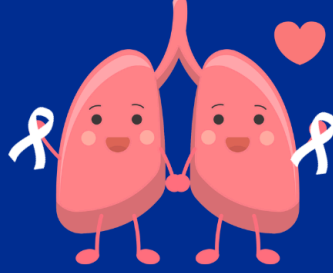


**Lung Health Awareness Program at Lumbini:
Impacts and Future Directions**

Lung Health Awareness Program
फोक्सो स्वास्थ्य सचेतना कार्यक्रम



"स्वस्थकर जीवनको लागि स्वस्थ फोक्सो"

#LungHealthAwareness

२०८० माघ १० गते (24 Jan. 2024)

#HealthyLungsForLife

Organised by



NeFCoS
Nepal Family Cohort Study



NIRI

स्थान र समय

खुदाबागर आदर्श कलेज, सोनबर्षी
लुम्बिनी सांस्कृतिक नगरपालिका, लुम्बिनी, नेपाल ।
११:०० देखी ३:०० बजे सम्म

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FOUNDATION

Prepared by

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Nexus Institute of Research and Innovation (NIRI)
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1. About NIRI

Nexus Institute of Research and Innovation (NIRI) is an independent and not-for-profit-sharing institution in Nepal registered to promote quality research and innovation across the nation and beyond. Established in 2020, NIRI is a team of academicians, researchers and professionals in various disciplines who, along with their academic achievements, have garnered national and international experiences in their fields. NIRI is primarily a research institution that conducts and facilitates research in multi-disciplinary areas. In addition, it aims to facilitate research workshops, awareness campaigns, education, training, mentorship and advocacy activities relevant to Nepal and its people. NIRI aims to bring innovation in cutting-edge research on natural, applied sciences, and social sciences and to promote collaborative research with other institutions nationally and internationally.

Since its establishment, NIRI has been striving to collaborate at Local Levels (*Nagarpalikas and/or Gaupalikas*). We have initiated communication with all 753 local levels of Nepal, of which six Local levels have been directly involved in our activities. The [Nepal Family Health Cohort Study \(NeFCoS\)](#) is one of the projects carried out by NIRI. The overarching aim of the NeFCoS study (led by Dr Kurmi) is to assess the determinants of lung health in rural and peri-urban areas of Nepal and carry out interventions for the prevention and management of lung conditions. The baseline study is ongoing; so far, we have recruited over 13,500 participants (6-14-year-old children and their parents) out of the planned total of 20,000. We plan to follow up on this for the next two decades.

NIRI is actively involved in community engagement through advocacy, mentoring, training and other related activities. NIRI is honoured to receive support from the European Lung Foundation to conduct the #LungHealthAwareness Campaign to promote healthy lungs in Nepal.

2. Background of the Program

According to the World Health Organization (WHO), COPD is the third leading cause of death worldwide, causing 3.23 million deaths in 2019 worldwide. Nearly 90% of COPD deaths in those under 70 years of age occur in low- and middle-income countries (LMIC).

According to a countrywide survey of Nepal [published in 2019](#), Nepal had the world's highest age-standardised death rates for COPD, i.e., 182.5 per 100,000 population. The study reported COPD prevalence range of 6.2% to 16.2% in different provinces of Nepal. The study reported that over three million people out of the 28 million population suffer from respiratory problems, but only three percent of those with lung diseases receive proper treatment. The burden of COPD

in Nepal extends beyond mortality rates, affecting individuals' quality of life and placing a substantial economic burden on existing fragile healthcare systems. The symptoms of COPD can be debilitating, leading to decreased mobility, increased healthcare utilisation, and a significant impact on mental health. Therefore, there is an urgent need for a mass campaign to raise awareness of public health measures for the prevention and management of lung diseases.

The Nexus Institute of Research and Innovation (NIRI) has conducted the #LungHealthAwareness Campaign with financial support from the European Lung Foundation (ELF). We successfully conducted the COPD awareness campaign digitally in light of COPD awareness month by organizing various digital activities. Further, We have conducted the Lung Health Awareness Program in Lumbini Sanskritik Municipality, Lumbini, Nepal in presence of local and provincial governments, healthcare workers, students, parents, teachers, social workers and other stakeholders. We coordinated with Khudabagar Adarsha College to organize this program.

3. Program Overview

Program Date: January 24, 2024

Organiser: Nexus Institute of Research and Innovation (NIRI)

Financial Support: European Lung Foundation (ELF)

Venue Partner: Khudabagarm Adarsha College, Sonwarshi, Lumbini, Nepal

In coordination with: Lumbini Sanskritik Municipality, Lumbini, Nepal

Total Participants: 65

Program Theme:

1. Healthy Lungs for Life (जीवनको लागि स्वस्थ फोक्सो)
2. Your Lungs for Life (जीवनको लागि तपाईंको फोक्सो)
3. Access to prevention and treatment for all. Leave no one behind. (सबैको लागि रोकथाम र उपचारमा पहुँच, कोहि पनि पछि नपरुन्)

Local Message:

1. According to the estimates of the World Health Organization, about 7 million 60 thousand people die every year due to lung health problems.

2. According to the World Health Organization, **COPD** (Chronic Obstructive Pulmonary Disease) is the third leading cause of death worldwide and the leading cause in Nepal.
3. The study showed that 16.4% of the total population of Madhesh, i.e. one in six people (the site where the lung awareness workshop will be held), is infected with lung-related diseases.

4. Program Structure

A day-long lung health awareness program included the following key activities:

1. Welcome to participants and guests
2. Presentation on Lung Health, Global burden of Lung diseases and public health measures of prevention by Dr, Om P Kurmi, NIRI
3. Speech burden of Lung diseases in Lumbini Sanskritik Municipality by Mr. Rajendra Chaudhary, chief of the Health Section, Lumbini Sanskritik Municipality
4. Speech on Lung disease problems in local communities - Mr. Rajesh Kumar Yadav, Incharge, Aama Health Post
5. Speech on the Importance of Multisectoral Collaboration by Ram Yadav, Teacher/Social Worker
6. Importance of fact-based relevant policies to promote the health of a people - Mr. Fakhrudhin Khan, Former member of the Provincial Assembly
7. Role of Local Government to reduce risk factors of lung diseases - Ms. Kalpana Harijung, Deputy Mayor, Lumbini Sanskritik Municipality
8. Importance of research and awareness program on developing country by Prof. Paramjit Gill, University of Warwick, UK
9. Role of School, teachers, and Students to Prevent Air Pollution and lung diseases - Mr. Rambali Yadav, Chief, Khudabagar Adarsha Campus, Lumbini
10. QnA sessions with participants
11. Spirometry, BP and Bioimpedance tests for participants by Nepal Family Cohort Study - Field Researchers

12. Snacks, Photos, and informal discussions

5. Program Details

We successfully organised Lung Health Awareness Program in Khudabagar Adarsha College of Lumbini Sanskritik Municipality, Lumbini Nepal Rupandehi on Jan 24, 2024. Along with the awareness session from experts, a free lung health test was done for the participants and guests. The program aimed to raise public awareness about different forms of lung diseases, their risks, and symptoms and facilitate lung disease prevention measures from a local level in Nepal. In this program, stakeholders like municipality and wards, representatives from the province government, health institutions, members from political parties, teachers, child club, and students and parents participated and put forward their commitment to promote lung health.

As an expert, Dr. Om Prakash Kurmi, Director of Department of Natural and Applied Sciences, NIRI and Principal Investigator of Nepal Family Cohort Study (NeFCoS) presented on the global burden and public health measures of prevention of Lung Health Diseases. He also mentioned the importance of the roles of different stakeholders in its prevention. Dr. Kurmi further explains about the NeFCoS, first of its kind study in Nepal, a longitudinal family cohort study that primarily aims to study the determinants of various health outcomes (particularly lung health) and their causes in both children and adults in Nepal. Hence, he also sent out a message stating that ensuring proper preventive measures such as controlling environmental and occupational pollution, quitting smoking, regular exercise and balance diet would be imperative to reducing lung health diseases.

The administrative officer and research fellow of NIRI Nepal Mr. Suraj Parajuli highlighted that it is very urgent to work for lung health disease prevention with multisectoral collaborations as the issue is multisectoral. He further stated that raising massive awareness in the community and requesting local authorities for lung disease prevention were the major objectives of the program. He highly appreciated the school's, local representatives and other community leaders' commitment towards lung health promotion.

When speaking to youth representatives from Lumbini Sanaskritik municipality, they sent a message to stakeholders for their actions to address this problem urgently. They expressed their willingness to collaborate to ensure no more youth were losing their lives due to lung health. Social worker Mr. Ram Yadav stated that women are majorly in exposure to household smoke from biomass and hence many women already have signs and symptoms of lung problems. She requested the concerned authorities to address this issue and make an easy environment to use electric stoves.

Deputy mayor of Lumbini Sanskritik Municipality Ms. Kalpana Harijung took pride in the fact that Lumbini Sanskritik Municipality was the first municipality in Nepal to start the Nepal Family Cohort Study (NeFCoS) in Nepal and to conduct the lung health awareness program. She added that local authorities in Lumbini and surrounding areas would start working on the issue

from this exact moment, with plans of coordinating among government line agencies in the near future. She ended her statement by saying, "The municipality will provide full support to Nepal Family Cohort Study. We also express our commitment to declare Nepal's first municipality by starting exemplary work such as creating appropriate policies from the results of this health research. We will also prepare a Lung Health Strategy that will be useful for the local level. Former member of province assembly, Hon Fakhruddhin Khan highlighted the importance of relevant policies, multisectoral collaboration and public awareness to prevent and control the lung health problems in Nepal.

As a Chief of the ceremony, Prof Paramjit Gill, University of Warwick, UK, appreciated the organizer and participants of the program. He highlighted the importance of lung health and causes of lung health problems. He further emphasized the importance of research in lower income countries for the policy making and timely intervention of the health problems.

Mr. Rambali Yadav, chair of the program and chief of Khudabagar Adarsha College stated that students are the messengers to bring the message of this burden issue to communities. He also promised to conduct this kind of health awareness program through colleges.

Further, field researcher of our Nepal Family Cohort Study performed the lung function tests of participants and guests. Along with the spirometry test, a Blood Pressure Test and Bioimpedance Test were performed, and the recommendation the test result was unusual.

The program concluded with all municipality representatives, ward chairpersons within the municipality, teachers, students, and parents signing the program banner, symbolizing their commitment to reducing environmental/work-related pollution and a successful program. NIRI also appreciated the field researchers of Lumbini site providing the certificate of appreciation to all field researchers.

6. Outcomes achieved

We have achieved the following outcomes from the program:

1. Awareness to related stakeholders about the burden of lung diseases in Nepal and around the world
2. Public awareness about different forms of lung diseases, their risks and symptoms
3. Public awareness about measures to be taken to prevent various forms/types of lung diseases and the determinants of lung disease at home or in the community and how to be protected from them
4. Schools were encouraged to conduct school-level speech or essay writing programs on topics such as "Respiratory Risks at Home and Society", or "Measures to Prevent Lung Disease" or "Smoking and Its Effects."

5. The health institutions were encouraged to conduct education, training, and informal meetings on lung disease protection among social workers, women health volunteers, health workers, students and civil society.
6. Local government showed their commitment to work on lung health prevention and lung health programs
7. All the guests and participants showed their commitment to prevent the risk factors of lung disease by signing the banner
8. A lung health test was performed on all participants and guests

7. Media Coverage

Local and national media covered the news about the programs and helped to raise awareness about lung health. They played a key role in spotlighting the lung health programs as integral components of a collective effort toward improved public health. Some featured news are as follows:





निरीले गर्यो फोक्सो स्वास्थ्य सचेतना कार्यक्रम

नेकसा इन्स्टिट्यूट अफ रिसर्च एण्ड इन्ोभेसन (निरी)ले फोक्सो स्वास्थ्य सचेतना कार्यक्रम गरेको छ ।

२७ माघ, काठमाडौं । नेकसा इन्स्टिट्यूट अफ रिसर्च एण्ड इन्ोभेसन (निरी)ले फोक्सो स्वास्थ्य सचेतना कार्यक्रम गरेको छ । लुम्बिनी सह पर्यटनको सदरकार्यलय पुनःबाबा लुम्बिनी सांस्कृतिक नगरपालिकास्थित सुदूरपश्चिम अस्पताल अगाडि कार्यक्रम गरिएको हो । कार्यक्रममा प्रमुख अतिथि बेलायतका वार्षिक विधिविज्ञानकार डा. परमजीत शिखरे फोक्सो स्वास्थ्यको महत्व र फोक्सोको स्वास्थ्य राम्रो बनाउनका लागि नयाँ आवाज सुन्नुमा नीति निर्माणका लागि स्वास्थ्य अनुसन्धानको महत्वमा उनले जोड दिए। निरीका प्राकृतिक तथा जैववैज्ञानिक विज्ञान विभागका निदेशक डाक्टर ओजसकर कुमालले फोक्सो रोगको चिह्नबन्दी बोझ र यसका रोकथामका जनशक्तिको उपयोग प्रस्तुत गरे। उनले लुम्बिनीका विभिन्न नेवाल फेमिली कोहेर्ट स्टडी एक दीर्घकालीन पारिवारिक कोहेर्ट अध्ययन भएको र यसले सबै बालबालिका र वरिष्ठमा हुने विभिन्न स्वास्थ्य रिस्कफक्टर (रिस्क गरी फोक्सोको स्वास्थ्य) अध्ययन गर्ने उद्देश्य राखेको बताए। निरी नेकसाका प्राकृतिक र वैज्ञानिक तथा रिसर्च केन्द्र सुदूरपश्चिमी फोक्सोको रोगको रसायन बहुरेख/बहुआयुषिक आधारित बहुमैत्रीय स्वास्थ्यसर्जन रोगको रोकथामका लागि काम गर्न अग्रतम जसरी रहेको बताए । समुदायमा जागरूकता जनाउने र



निरीद्वारा लुम्बिनी सांस्कृतिक नगरपालिकामा फोक्सो स्वास्थ्य सचेतना कार्यक्रम सम्पन्न

lumbini tajakhabar | २०८० माघ १४ | 459 views

विश्व स्वास्थ्य संगठन (WHO) का अनुसार फोक्सो रोग विश्वव्यापी मृत्युको तेस्रो प्रमुख कारण हो, जसले २०१९ मा विश्वभर ३० लाख २ हजारको मृत्यु भएको थियो। ७० वर्ष मुनिका फोक्सो रोगमा हुने मृत्युको झण्डै ९०% कम र मध्यम आय भएका देशहरू (LMIC) मा हुन्छ।

8. Way Forward

Moving forward, sustaining the positive impact of the lung disease prevention program and fostering further progress in neighboring municipalities require a strategic approach and ongoing support. We planned to meet with the neighboring municipalities such as Mayadevi Rural Municipality, and Tilottama Municipality to brainstorm and strategize the lung health awareness program along with the expansion of the Nepal Family Cohort Study (NeFCoS).

The following steps outline the way forward:

1. Regular Follow-up and Monitoring to be planned with Lumbini Sanskritik Municipality and Mayadevi Rural Municipality.
2. Community Engagement and Awareness: stakeholder mapping, Regular workshops, seminars, and awareness campaigns
3. Regular lung function tests and follow-ups.
4. Capacity Building, Training, and Strengthening the Local Level
5. Knowledge Sharing and Networking
6. Expand to More Areas of Lumbini e.g. Mayadevi Rural Municipality, Tilottama Municipality
7. Research and Data Collection.
8. Technical Support from Experts

9. Resources Used

S.N	Particular	Remarks
1.	Program Banner	
2.	Leaflets - 500 Pieces	
3.	Informative Posters	
4.	Stationaries (Cardboard paper, pens, markers, tapes, etc.)	
5.	Transportation Vehicle and Accommodations	
6.	Expert's Knowledge and Time (Volunteer)	
7.	Contribution from NIRI (Awareness Materials/Program design and implementation)	
8.	Accessories for lung function and other tests	
9.	Program Coordination and Outreach	
10.	Venue logistics (Tents and Chairs)	
11.	Snacks and Refreshments	

10. Conclusion

The success of the lung health awareness program in Lumbini Sanskritik Municipality has not only raised awareness among responsible authorities in the municipality but has also sparked a ripple effect of change. The enthusiastic response from the stakeholders showcases the potential for widespread impact when communities come together to address this crucial issues. This report emphasizes the importance of continued efforts in lung disease prevention and the power of collaboration in making our world safer and more resilient. The program concluded with all ward stakeholders signing the banner committing to reduce the environmental and work related pollution. However constant follow-up and technical support to local levels are needed.

11. Acknowledgments

The program would not have been successful without supporting hands from many people. We would like to acknowledge their support and volunteering to make this program so impactful.

1. Prof. Paramjit Gill, University of Warwick, UK
2. Mr. Rambali Yadav, Chief, Khudabadar Adarsha Campus, Lumbini
3. Mr. Balaram Gautam, Genetic Scientist, Decode Genomics and Research Center

4. Field Researchers of Nepal Family Cohort Study (NeFCoS)

12. Annexes

1. Some Glimpses of the Program





2. [Snapshots of the program: A YouTube video](#)
3. [Program Full Video: A YouTube video](#)
4. [Awareness Materials](#)
5. [News featured by Business 360.](#)
6. [News featured by Paluwanews](#)
7. [News featured by Mews Khabar](#)
8. [The story covered by Lumbini Taja Khabar](#)

Thank you.

