

Evaluation of the Emergency Medical Program for Mothers and
Children in Kabul Province, Afghanistan
by Kinderberg International, e.V.

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Abbreviations

AA: Ministry of Foreign Affairs, Germany
AAH: Action Against Hunger
AIMS: Afghanistan Information Management Service
ANC: Antenatal Care
ARI: Acute Respiratory Infection
CBC: Complete Blood Count
C/S: C-section
CSI: Central Statistical Institute
CXR: Chest X-ray
GO: governmental organization
GPS: global positioning system
GTZ: Deutsche Gesellschaft für Technische Zusammenarbeit GmbH
IGICH: Indira Gandhi Institute for Child Health
IMC: International Medical Corp
JICA: Japan International Cooperation Agency
KI: Kinderberg International, e.V.
LRI: Lower Respiratory Infection
LOC: Loss of consciousness
MCH: Mother and Child Health
MSH: Management Science for Health
MoPH: Ministry of Public Health
MUAC: Mid-upper arm circumference
NGO: non-governmental organization
OPD: Outpatient Dispensary
PHC: Primary Health Care
SCA: Swedish Committee for Afghanistan
UNICEF: United Nation International Children's Fund
URI: Upper Respiratory Infection
USAID: US Agency for International Development
WHO: World Health Organization

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I. Executive Summary

This is an evaluation report of the emergency medical program for mothers and children operated by Kinderberg International, e.V. in Kabul province, Afghanistan, since June 2002. The program is funded by the German Ministry of Foreign Affairs funded through February 2003. The evaluation trip was made between 12/13-12/25, 2002.

The objectives of the evaluation were:

1. Collecting data and information for the situational analysis of the program.
2. Determining whether the program is dealing with medical emergencies or not.
3. Analyzing if the current program should be continued after February 2003.
4. Addressing the issues in providing medical/health care programs in association with the KI mission.

The following methodologies were employed:

- Chart review
- Semi-structured interview
- Observations
- Field trips
- Meeting with village seniors

Results:

Objective 1: **Situational analysis of the current emergency medical program.**

In the analysis period,

- On average 95 patients were seen in the Musayi clinic per day.
- More adults were seen than children.
- ARI comprised 49 % of all diagnosis.
- Somatic pain syndrome comprised 14% of all clinical visits.
- 63% of children seen in the clinic was prescribed antibiotics.

Objective 2: **Determine whether the program is dealing with medical emergencies.**

- No serious malnutrition was observed.
- There were no acutely sick patients encountered in the clinic.
- There were rarely any sick patients who required immediate medical attention or referral to the tertiary care center.

Objective 3: Analyzing if the current program should be continued after February 2003.

- The current program should be terminated at the end of February.
- The distribution of massive free medication may reinforce dependency for outside resources and drug seeking behavior. Patients only go where the medications are available.
- Incessant “drug seeking” behavior may counteract nurturing the concept of PHC in the community.

Objective 4: Addressing the issues in providing medical/health care programs in association with the KI mission.

- There are needs for comprehensive programs to help reconstruct the health care system when an NGO is working in post-conflict countries where society is in the stage of emergency-rehabilitation continuum with no health infrastructures.
- The objective of the program should be defined clearly, and every effort should be made to nurture the sustainability of the program.
- The involvement of the KI for the long-term comprehensive program should be reviewed in terms of KI’s missions and capacities.

II. Background

Kinderberg International, e.V.(KI) has been operating an emergency medical program for mothers and children in Kabul province, Afghanistan, since June 2002. This program is supported by the German Ministry of Foreign Affairs through February 2003. The purpose of the program is to provide emergency pediatric and maternal care including ANC and health education by midwives in the village of Qal'eh-ye Pakhchak in Kabul district and in Alukhel in Musayi district. The program sites were selected by Ms. Annette Muller, the former field representative of KI, based on her assessment made in April 2002. In Qal'eh-ye Pakhchak, there are two other clinics: one ran by AAH and another by the government. In Musayi, the closest clinic ran by SCA, is located 40 minutes drive away and the Chahar Asyab district hospital is located 20 minutes drive away from the KI clinic.

Before starting the program, KI remodeled the rented clinic spaces in both locations by installing new windows, floors and ceilings to provide comfortable care for patients. Both facilities are also equipped with an electric generator and a water tank. A general practitioner and three pediatricians, two pharmacists, two midwives and two nurses were recruited based on the references given by other international NGOs and the UN agencies. Their previous training was unclear, however. Except one pediatrician recruited from IGICH, all other medical professionals were from the city of Kabul, not from the villages of our operation sites.

The clinic hours start at 9:00 am and the physicians see approximately 70-120 patients a day including the last patient checked in before 12 noon. The clinics are open six days a week except Fridays. The pharmacists load medications to the vans and leave the KI Kabul office around 8:15 am and comes back to the office at 2:00 pm. They unload medications and prepare supplies for the next day.

According to the KI medical staff, the characteristics of the patients in two KI clinics are different. Since Qal'eh-ye Pakhchak is part of the Kabul city, the patients are more educated and dress more nicely than those of Musayi. The primary language spoken in Qal'eh-ye Pakhchak is Dari, and it is Pashtun in Musayi. In order to have the KI physicians get used to the different environments, they are paired and rotate the two clinics every month.

III. Scope and focus of the evaluation

The intention of the evaluation was to examine the operation of the emergency medical program during the ten- months of operation. The focus of the evaluation was whether the clinics ran under this program are dealing with the emergency medical phase as of December 2003, and to determine what are the current needs based on this evaluation.

The evaluator, Masahiro Morikawa, decided that the most appropriate approach would be to combine qualitative and quantitative data. The data for this evaluation was collected by

examining the contents of patient care (acutely sick cases, illness distribution, and/or referral to tertiary hospitals). The data collection was conducted primarily at the Musayi clinic since KI is currently the only health care provider in the village. There are several essential assumptions for the chart review. These are as follows:

- 1) Four physicians were equally capable of and had abilities of making diagnosis and providing patient care.
- 2) The dates sampled were two weeks after Ramadan, (fasting for Muslims), so that there is not behavioral difference from other months of winter.
- 3) The information was gathered and recorded accurately in the chart.

The principal methodologies utilized were as follows:

- a) Observations of patient care in the field clinics: these included 1) physician-patient relationship and physicians' professional skills, 2) the interaction between pharmacists and patients, and 3) the contents and methods of health education provided by nurses and midwives.
- b) Chart reviews of six consecutive days (12/14-12/19/2002) with the focus on the frequency distribution of chief complaints and diagnosis, and three consecutive days (12/16-12/18/2002) with the additional focus on patient distribution (adults vs. children), antibiotics use in children and adults, and antibiotics use for URI and LRI in Musayi.
- c) Semi-structured interviews with 1) the KI medical staff, patients (convenience samples) at the KI clinics, 2) medical staff in other clinics and hospitals, 3) the mayor and the seniors of Alukhel village, and 4) the international NGO personnel. The interviews were conducted through a translator (English and Pashtun/Dali) who was an eighteen-year-old English teacher from Kabul city with no background in health field.
- d) Field visits to other clinics close to Musayi clinic including Chahar Asyab district hospital, SCA clinic in Musayi district and IGICH in Kabul city.

IV. Main findings

A. Patient demographic data in Musayi

- In three consecutive days (12/16-18) at the clinic in Musayi, more adults were seen than children. (Adult is defined as age more than 15 years old).
- In six consecutive days (12/14-19) in Musayi, 72-124 patients (average 95 patients) per day were seen.

B. Patients' complaints and diagnosis in Musayi

Patient's Complaints

- According to 6 consecutive days data, Fever (15%), Cough (12%), Low back pain (7%), Heart burn (6%) are among the most common chief complaints presented to Musayi clinic.
- When all the somatic pains are combined (LBP, headache, joint pains, renal colic), these complaints comprises 14% of all clinic visits.

Diagnosis

- In analysis of 6 consecutive days data, the most common diagnosis was LRI¹(24%), followed by URI² (15%), GERD (13%), LBP (13%), Pain syndrome (9%), UTI (5%), Abdominal discomfort (5%), PID (3%).
- Accordingly, ARI comprised 39% of all diagnosis and made it the most common diagnostic entity followed by somatic pain 23%, GERD 13%.

C. Consumption of medications

- The “pharmacy drug in/out chart” from September to November (three months) showed that the KI clinics use approximately 90 different kinds of medications.
- While in WHO/UNICEF New Emergency Kit contains approximately 40 different kinds of medications as tablets or injections.
- The five most commonly used medications are; Amoxicillin, Acetaminophen, Aluminium MGS, Child and Adult cold formula and multivitamin.
- The number of medications given away to patients is increasing slightly over the 3 months period.

D. The use of antibiotics in Musayi

- In both clinics, in addition to the emergency kit, they use 8 more different kinds of antibiotics are prescribed. These are co-trimoxazole, ciprofloxacin, Amoxicillin/Sulbactam, third generation cephalosporin (Velocef), erythromycin, nitrofurantoin, gentamycin, metronidazole and cephalixin.
- While in UNICEF/WHO New Emergency Kit, it contains only 5 antibiotics for use. These are Amoxicillin, Ampicillin, Benzylpenicillin, Chloramphenicol and Doxycycline.
- The 3 consecutive days data in Musayi (12/16-18) showed that antibiotics were prescribed on 93% of LRI and 54% of URI patients.
- In the same data, overall, antibiotics were prescribed in 38% of adults and 63% of children regardless of their diagnosis or symptoms.

¹ LRI includes following diagnostic categories in the chart; bronchitis, bronchiolitis, pneumonia, chronic bronchitis, croup, and exacerbation of asthma

² URI includes following diagnostic categories; coryza, common cold, sinusitis, otitis, and pharyngitis.

E. Profiles, roles, and skills of the KI medical staff

1) Physicians

- Chronic medical conditions are treated as same as other acute medical conditions. Patients diagnoses as hypertension were treated only for 3-7 days.
- They have minimal knowledge in chronic medical conditions in general e.g. CHF or diabetes.
- The communication between physicians and patients is one way. Only physicians ask questions, and these questions were almost exclusively “close-ended”.
- They spent only 3-4minutes on average for each patient, primarily giving instructions.
- The diagnosis was made based on the patients’ complaints. Often, there’s no physical examination. Their flow chart is extremely simple. Combining a couple of symptoms patients were sorted out into a few diagnostic categories. For example, vaginal discharge + LBP = PID, cough + fever = LRI/pneumonia.
- All of them see both pediatric and adults patients in their own private clinic every day from 3:00pm to 6:00pm. They charge 60cents per consultation and see approximately 20 patients a day.

2) Pharmacists

- One of them wrote simple instructions on the back of the prescription package: three lines indicating “three times a day”. Another provided only verbal instructions.
- Quite a few patients came to me, asking what was the instruction for the medication.

3) Nurses

- Nurses were busy filling out patient's data sheet (patient chart) with anthropometric measurements (Wt and Ht).
- Patients are primarily seen by first-come, first-served basis and there is no patient triage by nurses.

4) Midwives

- Midwives are hired to provide patient education and provide prenatal care.
- The health education is provided in the waiting room, which is always packed and noisy. Patients are constantly in and out.
- The health education is basically a reading of their notebooks. The nurses were shouting because of the noise. No teaching materials such as pictures were used.
- Another health education was provided when the BP-5 packets were distributed. However, the distribution itself was creating some sort of confusion and small fighting between those who received the packet and those did not. The on-site education seemed difficult under such confusing and chaotic situations.
- Prenatal care is also provided in the waiting area, which has no privacy and lots of noise.

- They, too, provided anthropometric measurements for BP-5 distribution. The discharge criteria for BP-5 is MUAC >13 cm. Patients were not undressed for the measurement of their left arms.

F. Opinions of the village chief and seniors in Musayi

- “What do you want KI to better serve for your community?”

“We would like KI to stay longer and provide free medical care. We also want you to see make patients in case of emergency. We are so poor and do not have anything. Villagers can not afford to by medications.”
- “What do you mean by poor?”

“Most of the villagers except for civil servants left for refugee camps on the Afghanistan-Pakistan border due to the increasing intensity of war. We came back to the village 3-4 years ago. Since then, we have had difficult life. First of all, we do not have enough water for farming due to the draught. Secondly, many of us have not been able to find a job in Kabul. Third, the primary school for children is far away and teachers were not paid for a few months, causing problems for teachers to teach students.”
- “Are there any health care providers in the village?”

“Before KI started the clinic, villagers went to a private pharmacy in the village where pharmacist gave some advice for their complaints. But, we do not believe that the pharmacist had enough training to be a medical personnel.”
- “Is there any village health volunteers?”

“There is no village health volunteers now. But it is a good idea that KI will train some volunteers. You can recruit female volunteers in the clinic and we can find some male volunteers at the mosque.”

V. Conclusions and recommendations

1. As of December 2002, the KI clinics are NOT dealing with medical emergencies.

Whether a clinic is dealing with emergencies or not is assessed by several factors. They are: 1) general appearance of patients based on nutritional assessment, 2) disease pattern and how they handle the problems in the clinic, 3) Frequency of acutely sick patients seen in the clinic and the frequency of referral cases for other health facilities. The following are the assessment results of the four factors at the KI clinics.

1) General appearance of patients based on nutritional assessment

- No severe malnutrition cases are observed by the BP-5 distribution and measurement at the KI clinics. However, it was difficult to determine precisely whether they are malnourished or not without any references of growth chart. Currently, the KI nurses and midwives do not use any reference to their measurement.
- There is also a concern about the BP-5 measurements in terms of accuracy. First of all, they do not undress patients for measurements. Secondly, they include patients much less than 12 months old for MUAC (MUAC is considered stable above age one until age five). In my random check at the BP-5 distribution site, there are many patients recorded as 16 or 18 month old. But they are almost certainly less than 12 since they had less than for teeth.

2) Pattern of disease distribution in Musayi

- ARI and chronic pain syndrome comprise more than 2/3 of all clinic visits. This disease pattern is nothing unique in this area and similar to other primary care clinics such as Chahar Asyab hospital, SCA Musayi clinic, or even in urgent care centers in East Cleveland, USA.
- 14% of patients come to complain non-acute somatic pains in Musayi. Increasing number of chronic pain syndrome is not the problem seen in life threatening emergency relief situation. Rather, it is one of the most common problems in primary care practice anywhere in the world.

In primary care practice, the medical encounter between physicians and patients is an interaction between the patient's expectation for treatment and the physician's interpretation of patient's experiences. At primary care level, many patients come to see the physician with illness rather than disease³. *Illness* is defined by patients' own experiences and suffering while *disease* is defined by biomedical explanation of the phenomenon.

The way physicians deal with problems in Musayi is to treat patients based on the disease model: physicians quickly sort out the symptoms and label the problems with a name of a disease, categorize the complaints into disease patterns, and give away drugs. The physicians do not spend time with open-ended questions to listen to the patient's explanations of the symptoms. They simply prescribed drugs based on their complaints often without examining the patient either.

When dealing with large number of acutely sick patients, disease model is fairly effective in handling many patients in a short period of time. However, considering high volume of patients with acute and chronic pain syndrome such as LBP in Musayi, the effectiveness of disease model is questionable since the pain can be a manifestation of wide variety of causes including depression and stress. Moreover, the pain syndrome is culturally and

³ For further discussion of illness and disease, for example, please refer Kleinman, A. Culture, Illness, and Care. *Ann Intern Med.* 1978;88:251-258.

socially constructed⁴ as well as individual experience. In summary, the physicians at the Musayi clinic is dealing with problems in primary care settings by the disease model which works well in the acute situations.

3) Contents of referral cases

- The number of referral case from the KI clinic to other health facilities is small, approximately one in every two weeks or less. Then, the question is where the “sick” patients go. There are three possibilities for the explanation;
 - 1) The real sick patients in remote areas can not come to the hospital. By the way, if we see really many sick patients at one time, usually it is not a medical emergency but is a public health emergency. It means they need food, shelter, water, and vaccination more than drugs,
 - 2) the patients triage their problems by themselves, and go directly to tertiary care centers skipping the community clinics such as the KI clinics, and
 - 3) according to the study conducted by White⁵ and others in 1961, primary care practice, we should not see that many patients really sick. Rather probably we see many sicker patients in referral hospitals.
- The KI physicians labeled patients as “sick” whenever they need to refer them to outside facilities for further diagnostic workups e.g. CBC or CXR. However, these patients are not necessarily acutely sick or emergency cases.
- The KI physicians seem to call any cases as “emergency” when they do not feel comfortable dealing with.

Example:

A boy fell from height came to the clinic with scalp laceration. He was not examined and referred right away to IGICH. The boy came back on the same day with only wound dressing. There is no CT scan in Afghanistan, and the boy had no LOC or neurological symptoms. What would be the reason to refer this patient all the way to Kabul with expensive transportation just for the wound dressing?

- The KI physicians and midwives have very limited experiences in dealing with real emergencies of any kind. They can not tell which patients exactly need emergency care.

⁴ Armenian HK. Influence of wartime stress and psychosocial factors in Lebanon on analgesic requirements for postoperative pain. Soc Sci Med. 1981;15E:63-66.

⁵ White KL. The ecology of medical care. New Eng J Med. 1961;265:885-889 is a classic example to define the role of primary care in community and elucidated the pattern of distribution of referral cases among community based samples.

Example:

A midwife requested me to provide a complete gynecological exam room for "emergency" cases. The midwife told me about her "emergency" case. A multipara patient, who was G6P5, 38 weeks, came in with cervix of 2 cm WITHOUT contraction. She thought that was emergency case and she referred the patient to Kabul.

2. Free medications attract more patients.

- It is a pervasive phenomenon in this community that patients go where drugs are. The AAH clinic was a good example. Patients stopped coming when medication ran out. The patients seen at the KI clinics are usually given more than one kind of drugs even for common.
- The KI clinics have had negatively affected the local drug supply milieu in the project sites. Even though the SCA clinic has been in Musayi district for many years, village mayors asking them to leave if they can not supply free medications like KI does. As a result, the physicians of the SCA asked KI to help them with any medication.
- The “free-easy-drug-give-away” would reinforce dependency to outside assistance. It is a problem the “magic bullets” seeking behavior would counteract for developing self-reliance and health awareness that are the essential components for sustainable health care program in the community.

3. The sustainability of this program is highly doubtful.

At this moment, it is safe to say that the community can not sustain this program without outside help. Sustainability generally means whether the program will be run and continued without outside assistance. According to the study on key factors for sustainability in the USAID projects in Central America and Africa⁶, the sustainability is more likely to be nurtured under five conditions: 1) clearly defined objectives, 2) integration of the project into established administrative structures, 3) gaining funding from the national source, 4) mutually respectful process of negotiation, and 5) inclusion of strong training components. The study also addressed that community participation alone was not necessarily a strong factor for sustainability. The reasons of no sustainability for the KI program are as follows;

- 1) The program was focused principally on curative aspects of medical care, and not on prevention or health promotion. There is health education, but it was not working well.
- 2) Male adults who have more power in this society than female have been excluded from the target population in the program. It is then difficult to mobilize the entire community to invest their commitment for health.

⁶ Bossert TJ. Can they get along with us? Sustainability of donor-supported health projects in Central Asia and Africa. Soc Sci Med. 1990;30:1015-23.

- 3) The seeds for sustainability, for instance, raising community awareness, self-evaluation of their problems, and/or providing health volunteer training were not included in the program.
- 4) The KI medical staff was not recruited from the project sites. The local vices are not reflected, and there will be no one to take over the program when KI leaves the area.

As a result of facilitating the drug-seeking behavior, although unintentionally, it is now difficult to implement a program that is more sustainable in the same area. Sustainable health programs are employed by the PHC approach, which focuses on self-reliance and autonomy. A 7-year old boy came to the KI Musayi clinic for onychomycosis (fungal fingernail infection), asking for medicine. It turned out that there is not enough water for wash hands in his house. Even with powerful medication, the fundamental problem is not at all solved if he can not wash hands. The holistic and long-term PHC approach will be needed to improve the health status of the community. This case illustrates one of the problems of the current program.

VI: Summary of recommendations

- 1) **Terminating the current emergency program at the end of February 2003.**
The medications have to be prescribed more cautiously and carefully than they are now for the rest of the program period. In addition, both less frequently used and expensive medications have to be removed from the supply list in the KI pharmacies as soon as possible.
- 2) **The PHC approach has to be incorporated for emergency programs.** That means; 1) providing primary care training for local health care professionals, 2) providing health volunteer training for health education, and 3) recruiting both female and male health volunteers in the project sites with the help of local people.

In disaster model (Figure 1), the purpose of emergency medical relief is to recover the local capacity to the pre-disaster level.

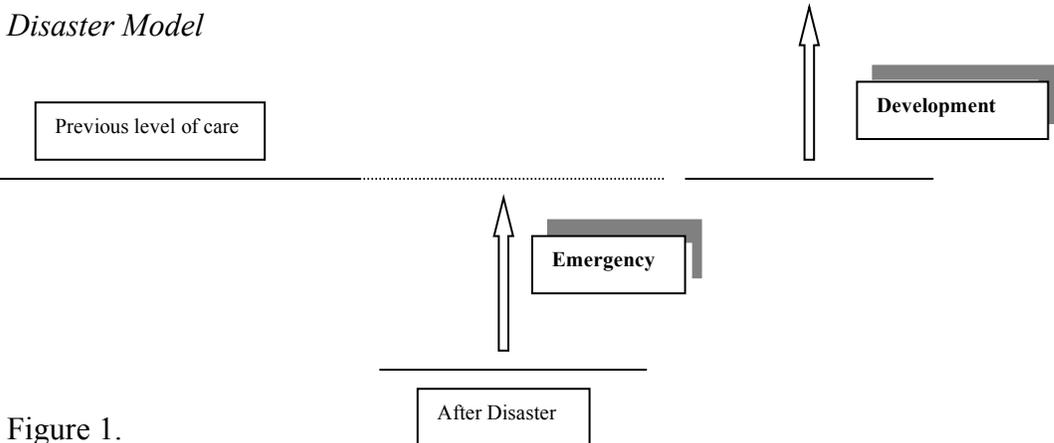


Figure 1.

However, this concept has become irrelevant in recent complex humanitarian emergencies (CHEs). All the health infrastructures were often destroyed in CHEs (Figure 2), blurring the distinction between the emergency and the reconstruction phases. Appeared is the situation of emergency-rehabilitation continuum. Or, it can be called sustained rehabilitation phase.

In this circumstance, the medical technology brought by international agencies as a relief easily surpasses the level of local technology, and that is what the numerous number of patients are attracted by. People in Musayi have enjoyed the best free medications in their whole life.

In the emergency-rehabilitation continuum, health care interventions should be aiming at both the emergency medical needs and the reconstruction of health care structure in the affected community. Considering the rehabilitation phase is almost always protracted in CHEs, the perspective of sustainability is essential in any intervention programs.

CHE model



Figure 2.

The key for the sustainable health programs is the application of the PHC techniques. The PHC approach focuses on equity of care, participation of the program recipients, use of appropriate technology, and collaboration between all stakeholders involved. The PHC approach contributes to promote and facilitate the concept of self-reliance and autonomy, to raise awareness for prevention, and to empower people in the district and community level rather than the central level. It is critical, therefore, to recruit local people, not from outside the community, for the PHC program. In a long run, the PHC approach helps decentralize health resources. As anywhere else in the world, health care resources concentrate in Kabul area.

- 3) **Define the target population of the program.** If rural poor population is targeted, it makes sense to work in Musayi rather than Qal'eh-ye Pakhchak. There are no other health care resources available.
- 4) **Review the mission of KI and the capacity of the organization for the comprehensive involvement for health care projects in Afghanistan.**

Appendix A: IGICH

According to Dr. Alisha Alawa, the Director, IGICH is the only tertiary care pediatric referral hospital in the entire Afghanistan, which consists of with surgery, orthopedics, ENT, and internal medicine. Their paramedical sections include rehabilitation, dentistry, laboratory, radiology and ultrasound departments. Two other pediatric hospitals in town offer only internal medicine of pediatric care. Approximately 100 pediatricians working for the capacity of 300 beds. During the summer months, the number of patients admitted expands to 400-500 due to the heavy volume of diarrheal disease.

400-500 patients per day are seen in the outpatient clinic. In the surgery department approximately 10 cases of emergency plus elective general surgery cases are performed daily. Dr. Saidi, surgeon, said they have elective cases two to three times a week, and operate emergency cases both in the night hours and on weekends.

In spite of its name, the support from the Indian government has been very limited. According to Dr. Alisha, 50% of the funding comes from the Afghani government and the remaining 30%-40% has been provided by various NGOs in the form of medications and medical equipment. The medication and the nutritional service in this hospital have been free to the patients.

There is a serious shortage in medical supplies as well as equipment. For example, there is no working oxygen supplies for severe pneumonia cases in the intensive care unit with 20 beds of the internal medicine. They do have one nebulizing machine to provide aerosol treatment for asthmatic patients. There is not enough fuel for the heating system.

There are problems with donated equipment. Dr. Saidi said that two gas anesthesia machines donated by JICA do not fit with the Russian-made oxygen tank, and have not been used. A respirator by Dräger donated by the Germans was delivered, but left unassembled and untested.

The Ministry of Public Health (MOPH) has been organizing postgraduate medical education for the pediatricians: 3-year training for pediatric internal medicine, 3 to 5-year training for pediatric surgery. 22 residents a year have been assigned to this program. One to two trainers are recruited every year out of the graduating class.

In the surgical intensive care unit, there are approximately 12 beds with the post-surgical cases. But, there is neither working oxygen supply nor respirators on the floor. The 12 patients were lying in bed side by side very closely. There are no handwashing capacities in between the patient care.

Dr. Abdal Rhim Saidi, who is in charge of the postgraduate education program at Indira Gandhi Institute for Child Health, said that basic surgical supplies are desperately needed. Those supplies include oxygen, general anesthesia, and suction. Since they do not have any disposable oxygen masks, facial masks or nasal cannula, they have been using a single plastic tube for all patients who need oxygen supply. There is no institution in

Afghanistan, which is equipped to do open-heart surgery for sick children. Dr. Saidi is interested in collaborating with foreign institutions, which can provide some educational support or bedside teaching since there is none at this time.

Appendix B: SCA Clinic

- According to Dr. Halim, a sub-MD, a training program was provided during the war to supply more physicians into rural communities. It was 3-year education, in school in Kabul but no formal post-graduate training. In many Cases, on-the-job training was provided by NGOs.
- Dr. Fazalmolla said, “we have been here for more than ten years. SCA asked us to see only 30 sick patients a day but it's impossible since so many people coming here. We see 50-60 patients as long as we have medications.”
- He also said, “We charge 40% of the cost for medication. SCA does not supply enough medicine. Now the mayors of several villages around here asking us to leave this place if we continue to fail providing sufficient medication to the village.”
- He finally asked me, “Is there any way KI can help us for medications. We need more drugs. These people are very poor”.

Appendix C: Chahar Asyab district hospital

- This is a hospital with 20 beds and three full-time doctors who are all internists.
- There was no electricity or tap water available in the hospital. They have a generator but no fuel for it.
- “It is too cold to admit patients now, so we sent everybody home” according to one of the two physicians I met.
- “The government provides drugs every 3-6 months, whenever they feel like it. However, these medications are usually already expired or sometime they are Made In Russia which we can not figure out what they are”
- OPD is separated into two sections, “male” and “children and female”. In both OPD, their diagnosis distribution is similar to the KI clinics. That is bimodal distribution of ARI and pain syndrome.
- There is a separate MCH clinic but they open only 9:00am until 1:00pm. They do not perform C/S. They deliver babies only during these hours!

Appendix D: AAH clinic in Qal'eh-ye Pakhchak

- There were no physicians working at the clinic at the time of my visit.
- Mr. Najib, a pharmacist, told me, “we see lately only 5-6 patients a day since we do not have any drugs. When there is no drugs, no patients”.
- Health education was provided in one room. Ms. Zakia, a health educator, was talking about prenatal care. There were 6-7 patients attending to the class. She was using posters and drawings to explain prenatal care.

Appendix E: Wazir Akbar Khan Hospital

I had a chance to interview two surgery residents at the hospital when I visited our driver who was admitted to the ICU. They explained to me about the post-graduate training in Afghanistan after the war.

- “There are about 80-100 students graduated from the medical faculty every year now. Their post-graduate training or residency is coordinated through 4 or 5 big public hospitals in Kabul and this hospital is one of them.”
- “The surgery residency training is for 5 years. In this hospital, there are 40 residents and 10 trainers”.
- “Only 4th and 5th year residents are allowed to do surgery. Until then, they rotate emergency room, ICU and floors to learn pre- and post-op management and emergency medicine”.
- “ In the current system, only good graduates can go into residency training. Many mediocre graduates are thrown into practice without any postgraduate training. That is a huge problem.”

Appendix F: Ibsina

Ibsina is the largest medical NGO in Afghanistan, providing comprehensive primary care clinics in 13 provinces. They also conduct numerous training programs collaborating with IMC. At the time of my visit, they are in the middle of three-month training program for female physicians funded by the Rockefeller Foundation. Their training program employs multiple AV systems and exercises including overhead projector, computer projector and hospital rounds.

The content and the schedule of the 3-month training program is as follows:

2 weeks	Trainer training/training principles
2 weeks	Primary Health Care
3 days	Nutrition
4 days	Health Information System (basic epidemiology)
2 weeks	Common diseases and psychiatric diseases
2 weeks	Reproductive health
1 week	Health Education
1 week	Practicum (bedside rounds at the teaching hospital in Kabul)

They have handouts for each session. The handouts were the compilation of the “cut and paste” from the major textbooks written in English. The participants of this training course were selected through oral and written examinations. During the training, their salary is paid by Ibsina.

Appendix G: MSH

Management Science for Health (MSH) is an US-based NGO specializing in health management and capacity building. They work with MoPH, WHO and UNICEF, providing management skills in health statistics vital to reconstruction of the health pyramid structure in Afghanistan. They sent out 160 interviewers to all health facilities across Afghanistan in June 2002. The surveyors used digital cameras and GPS to precisely record facility locations and the physical conditions. MSH obtained grants from various governmental organizations including JICA, EU and international organizations. Their mandate is to provide the most accurate information to the Ministry of Health to facilitate the leadership for the reconstruction of public health structure in this country.

Their questionnaire covers 11 pages and 126 variables. However, the accuracy of some of the critical data is highly questionable. For example, they do not include data from IGICH, which is the tertiary care health facility for children in Afghanistan. Also, their population estimates are based on the census conducted by CSI more than twenty years ago. It is highly suspicious the validity of this estimation.

The questionnaire has been developed based on the Basic Health Package for Afghanistan Health, which was a report compiled earlier this year by WHO, MoPH, and MSH. They tried to illustrate all of the manpower as well as the physical resources of each health facility. The individual health facilities are classified into three different categories based on the health package report. The information regarding the health facility does not include any specialized hospitals, such as eye clinics and mobile facilities. It also excludes tertiary care hospitals and referral hospital centers.

Appendix H: Logistics in Kabul

Traffic Jam

Traffic in Kabul seems to get worse every day. There are no traffic lights, but there are so many cars and taxis running around without any order. Particularly morning and evening rush hours are worse. It is impossible to predict how long it would take to move around the city.

Reliable data

The MSH's efforts would be the most comprehensive current estimate for health care situation in Afghanistan at this time. However, there is a significant flaw of the data as mentioned in Appendix G. It is very likely that this data will be used by NGOs and UN agencies once it is published.

Contacting people

It is extremely difficult to get hold of anybody in MoPH or physicians at hospitals in the afternoon hours. They leave for their second job or to their private practice after 12 noon. It is limited to schedule meetings with even a few people in one day with the difficulties in the communication system.

Power outage in Kabul

Unpredictable power outage is really a problem in working in Kabul. Computer work is almost impossible under frequent power outage. The dust in Kabul also deteriorates the use of fine electric appliances including computers.

Appendix I: Kinderberg Pharmacy, Kabul, Afghanistan Storage Inspection list

Remarks:

- Almost half of the medication is for adult use.
- Approximately 1/3 of the shelves is occupied by antihypertensives as well as anxiolytic medication.
- Many medications are for symptomatic relief such as antihistamines and decongestant in syrup. The symptomatic relief for congestion and rhinorrhea for the pediatric populations is not routinely prescribed in the United States.
- The KI also has UNICEF (ORS) oral rehydration salts as well as BP/5 compact food which is the dry ration for supplemental feeding which has a 2290 kilkals per packet.

Medications in the storage:

Chloramphenicol 250 mg tablets
Doxycycline 100mg tablets
Amoxicillin 500 mg tablets
Cephalexin 500 mg tablets
Amoxicillin 250 mg tablets
Griseofulvin 500 mg tablets
Erythromycin 400 mg tablets
Griseofulvin 125 mg tablets
Bactrim pills 800/160 mg
Clotrimazole vaginal 100
Nalidixic/acid 500 mg tablets
Calamine D cream
Gentamycin injection 40 mg
Ciprofloxacin 500 mg tablets
Penicillin LA 1.2 million unit
Penicillin G Benzathine
Diazepam 5 mg tablets
Bactrim syrup
Betamethasone 0.1% ointment
Folic acid 1 mg tablets
Iron pills ferrous/fumarate
Triamterene 50 mg tablets/Hydrochlorothiazide HCTZ 25 mg
Salbutamol 4 mg tablet
Imipramine 25 mg tablet
Methyldopa 250 mg tablets
Nifedipine 10 mg tablet

Phenobarbital 15 mg tablets
Atenolol 100 mg tablets
Glipenclamide 5 mg tablets
Chlordiazepoxide/Clidinium Bromide 5/2.5 mg tablet
Diazepam 10 mg pills
Amitriptyline 10 mg pills
Frosemide 20 mg tablets and Injection
Hydralazine 50 mg and Injection
Aminophylline 100 mg
Propranolol 10 mg
Isosorbide Dinitrate 10 mg
Chlordiazepoxide 5 mg
Phenobarbital 60 mg pills
Betamethasone Injection 3 mg
Acetaminophen 500 mg syrup and pills
Indomethacin 25 mg pills
Mebendazole 100 mg chewable
Vitamin B6 40 mg pills
Dyscople Eye Ointment
Tetracycline Eye Ointment
Metronidazole 250 mg tablets
Entamizole combination of Diloxanide Furoate and Metronidazole
Used for amebiasis
Topical Vitamin A and D Ointment
Jell for sore mouth-combination of Lidocaine/Ethinyl/Peridin
Erythromycin 0.5% Eye Ointment
Triamcinolone Topical Ointment 0.1%
Clotrimazole 1% Cream
Helmitnick Medication - Levamisole Hydrochloride 150 mg tablets
Lidocaine 2% Gel
Clobetasol Gel

Simethicone 40 mg pills
Ibuprofen 400 mg tablets
Bisacodyl 5 mg tablets

Hydroxyzine 120 ml syrup

A multivitamin drops for kids
Acetaminophen Oral Drops
Ranitidine 150 mg - stomach ulcer medication
Bexamethadone Eye Drops
Xylometazoline Nasal Solution -decongestant
Metoclopramide Drops
Dexamethasone Ophthalmic Solution
Sulfacetamide Eye Drops

Cough Syrup for Children- Promethazine
Silver Sulfadiazine Topical Cream for burns and cuts
Ear Drops - Lidospirin -combination of Polymyxin B and Lidocaine

Tablets of pills called Children's Cold - combination of Acetaminophen 80 mg and Chlorpheniramine
Digestive Enzymes and Vitamin Syrup
Phenylephrine 0.25% Nasal Drop - decongestant
Naphazoline 0.05% Nasal Drop for Nasal congestion/decongestant
Laxative Drops for children - Sulfolax 15 ml
Schloroquine Syrup for Malaria 60 mg
Amoxicillin Syrup
Syfilaxin Syrup
Dexamethasone Ophthalmic Solution
Vitamin C & D Combination
Pill - Hyoscine/N/Butyl Bromide 10 mg (Dr. Mori doesn't know what it is)
Nalidixic Acid Syrup Suspension
Couple of worm pills for ascaris
 Piprazine Elexor
 Pyrantel Pamoate Oral Suspension for children
Antibiotic - Diclofenac Sodium 75 mg im injection
Antiaoemba Suspensions
Iodine Solutions
Surgical tapes
Preparations for Iodine and surgical tapes and gauze
Diazepam Injection 10 mg
Saubutamol Solutions for Asthma
Norfloxacin 400 mg tablets - I don't think this is part of the essential drug policy. This is a more advanced formula for Quinilin preparation
Zinc Oxide Ointment 30 grams
Benzyl Benzoate Lotion for scabies - widely used in this part of the world and part of the WHO essential drug policy
Antihistamine - Promethazine Syrup
Disodium Hydrogen Citrate - sounds like a laxative
Selenium Sulfide Shampoo - for seborrheic dermatitis
Aluminum MG Antacid
ASA 325 mg tablets and powder.

Appendix J: Visit Schedule

Date	AM	PM
12/8 (Sun)		Cleveland to Chicago Chicago to Frankfurt
12/9 (Mon)	Arrived at Frankfurt, Germany	Visited headquarter, Kinderberg International, e.V. in Stuttgart Dinner with directing manager and obtained briefing of Afghan project
12/10 (Tue)	Kinderberg office to discuss emergency medical program	Meeting with Dr. Volker
12/11 (Wed)	Kinderberg office to sort out medication	Frankfurt to Istanbul, Turkey
12/12 (Thu)	Istanbul to Kabul	Visited IMC office to meet with director general Visited Ibsina office to meet Kabul regional director
12/13 (Fri)	Inspect pharmacy inventory for our clinic	
12/14 (Sat)	Visited Qualapa Chack clinic Visited AAH clinic	Staff meeting discussed our documentation system, patient information, growth chart
12/15 (Sun)	Visited IMC/Ibsina training center met with the participants of my CHE course in Peshawar	Visited MSH to obtain health clinic information in Musayi district and Kabul province
12/16 (Mon)	Visited Musayi clinic Observed EPI program by UNICEF/WHO	Reviewed basic package for health in Afghanistan compiled by MSH/MoPH/WHO
12/17 (Tue)	Visited Musayi clinic Leishmaniasis clinic by HealthNet International Met with the Mayer of the village	Visited Charah Asyab district hospital and MCH clinic Gave lecture on chronic pain patient and depression
12/18 (Wed)	Visited SCA clinic in Musayi interviewed villagers about their health seeking behavior	Gave lecture on CAP/Antibiotic use
12/19 (Thu)	Visited Logar province, Ludine clinic and Charah Asyab hospital again for drug donation program	Gave lecture on headache and treatment
12/20 (Fri)	Data analysis in Musayi clinic for patient demographics	

12/21 (Sat)	Visited Ibsina office Data analysis for antibiotic use	Staff meeting Lecture on hypertension Visited Wazir Akbar Khan hospital and talked with surgery residents
12/22 (Sun)	Visited Indira Ghandi Pediatric hospital	Visited MSH to discuss health information and data gathering
12/23 (Mon)	Musayi clinic Visited Mosque and met with village seniors BP-5 (dry supplementary feeding) measurement	Musayi clinic EPI Lecture on shoulder/upper extremity examination Review data and patient sheet
12/24 (Tue)	Musayi clinic BP-5 distribution	Lecture on continuing medical education system Visited MSH for geographical information
12/25 (Wed)	Fly out from Kabul by Ariana	Kabul-Teheran-Istanbul-Frankfurt
12/26 (Thu)	Discussed director general Kinderberg about Afghan emergency program and future action plans	Frankfurt-Dulles/Washington DC Dulles - Cleveland