



ATMA-LIP Mobile Health Clinic Project

**PROPOSAL FOR
FUNDING MOBILE HEALTH CLINICS IN LADAKH**

BACKGROUND

A Thousand Metres Above (ATMA), established in 2012, is a grassroots Canadian non-profit organization that provides funding to NGO's in the Himalayas that seek to improve healthcare infrastructure and healthcare delivery. ATMA provides grants to these local organizations working to address the unique development challenges inherent to their high altitude communities. ATMA is based on sustainable, informed, utilitarian and collaborative principles and works closely with partner organizations in the Himalayas to deliver high quality healthcare services.

The Ladakh Institute of Prevention (LIP) (Registration: No 4370-S/2003) is an NGO based out of Leh, Jammu & Kashmir, India that provides several services to the people of Ladakh including mobile health clinics in the Zaskar, epidemiological studies on prevalence of disease in the district, child and maternal health programming and others. The organization was initially borne out of the concept of increased cost-effectiveness in providing preventative medicine. Given the high altitude, remote mountain environment, harsh climate and limited accessibility to the outside world, especially during the winter months, the people of Ladakh experience considerable health problems. LIP attempts to fill the gaps of healthcare delivery in the district of Ladakh.

LADAKH INSTITUTE OF PREVENTION MOBILE HEALTH CLINICS

LIP conducted its first mobile health camp in the Zaskar in 2010 citing its geographic isolation and subsequent lack of government healthcare infrastructure as reasons for its selection. Since then camps have been held every subsequent summer. During these camps medical equipment, field laboratories and medical personnel setup camp in areas of the Zaskar valley to provide treatment, preventative health counselling and education, immunizations, maternal and child health programming and elderly care. The regularity of these camps also offer an opportunity to study rates of communicable and non-communicable diseases offering the only health surveillance programming available in the region.

Funding for the Zaskar camps has in more recent times been provided by the Australian Himalayan Foundation, and a stable funding source has been critical in allowing the physicians and medical personnel in Leh to focus their energy on the running of the camps. However, LIP runs other camps periodically in other remote regions of Ladakh and funding for these has been intermittent at best or lacking at worst. We hope that through the ATMA-LIP initiative we may be able to provide regular support for alternative camps to be created every year in other remote regions of Ladakh outside of the Zaskar.

CURRENT SITUATION

Ladakh is the largest district of the Indian state of Jammu & Kashmir. Its large geographic size, low population density and limited accessibility to many of the villages and towns in the district all place a considerable strain on healthcare provision in Ladakh. The people of Ladakh have limited access to either health education or the staff and equipment needed to diagnose and treat their conditions. Furthermore, the majority of patients who attend health facilities in the region cannot afford the high cost of treatment. Limited road access, and harsh climates that close many parts of Ladakh to the rest of India for much of the year, make it difficult for the people of Ladakh to access the healthcare they require throughout the year.

BRIEF SUMMARY OF THE PROPOSAL

We are currently seeking funding to allow LIP and its partner organizations to run mobile health clinics in remote regions of Ladakh on a regular basis. The funding would cover costs for transportation, medical equipment, personnel, medications and power.

DETAILED PROPOSAL

Objective Number 1: To familiarize and popularize system of “mother and child health care

We hope to improve child and maternal health outcomes by implementing the “mother and child health hand book” throughout the district during these health camps. To this end we hope to involve health care workers at all levels of health care facilities. To date LIP has 3000 mothers and children registered with spread all over the district and the numbers are increasing daily.

During the health camp at each subdivision two days will be exclusively slotted for antenatal check up and “well baby clinics” for follow up. A third day will be slotted for sensitizing staff to the integrated child development services (ICDS) and education for pre-primary school teachers about the significance of the programme. Children aged 1-3 years will be invited with their mothers before the ICDS staff to document and plot growth and development chart within the aforementioned handbooks. Senior physicians and gynecologists of LIP will be assisted by the staff of any health care facilities within the local community health center, primary health centre or the village health centre. LIP staff have sufficient experience in recording vital measurements and providing guidance to ICDS and health care staff in the documentation of data within the child health handbook.

Objective number 2: To familiarize and popularize screening of the adult population for non-communicable diseases (NCDs)

Socioeconomic factors, hypoxemia and effects of high altitude are playing a major role in the high prevalence of hypertension and diabetes. In addition, indulgence in rich diets, fast food and increasing inactivity are leading to dyslipidemia and obesity. Creating awareness about healthy lifestyles and regular screening and follow up for non-communicable diseases is on the priority list of LIP.

In the proposed health camps three days will be slotted for screening and follow up on NCDs. These will be done in accordance with the WHO-advocated three step method of questionnaires including those on core behavior (tobacco, alcohol, inactivity and diet) measurements (including height, weight, BMI, SpO2, BP, ECG, PFT, echocardiography)

and biochemistry (fasting blood sugar, lipid profile, PFT) and, of course, detailed clinical examinations. Screening for cancer and deficiency diseases will also be completed during these three days. Validated questionnaires will be used for both purposes and specific investigations will be done on spot with the mobile laboratory. For those special tests which cannot be performed on site, samples will be stored in liquid nitrogen containers and on reaching Leh will be outsourced to accredited laboratories. All participants during these camps will receive health cards on completion of the check-up which will facilitate drug compliance and follow up at their respective health care centres.

Objective Number 3: Cognitive and functional impairment in elderly high altitude residents

One day will be slotted exclusively for elderly patients in whom validated questionnaire's (MMSE, ADL) and physical ability test (timed up and go, forward reach) will be completed along with a structured neuropsychiatry examination in order to detect MCI, dementia and other neurologic disorders like Parkinson's disease. PHQ2 and PHQ9 questionnaires will be administered to all the elderly patients and those with suspected depressive disorder. Biochemistry, ECG and echocardiography and abdominal ultrasonography will be done in all elderly persons for health screening purposes. From our phase I study we have validated the above mentioned questionnaire as an instrument and we have short listed 220 suspect cognitively impaired subjects whom we will complete follow up, including the completion of detailed neuro-psychiatric examinations and arrangement for special investigations like MRI wherever indicated.

Objective number 4: Health education to local students

One day will be slotted for the purpose of educating students in the local high schools or local degree colleges on health. In the morning, health education sessions and practical training on basic health support in times of emergency disaster, etc. will be imparted to the school students and in the afternoon health education will be imparted to the community in that area.

PROJECTED COSTS (Rs.)

Budget Head		1st year (Rs. In Lakhs)	2nd year (Rs. In Lakhs)	3rd year (Rs. In Lakhs)	Total (Rs. In Lakhs)
Man power					
1.	Research Officer @ 16,000/- per month	1,92,000/-	1,92,000/-	1,92,000/-	5,76,000/-
2.	Lab Technician @ 10,000/- per month	1,20,000/-	1,20,000/-	1,20,000/-	3,60,000/-
3.	Pharmacist @ 10,000/- per month	1,20,000/-	1,20,000/-	1,20,000/-	3,60,000/-
Laboratory and medicine					
1.	Laboratory	100000/-	100000/-	100000/-	300000/-
2.	Medicine	100000/-	100000/-	100000/-	300000/-
Equipment					
1.	Maintenance of equipment	30000/-	30000/-	30000/-	90000/-
Travel					
1.	Travel	125000/-	125000/-	125000/-	375000/-
Project Logistics and fuel for generator (D.G. set)					
1.	Logistics	50000/-	50000/-	50000/-	150000/-
Stationary/Photostat					
1	Stationary/Photostat	20000/-	20000/-	20000/-	60000/-
Contingency					
	Contingency	10000/-	10000/-	10000/-	30000/-
Over heads					
	Total	867000/-	867000/-	867000/-	2601000/-

IMPACT OF THE PROPOSAL ON THE COMMUNITY

The special feature of this health camp is that it will include high altitude natives of all demographics. From pregnant mothers to newborn infants, pre-primary school children, school children, adults and elderly persons: these LIP camps will provide comprehensive healthcare that is accessible to people in these remote corners of the Himalayas.

LIP has already previously done extensive preliminary scientific studies on the health aspect of all these age groups and has validated questionnaires as instruments from the same population to be applied to screen and diagnose age and sex specific health problems. The health camp will cover even the remotest villages of these two vast districts to ensure equity and empowerment of the population regarding health and environment.

The ATMA-LIP Mobile Health Clinic proposal aims to conduct health camps in five subdivisions of Leh-Ladakh district and two subdivisions of Kargil district. One health camp will be of one week duration. As some of the subdivision populations are widely dispersed, such as Changthang subdivision, three health camps are proposed for this subdivision. Similarly, two health camps are required for Nubra subdivision, Sham subdivision, Leh subdivisions and also for the two subdivisions of Kargil district and two health camps for Leh town. It is proposed that ten health camps of one week each will be conducted in a year covering whole of the district. Follow up at the LIP health facility at Dambuchan will be conducted on the remaining days. Due to severe environmental conditions during the winter months, health camps are not possible from December to February each year. During this period data entry and completion of health cards will be completed which will be distributed and updated in the second year's health camp. In total we are proposing to hold 30 health camps in a 3 year period.

We firmly believe that within these period, the population will be adequately educated to take responsibility for their own health and the health care facilities will adopt all these programme as part of their normal health monitoring activity.

REGIONAL PARTNER DETAILS

Name and address of the institution carrying out the health camp project:

Ladakh Institute of Prevention (LIP) Dambuchan, Leh Ladakh India. Pin 194101.

- Registered with registrar of society J&K Government under register No 4370-S/2003 under societies/Firm/J&K Government.
- LIP laboratory is registered as LIP General Laboratory under No DHSK /Reg/773/2008 Director of health services Kashmir timely renewed.
- LIP ultrasound machine with echocardiography is registered and renewed under Reg No./CMOL/PC&PNDT/2012/04

Name, Degree and position of the investigator and Co-investigator:

- Dr Tsering Norboo MBBS; MD (Internal medicine). Former physician, SNM Hospital, Leh, Ladakh. Presently founder and secretary Ladakh Institute of Prevention and principal investigator of the present project.
- Dr Norboo Tsering MBBS; former chief medical officer Leh and medical superintendent SNM Hospital, Leh and co-investigator of the project.
- Dr Tsering Lhadol MBBS; MD Former Senior Gynaecologist, SNM Hospital Leh and co-investigator in the present project.