated and skilled CGMs who are equipped with sufficient resources.

3. The project was seen less necessary in the majority villages because HWWS has already been considered a general practice there. The most urgent need for the HWWS promotion was in the poor highland villages. They were also the communities where the promotion work was most challenging because of difficult living conditions, ethnic minority languages and less educated local authorities.

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