I. Rationale

I-1) Primary care delivery in war-torn communities

It is an urgent agenda to reestablish primary care delivery system in communities torn by conflicts. Immediately following the ceasefire, international NGOs are the main providers of primary medical care in such communities. Usually in the matter of few months, provisional government structures, often UN administrative missions are installed. Yet, it usually takes another year or two until WHO and World Bank officially endorses the implementation of basic primary care package as national health care policy and reconstructs health care system based on health care pyramid structure\(^1\).

From our experiences in primary care delivery in war-torn communities, e.g. Kosovo, Afghanistan, and Guatemala, we realized the approach employing health care pyramid structure\(^2\) has several assumptions that are not relevant in many post-conflict communities. The detailed discussion for these assumptions and difficulties was addressed elsewhere\(^3\). Briefly, health care pyramid system requires three assumptions: first, no dual system whose existence weakens the pyramid structure exists in the community\(^4\). It is nearly impossible to find communities where this assumption is satisfied including post-conflict communities. Second, the pyramid health care system is built on tier system that consults patients referred from the lower tier. Often in many countries where the lower tier medical facilities are non-functional, patients self-triage their conditions and patients often seek medical care directly at tertiary care facility. Subsequently, tertiary care facilities are flooded with low-complexity patients who should be handles by lower tier facilities. This phenomenon hinders the tertiary care facility as referral center for high complexity cases.

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The ecology of care study was originally published by White in 1961 and Green primarily duplicated the results in 2001. These two ground-breaking study for health-seeking behavior in the US nearly 40 years apart showed the existence of health care pyramid structure in the US.

\(^{3}\) Please refer to the conference proceeding, “primary care delivery utilizing family medicine principles” in AAFP International Health Consultation Workshop, Tucson, AZ 2007


This study showed that there are certainly competing structures existing in Ghana for the treatment of fractures. The study analyzed in detail how patients with bone fractures decide to go either Western surgeons or traditional bonesetters. The existence of traditional healers can potentially hinder the use of public health care system.
Third, referral system among tiered facilities is complex phenomenon, which requires several assumptions to function. First and foremost, people have to trust for public health care system. Second, transportation should be available. Third, higher tier facilities should be capable of dealing with cases referred from the lower tier facility. Fourth, patients and their family should afford the transfer and referral. Fifth, the patient should have the support from the other family members for referral. It turns out the referral system is complex phenomenon and our experiences in Guatemala and Afghanistan indicated that up to 60% of referred patients never followed the referral.

The manpower is an issue in primary care reconstruction in war-torn communities. Many qualified health care personnel are among the first wave of migration of exodus from war zone. Interruption of medical training due to conflict is another reason for shortage of health care manpower. Weak governance and administrative structure long after conflicts facilitate the ground for corruption and nepotism of the health care system and this will further exacerbate ‘brain drain’ of health care resources. Brain drain is not only the issue of health care manpower. Low incentive for working in public health sector cause several negative impact for health care manpower: 1) low incentive and ill-
equipped facilities affect the morale of staffs, 2) many health care professionals are forced to work private sector to supplement their income, subsequently, 3) busy private practice further affect the office hour in public health sector.

Last problem in reconstruction of primary care delivery system is donor’s perception of ‘training of trainers (TOT)’. International organizations and international NGOs often provide short courses and programs in the major cities where it is most convenient for them. They expect all these centralized training program and zeal for new knowledge and skills will be trickle down into the primary care level by local effort and momentum. This assumption of ‘trickle down’ theory of training effect has never been proved to be effective. At least, there are several months to years of delay until the indigenization of standardized curriculum.\textsuperscript{12}

I-2) lessons learned from previous experiences

There are four lessons we learned from our previous experiences. First is the importance of balance between public health and curative medicine: treat individuals but always think about the community that the patient belongs to. For example, if you see cluster of skin infections in the clinic, you treat those conditions but also should think about general hygiene condition of the community. Also it is important to work with all levels of health care personnel. As we discussed above, it is extremely rare to have a medical doctor in the front line clinic in primary care. We should be able to adapt and modify our training materials based on the needs of the community as well as the level of existing knowledge among health care personnel in the community.\textsuperscript{13}

Second, think about whether we are dealing with illness or disease.\textsuperscript{14} Often, many of these musculoskeletal pain syndromes are part of somatization syndrome of depression.\textsuperscript{15} We have to think about broader intervention rather than giving away medications.

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Kleinman argues that clinical encounter is a negotiation between patients’ and providers’ explanatory model.
Third lesson we learned was to start dealing with the most prevalent problem in the community and needs of the community. It is the road of failure if we provide ‘pre-packaged’ interventions ignoring local reality. In another word, if high maternal mortality and infant mortality were the issue, then IMCI, IMPAC would be helpful. However, if war related injuries are the main problem, we should appropriately implement the project.

The last lesson was to look over entire family rather than children, pregnant women, or elderly in the same household. In many socially tightly knitted communities, we cannot separate out the individual from the family. Family often still has a functional unit and certain social and cultural dynamics are based on their habits. For example, you cannot just treat children for illnesses, we should expect involvement of whole family therefore education to entire family is pivotal aspects of individual well-being.

I-3) Family Medicine as a tool for peace building

Finally in this section, I will discuss why family medicine is the ideal specialty to facilitate post-conflict primary care reconstruction endeavor. First of all, in post-conflict reconstruction of primary care delivery, it is important to have a medical personnel who understand the ‘big picture’, not only individual patient but also entire community. Primary care specialist has an advantage for this role since they are the gatekeepers between community and health care system. The higher in the ladder of health care pyramid you go, the less likely they understand the ‘community reality’ since specialists are primarily dealing with pre-selected populations.

Second, it is essential to have a medical specialist who can understand the individual in the context of family. As we can see the referral practice in above section, we cannot understand the individual behavior detached from the context of family in many communities we worked. At the same time, through our experiences working in emergencies and conflicts, we truly appreciate the importance of reuniting families and treat the family as a unit. Reuniting family is a fundamental element for building stable and peace community. Family physician can play a pivotal role in that respect since family medicine is the only specialty to treat the family as a unit beyond individual sickness and understand the entire family member regardless of sex or age.

Lastly, responding the true community-based health care needs is essential priority to alleviate suffering and promote peace building in the community. Family medicine facilitates responding to the true needs of the community regardless of the specialty, e.g. surgery, psychiatrics, OB/GYN or pediatrics. Family medicine starts from the felt needs of the community and prevalence of illness in the community. Assuring social, mental and physical well-being of the individual is pivotal prerequisite for building peaceful community. This is how family medicine principle can contribute peace building through providing primary care.


Somatization as signs of depression seems fairly common in some parts of the world.
II. The overview of current project

SKM hospital has been supported by Interplast Germany, a German NGO specializes in reconstructive and plastic surgeries particularly cleft palate. Dr. Andreas Settje has been the director of this highly specialized hospital in the past 8 years.

Dr. Settje has been improving the quality of care in the hospital and currently it is one of the best reconstructive surgical hospitals in Nepal, patients referred from all over Nepal as well as German embassy that often refer German tourists for acute care.

Part of this effort to provide reconstructive surgery for wider patient populations, he has been rigorously providing outreach program into countryside, e.g. district hospitals. This service in district level has been coincided with the period when Maoist insurgencies were active in the rural areas. In fact, Dr. Settje’s team has been gradually accumulating substantial trust from Maoist group since he and his team provided medical and surgical care regardless of religious or political preference. He became the only few outside medical doctors that Maoist has trusted. This is the historical background of surgical camp in Maoist cantonments.

Dr. Settje has been also interested in providing some support for post-burn female patients who are socially abandoned by their families in Nepalese society. He also has been providing acute care for nearby villagers at his hospital. This development of comprehensive medical care started from dire needs based on his reconstructive surgery has created some frictions between Interplast and him. Interplast wanted to stick with their principles to provide reconstructive surgery primarily for cleft palate and are not keen to provide other comprehensive cares.

Dr. Settje decided to launch the program Kinderplast, with Kinderberg International, e.V. to continue his endeavor to provide comprehensive care: Kinderplast has been providing scholarship to several plastic surgeons and administrators to obtain further training in abroad. Kinderplast has started the women’s house project for post-burn female. And lastly, Kinderplast will apply to GTZ to continue to provide operation camp to Maoist cantonments for next year.

III. Activities and Observations

III-1) SKM hospital

SKM hospital locates an hour drive away from central Kathmandu and has 46 beds and 2 operating theaters Nurses and OR nurses are well trained and their cleanliness and efficiency of the hospital reminds me ICRC hospital. These functional excellences are supported by impeccable infrastructural support provided by Interplast logisticians: large incinerator to process their own medical and surgical wastes. Sewage treatment plant for water, huge water tank to secure stable water supply, which is essential for surgery, and generator backup for frequent power outages. The operational cost of the hospital is
approximately 300,000 Euro per year. Currently, 80% of this budget is supported by foreign donation, which is primary Interplast Germany funding. Other 20% or so is coming from extra income e.g. treating foreign tourists and the contract from Handicap International to provide surgical care for disabled populations.

III-2) female burn patient house

The coordinator of this project is herself a burn victim. Currently, there are two participants of this project. They are provided their shelter, food and one of them are attending boarding school. Future direction of this project is still undecided: either vocational training center or teahouse, according to the coordinator.

III-3) Surgical camp

We visited 7th division Maoist cantonment that accommodates nearly 5,000 disarmed combatants in four camps. Each camp accommodates approximately 1200-1500 persons.

According to the commander, the Nepalese government provides 60 Rps per day per person including for food. They are fed two times a day and this financial support is not enough to provide whole social, educational and physical needs in the camp. The Nepali government provides basic health post in each cantonment. One physician and four health personnel are assigned but the availability of those personnel is different in each cantonment. In the 7th division cantonment, for example, the physician ran away after few months and never returned or refilled the position. Four health staffs (for the types and their training, please refer Appendix 1) live in the camp for the duration of their contract, which is 6-month.

The camp is organized as military training camp. They get up around 4am and start their first physical training by 5am. They spend 3 hours in the morning and 2 hours in the afternoon mainly martial arts based physical training. In these four camps, except one, doesn’t have any school classes. They are spending only 5 hours for martial arts and just rest or relax for the reminder of the day.

Based on interaction with soldiers, it seems like illiteracy rate is high. The actual statistics is, however, unknown.

We visited 7th battalion surgical camp for 7 days to provide operation camp between 10/29 to 11/6. The team consisted of four surgeons, one anesthesiologist, one GP, 6 nurses and three logisticians. Three full-time cooks were also employed through local trekking company.

We used the government supplied clinic/pharmacy structure into two OR and 7 beds post-op recovery unit. Additionally, we put a tent to provide general medical consultations for whoever either soldiers or nearby villagers.
Three satellite camps were visited as well. One of the camp, Sahajpur camp was more than 3 hours away in winding road in mountains and people live in the slopes of the hill. We saw unusually high prevalence of skin infections in this camp (Tineas), which suggests the shortage of sufficient amount of water and soap. The water quality of the camp was unknown either.

We consulted 622 patients in 7 days. Nearly 80% of the patients were male. Average age was 24 years old. Nearly 29% of patients we saw complained non-specific pain syndrome or anxiety after minor shrapnel or bullet wound.

We conducted 74 surgeries all together including post-war reconstructive surgery, stump revision, burn contracture release but also primary care surgery, e.g. hydrocele, cyst removal.

The surgical camp has been providing two serious needs in the community: one is the post-conflict surgical needs, and the other is primary care based on their felt needs. As discussed in rationale section, the health care delivery lacking reality would not work. That means we should strictly analyze the local reality what they need at the time of intervention. The need will change as the phase of the conflict and post-conflict reconstruction phase. Also individual camp has different physical set up. Therefore, we need constant reanalysis of situations.

III-4) meeting with several GO and NGOs

Please see appendix 2, 3, and 4 for summaries.

III-5) Kinderberg International strategic meeting and workshop

Please see appendix 5 and 6 for summaries.

IV. Analysis and Recommendation

IV-1) Burn victim house

This is very unique and potentially epoch-making project based on the actual needs of patients treated in SKM hospital. Severe burn patients require multiple reconstructive surgeries and long rehabilitations. And often social situation of those patients doesn't allow them to go back to their families. These female patients require not only medical/surgical needs, but also tremendous amount of psychosocial needs. We have an experience to support female patients psychosocially in patient house in Afghanistan where we provided post-and pre surgical care for female patients.
Consulting report Nepal 11/07
Mori J Morikawa, MD, MPH

- Consult legal or social work expert to decide inclusion and discharge criteria for the individual participant.

The work deal with very intricate family and social milieu of discarding or divorcing family member after burn, legal framework should be necessary to establish the admission and discharge criteria of patients to the program.

- More discussions are needed to direct the project self-sustainable in several years.

They need guidance and ideas for starting programs to pay their rent and food. Teahouse might be easy one to start, one easy one is not necessarily the successful one. Besides, both patients at the house unfortunately had amputated upper extremity and I anticipate the difficulty to start teahouse for them.

- Mental health specialist or counseling service should evaluate the psychological and psychiatric needs of the patients in the program.

Major trauma victims often suffer from high rate of depression and anxiety disorder. We don’t have any data on how much of these patients admitted to the program suffer from these morbidities. To assure appropriate intervention, we should recruit mental health specialists to respond their needs.

IV-2) Operation camp for Maoist cantonments

Dr. Settje has been providing reconstructive surgical care for whoever had dire needs since before the peace accord between Maoist and the government. He has a significant track record of providing highest quality of reconstructive surgical care for Maoist group. Naturally, he has been building up significant trust among Maoist and currently the only one to provide medical care in the cantonments. Reviewing his surgical cases in the camp and additional services he added based on the requests by Maoist revealed that what he is providing to the cantonment is a comprehensive primary care package based on their needs: he provides primary care surgery and added female medical consultations per requests by the commander. There is a huge potential to expand the medical service further based on perceived needs by the commander. It seems the commanders are open to Dr. Settje’s honest feedback and observation. The one of the primary reasons for their openness is their understanding of Dr. Settje as a decisive responder of needs of the community by witnessing his bloody operations in the theater and his tireless efforts to help their comrades.

- High prevalence of nonspecific pain syndrome several years after fighting urge us the need for psychosocial intervention to this community.

Ill-defined or generalized pain syndrome suggests high prevalence of mental health problems. Considering the young age of these patients, educational activities should be incorporated into the long-term program, however it is up to each commander’s decision.
We should convince the donor as well as recipient regarding the significance of the problem.

- Up to twenty percent of the patients were female in young reproductive age. Basic health care for this population should be considered.

As we build trustful relationship with Maoist group, they start to ask additional medical assistance in certain areas. Female health issue is one of those areas they specifically requested. Adding component in the area of their need is essential. At the same time, we cannot bring in anything based on our presumption. Without trust and partnership, no program would be successful.

- Growth monitoring should be included as part of consultation for pediatric patients.

High prevalence of stunting in Nepalese children is reported and stunting is one of the major risk factors for neuro-developmental delay\textsuperscript{16}. No standardized growth monitoring program has been implemented in the camp yet.

- The program for the camp should be individualized and should be based on their needs, not our prefixed agenda.

- The characteristics of the camp seem different camp by camp. Therefore, the programs should be tailored to each camp.

- Surge of skin infection warns the presence of hygiene emergency.

High prevalence of skin infections and eye infections usually suggest hygiene and sanitation emergencies. We don’t know the quantity or quality of water supply in the camps particularly in Sahajpur camp, which located in the mountain.

It is important during summer month or winter time when enough water is not available, the epidemic of skin infection and eye infections mean sanitation emergency; they need enough quantity of water and bar soap besides proper treatment of the condition.

- Public health surveillance system should be implemented via training of PLA and government health care personnel.

Related to the public health issue stated above, it is essential to implement the system to collect information prospectively so that we can respond and implement necessary means proactively for any public health threats, e.g. epidemic of diarrhea, malaria, skin diseases, etc.


Malnutrition is a major risk factor for stunting in Tibetan children and it occurs early in their life and the risk factor for significant morbidity.
• The prevalence of disabled combatants is unknown.

We were taken to the ‘team house’ where disabled and discharged combatants were confined outside encampments. Three to four people stayed in the same dark room and were watching TV when we visited. There seemed have no physical or occupational therapy on site.

• Provide further training for PLA medical group with governmental personnel

We trained both PLA and government auxiliary nurses in our OR for skin closure. They were dying for guidance and new skills. The problem in government resources is unpredictability: the presence and eagerness of the personnel depends on each cantonment. We can provide training in two modalities: one is OR training and on-site precepting, the other is to make primary care handbook as we successful made in the past17.

• Primary care surgery and reconstructive post-conflict surgery should be both implemented based on their needs.

As we continue our program, eventually, our caseload will shift from war-surgery cases to more primary care surgical cases. Over 80 percent of surgeries conducted in district hospitals in Africa are basic level of skill requirements18, compared to high skilled level procedures such as vascular surgery or hip replacement. However, surgical care is essential in young active population in encampments since they are very active and functional.

• Need a full-time expatriate to support monitoring and reporting of this program.

Good reporting is a key for project accountability. However, current project doesn't provide professional support for reporting, accounting and grant seeking. In order to seek long-term funding for sustained program, constant grant seeking is pivotal part of the project management.

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17 For instance, please refer “Kosovo primary care handbook” by Kinderberg International during the war in Kosovo. We compiled the handbook based on the prevalent medical/surgical problems that front line practitioners faced, not simply ‘cut & paste’ chapters from major primary care textbooks.

Appendix 1

Health Staffs from Nepal government in 7th Division PLA cantonment

1. Medical doctor One personnel

He was assigned by the government, but he ran away after few months and never returned to the camp.

2. HA (Health Assistant) One position, Mr. Bhupendra Singh Mahara

The training for HA is for 3 years after high school.

3. SN (Staff Nurse) One position, Ms. Puspa Sharma

The training for SN is also for 3 years after high school.

4. CMA (Community medicine assistant) One position Mr. Bikram Singh

The training for CMA is for 15 months after high school.

5. ANM (Auxiliary Nurse Midwife) One position Ms. Deepa Kumari Bhatt

Training for ANM is for 2 years after high school.

- All the above positions are for 6-month renewable contract.
- These staffs are working side by side with PLA medics in the camp.
- The government health staffs are also responsible to take care patients from surrounding villages while PLA medics only see patients in the camp.
Appendix 2

Handicap International
With Jean-Bertrand Lebrun, the country director

Dr. Settje, Mr. Schneider and I met with Mr. Lebrun to understand the current emergency funding structure and ‘climate’ of funding opportunities for peace building in Nepal. He articulated different funding sources and briefly went over their roles.

1. UNMIN: may have a funding specific to the Maoist cantonment, but he doesn’t know any particular contact person.

2. ECHO: There are stringent requirements and guidelines for ECHO funding opportunities and he suggested us to directly contact Mr. Dominique Feron at ECHO office.

3. EC delegation fund: The opening and open solicitation for proposal will be posted in website, newspapers. Their funding includes smaller and shorter project as well.

4. USAID: Has their own guidelines and traditionally they were a major player in Nepali aid. However, under current political situation, their policy and guideline is unclear and unpredictable for their geopolitical commitment for other parts of the world.
Appendix 3

ECHO office: Mr. Dominique Feron

Dr. Settje, Mr. Schneider and I met Mr. Feron to explore longer term funding opportunities by ECHO and possibly other donors.

The total funding by ECHO in Nepal will be weaned down gradually since they consider the situation is not emergency or critical. There are two distinctively separate categories, ECHO funding and EU funding. ECHO grant has its own guidelines and registration. EU funding seems to be more flexible and for both international and national NGOs. Even though it’s strenuous in terms of guidelines and requirements, it covers both for development and emergency.

DFID, the British aid agency has its unique funding opportunity called, pilot program and it’s worth to explore it.

All in all, my impression for these donor shopping and funding opportunity was how good we can package the new and unique content and solicit it to the donor. In that respect, we have several major advantages since we are unique and we are the only medical care provider to the Maoist cantonments.
Appendix 4

Meeting at GTZ (German Technical Corporation)

1. Donor meeting

I presented my general observation about the cantonment with slides for donors including representatives from UNDP, UN Human Rights office, UNMIN and ICRC. I stressed the point that the key to success of the project is trust-building and we cannot bring in programs based on our assessment. We have to design programs according to dialogue with camp commanders.

2. GTZ meeting

We informed our interests to continue to conduct surgical camps for the next year. We are planning on providing 9 more sessions and in all together we will provide 2 sessions per each cantonment by the end of next year. We also clarified the implementing body as Kinderberg International, e.V. and De. Settje will work for organizing camp significant portion of his time. Therefore, we will ask his salary support for the grant. The GTZ basically understood and agreed our intention. As for the content of the program, we are planning on adding several components requested by commanders of the cantonments to respond to the broader health care needs of the cantonments. These added components are including gynecological care for female patients, pediatrics and structured training for PLA medics. We will draft our proposal by the first week in December.
Appendix 5

KBI Strategic meeting

Sri Lanka

The project in Sri Lanka has been focused on several target groups: war and tsunami affected children at school and children in special needs and feeding for malnourished children.

Afghanistan

KBI has been providing primary care in three provinces covering 2 Basic Health Center and 5 mobile teams and several other Therapeutic Feeding Unit (TFU) in each northern province, employing over 134 health care professionals all together. Even though they have been compiling meticulous statistics, follow-up information regarding referral cases to higher tier hospitals, e.g. district or provincial hospitals are not available. To improve the quality of care and strengthen the development of health care system in the project area, we would suggest two new focuses for the next year: follow-up and counter-referral of referred cases from our clinic to see the outcome of severely ill patients. This practice will strengthen the linkage between lower tier (primary) and higher tier (secondary and tertiary) care facilities and facilitates the development of tiered health care system in the area. The actual behavior of referral practice and its obstacles will be elucidated through this follow up process. Second, we will focus on growth monitoring of children in our area, not only weight-for-height (WFH), but age reference so that we can pick up children with stunting in early on in their life. Severe malnutrition and death are the tip of the iceberg, but we have to prevent the developmental delay due to neuromotor development delay secondary to early malnutrition.
KBI workshop

November 15, 2007 KBI HQ, Stuttgart, Germany

1. Primary Health Care
2. Child survival
3. Issues in implementing primary care delivery system in war-torn communities

KBI organizational observation and recommendations

KBI has been growing rapidly as an organization; this is a great opportunity to improve the organizational management style accordingly to the growth of organization.

There are several questions and concerns regarding communication and reporting between filed offices and HQ.

There are several potentials that we can look into:

1) Hire independent organizational consultant for organizational management. The main goal is to maintain efficient organizational decision-making style while sharing information and maintain transparency among the group.

2) Implement regular meeting in the HQ office to share information and issues coming up from the field.

3) Establish an organizational culture to share and document our achievement and finding meticulously so that we can accumulate the knowledge as the core of our organizational asset. Ask field managers to write annual report, timely subject papers.

4) Exchange our report and outcomes with other NGOs and GOs. Present our projects, lessons learned from the field in conferences and workshops in Europe as well as in the US. Also I would suggest joining several major development or international health societies in the US and in Europe, e.g. Global Health Council, Canadian Society of International Health. (I don’t know what's the popular one in Europe).

   
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