

# The Scale of Lower Limb Conditions in Three Selected Districts of Nepal

## Improving Care and Outcomes



Lower limb conditions (LLCs) encompass a wide range of issues like traumatic injuries, congenital abnormalities, neurological, ischemic or musculoskeletal pathologies that may result in pain, mobility limitation, wider disability and psychological impact. Such factors are likely to have profound consequences on individuals, households and society affecting general health and the wider economy. In Nepal, the burden and pattern of LLCs is not well known.

This document will be of particular use to health officials at a national and local level, NGOs working to support the health system and working with people with disabilities, and the wider policy community in Nepal.

The wide variation in terrain and living conditions across Nepal provide challenges for individuals who suffer from LLCs, as well as the healthcare services designed to support good health. Understanding what individuals are suffering from alongside the care that they are currently receiving promotes the support of individuals, households and communities and the future development of services to support their care.

The Centre for Research on Environment, Health and Population Activities (CREHPA) Services, and the University of Southampton jointly undertook this study to explore the burden and related implications of LLCs in three diverse districts of Nepal. Little is known regarding how lower limb issues relate to mobility concerns, ongoing pain and how individuals obtain and maintain health care.



## Key Findings

Over a quarter of households have at least one person who report a LLC, increasing to about 30% of households in Lamjung and Dolakha.

Almost all conditions are musculoskeletal. A third of individuals with an injury or trauma suffered from this in the last month.

Treatment is lacking, especially for ongoing issues. Many respondents tolerated their pain. Very little rehabilitation services were accessed.



**Our research** focused on three districts: Dolakha, Dang and Lamjung, chosen to represent three different terrains. In July, 2021 2,525 households were screened for Lower Limb Conditions. Surveys were conducted on 500 individuals with an LLC from these three districts. Further in-depth interviews were conducted on 15 of these individuals. This is a scoping study which is designed to collect a wide range of data in order to find out if there is an issue with lower limb conditions and care within Nepal.

### Key Findings—Scale

**Over a quarter of households (26.6%) have at least one person with an LLC.**

There is variation between districts, with 21.6% of households in Dang with an LLC, 29.4% in Dolakha and 30.1% in Lamjung.

**Of those with a LLC the majority were female, of older age, received no or basic education, and had lower wealth.**

From the sample of 500 LLC sufferers, 65.2% were female, 45.6% were aged over 60, 62.2% had limited education and over a quarter were in the poorest group.



**Individuals reported multiple issues with their lower limbs. Almost all reported pain or discomfort in their muscles in the past month.**

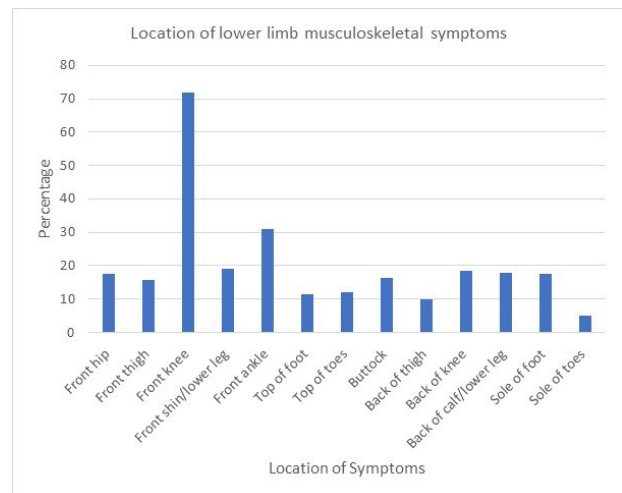
From the 500 respondents, 823 conditions

were reported. These were:

LLC	%	N
Musculoskeletal	97.2	486
Amputation leg or foot	0.8	4
Deformity	7.2	36
Injury or trauma in past month	29.5	28
Wound	1.4	7
Altered sensation in past month	50.8	254
Skin conditions in past month	1.6	8

**97% of individuals with LLCs reported pain or discomfort in lower limb muscles or joints in the past month.**

A higher prevalence of pain was seen in Dolakha and Lamjung districts. The most common location for pain was in the knee.



**A fifth of individuals reported ever having an Injury or Trauma to their lower limb that has left a lasting effect.**

This was largely due to falls, followed by vehicle and agricultural accidents.

**The number with lower limb deformities was high, at 7%.**

The main causes were congenital, trauma and disease. Over a quarter hadn't been told what their deformity was.

## Key Findings—Treatment

**Most people (71%) with an LLC have received treatment for their condition, although it does vary by cause.**

There were only small differences by district, sex and age.

LLC Issue	% with treatment	Count
MSK	77.9	298
Amputation	100.0	4
Deformity	58.3	36
Injury/Trauma	85.3	95
Wound	71.4	7
Sensation	58.7	254
Skin	70.0	10

**The main locations for treatment were private hospitals (46%) and government hospitals (38%)**

The locations differed by district, with over 65% in Dang visiting a private hospital, compared to 27% in Dolakha and 38% in Lamjung. The richest were most likely to visit government hospitals.

**The methods of transport to receive treatment was focused on public transport, with almost 20% walking.**

**Individuals who did not seek treatment stated this was due to the cost or as the issue was not serious enough.**

Many more individuals with hip or foot issues feared the cost of treatment, while knee and ankle sufferers didn't think it was important enough.

**Little rehabilitative care is obtained—a key plank in health care for LLCs.**

Many respondents tolerated their pain and carried on their daily activities despite their condition



## Key findings—Impact

People with LLCs have been affected physically and emotionally, which has significant effects on their ability to undertake daily activities and capacity to earn.

LLC sufferers may present with disabilities; however, many are keen for opportunities to work, but opportunities are scarce for those with physical impairments.

For some the inability to earn is complicated by difficulties being recognized as disabled, which impacts opportunities for financial aid.

The reliance on assistive devices, in particular crutches and sticks is apparent. Some face a significant challenge in getting quality replacement mobility aids.



*“Sister, you visited the entire village. You might have noticed many people like me. Even though they might not be suffering from the condition I am having, many are suffering from unbearable leg pain. Despite that, they are working and doing their daily activities. They will be at ease if the government could arrange at least basic treatment facility ”*

## Recommendations

The proposals below present individual governments and organisations with options to consider while developing and implementing effective and targeted policies to drive Nepal's efforts in addressing the UN Sustainable Development Goals for health. They will inform specific strategies moving forward in the government agenda for NCDs and for the health care system reform towards universal health coverage.

### **Increase supply of trained professionals in rehabilitation and lower limb medicine**

A long term aim must be to improve access to professionals trained specifically in lower limb medicine and rehabilitation, for example podiatrists, Prosthetists and Orthotists and Occupational Therapists. These professionals should be able to provide medical interventions, rehabilitative management, devices and aids

### **Improve signposting to appropriate professionals**

Evidence from the survey and interviews indicated many individuals did not know how best to get care and from whom. Clear signposting and support to obtain this care in health facilities and communities will improve equitable access to services and devices.

### **Investment in mobility devices**

Very few individuals with long term LLCs has a mobility device that was fit for purpose, or the services available to maintain them Prosthetic and orthotic services need to be strengthened at the local level to support individuals to remain mobile and productive.

### **Equitable access health care and resources**

For LLC sufferers, particularly in remote areas there is a need for improved access to healthcare facilities and resources. A focus on underserved groups would enhance progress towards to the Sustainable Development Goals.

## Contact Details

*Dr Amos Channon*

Associate Professor of Demography and Global Health, University of Southampton

[A.R.Channon@soton.ac.uk](mailto:A.R.Channon@soton.ac.uk)

*Dr Lucy Gates*

Senior Research Fellow, Human Development and Health

[L.Gates@soton.ac.uk](mailto:L.Gates@soton.ac.uk)

*Dr Mahesh Puri*

Co-Director, CREHPA

[mahesh@crehpa.org.np](mailto:mahesh@crehpa.org.np)



**क्रपा**  
**Crehpa**  
**Services**

Kusunti-13, Lalitpur, P.O. Box: 9626, Kathmandu, Nepal

UNIVERSITY OF  
**Southampton**

University of Southampton  
University Road, Highfield  
SO17 1BJ, Southampton, UK