

Nadira Sultana

ACCESS Health International

May 2011

Community Health Program at Remote Hill District, Bangladesh

Community Health Program at Remote Hill District, Bangladesh

Nadira Sultana

ACCESS Health International Bangladesh

May 2011

Table of Contents

Acknowledgements	4
Disclaimer	4
Copyright	4
Executive Summary	5
Introduction.....	7
Background of Chittagong Hill Tract.....	7
Christian Hospital Chandraghona (CHC).....	9
Community Health Program (CHP).....	10
Mobile Clinics (MCs).....	16
Hospital Referral.....	18
Capacity Building of Community People	19
Innovations of Community Health Program.....	20
Shabnur - An Astonishing Story at Harinchara Village in Kaptai.....	21
Conclusion	22

Acknowledgements

This case study on Community Health Workers has been compiled after thorough primary and secondary research on the organizations. Information has been assimilated from several individuals who have made significant contribution to the development of this case study. ACCESS Health International would like to give special acknowledgement to Dr. M. Stephen Chowdhury, Medical Director, Christian Hospital & Christian Leprosy Centre, Chandraghona Rangamati Hill District for granting us the permission to visit the organization and sharing with us the relevant information needed for the case study. We would also like to thank Bijoy, Simson, Showman and all the team members especially the field/mobile team and the community health workers for their inputs and hospitality.

And most importantly, we would like to express gratitude to the Rockefeller Foundation, the Results for Development Institute, the Indian School of Business and all the team members working with the Centre for Health Market Innovations (CHMI) for their support and contribution, without which the case study would not have been possible.

Disclaimer

The case study has been compiled after primary and secondary research on the organizations and published with their approval. The case has been compiled after field visits to the organization in April 2011. The author of the case or ACCESS Health International is not obliged or responsible for incorporating any changes that may have occurred in the organization thereafter. The case study has been developed with a specific focus to highlight some key practices/interventions of the organization and does not cover the organization in its entirety.

Copyright

© ACCESS Health International and Results for Development Institute/Rockefeller Foundation



This work is also registered under Creative Commons license. This license allows you to download and share this work as long as you credit us. However, you cannot change any content in any way or use it commercially.

Executive Summary

The Christian Hospital Chandraghona (CHC) in **Kaptai Upazilla** sub-district of [Rangamati Hill District](#) falls within [Chittagong](#) division in [Bangladesh](#). Rangamati is the district where 52% of the population comprises different tribal people of ethnic minority. 82% of the total population lives in hilly village areas surrounded by forests and therefore they lack basic facilities. Accessibility to healthcare and other social services is minimal and difficult for the villagers. As a result, it is hard for service sectors to provide services at these locations. The long unresolved political dispute between the tribal and non-tribal peoples further impedes the service sectors movement as well. Despite these challenges, in 1907 the Baptist Missionary Society of U.K. had established a small healthcare facility to provide primary healthcare at Chandraghona for the poor, marginalized tribal people of Kaptai and neighboring sub-districts of Rangamati Hill district. Over the years the hospital grew to become one of the most trusted healthcare facilities not only for the tribal residents but for the entire population of the three Hill districts (Rangamati, Bandarban and Khagrachari) in providing all types of services 24 hours, a day seven days a week. Today, the hospital has become a referral center for the neighboring sub-districts of Chittagong District. The government of Bangladesh, NGOs and international donor communities acknowledge its contribution towards healthcare in these hard-to-reach areas, where no other viable options are available.

Christian Hospital Chandraghona (CHC) is a 125-bed hospital that provides a spectrum of services such as Outpatient, Inpatient, Diagnostic and Laboratory facilities, Physiotherapy and Operating Theaters. The hospital has a combination of different departments staffed by qualified service providers. In addition, since 2006, it has extended its service network to the marginalized tribal communities and villages through its Community Health Program (CHP) and mobile clinics in Kaptai Upazilla (project population is 30,000 in 273sq.km). The mobile clinic travels based on a pre-set schedule from the Community Health Center to remote villages. Trained community health workers designated as Basic Medical Workers (BMWs), who reside within their own villages provide these services to the village community. On the day of mobile clinic's service delivery that is usually organized fortnightly, these community health workers join the mobile team. However, they provide other basic services to the villages throughout the

year. Malaria, diarrhea, acute respiratory infection, malnutrition, anemia and poor maternal health are the most prevalent disease conditions in these villages.

This case study intends to focus on the Community Health Program (CHP) of CHC, which uses community resources and ensures community participation through the use of different innovative approaches. It has also institutionalized the referral system from those villages to CHC. The CHC has a good monitoring and record keeping system of its patients' progress on a regular basis. Thus, notable results have been observed in those intervention areas. In comparison with national health data, the project data shows substantial improvement in the treatment and prevention of malaria. It has found a significant reduction of 38% in the number of malaria cases from 2008 to 2010. Further, it shows significant changes in health-seeking behavior especially in maternal and child health. The community leaders and the program participants expressed their satisfaction in having health interventions within their reach. The CHP is an example of teamwork towards achieving MDG 4 and MDG 5. The program contribution is noteworthy despite its many challenges.

Introduction

Background of Chittagong Hill Tract

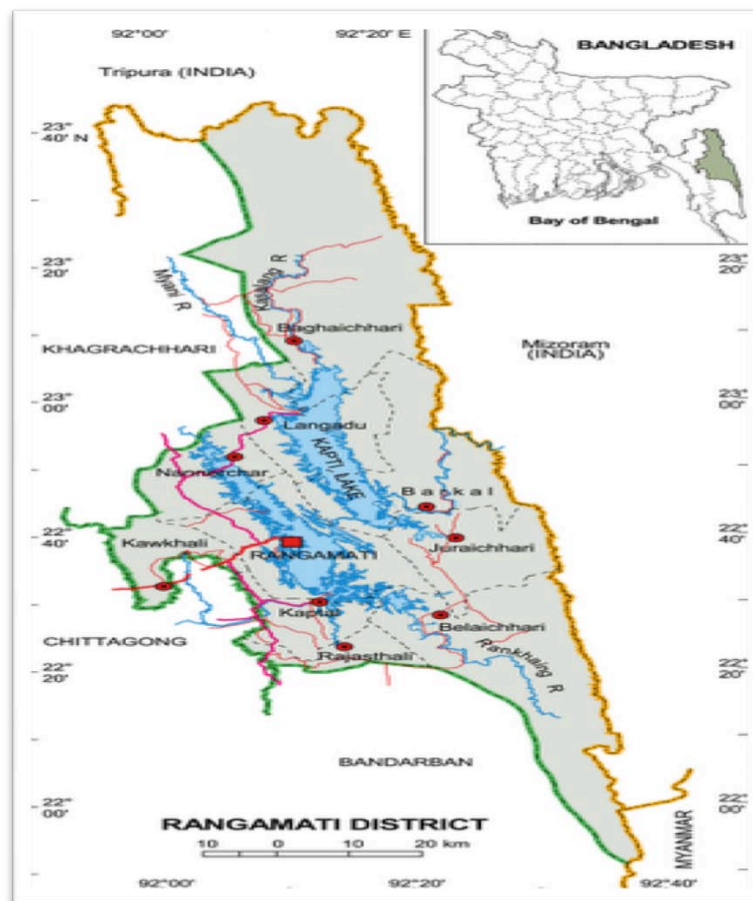
The [Chittagong Hill Tracts \(CHT\)](#), located in South Eastern Bangladesh consists of three hill districts: Khagrachari, **Rangamati** and Bandarban. CHT is home to 13 minority groups (as per CHT Peace Accord¹), with each of them having their own distinctive language, culture, and tradition. The Bengalis reside mostly in the urban and peri-urban areas of the plains. The total area of CHT is 13,295 square kilometers and the estimated population is 1.3 million. The region is geographically distinct from the plains and is made up of a very steep and rugged hilly terrain. There is dense bamboo jungle in many places. The rough terrain, remoteness of villages and various political issues associated with a protracted conflict have seriously impeded the economic development of the region. An overwhelming majority of people in CHT still live below the poverty line mainly due to lack of economic opportunities and proper functioning of social services coupled with illiteracy and high rates of unemployment. The poor health status is an underlying factor for its very low participation in economic development too.

Health, nutrition and population services in CHT have multiple challenges of geographical, environmental, infrastructural and institutional aspects. The terrain is rough, communities are scattered and road infrastructure is often poor or nonexistent. The existing government or private clinics are usually located on the roadside but transport to and from the clinics that exist, are irregular and costly. Many communities do not use the existing health facilities because of these factors. They mostly prefer taking the services of traditional healers or witch doctors.

In terms of diseases in CHT, malaria, diarrhoea, acute respiratory tract infections (ARI), malnutrition, poor pregnancy and childbirth management are the most common. Malaria is the

¹ On December 2, 1997, the Chittagong Hill Tracts Peace Accord was signed between Jana Samhati Samity (JSS) and the Government of Bangladesh after years of peace talks and ended two decades of civil war. The Peace Accord recognizes CHT as a “tribal inhabited” region, its traditional governance system and the role of its chiefs, and it provides building blocks for indigenous autonomy. <http://www.chtcommission.org>

number one deadly disease in the area². The approach to disease control in CHT is primarily preventive, although both immunization awareness and coverage is low³. According to the Bangladesh Expanded Program for Immunization (EPI) Coverage Evaluation Survey, measles vaccine coverage is 74% but valid full immunization coverage by age 12 months is only 61%. The national EPI program has not met its targets in these hard-to-reach areas. The reasons for this are varied but include: i) inaccessibility to communities in remote areas; and ii) low health-seeking behaviour and awareness among communities on the importance of immunization.



² In the UNDP [Socio-Economic Baseline Survey 2008](#) reported average number of cases of malaria in a CHT household during a twelve month period was calculated at 2.7.

³ [Socio-Economic Baseline Survey 2008](#)

In recent years, the Contraceptive Prevalence Rate (CPR) has increased to 53.3% and the Total Fertility Rate (TFR) has reduced to 2.33 (Bangladesh Bureau of Statistics, 2006). However, despite the TFR being relatively low, the maternal mortality in CHT at 4.71 per 1,000 births (UNFPA) is still high⁴.

Infant mortality in CHT is also higher than the national figures. For example in 2007 CHT had recorded a mortality of 61/1000 births as compared to 52/1000 births that had occurred nationally (BDHS, 2007). This could be attributed to the high number of births carried out at home in CHT without the assistance of skilled birth attendants. Here deliveries performed by skilled birth attendants are very low. The Bangladesh Multiple Indicator Cluster Survey reports that in 2006 only 17% of deliveries in CHT were assisted by medically trained personnel. Only a limited number of ambulances exist at the district Level and none at the Upazila level.

Another reason for high maternal and infant mortality in CHT could be the lack of knowledge within communities on the importance of Ante and Post Natal Care (ANC and PNC).⁵ While significant investment has been made in providing safe water supply throughout Bangladesh, waterborne disease, basic sanitation and hygiene remain major public health challenges in CHT.

Christian Hospital Chandraghona (CHC)

In 1907 the Baptist Missionary Society of the United Kingdom started a small primary health care facility at Chandraghona in Kaptai sub-district under Rangamati Hill district, 45 km north-east from Chittagong city of Bangladesh. At the time Bangladesh⁶ was not a separate territory but part of the Indian sub-continent that was under British rule. The administrative classification of district or sub-district was totally different from what it is today. Since its conception, the [Christian Hospital Chandraghona \(CHC\)](#) transformed from a primary to a secondary level facility that provided quality healthcare for the surrounding areas. It has

⁴ www.undp.org.bd/projects/.../CHTDF/CHTDF_AnnualReport2009.pdf

⁵ [Socio-Economic Baseline Survey 2008](#)

⁶ The Indian sub-continent was released from British rule in 1947 and separated as two big nations; India and Pakistan. Pakistan had two provinces; east and west. Bangladesh was named East Pakistan and got independence in 1971 from Pakistan.

become a referral centre for many other neighboring facilities due to its high quality care and ability to handle critical health situations. The entire population of CHT finds this facility a place of hope for major diseases.

The new hospital building has been built with a capacity of 125 beds for inpatients in an appropriate ratio of male and female. Based on the disease prevalence of this area it also has other departments that provide specialist services. The out-patient department, operating theaters, and diagnostic/laboratory facilities are well-equipped with trained service providers. The hospital has taken care of its human resource issues by establishing its own nursing training institute that is affiliated to the Bangladesh Nursing Council. The nursing institute encourages the enrollment of local/tribal women although participants from other parts of the country also study in this institute.

The hospital has a systematic users' fee collection strategy with an option of free or partial waive of charges depending on the economic status of the patient. The user fee is used to manage its operating cost while still retaining its objective of serving the community and remaining not-for-profit.

Community Health Program (CHP)

The visionary management of CHC understood the importance of enhancing community capacity and its participation in community health. They rightly believed that the health situation of this area could not be improved without community awareness and increased accessibility to health-care. It has therefore extended its services to the remote communities that lie beyond the hospital's boundary not



only for curative and preventive care but also improving awareness and behavioral changes. The program has been running since 2006. The objectives of CHP are:

- Reaching out to communities where healthcare services are absent or inadequate.
- Providing health knowledge and information to improve awareness and health-seeking behavior.
- Reducing malpractice by traditional healers and enhancing scientific knowledge on health and practice.
- Helping traditional birth attendants increase their knowledge and skills for better practice.
- Providing emergency management of malaria, diarrhea and ARI.
- Institutionalizing referral network from any community to the facility.
- Contributing towards UN Millennium Development goals of health.
- Organizing healthcare delivery by a professional mobile team that has a diagnostic facility.

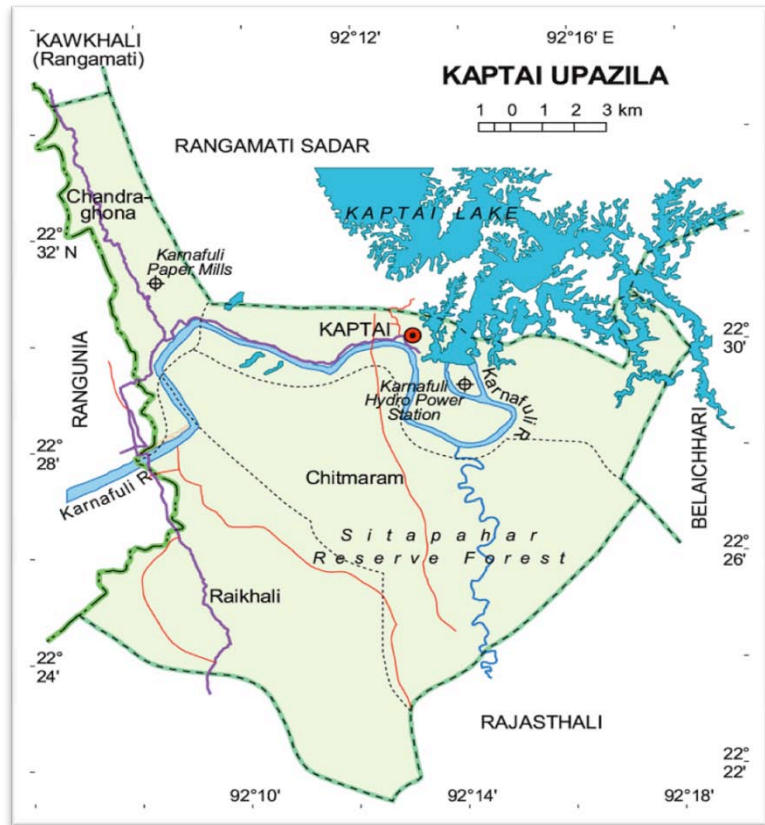
This program recruits community health workers from the respective community in consultation with the village headman and other community leaders and designate them as Basic Medical workers (BMWs). The job description of a Basic Medical Worker (BMW) is briefly described in **Box 1**. Since the BMWs reside in the villages itself, they also work there 7 days a week. Additionally, the mobile health team comprising ten to twelve members and headed by a medical doctor travel to the different locations of the villages five days a week based on a pre-set schedule. The BMWs join the mobile team on a weekly or fortnightly basis to mobilize patients as per their schedule.

The CHP is divided based on their geographical location and population into two sections, CHP 1 and CHP 2. The differences between CHP 1 and CHP 2 are based on road communication, religion, ethnicity and terrain but not the service delivery components and interventions.

CHP 1 operates in Kodamtali Union of Rangunia Upazila of Chittagong district, which is adjacent to Chandraghona where accessibility to these areas is relatively easy. This particular locality is

has a population density⁷ of 7901/sq.km which is seven times higher than the average population density of Bangladesh. CHP 1 covers a population of 23705 people coming from 4056 households in 50 villages within an area of three square kilometers. The community has serious environmental health risks coupled with a lack of proper health-care knowledge, attitude and practice. Basic hygiene, water and sanitation in these areas are very poor resulting in health hazards. CHP 1 has taken the lead in providing health knowledge, information and services to this vulnerable community.

CHP 2 has been operating in all five unions in Kaptai Upazila. Kaptai Upazila has a population of 60185 people coming from 12360 households in 200 villages within an area of 273 square kilometers. In contrast to CHP 1, the population density of CHP 2 is only 104/square kilometer, which is less than 10% of the average national figure. The natural features of the areas covered under CHP 2 are completely different. Many parts of these areas are inaccessible and surrounded by the Kaptai Lake or dense forest. Large parts of the area are only connected by waterway and/or walking. Nine out of thirteen recognized tribes live in Kaptai Upazila.



⁷ Population density is the measure of the number per unit area. It is commonly represented as people per square mile (or square kilometer), which is derived simply by dividing...total area population / land area in square miles (or square kilometers)

CHP defines its works in three tiers with eight major interventions having a clear linking guideline to each stage:

- Tier 1 is the BMWs, who are native to the village. They are, available for 24 hours. Normally, the BMW refers patients to tier 2 or 2nd stage, which is the mobile clinic. However in the case of an emergency the patient has the liberty to by-pass the 2nd stage to enter in to 3rd stage that is the CHC directly.
- Tier 2 is the Mobile Clinic that visits a village on a weekly or fortnightly basis. The mobile clinic comes to a predetermined place of a village depending on the number of target beneficiaries and demographic character of that particular area. If required the mobile team brings patients back to the hospital in the event of an emergency in their presence.
- Tier 3 is the CHC that acts as referral centre. The central management team of CHP based in the CHC campus follow-up on the admitted patients and field activities on a daily basis.

Box 1: Basic Medical Worker (BMW) Job Description

- ✓ Record and report all monthly births and deaths to the CHP central team during the monthly meeting.
- ✓ Diagnose (by rapid diagnostic kit) and treat Plasmodium Falciparum (PF) Malaria (by Artemisinin Combination Therapy⁸).
- ✓ Diagnose and treat simple diarrhea, respiratory infection and other common illnesses.
- ✓ Mobilize all eligible children & pregnant mothers for immunization and to visit the local Government EPI centre.
- ✓ Mobilize, register and encourage all pregnant women to attend the Mobile Clinic/government health centers for ANC/PNC and other care.
- ✓ Encourage institutional delivery or at least to have community skilled birth attendants or midwives (if available) during uncomplicated delivery.
- ✓ Register all pregnant women in their respective villages and provide free iron & folic acid tablets till the end of pregnancy.
- ✓ Educate pregnant/lactating mothers on nutrition, vaccination, breast-feeding, cleanliness, hygiene, rest, and total pregnancy care and refer them to clinics for vaccination.
- ✓ Refer all conditions that require care to Mobile Clinic/government health centers.
- ✓ Improve knowledge, attitude and practice relating to common illnesses in the community.
- ✓ Improve knowledge, attitude and practice regarding safe drinking water and sanitation.
- ✓ Join the mobile clinic team as per the schedule in a designated area.
- ✓ Record and report all migration (in & out) & update census annually.
- ✓ Promote the use of condom for family planning and prevention and spread of sexually transmitted infections and HIV/AIDS.
- ✓ Participate in national events and any other activities arranged by the central team.
- ✓ Inform the community of the availability of the mobile clinic and government EPI program, and conduct a pre-clinic drive to encourage patient attendance.

⁸ The [World Health Organization](#) has recommended that Artemisinin combination therapies (ACT) be first-line therapy for *P. Falciparum* malaria worldwide.

The Community Health Program defines its interventions in eight major areas as follows:

1. Community based service: Trained BMWs are the service providers who have lists of medicine for emergency management of conditions including malaria, diarrhea and ARI. The job description of BMW has been mentioned in Box 1. The BMWs are paid staff dedicated to their work.

2. Mobile Clinic service: The clinic moves by boat on a daylong mission to serve one village. It is fully equipped to carry out diagnostic tests, minor surgeries and medicines for primary and secondary care and prevention of infections. The details of mobile clinics are mentioned in following page.

3. Referral services: Each BMW has a complete database and information on households that have been assigned to her. Therefore, if required, she can quickly refer patients to CHC. She also accompanies female patients, especially those that need maternal care and obstetric emergency, to CHC. However, transportation still remains a challenge for referral patients. The local boats are often the only mode of transportation. Sometimes the patients even have to walk. The BMW uses mobile phone communication to the central team and hospital where mobile network is functioning.

4. Health Promotional activities: A comprehensive list of health promotional activities that have been organized regularly in the communities using local resources is given in the following page.

5. Capacity building: Since the beginning, the CHC has been aware of capacity building of local people for the sustainability of the program. CHC has its own training center to create different cadres of human resource for health. It also has a two-month training program for the BMWs with full residential facilities. It also has a government approved nursing school for training diploma and graduate nursing courses. It further organizes need-based practical short-courses for human resources' development at CHC e.g. community health worker training.

6. Malaria: CHT districts are high epidemic areas of Bangladesh, with almost 90% of all malaria cases in Bangladesh found in CHT. This is largely due to socio-economic and geographical-

environmental situation of CHT. The CHP program emphasizes its work on malaria prevention and treatment. The communities are now more aware about prevention and quick to seek healthcare. Trained BMWs do the rapid test and provide early treatment of malaria. Severe and complicated cases are referred to CHC. There is also monitoring of Malaria Prevention Program and collaboration with other agencies for the distribution and re-dipping of insecticide-treated bed-nets (ITBN) and long-lasting insecticide-treated nets (LLIN).

7. HIV/AIDS: Behavioral change and communication intervention are ongoing in the program since the beginning. Quality information and pictorial messages are provided to the villagers for the prevention of sexually transmitted diseases. It encourages the regular use of condoms.

8. Water and Sanitation: Access to safe drinking water and sanitation system is poor in these localities. The CHP tries to enhance knowledge of the community on the use of safe drinking water and installation of better sanitation system.



Mobile Clinics (MCs)

The Mobile Clinics reach the out-of-reach areas of all five unions of Kaptai Upazila of the CHT. MCs are conducted on a weekly or bimonthly basis at each fixed location of the project areas based on the number of beneficiaries at that particular location. The clinic schedules are made available three months in advance and distributed to all MC locations, Union offices and other

government agencies. The BMW normally conducts a pre-clinic drive to motivate people who need additional care to attend. Currently the CHP is operating the MC in 7 fixed locations or nodes. The MCs operate 5 days a week (Monday to Friday) but keep moving amongst the seven locations and typically a total of 160-170 MCs are held in a year. Patients may attend voluntarily or alternately they are referred by the BMW to be seen by the doctor and other members of the mobile team. All families in the project area have a **family health book** which they bring when attending MC for treatment. MC caters to people from both inside and outside the project area. A very minimal charge is applied for consultation and drugs. All diagnostic tests done for the patients are free.

The locations of the MCs are selected by the community and its leaders. The community provides the actual space for the MC. However the CHP is responsible for maintenance.

Mobile Team Members	Functions of The Mobile Team
<ul style="list-style-type: none"> • 1 Doctor • 1- 2 Nurse (midwives) • 1 Pharmacist • 1-2 Lab Technician • 1 Health Promoter • 1 Community facilitator/Field supervisor • 2- 4 BMW's from that location • 1-2 Student Nurse (part of the training of NTI students for community health) • 1 Driver 	<ul style="list-style-type: none"> • Curative treatment of ailments • Antenatal Care –BP examination and TT immunization of all pregnant women at 24 and 36 weeks, and referral of high risk cases • Diagnosis and treatment of malaria Screening of patients with cough for TB and referral to appropriate treatment centers (government health centre/BRAC) • Immunization – in collaboration with local Upazila Health Complex • Health Promotion sessions are conducted at every MC (2-4) • Referral of emergency and difficult cases to CHC • Review of the work of Community Based Network team.

The mobile clinics carry 34 essential drugs. The drugs are purchased through competitive bidding and thus the price is much lower than the market retail price. This enables patients to buy drugs at an affordable cost. Apart from drugs, the MC team also carries a microscope,

centrifuge, portable generator (as most clinics do not have electricity), resuscitation equipment, oxygen, suture and dressing packs.

Hospital Referral

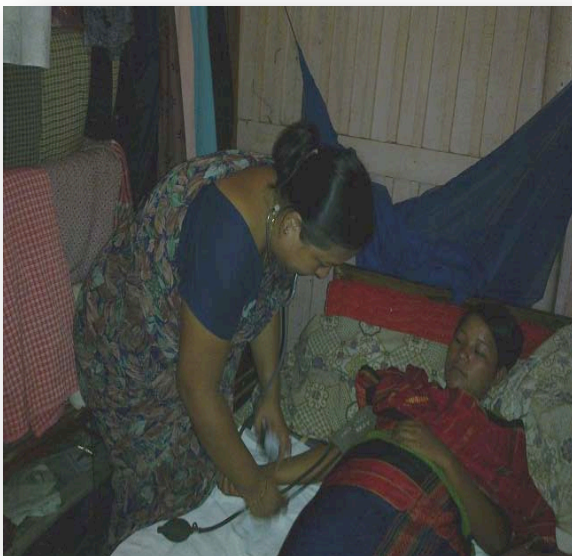
CHC serves as the referral centre for cases that cannot be treated by the BMW or the MC. In many instances the BMWs themselves bring patients to CHC for treatment. Many of the referred cases are emergencies. Some of the common causes of referral include:

- Obstetric emergencies (e.g. obstructed labor, bleeding)
- Severe Malaria
- Pneumonia
- Severe Diarrhea

Due to the geographical location of these remote areas all referral cases travel only by boat or on foot. The CHP has provided a new country boat to a distant location (Harinchara, Bhaijyntali) for the villagers. This boat that is owned and maintained by the village community now acts as a water ambulance.

Health Promotion Interventions

Health promotion and behavioral change is the main strategy of the CHP. The interventions are designed to be culturally specific including:



- Inter-personal communication
 - Street play and folk songs with health messages
- School programs (High school & Primary) for basic health information, health promotion and hygiene
- Group discussions that focus on specific health issues, preventive care and nutrition
- Meeting with TBA and traditional healers
- Meeting of community leaders for opinion mobilization
- Orientation for teachers on health issues

- Others (Miming, Sketch, etc.)

Capacity Building of Community People

There is a scarcity of community health workers in the villages that are out of project areas of CHP and other parts of CHT. The project therefore extends its support to build the capacity of other organizations' staff especially the indigenous people from their respective village or BMW nodes (cluster of 2-5 villages where a BMW will serve). This intervention helps the program to be sustainable by increasing capacity of local inhabitants. CHP has also developed its own curriculum and training modules that are culturally appropriate and relevant. CHP had previously trained 150 health workers of UNDP health project for CHT and has also trained its own first 85 BMWs. It has also extended its support to enhance the capacity of traditional healers and traditional birth attendants, who form the local resource for healthcare.



Innovations of Community Health Program

A few examples of innovations in the CHP is highlighted below:

Verbal Autopsy to identify causes of death	Capacity Building of community's traditional providers	CHP Health Information System (HIS)
<p>The uniqueness of this community program lies with its interactive nature of communication with the family members' of deceased for identifying the cause/s of death. If a death that has occurred to a patient cared by the BMW requires a 'verbal autopsy' to identify the possible cause/s of death. A Doctor from CHC is responsible for conducting verbal autopsy. He conducts it in consultation with the respective BMW. This intervention helps in designing an awareness and intervention program for reducing risks that cause unwanted and preventable death.</p>	<p>CHP directly supports the community based traditional healers and Traditional Birth Attendants (TBA). The traditional healers or TBA are the first contact point for villagers. Traditionally, they provide healthcare for a long time. The capacity building intervention enhances the capacity to increase knowledge and skills. It facilitates limiting harmful practices. These groups are now capable of indentifying risks of pregnancy and referring them to better facilities. These traditional providers are now the use a tool for community advocacy.</p>	<p>A major benefit of CHP is collecting a large amount of health-related community based data that is crucial in improving current interventions and planning to carry future health services. It strengthens the monitoring system of the entire program.</p>

Shabnur - An Astonishing Story at Harinchara Village in Kaptai

Shabnur is a twenty-two year old unmarried woman who has been afflicted with dwarfism⁹. She lives in the remote village of Kaptai Upazila named Harinchara¹⁰. No medical care was ever provided to her for her aberrant physical condition. However, Shabnur is a bubbly lady and liked by the villagers. One day, it was noticed by the BMW of the community health program that Shabnur was at the early stage of her pregnancy. Pregnancy out of wedlock is not socially accepted in Bangladesh. Shabnur did not hesitate to disclose the name of her partner but the

partner ignored the responsibility and did not pay attention to her. Finally, the community leaders stepped in. The man finally took the responsibility of Shabnur's pregnancy to avoid social punishment. The community arranged the post-pregnancy wedding formality.



The husband was not interested in Shabnur's medical care. At the early stage of pregnancy, the BMW and the doctor cared for Shabnur during mobile clinic sessions. During her medical examination she was found to be severely anemic and the fetus was small for gestational age. The doctor then referred her to CHC for in-patient care. Shabnur was admitted to the hospital where she was given blood transfusion and adequate nutritious food for a period of two

weeks free of charge. Then, she went back to her village and was advised on nutrition, hygiene, pregnancy care, rest and work during home stay for rest of her pregnancy. However, she was

⁹ [Dwarfism](#) is short stature resulting from a particular medical condition. It is sometimes defined as an adult height of less than 4 feet 10 inches (147 cm), although this definition is problematic because short stature in itself is not a disorder. Dwarfism can be caused by about 200 distinct medical conditions, such that the symptoms and characteristics of individual people with dwarfism vary greatly.

¹⁰ The name of the village and the location of the case study

further recommended for an early admission into the hospital before her expected date of delivery because of her very short stature (3 ft. and 3 Inch). Shabnur's pregnancy was very risky for delivery at home. A cesarean section was necessary for safe delivery. The husband's family did not want to come back to the hospital due to the extra costs that they would incur. The husband/and extended family would also lose daily wage from Jhum cultivation¹¹ as they would have to stay with her in the hospital.

Aside from their normal duty, the mobile team and the BMW played a very exemplary role in saving Shabnur's life. They persuaded her to come to CHC a few weeks before the expected date of delivery. Finally, she was brought for the second time to CHC for delivery along with the mobile team. The team took both Shabnur and her mother-in-law with them and admitted to the hospital. The hospital authority compensated the wage lost by Shabnur's mother-in-law during her hospital stay as an attendant. Shabnur delivered a healthy baby boy by C-section. Now, the boy is nine months old and quite all right in terms of height and weight and other physical features. Unfortunately, the husband again disregards his son and Shabnur. He married another woman. Shabnur went back to her parents with her son. Neither human rights nor legal support is available in these areas for the women like Shabnur. The community leaders cannot do much.

Shabnur does not know how to cope with the future or how she will raise her son. The physical barrier does not allow her to work normally. The BMWs and the mobile team conduct the follow-up with Shabnur on a regular basis. Shabnur believes that her son will be a man who will be able to take care of his mother. Shabnur is grateful to the CHP and the BMW who saved her life.

Conclusion

Christian Hospital Chandraghona and its different interventions in the community clearly show positive health outcomes. It is a unique example of community development and participation

¹¹ [Jhum cultivation](#) is an age-old, rain-fed cultivation method, practiced by the Indigenous people on the hills and slopes of the Chittagong Hill Tracts, because of the lack of flat land suitable for farming.

in healthcare. The internal data reveals good progress in the project areas on most health indicators like increased immunization coverage, reduced infant mortality, increased skilled care during delivery, reduced maternal mortality, increased institutional delivery and prevention of malaria despite socio-economic and political challenges. It does not have any maternal death recorded within its intervention areas since 2008. It not only provides medical care but also supports the mothers and the community for better care. The nominal user's fee is often waived. Shabnur's is one such case that received free treatment. However it must be noted that the hospital also has a poor fund.

The partnership strategy of CHC has added value to its program. It always maintains a liaison with the government, local government and other NGOs in ensuring EPI and family planning support for the community. The leadership role therefore makes the program efficient.

In conclusion lessons learnt of the case study are:

- Each community has its own strengths and the program should use those strengths as a foundation stone for development of a program. The dealing with traditional service providers is an example of it.
 - Opinion mobilization and involvement of local leaders who are the facilitators for any community driven program. Participation from community leaders accelerates the process and sustainability.
 - Women empowerment and gender equality is far behind. The tribal women are deprived of all types of human rights support and the situation is not even being discussed.
 - Both the donors and program managers and implementers at Chittagong Hill Tract districts would need to pay more attention to this matter.
-