



Health and Population Research for Informed Decision Making: Where we are?

## First National Summit of Health and Population Scientists in Nepal

11 - 12 April 2015

Kathmandu, Nepal

# Proceedings Report 2015

Government of Nepal



**Nepal Health Research Council (NHRC)**





**Proceedings Report of**  
**First National Summit of Health and**  
**Population Scientists in Nepal from 11-12**  
**April, 2015, Kathmandu, Nepal**

***Theme:** 'Health and Population Research for  
Informed Decision Making: Where we are?'*

**Organized by**  
Government of Nepal  
Nepal Health Research Council  
RamshahPath, Kathmandu

## Proceedings Report of

**First National Summit of Health and Population Scientists in Nepal from 11-12  
April, 2015, Kathmandu, Nepal**

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## Acknowledgement

I am pleased to bring out this proceeding report of the First National Summit of Health and Population Scientists in Nepal which was held on 11-12 April, 2015 in Kathmandu with a theme 'Health and Population Research for Informed Decision Making: Where we are'. I am grateful toward those who directly or indirectly contributed their time, ideas and efforts to organize this summit successfully for the first time in Nepal. The successful accomplishment of the summit is an outcome of the collective efforts of the organizing and scientific committee. I am grateful to all the members of both organizing and scientific committees. I am also thankful to our research associates, research assistants and volunteers who worked determinedly during the summit. I would also like to extend my gratitude to the Chief Guest, Honorable Minister for Health and Population Mr. Khagraj Adhikari ; the special guest Honorable Member of Constitution Assembly Dr. Bansidhar Mishra; the special guest Honorable Member of National Planning Commission, Dr. Yagay Bahadur Karki; Secretary of Ministry of Health and Population Mr. Shanta B. Shrestha; Emeritus Chairman of Nepal Health Research Council, Dr. Mirigendra Raj Pandey; WHO Representative to Nepal Dr. Lin Aung; and Professor of Tokyo University, Japan Dr. Masamine Jimba ; Chairman of Nepal Health Research Council, Prof. Dr. Dharma Kanta Baskota ; and Director of Epidemiology and Disease Control Division Dr. Baburam Marasini for their glorious presence in the inauguration session. Furthermore, I would also like to extend my sincere thanks to all the members of scientific and organizing committee for their tireless efforts to make this event the historical one.

**Dr. Khem Bahadur Karki**

Member-Secretary (Executive Chief)

**Nepal Health Research Council**



## Executive Summary

The First National summit of Health and Population scientists was organized by the Nepal Health Research Council (NHRC) with objectives of:

- Bringing health and population scientists together to promote evidence based informed decision making process for optimal health and well-being of Nepalese people
- Encouraging health and population scientists and practitioner for responsible conduct of research in health and development
- Discoursing and find out the way forward on emerging health and population issues for strengthening national health system of Nepal.

The program was inaugurated by Honorable Minister of Health and Population Mr. Khaga Raj Adhikari. On the occasion, he assured that the government will always be in a supportive role for the promotion of health research in the country. Government officials, national/international delegates and NHRC officials highlighted the need and importance of quality health research and expressed their appreciation toward NHRC for organizing the summit for the first time in Nepal.

A total of 42 oral presentations and 32 poster presentations were presented in two day summit. The summit was attended by more than 500 participants. Paper presentations were done on the following topic and issues:

Plenary session 1: Public Health Challenges

Plenary session 2: Non-communicable Diseases (NCDs)

Parallel session 1: NCDs and Traditional Medicines

Parallel session 2: Environmental Health and Tropical Medicine

Parallel session 3: Environmental Health and Occupation Health

Parallel session 4: NCDs and Disability

Parallel session 5: Diagnostic Tests

Parallel session 6: Bio-medical Research

Parallel session 7: Nutrition, Communicable Diseases

Parallel session 8: NCD Risk Factors and Morbidity

Parallel session 9: Maternal and Child Health

Parallel session 10: Miscellaneous

The summit was incredibly successful in disseminating findings of health research through a single forum among larger number of enthusiastic and young researchers and scientists. The summit concluded with 13-points Kathmandu declaration.



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## List of Abbreviations

ANC	Antenatal Checkup
CVD	Cardiovascular Disease
DALYs	Disability Adjusted Life Years
DoHS	Department of Health Services
EDCD	Epidemiology of Disease and Control Division
I/NGO	International/Non-governmental Organization
IOM	Institute of Medicine
IQ	Intelligence Quotient
MoHP	Ministry of Health and Population
MSNP	Multi-Sectoral Nutritional Plan
NAMS	National Academy of Medical Science
NCD	Non-Communicable Disease
NHRC	Nepal Health Research Council
NPHL	National Public Health Laboratory
PM <sub>2.5</sub>	Particulate Matter 2.5 micrometers or less in diameter
Q & A	Questions and Answers
RH	Reproductive Health
TDM	Therapeutic Drug Monitoring
UHC	Universal Health Coverage
UN	United Nations
WHO	World Health Organization

# Introduction

## Background

The First National Summit of Health and Population Scientists in Nepal was organized by the Nepal Health Research Council (NHRC) on the occasion of the 24<sup>th</sup> anniversary of its establishment, from 11-12 April, 2015 with a theme of 'Health and Population Research for Informed Decision Making: Where we are'. Two committees: organizing committee and scientific committee were formed to ensure entire management and coordination of the summit.

## Objective

The summit was organized with an aim of maintaining research culture and providing proper platform for dissemination of health research findings for assisting in informed decision making practice. The specific objectives of the summit were as follows:

- To bring health and population scientists together to promote evidence based informed decision making process for optimal health and well-being of Nepalese people
- To encourage health and population scientists and practitioner for responsible conduct of research in health and development
- To discourse and find out the way forward on emerging health and population issues for strengthening the national health system of Nepal.

## Session

There were 11 sessions, including two plenary sessions. Each session was entitled with separate themes of health and population sector. Total of 42 papers were selected for oral presentations and 32 for poster presentations. For this, scientific committee was grouped for presentations under following listed sessions:

Plenary session 1: Public Health Challenges

Plenary session 2: Non-communicable Diseases (NCDs)

Parallel session 1: NCDs and Traditional Medicines

Parallel session 2: Environmental Health and Tropical Medicine

Parallel session 3: Environmental Health and Occupation Health

Parallel session 4: NCDs and Disability

Parallel session 5: Diagnostic Tests

Parallel session 6: Bio-medical Research

Parallel session 7: Nutrition and Communicable diseases

Parallel session 8: NCDs Risk Factors and Morbidity

Parallel session 9: Maternal and Child Health

Parallel session 10: Miscellaneous

## Participants

About 400 participants and 100 distinguished delegates showed their meaningful participation in the summit.

## Inaugural Session

The Summit was inaugurated by the Chief Guest Honorable Minister of Health and Population Mr. Khaga Raj Adhikari. The guests of the inauguration session were Dr. Yagya Bahadur Karki, Honorable Member, National Planning Commission (NPC); Dr. Bansidhar Mishra, Member of Constitutional Assembly and former State Health Minister; Mr. Shanta Bahadur Shrestha, Secretary of Ministry of Health and Population (MoHP); Dr. Mrigendra Raj Pandey, Emeritus Chairman, Nepal Health Research Council (NHRC); Mr. Lin Aung, WHO Representative to Nepal ; Dr. Masamine Jimba, Professor of Tokyo University, Japan; Prof. Dr. Dharma Kanta Baskota, Chairman, NHRC and Dr. Baburam Marasini, Director of Epidemiology and Disease Control Division (EDCD), Department of Health Services. Other invitees at the inauguration session were representatives of External Development Partners (EDPs); International/ Non-governmental Organization (I/NGOs), Nepal Health Research Council's current and former members as well as professors, researchers, graduates and other dignitaries.

## Welcome address by Dr. Khem Bahadur Karki, NHRC

On behalf of the NHRC and Organizing Committee of the First National Summit of Health and Population Scientists of Nepal, Dr. Khem Bahadur Karki, Member Secretary of the Council welcomed all distinguished guests and participants to the Summit. On the occasion, he highlighted the need and objectives of the summit. Recalling the 24

years of history of its establishment, Dr. Karki presented the statistics that total of 1,512 health research proposals have been approved by NHRC of which 300 were approved in the preceding year. With increasing number of health research, he stressed on the need of strong advocacy for utilization of such research findings in designing and developing health programme of the country. He called on for rigorous discussion on 48 oral presentations and 32 poster presentations selected for the Summit. Dr. Karki shared his plan to organize a similar programme every year so that health and population scientists can get a platform to share their research findings. He also requested to the Government of Nepal and External Development Partners (EDPs) to allocate at least 2-5% of the health sector's budget in the research sector as per the ministerial commitment in the international meeting held in Mexico in 2004. At the end, he wished the success of the programme and thanked all the guests, dignitaries and participants of the Summit.

### **Dr. Lin Aung, World Health Organization (WHO) Representative to Nepal**

WHO Country Representative to Nepal Dr. Lin Aung said that public health depends much on research in multiple ways. He said that the breakthrough biomedical research has led to development of new drugs, diagnostics and vaccines. Dr. Aung stressed over the need to broaden the horizon of health research to cover issues on fair financing and social protection which will discover the ways to reach the poorest of the poor and marginalized population of the country.

He emphasized the need of research to unfold the reasons that attribute millions of deaths due to preventable causes despite progress in biomedical research that availed us with the excellent tool and technologies for curing these diseases. According to Dr. Aung, research is needed to tell us if all these money and activities are having an impact on positive outcomes of the programme. He stressed on the need of evidence based research to develop rational health policies and strategies of any country.

Sharing an idea of 'Research for Health' , Dr. Aung said that the concept implies the research efforts on various disciplines and sectors that are applied for improvement on health and underscored its importance in equitable distribution of health resources and reach the unreached, marginalized and vulnerable population of the country.

Highlighting the importance of incorporating health research into policy, Dr. Aung stressed that research is unfinished unless it is synthesized and utilized in health policies and programme of the country. He called for research community to intensify efforts to communicate research findings that could facilitate in decision making process.

With reference to the World Health Report, 2013 entitled 'Research for Universal Health Coverage (UHC) Dr. Aung stressed that investment is not only limited to research but also in mechanism for sharing information. According to Dr. Aung, research provides guidance for better understanding of problems related to UHC and enable to address them in ensuring access to health without financial hardship. In his remark, he stressed that each country should give priority to health research in the local context and solutions should be based on research findings.

#### **Professor Dr. Masamine Jimba from University of Tokyo**

Recalling his experience in Nepal in mid 1990s when research was not prioritized field and 90% of the paper published in international journal about Nepal was written by British, Japanese and American researchers. A lot of progress has been made since then with large number of research papers published in international journal by Nepalese researchers. Narrating his experience in Palestine where faculties continued research even in unfavorable situations with the opinion that research are done for advocacy, Prof. Jimba shared his opinion that advocacy can be done based on research findings. Prof. Jimba stated that Summit can provide an opportunity to strengthen health research in Nepal by sharing of experiences and enhancing knowledge.

#### **Professor Dr. Mrigendra Raj Pandey, Founding and Emeritus Chairman of NHRC**

Professor Dr. Mrigendra Raj Pandey, Founding and Emeritus Chairman of the NHRC shared the history of its establishment which had begun through the establishment of a health research committee under the Ministry of Health and had located in a room of Bir Hospital in 1982.

He shared about the challenges encountered while transforming from research committee to autonomous research council which took around 10 months. He also shared his experience when he turned down the offer to become secretary of Ministry

of Health and requested the Minister for support on passing NHRC Act from the last cabinet interim Government led by Late Prime Minister Krishna Prasad Bhattarai. He shared that the first Chairman of Ethical Review Board of NHRC was Chief Justice of Supreme Court. He recalled how NHRC continued works despite its limited resources. He highlighted the progress made in child survival and achieved of MDGs target. However, in the present scenario, he stated the need of research in NCDs and its prevention and controls.

### **Mr. Santa Bahadur Shrestha, Secretary of Ministry of Health and Population**

Linking programme on cleanliness of Bagmati River, he emphasized the need of research on different diseases that were previously not considered as challenge. He emphasized on the need of formulation of evidence based health policies. According to Mr. Shrestha, in the context where the number of health research is increasing, it is necessary to review on how those research are being used. He shared that Nepal has made an attempt to take forward health sector integrating it with research. Linking research to biodiversity in different geographical terrain and genetic diversity among different ethnic groups of Nepal, Mr. Shrestha shared that we have ample number of opportunities to move ahead. He emphasized on the need of research in dealing with emerging challenges like NCDs in Nepal.

Highlighting the broader field of health research, Mr. Shrestha said that health is an agenda for development and called upon for multi-sectoral collaboration in health research. He shared his expectation that Public Health Act, which is under process, could facilitate the regulation and management of health efforts made from different sectors. He requested young scientists present at the Summit to focus on health research to address major health problems of community people. On the same occasion, he pointed out the need of intra-sectoral coordination among health and other related sectors. In his closing statement, Mr. Shrestha congratulated NHRC family for organizing the first national summit of health and population scientists in Nepal and wished the success of the summit.

### **Dr. Yagya Bahadur Karki, Honorable Member of National Planning Commission**

Dr. Yagya B. Karki, Honorable Member of National Planning Commission started his remarks sharing about new National Health Policy of Nepal 2014 which has emphasized research component as one of the major component. He emphasized that all health policies should be evidence based. Since, achievement of health targets are difficult without realistic projections, he stressed on the importance of NHRC and its role in Nepal. Dr. Karki shared his understanding that research in one context might not be generalizable to all considering variations, differentiations and diversifications in different fields in Nepal. With increasing burden of NCDs while we still have challenges in dealing with communicable diseases, Dr. Karki emphasized the need of prioritization of research areas and resources.

With reference to progress made in social parity index in which Nepal ranks second in South East Asia and increase in life expectancy in recent years, he emphasized the role of health sector in overall social development. Dr. Karki also suggested NHRC to focus research in prioritized sectors that could guide information of effective and cost efficient health program.

### **Dr. Bansidhar Mishra, Honorable Member of Constituent Assembly and former State Minister**

Dr. Bansidhar Mishra, Honorable Member of Constituent Assembly, shared his experiences regarding the establishment of NHRC. There is lots of room for improvement in health research in Nepal. He stressed on the need of database on health system that could be useful in guiding health programme of the country. Sharing about his experience of meeting with Professors of Indian Council for Medical Research which has budget that exceeds the total health budget of Nepal, he pointed out the need of increasing budget in health research. He suggested that research should be conducted round the year on continuous basis. He wishes the First National Summit would be successful in achieving its objectives.

### **Honorable Minister Mr. Khaga Raj Adhikari, Ministry of Health and Population**

Honorable Minister of Health and Population, Mr. Khaga Raj Adhikari thanked NHRC

for organizing the First National Summit of Health and Population Scientists in Nepal and underscored the importance of such program in exchange of information.

Mr. Adhikari highlighted the need of health research to deal with emerging challenges and said that the health research has been prioritized in new National Health Policy of Nepal 2014. He said that researchers should not have problem for fulfilling basic necessity due to low budget and urged the NHRC to take initiative to manage the problem. He asked to regulate and control non-ethical practices, plagiarism and registering hospital and health institutions as research centers to evade tax without conducting research. He further expressed his commitment to allocate at least 2% of health budget for health research. He stressed the need to conduct research on traditional and indigenous medicines taking patency as and when possible. Mr. Adhikari said that source of innovative ideas that is needed for health research could be oriental philosophy and religious sculptures as well. Mr. Adhikari shared his optimism that power of information, research and economy is being shifted to Asia and Nepal could harvest maximum benefits from it. At the end, Mr. Adhikari requested researchers to conduct quality research without worrying about the budget and wishes the success of summit.

#### **Prof. Dr. Dharma Kanta Baskota, Chairman, NHRC**

Prof. Dr. Dharma Kanta Baskota, Chairman, NHRC, shared about conducting innovative research, regulating health research and facilitation in utilization of health research as major objectives of the council. Presenting the National Health Policy 2014 as guiding principle, Prof. Baskota highlighted the need of upgrading quality of health research to international standard to facilitate the utilization of health research findings in health policy, planning and development of treatment protocols.

As valuable herbs were exported abroad as a raw product and refined and processed medicines are being imported paying high price, Prof. Baskota underscored the need of research in Ayurveda and expressed his optimism that this could be one field in which Nepal could rank in the first position in the world. He emphasized need to create research conducive environment and retain medical graduates within country. With reference to the outcome of National Workshop on Neglected Tropical Diseases

recently completed by NHRC and WHO, Prof. Baskota stressed on the need to develop anti-venom within country to deal with the problem of snakebite in Nepal.

At the present time, NHRC can only be considered as an authentic and reliable body for conducting research in Nepal added Prof. Baskota. He further stated that all health research should be ethically cleared from the Council and urged that every research with international grants should entered through the council so that it could create database of health research and facilitate in decision making process. Prof. Baskota shared his opinion that provision of different award for health researchers will attract health and population scientist to conduct health research. Prof. Baskota requested the Ministry of Health and population to help in allocation of at least 2% of national health budget to health research in line with international commitment. He further added that NHRC is playing a pivotal role for bridging gap between researchers and policy makers. At the end, he hoped that the summit will provide platform for health researchers for developing networking and collaboration.

## Technical session

### 3.1 Oral Presentation

#### 3.1.1 Plenary session 1: Public Health Challenges

Chairs: Dr. BD Chataut, Former Director General , DoHS

Dr. Tirtha Rana, Public Health Expert , Nepal Public Health Foundation

Topics	Presented by
1) Dignity and Health: from clinical practice to public health action	Prof. Dr. Masamine Jimba
2) Climate change and public health in Nepal	Dr.Khem B. Karki and Dr. MeghnathDhimai
3) Status of ambient air quality in Kathmandu valley assessed by PM 2.5	Mr. Purushottam Dhakal

Prof. Dr. Masamine Jimba covered in his presentation about dignity lost, dignity in clinical practice and the road to dignity in public health. He started his presentation on the dignity and health with some recent examples of dignity lost. He gave several examples from Palestine and concluded that for ongoing conflicts, 'dignity' is a daily

issue. Similarly, in clinical practice, 'dignity' is a daily issue even without conflicts. He presented about the Road to Dignity by 2030 for ending poverty, transforming all lives and protecting the planet. At the end, he presented the agenda that must be addressed in Sustainable Development Goals to ensure healthy lives. They are:

- \* Universal health coverage, access and affordability
- \* End preventable maternal, newborn and child deaths and malnutrition
- \* Ensure the availability of essential medicines
- \* Realize women's reproductive health and rights
- \* Ensure immunization coverage
- \* Eradicate malaria and realize the vision of a future free of AIDS and tuberculosis
- \* Reduce the burden of non-communicable diseases, including mental illness, nervous system injuries and road accidents
- \* Promote healthy behavior, including those related to water, sanitation and hygiene.

Dr. Khem B. Karki's paper gave an overview of climate change and public health situation in Nepal. He mentioned that there are very few studies on area of climate change and health in Nepal, and these studies showed that public health status in Nepal has been adversely affected by direct impact of climate change like heat stress, drought, and heavy rain etc. Furthermore, he explained that those conditions have directly or indirectly affect all spheres of population, but low income population are more vulnerable and severely affected.

Mr. Purushottam Dhakal presented about status of Ambient Air Quality ( $PM_{2.5}$ ) in Kathmandu Valley. He argued that this sort of research on ambient air quality in Kathmandu valley measuring  $PM_{2.5}$  was conducted for the first time in Nepal and explained that among the three stations installed, Putalisadak station measured highest level of  $PM_{2.5}$  compared to Mahalaxmasthan, Lalitpur and Jagati, Bhaktapur. He also said that the highest level of  $PM_{2.5}$  was measured between at 6-9 am on morning of round  $74\mu\text{g}/\text{m}^3$  and lowest level between 0-3 am with value of  $PM_{2.5}$  below  $40\mu\text{g}/\text{m}^3$ . He suggested that sources of emission should be identified and the government should take initiation to control pollution level.

## Q & A Session

Floor responded with positive comments over topics presented under public health challenges. Most of participants raised concern over role of dignity in general population health status in developing countries like Nepal, and in response to concern, presenter

answered there is a significant role of dignity in maintaining health status mainly in mental health. Similarly, to other presented topic, participants agreed with presented findings and expressed opinions that climate change and environmental health should get enough concern in research as well as policy and planning.

### 3.1.2 Parallel Session 1: NCDs and Traditional Medicine

Chaired by: Prof. Dr. Madhur D.Bhattarai, Professor of Medicine , NAMS

Dr. Rishi Ram Koirala, Senior Consultant Ayurveda Physician

Topics	Presented by
1) Urinary iodine excretion and thyroid function status in school age children of hilly and plain region of Eastern Nepal	Mr. Prem Shakya
2) Prevalence of asymptomatic Bacteriuria in adult diabetic patients attending Manipal Teaching Hospital	Dr. Ajay Adhikari
3) Depression among patients with type 2 diabetes in Nepal: An analytical cross-sectional study in clinical settings in Nepal	Dr. Saira Joshi
4) The effectiveness of <i>Karela</i> compared with Vijayasar in the management of Madhumeha	Dr. Om P Kalouni
5) Knowledge diversity and resources of traditional healers and healing practices in Western Development Region of Nepal	Dr. Rajaram Dhungana

Mr. Prem Shakya presented on a topic entitled 'Urinary iodine excretion and thyroid function status in school age children of hilly and plain region of Eastern Nepal'. The main objective of his study was to investigate the urinary iodine excretion (UIE), thyroid function status and household salt iodine content (SIC) in school-aged children and to establish the relationships between them. He concluded his presentation with recommendations and suggestions that collaborative universal salt iodization (USI) programmes are improving the health of children in the studied two districts of eastern Nepal: Tehrathum and Morang. The study also showed that excessive iodine in a large portion of the study groups is a substantial concern and iodine intervention programs need to deal with both deficient and excessive iodine scenarios that can both be present simultaneously in study populations.

Dr. Ajay Adhikari's paper dealt with prevalence of symptomatic Bacteriuria among diabetes patients which was about 10 % and most common organism was *Escherichia coli* followed by *Klebsiella pneumoniae*. Regarding sensitivity he mentioned that all

*Escherichia coli* were sensitive to Nitrofurantoin and Imipenem and 88.9% sensitive to both Aminoglycosides and Fluroquinolones. All *Klebsiella pneumoniae* were sensitive to Fluroquinolones, Co-trimoxazole and Imipenem and 50% sensitive to Penicillin, Nitrofurantoin and Aminoglycosides. He concluded in his presentation that asymptomatic Bacteriuria (ABU) was highly prevalent in adult diabetic patients and screening for ABU is warranted in a diabetic patient if the duration of diabetes is more than five years and poor glycaemic control.

Dr. Saira Joshi's paper discussed about prevalence of depression among diabetic was about 44.1% and it was mostly associated with female, house-maker, elderly population, low socio-economic class, people without formal education and insulin users. She concluded with a recommendation that depression is high among diabetic patients attending in clinical settings in Kathmandu, Nepal and effective measure should be taken for prevention and control of depression in diabetic patients.

Mr. Om P Kalouni presented experimental study on management of diabetes among 64 diabetes patients which said that Karela is a safe and effective medicine in the management of diabetes and it is as effective as vijaysar. However, he also stressed that Karela should be used cautiously in patients at risk of hypoglycemia.

Dr. Rajaram Dhungana presented findings of a study conducted by the NHRC on 'Knowledge Diversity and Resources of Traditional Healers and Healing Practices in Western Development Region of Nepal'. He presented that major source of traditional knowledge was forefathers and Gurus. He concluded that majority of traditional healers possesses vast diversity of traditional healing practices and resources, equally present in every parts and ethnic groups and mainly utilizing medicinal plants for treatment.

## Q & A Session

There is a huge meaningful participation and response from the participants in this parallel session too. Most of the participants were more concerned about depression among diabetic patients, and were interested to know about depression problem among general population and other disease affected group. Some of the participants also asked questions regarding Karela study, like about the ethical approval and measures to applied to control confounding on study etc. On response to queries and comments forwarded from participants, presenter tried their best to answer every query thoroughly.

### 1. 1.3 Parallel Session 2: Environmental Health and Tropical Diseases

Chair by: Prof. Masamine Jimba , Tokyo University

Dr. Basudev Pandey, Director, Leprosy Control Division

Topics	Presented by
1) Clinical, serological and entomological features of Dengue virus infection	Mr. Pravin Paudel
2) Factors associated with the spread of Dengue fever in eastern Nepal	Dr. Surya Parajuli
3) Early effects of climate change on vector-borne disease in Nepal- a systematic review	Dr. Meghnath Dhimal
4) Knowledge and preventive practices related to Avian influenza among poultry workers of Kamalamai Municipality, Sindhuli	Mr. Ramesh Shrestha
5) Knowledge and practice on safe use of pesticides among farmers in rural area of Kaski district	Ms. Ashmita Ghimire

Mr. Pravin Paudel's, presentation attempts to highlight the importance of clinical features along with hematological features to establish prognosis of dengue fever before commencing costly, time consuming and sophisticated serological and molecular tests of dengue.

Dr. Surya Parajuli's paper dealt with factors associated with spread of dengue fever in Eastern Nepal. He highlighted households having flower vases with water holding plate, uncovered overhead water tank and uncovered water container in the bathroom were the significant risk factors for dengue outbreak in Eastern Nepal.

Dr. Meghnath Dhimal presented a systematic review on early effects of climate change on vector-borne diseases in Nepal. He highlighted that there were limited studies in Nepal which shows association between climatic factors and vector-borne diseases (VBDs) in Nepal. However, based on available studies that the establishment of relevant disease vectors at altitudes of already at least 2,000 m above sea level, increasing trade and movements of people, a lack of vector control interventions and gender difference in diseases incidence, climate change can intensify the risk of VBD epidemics in previously considered non-endemic areas e.g., in the mountain region.

Mr. Ramesh Shrestha presented about knowledge and preventive practices related to avian influenza among poultry workers of kamalamai municipality, sindhuli. His findings shows there is low knowledge and practice of avian influenza among poultry workers.

Mr. Ashmita Ghimire presentation revealed that level of knowledge and practice

regarding safe use of pesticide is still poor among farmers in rural area of Kaski district and demands more awareness programme at community level.

## Q & A Session

In this session, a number of questions were raised from participants mainly on dengue and its control. Questions were related to methodology, sample size, methods of systematic review and sensitivity and specificity of test methods. All the raised questions were satisfactorily answered by presenters.

### 1.1.1 Plenary session 2: Non-Communicable Disease

Chair by: Dr. Guna Raj Lohani, Chief of Curative Service Division . MoHP

Topics	Presented by
1) Effects of social determinants of health in achieving universal health in achieving universal health coverage in Nepal	Dr. Baburam Marasini
2) The prevalence of metabolic syndrome in South Asia: a systematic review	Dr. SharadaWasti
3) Burden and determinants of NCDs risk factors in Nepal	Dr. Krishna Kumar Aryal
4) A snapshot of 1001 children presenting with cerebral palsy to a children's disability hospital	Dr. Bibek Banskota

Dr. Baburam Marasini's paper explained that Nepal has many social determinants of health e.g. lower economic status, high unemployment rate, poor water supply and sanitation, unsecure food and nutrition, improving women empowerment etc. He explained that Nepal has high smoking rate, high alcohol consumption rate, high indoor air pollution concentration, and increasing accident and violence rate. These factors including other social determinants of health can be crucial factors behind the success of the UHC scheme. He further said that current achievements in indicators of maternal health, child health, and control of major communicable diseases are the results of improvement in health service delivery as well as the improvement in the social determinants of health as well.

Dr. Sharad Wasti's paper discussed about systematic review on metabolic syndrome (MS) on South Asia. Dr. Wasti explained that there yielded 16 relevant studies comprising 14,515 males (44.1%) and 18,390 females (55.9%). The weighted mean prevalence of metabolic syndrome was 14.0% (WHO), 26.1% (ATPIII), 29.8% (IDF) and 32.5%

(modified ATPIII). He further explained that Low levels of HDL and hypertension were prevalent in half of the study population. Overall, females had a high prevalence of MS under all definitions except World Health Organization (WHO).

Dr. Krishna K. Aryal explained about prevalence of low fruit and vegetable consumption, overweight and obesity, raised blood pressure and raised total cholesterol are marked high among the Nepalese population, with variation by demographic and ecological factors and urbanization. He further stressed that prevention, treatment and control of NCDs and their risk factors in Nepal is an emerging public health problem in the country, and targeted interventions with a multi-sectoral approach need to be urgently implemented.

Dr. Bibek Banskota presented snapshot of 1001 children presenting with cerebral palsy to a children's disability hospital. He made a conclusion that the etiology in developing countries are largely related to birth related complications and post-natal infections. There is an urgent need to address preventable causes of cerebral palsy in Nepal.

## Q & A Session

Participants participated actively in this session too. Various questions were raised by the participants related to different papers. Participants asked the questions like if the birth related defects are the major cause of cerebral palsy, then why this issue has not been incorporated under Safe motherhood programme. Likewise other participants asked about categorization technique of the study and about the burden related issue on Non-communicable diseases.

Presenter answered briefly to the questions of the participants, Dr. Banskota responded that they are not the right authority to respond the queries but in future they will work for its solution. Similarly, he briefly explained about categorization technique of the research. Regarding question on burden of non-communicable, the presenter responded that in the article burden word simply represents magnitude of problem rather than the DALY's etc.

### 1.1.1 Parallel Session 3: Environmental and Occupational Health

Chairs by: Dr. Krishna Prasad Poudel, Director of Child Health Division

Dr. Harihar Wasti, Professor , IOM

Topics	Presented by
1) Presence of toxic heavy metal in children's toys in Nepal	Er. Mr. Manish Thapa
2) Bio-monitoring of Mercury contamination in human body and policy influence in Nepal	Mr. Ram C. Shah
3) Blood lead levels of primary school children in Kathmandu Municipality, Nepal	Dr. Ojaswei Sherchand
4) Dust and bio-aerosols exposures assessment of poultry farm workers in Kathmandu, Nepal	Mr. Kanchan Thapa

Mr. Manish Thapa presented on presence of toxic heavy metal in children's toys in Nepal. His study depicted that sale of unsafe toys in market put the children's health in risk. He urged for immediate attention and market intervention from citizen and concerned government bodies. Study recommended to endorse policy, act, standard, and labeling and certification system to regulate chemicals in children products, regularly monitor development process and develop chemical safety roadmap of the country.

Mr. Ram C. Sah's paper revealed clearly about the high occupational exposure of mercury in Nepal. Based on these findings, a rooted advocacy campaign for mercury free health care services and dentistry of CEPHED's pressurized the Government of Nepal, Ministry of Health and Population to take effectively, timely and visionary decision of banning 'Import, Purchase and Use' of mercury based equipment, effective from 16 July 2013. It needs to be included in mercury dental amalgam ban too, which should be effectively implementation by all concerned bodies.

Dr. Ojaswei Sherchand's paper discussed about blood lead level of primary school children living in homes with chipping walls, lower socio-economic status and residing near traffic congested areas have significantly higher lead level and showed significant negative correlation with Intelligent Quotient (IQ).

The study conducted by Mr. Kanchan Thapa showed that PM concentration exceeded the WHO standards. The fungal and bacterial status indicated to be hazardous conditions along with PM concentrations. He suggested for immediate preventive measures in order to protect the health of workers .Further, epidemiological studies to assess the health status with large sample size, less biases were recommended to be carried out by a multidisciplinary research team.

## Q & A Session

Like in an earlier session, this session also continued with active participation from participants. Participants' queries varied from ethical issue to statistical part. Example: For blood lead level examination among student was an ethical aspect maintained, control group selected for study etc. Presenter briefly explained issue raised by participants like, for ethical clearance permission was taken from the responsible authority and guardian, teacher.

### Parallel session 4: NCDs and Disability

Chairs: Prof. Dr. Bhagwan Koirala, Manmohan Cardiothoracic Vascular and Transplant Center

Dr. Abhinav Vaidya, Associate Professor , Kathmandu Medical College

Topics	Presented by
1) Disability themed community diagnosis of rural population in Dhulikhel: A different standpoint	Mr. Suman Baidaya
2) Alcohol consumption among married women of reproductive age in Nepal	Prof. Dr. Narbada Thapa
3) Digoxin prescribing in Tertiary Heart care center of Nepal	Ms. Renu Karki
4) Short term CVD risk prediction of 40-70 years age population: a community based cross-sectional study in Nagarjun Municipality, Kathmandu, Nepal	Dr. Raja Ram Dhungana

A presentation of Mr. Suman Baidya showed the fact that the most common disabilities among population are due to musculoskeletal followed by dyspnoea and urinary incontinence. He suggested that the use of low-cost aid and physiotherapy treatments can be beneficial for the community.

Prof. Narbada Thapa explained that alcohol consumption by women of reproductive age is in considerable proportion and more than 90% of them consume homebrewed alcohol. She said ethanol concentration in homebrewed alcohol was not less than the commercial alcoholic beverages, the use of these HBAB among women may harm to the developing fetus and cause serious ill effects even after birth. So, based on research finding she suggested policy makers to implement a program to reduce alcohol consumption, especially among high risk groups 'women of reproductive age' and 'pregnant women' to prevent alcohol related morbidity and mortality throughout the pregnancy to childhood as well as the mother.

Ms. Renu Karki's paper talked about digoxin prescription on patients in the tertiary care center of Nepal. Her paper revealed that patients were on continuous digoxin

regimen, whereas two third of patients were on interrupted regimen. Digoxin dosing was not adequate among study patients; under dosing was found in half of patients on the basis of clinical response. Her finding suggested that practice of therapeutic drug monitoring (TDM) of digoxin should be made mandatory to assure the dosing adequacy of digoxin and to minimize the possible toxicity due to drug.

Dr. Raja Ram Dhungana's research findings indicate that the study population is at high risk to develop CVDs in near future. Lifestyle modifications and pharmaceutical interventions to manage the risk factors among study population are highly recommended.

### 1.1.1 Parallel Session 5: Diagnostic Test

Chairs: Prof. Dr. JB Sherchand, Co-ordinator of Ethical Review Board, NHRC

Prof. Dr. Subodh Adhikari, Professor of Surgery, NAMS

Topics	Presented by
1) Gastric aspirate shake test for prediction of Hyaline membrane disease in preterm babies.	Dr. Arvind Shah
2) Comparison of thin layer agar and Lowenstein-Jensen culture for diagnosis of Tuberculosis	Mr. Sanjay Gautam
3) Time interval between onset of abdominal pain and uncomplicated appendicectomy	Dr. Shreedhar Aryal

Dr. Arvind Shah explained prediction about Hyaline membrane disease of hyaline disease in preterm babies. He explained shake test on gastric aspirate is a rapid, simple and inexpensive procedure. He stressed on shake test as high utility in a country like Nepal where advanced facilities are not available everywhere so early transfer to specialized hospital can be expedited.

Mr. Sanjay Gautam explained that comparable sensitivity with Lowenstein-Jensen (LJ) culture method along with rapid turnaround time, low level of contamination and requirement of low consumables has made TLA a valuable option for low income countries.

Dr. Shreedhar Aryal's paper suggests that it is prudent to undergo appendicectomy within 28 hours of the onset of abdominal pain to avoid complicated appendicitis.

### 1.1.1 Parallel session 6: Biomedical Research

Chairs: Dr. Geeeta Shakya, Director, NPHL

Dr. Sameer Mani Dixit, Reserch Director, Center for Molecular Dynamics Nepal

Topics	Presented by
1) <i>Streptococcus pneumoniae</i> and <i>Haemophilus</i> Spp. colonization in health care workers: the launch of invasive infections?	Mr. Hosuru Subramany Supram
2) Determination of minimum inhibitory concentration of vancomycin to Methicillin resistant <i>Staphylococcus aureus</i>	Mr. Arjun Ojha Kshetry
3) Anemia, iron deficiency and iodine deficiency in Nepalese school children	Mr. Saroj Khatiwada

Mr. Hosuru Subramany Supram explained that HealthCare Workers (HCWs) were suffering more with Pneumococcal and/or Haemophilus species compared to non-HCWs. His paper further discussed that there was a significant association between smoking and pneumococcal colonization. Amongst HCWs, interns had higher rates of colonization (29.6%) followed by residents (18.5%), least being amongst the laboratory workers (8.6%).

Mr. Arjun Ojha Kshetry explained that there is an increasing rate of Methicillin Resistant *Staphylococcus Aureus* (MRSA) infection. However, none of the MRSA isolates were vancomycin intermediate-resistant (VISA) or vancomycin-resistant (VRSA). Similarly, resistance to-lactam antibiotics like penicillin is mediated not only by -lactamase production rather there are other mechanisms behind this.

Mr. Saroj Khatiwada explained that iron deficiency and anemia seems to be the major problem in Nepalese children than iodine deficiency. Iodine deficiency is more common in the iron deficient and anemic children than in iron sufficient and non-anemic children.

### Q & A Session

Biomedical research session also received high participation and queries. In this session also, as in previous session queries varied from definition to appropriateness of test used to carry out data analysis. Presenters explained definition adopted for study and further more they tried to analyze data according to suggestions made in sessions.

### 1.1.1 Parallel session 7: Nutrition and communicable disease

Chairs: Dr. Laxmi Raj Pathak, Public Health Expert

Mr. Kedar Parajuli, Senior Public Health Administrator, District Health Office, Lalitpur

Topics	Presented by
1) Tracking implementation of multisector Nutrition plan(MSNP) in Nepal	Ms. Indu Sharma
2) Energy Drink: Knowledge and perception of consumers and quality parameters	Mr. Baburam Humagain
3) HIV infection among wives of labor migrants in Nepal: a mixed method study	Mr. Subash Thapa
4) Anxiety and Depression among Tuberculosis patients in Kathmandu, Nepal	Mr. Jeevan Devkota

Ms. Indu Sharma presented a paper that is designed to understand the complex process of implementing a national multisectoral nutrition effort to reduce under-nutrition. She claimed that it is a rigorous, longitudinal research activity, and only preliminary results of study are available which were presented.

Mr. Baburam Humagain explained that the energy drinks available in the market contain high sodium, sugar and caffeine; the composition is not uniform and the consumers are not aware about the usefulness of the energy drinks.

The study of Mr. Subash Thapa suggested that programmes that are designed to reduce the transmission rates of HIV should consider interventions among general population such as access to basic education, micro-financing programs for income generation and mass awareness programs about HIV prevention and the targeted interventions should include: providing gender-related training to local women's groups, involving men in local level HIV-related programs and providing individual or group counseling to the migrant laborers about HIV risks.

The main objective of Mr. Janardan Devkota's paper was to assess the Health related Quality of life (HRQoL) and Anxiety- Depression among Tuberculosis patients in Kathmandu, Nepal. He highlighted that majority of domain of HRQoL male had higher score than female. Furthermore, he explained that HRQoL were found poor, MCS was below in average in majority of participants even though few needed clinical intervention. Paper also showed that all respondents in the study exhibited anxiety and depression co-morbidities.

### Q and A Session

In the nutrition and communicable disease session, there was also enthusiastic and active participation. Since the research varied from programmatic research to

communicable disease research, queries were also various. Some suggested amount should have been mentioned in Dr. Humagain study. Similarly, some raise concern over term curable used for HIV/AIDS by Mr. Subash Thapa and other also asked queries to Mr. Thapa about the scale used for assessment of socio-economic status in research.

Dr. Humagain replied that amount of energy drink was not studied in this part of research. He suggested for an extensive research on this issue. Similarly, Mr. Thapa replied though HIV itself in incurable disease but by adopting particular prescription one can live healthy life as normal one. Further he explained that he use both qualitative and quantitative technique to assess socio-economic status.

### 1.1.1 Parallel Session 8: NCDs Risk Factors & Morbidity

Chairs: Dr. Pushpa Chaudhary, Director General , DoHS

Prof. Dr. Narbada Thapa, Principal of College of Nursing, Nepal Army Institute of Health Science

Topics	Presented by
1) To determine the risk factors associated with ectopic pregnancy	Mr. Nirajan Bhattarai,
2) Study on the <i>Chhaupadi</i> and delivery system on Misconceptions on menstruation and delivery and their effect on women's health in Bajura, District Nepal	Mr. Chetraj Pandit
3) The role of reproductive health education in the occurrence of uterine prolapsed among suburban Nepalese women	Ms. Anjana Dhakal
4) Factors affecting post-partum amenorrhea in Nepalese women	Ms. Ira Shrestha

The presentation of Mr. Nirajan Bhattarai discussed that abdominal pain was the single most common clinical presentation of ectopic pregnancy. He explained that most identified risk factors were abortions and emergency contraceptive followed by PID, infertility, Depo-Provera, IUCD, and previous ectopic pregnancy.

Mr. Chetraj Pandit's paper talked about Chaupadi and delivery system, in which, he found that a larger proportion of women still believe in old unscientific tales, which lead to different health related problem. And he made the suggestion on paper that there is a need for education and awareness among women.

Ms. Anjana Dhakal presented that statistically significant relation was obtained between uterine prolapsed and reproductive health literacy among suburban women adjusted

for women's age, ethnicity, and monthly income. She suggested through article that women in the suburban Nepal require awareness raising and behavioral change interventions. Also, women need education about the health care facilities that are made available by different public or private sectors to improve maternal health and well-being in Nepal.

Ms. Ira Shrestha's study revealed that survival of child was the most important indicator for PPA among Nepalese women. She further claimed that the gender of the child and place of residence did not make any difference with respect to PPA. Mothers with birth interval of 3-4 years had lesser risk of return of monthly cycle.

**3.1.11 Parallel Session 9: Maternal and Child Health**

Chairs: Dr. Laxmi Raj Pathak, Public Health Expert  
 Dr. Mahesh Puri, Associate Director, CREHPA

Topics	Presented by
1) Scaling-up and evidence-based intervention for improving maternal and child health in Nepal	Mr. Ram Chandra Silwal
2) Four ANC checkups and institutional delivery in Nepal: The need for small area estimates	Dr. Suresh Mehata
3) Paternal factors are associated in access to institutional delivery utilization in Nepal	Mr. Dharma N Bhatta
4) Predictors of incompleteness of immunization among the children residing in the slums of Kathmandu valley	Ms. Sumina Shrestha
5) Choices, shift and continuation of temporary contraceptive methods among women of reproductive age in western development region	Mr. Padam Kanta Dahal

Mr. Ram Chandra Silwal presented that women-centered and community-based interventions were implemented for four years in the intervention area. The intervention included mother group education, social mobilization and support to outreach clinics. The evaluation of interventions showed a greater impact on the understanding of services during pregnancy, delivery and post-partum period including essential newborn care. Behavior change is considered as a sustainable approach; however affected by several confounding factors. The approach is suggestive to expand in other settings and context and to incorporate into a national strategy for promoting health.

Dr. Suresh Mehata presented that likelihood of having four ANC checkups and having institutional delivery was more common among those resides in eastern Terai, Kathmandu valley and Western region. Those residing in Mid-western hill and mountain

districts, Far-western hill and mountain districts and central Terai districts were less likely received their four ANC check-up and institutional, compared to other Terai or hill districts.

Mr. Dharma N Bhatta's study showed that ages, income, numbers of children, education of the husband were common factors for the utilization of institutional delivery to their wife. Study revealed that male involvement is crucial in maternal health service. Mr. Bhatta suggested that more structured way to target unlike segments of the population, enchanting synergy effects among several social determinants into deliberations, are required in order to guarantee maternal health service for all Nepalese women.

Ms. Sumina Shrestha study showed that incompleteness immunization by 12 months of age is significant among the children in the slums. She suggested that it should be addressed by increasing awareness about immunization and retention of card through educational and communication channels focusing especially among teenage care-takers and those living on rent.

Mr. Padam Kanta Dahal explained that Depo-Provera was used by majority of reproductive age group of married women. The study suggested for proper choice; promotion and education of modern contraceptive methods. He further said that there is a need for continuous enlightenment on contraceptives focusing particularly on the side effects. Health care providers should be also be trained in this regard.

## Q & A Session

This session discussed with technical aspect of research methods and methodology. In this session, Dr. Sameer Mani Dixit forwarded query and suggested to Ms. Sumina Shrestha, Mr. Ramchandra Silwal, and Mr. Dharma Nath Bhatta respectively in the issues like how did she assess the immunization status, to use term house maker instead of housewife and how does the sample represents whole Nepal?

Likewise, Mr. Puri explained that most of the research we are doing lack robust statistical analysis so there is low policy level implication of such research. He encouraged researcher to have more advanced form of research.

### 3.1.12 Parallel Session 10: **Miscellaneous**

Chairs: Prof. Yogendra Pradhananga, National Institute of Health Science

Ms. Durga Mishra, Associate Professor, Manamohan Memorial Institute of Health Science

Topics	Presented by
1) Smoking susceptibility and intention to smoke among secondary school adolescents in Nepal	Dr. Umesh Raj Aryal
2) Tobacco history, financial burden of tobacco and out of pocket health expenditure among smokers admitted to a tertiary care center in eastern Nepal	Dr. Reshu Agrwal Sagtani
3) Tobacco use during pregnancy and its associated factors in a mountain district of eastern Nepal	Mr. Ramesh Barakoti
4) Workplace interventions for reducing sitting at work	Mr. Nipun Shrestha
5) Demand and access to mental health services: a qualitative formative study in Nepal	Mr. Nagendra Luitel

Dr. Umesh Raj Aryal's presentation talked about smoking susceptibility and intention to smoke among Nepalese school going adolescents. The paper presented by Mr. Aryal Paper showed that there is smoking susceptibility and intention to smoke is prevalent among school adolescents. Different factors like smoking susceptibility and intention to smoke, sex, friend smoking, offered free cigarettes, parental smoking and exposed to smoking in outdoor public places are responsible to become susceptible and intention to smoke. He further explained that an understanding of the influencing factors of adolescents provides important insight for comprehensive school based tobacco intervention programmes.

Ms. Reshu Agrwal Sagtani's paper identified that there is a need to educate people regarding the economic ill effects of tobacco consumption. She suggested that there is need to develop affordable and accessible health financing schemes which will protect people from financial risks and catastrophic health care expenditure in the future.

Mr. Ramesh Barakoti's paper showed that there is requirement of tobacco-focused interventions for antenatal women to promote cessation among user and initiation of preventive aspect focus on illiterates, high parity, alcohol user and women with tobacco user family member(s).

Mr. Nipun Shrestha explained that there is very low quality evidence that sit-stand desks can reduce sitting time at work. The effects of policy changes, information and counseling are inconsistent. His paper further briefed that there are many ongoing trials and this might change these conclusions in the near future.

Mr. Nagendra Luitel's study identified barriers to access care in Nepal that reach beyond the health facility and into the social fabric of the community. He further explained that stakeholders in PRIME's (Program for Improving Mental Health Care) integrated care plan advocate strategic awareness raising initiatives to improve the reach of integrated services in the low-income setting.

### **3.2 Poster Presentation**

In two day session, 32 number of poster presentations were shown. (Annex 1)

### **4. Closing session**

The closing session was marked with remarks from Dr. Baburam Marasini, Director of Epidemiology and Disease Control Division (EDCD) and other government official from different divisions of Department of Health Services (DoHS). In the closing session, different awards like young scientist award, mid-career scientist award, senior scientist award, best paper award and best NHRC employer award of the year were awarded. The closing ceremony was concluded with 13- points Kathmandu declaration (Annex 2) recited by Prof. Dr. Jeevan Sherchand.

# Annexes

## Annex 1

### List of Poster presentation

S.N.	Title	Authors	Email
1	A Study on Epidemiological Profile of Dengue Cases in Eastern Nepal	Surya B. Parajuli, Paras K. Pokharel, Anup Ghimire, Murari Lal Das, Basudha Khanal, Heera KC	drsathii@yahoo.com
2	Problems faced by Antiretroviral (ARV) Drug Users in Kathmandu Valley	Sujata Shakya	shaksujata@yahoo.com
3	Adolescents' opinions about cigarette smoking: a qualitative study in peri-urban area of Bhaktapur District, Nepal	Umesh Raj Aryal, Lene Povlsen, Max Petzold, Alexandra Krettek	<a href="mailto:aryalumesh@gmail.com">aryalumesh@gmail.com</a>
4	Practice related to pesticide use and health hazards amongst pesticides user farmers in Gotikhel, Lalitpur	Sushant Ghimire, Dhundi Raj Sharma, Naveen Shrestha, Saruna Ghimire	sushant.nakhipot@gmail.com
5	Prevalence and antibiotic susceptibility test of staphylococcus aureus isolated from skin and soft tissue infection	Suman Shrestha, Bidya Shrestha, Sabita Bhatta, Raina Chaudhary	gorkhalisuman@yahoo.com
6	Does domestic violence matters use of family planning service in Nepal?	Pradip Raj Tiwari	pradiptiwary9@yahoo.com
7	Detection of parasites from the school going children under fifteen year's age of Lalitpur district, Nepal	Sarmila Tandukar, Shital Raj Basnyat, Nabaraj Adhikari, Anisha Shrestha, Rajani Ghajuand Jeevan B Sherchand	sar1234tan@gmail.com
8	Domestic violence during pregnancy among women attending antenatal care clinic at tertiary level health care facility	Monika Shrestha	monikashrestha1986@gmail.com

S.N.	Title	Authors	Email
9	Prevalence and factors associated to sexual harassment among adolescent girls aged 15-19 years at N.R. Multiple College, Balaju, Nepal Tar, Kathmandu	Nilu Thapa	<a href="mailto:batuli.thapa@gmail.com">batuli.thapa@gmail.com</a>
10	Clients' perspectives on the quality of maternal and neonatal care in Banke, Nepal	Shalik Ram Dhital, MadhuKoirala, Arja R Aro	<a href="mailto:heducator@gmail.com">heducator@gmail.com</a>
11	Knowledge, attitude & practice of family planning methods among married women of reproductive age of Kakani VDC, Nuwakot	Sushmita K.C, Kshitij Karki	<a href="mailto:sangamsushmita@yahoo.com">sangamsushmita@yahoo.com</a>
12	Community-based study of home injury risk assessment in rural Nepal	Santosh Bhatta, Julie Mytton, and Toity Deave	<a href="mailto:santosh2.bhatta@live.uwe.ac.uk">santosh2.bhatta@live.uwe.ac.uk</a>
13	Antibiogram of staphylococcus aureus isolated from different clinical samples from tertiary care hospital, Kathmandu, Nepal	Bibek Bhatta, Rocena Thapa, Sanjay Shahi, Shreya Shrestha	<a href="mailto:bek.bhatta@gmail.com">bek.bhatta@gmail.com</a>
14	Reproductive health knowledge, attitude and health services utilization among adolescents in Kaski district of Nepal	Dipendra Kumar Yadav, Rajani Ghimire, Saroj Yadav	<a href="mailto:dipendrayadavph@gmail.com">dipendrayadavph@gmail.com</a>
15	Relationship between cognitive function impairment and social adjustment among head injury patients	Narmada Devkota, Janardan Devkota, Sishir Subba	<a href="mailto:devkotanaru@gmail.com">devkotanaru@gmail.com</a>
16	Prevalence and risk factors associated with Hypertension in adults living in Nasiksthan Sanga VDC, Kavrepalanchowk	Shreejana Kafle, Sudesh Raj Sharma, Kusum Wagle, Neetu Karki	<a href="mailto:yoursudesh@gmail.com">yoursudesh@gmail.com</a>

S.N.	Title	Authors	Email
17	Knowledge, attitudes and practices of Avian Influenza among poultry workers of Chitwan District	Binita Subedi	binita.subedi11@gmail.com
18	Chemicals in Cosmetic Products in Nepal, Urgent Call for Actions	Ram C. Sah	ramcharitra@gmail.com
19	Dengue awareness and practice among the people living in Haraincha VDC of Eastern Nepal	Heera KC, Surya B. Parajuli, Anup Ghimire, Shailesh Bhattarai	kc_heera@yahoo.com
20	Factors Associated with Patients' Satisfaction in the Hospitals of Morang District Nepal	Anil Sigdel, Anu Bista	sigdel.aanil@gmail.com
21	Antibiogram of Methicillin Resistant Staphylococcus aureus (MRSA) and Vancomycin in Resistant Staphylococcus aureus (VRSA) isolated from different clinical samples from tertiary Care Hospital, Kathmandu, Nepal	Bibek Bhatta, Sanjay Shahi, Roshina Thapa	bek.bhatta@gmail.com
22	Methicillin Resistant <i>Staphylococcus aureus</i> (MRSA) Nasal Carriage Among Health Care Workers in Hospital	Sabita Khatri, Chandrika D. Shrestha	pyx_ocean@yahoo.com
23	Self medication practice among undergraduate pharmacy students in Kathmandu Valley, Nepal	Nirajan Bhattarai, Deepak Basyal, Nirjala Bhattarai	nirajanbhattarai4@gmail.com
24	Situation Analysis of Maternal Mortality in Banke, Nepal	Tark Bahadur Malla, Toyenath Pahadi, Arati Nagarkar	tark.malla@gmail.com

S.N.	Title	Authors	Email
25	Knowledge Regarding Community Based Newborn Care Practice among Health Workers of Sub-Health Posts, Sunsari, Nepal	Manandhar M, Shah T, Badhu A, Baral DD	mamata2433@gmail.com
26	Do Socio-demographic Factors have Relationship with KAP of Diarrhea among Mothers in Eastern Nepal?	Mukhtar Ansari, Mohamed Izham, Mohamed Ibrahim	<a href="mailto:mukhtar1998@yahoo.com">mukhtar1998@yahoo.com</a>
27	Effects of Climatic Factors and Vector-Control Interventions on Malaria and Kala-azar Incidence in Jhapa District, Eastern Nepal	Bimala Dhimal, Bhupendra Devkota	bimaladhimal@gmail.com
28	Mothers' Perception about Their Children's Diet and Physical Activity: Findings of Focus Group Discussions from a Peri-urban Community of Nepal	Natalia Oli, Abhinav Vaidya, Madhusudan Subedi, Alexandra Krettek	natalia.oli@gu.se
29	Prevention of cervical cancer through screening using visual inspection with acetic acid (VIA) and treatment with cryotherapy among PLHIV women of Shakti Milan Samaj members in Kathmandu	Ashok Pandey	shaktimilan@gmail.com
30	Effect of alternate nostril breathing exercise on experimentally induced anxiety in healthy volunteers	Ashwin Kamath, Rathnakar P Urval, Ashok K Shenoy	ashwin.kamath@manipal.edu
31	Light emitting diode (led) Fluorescent Microscopy: an alternative to screen Tuberculosis in Nepal	Shambhu K. Upadhyaya, Arjun O. Kshetry, Asia Poudel, Bhawana Shrestha	shambriddhi@gmail.com
32	Risk Factors Associated with Low Birth Weight in Bhratpur Hospital, Chitwan	Kamal Prasad Kandel	pariwortan2060@gmail.com

## Annex 2

### Declaration

#### The First National Summit of Health and Population Scientists in Nepal

##### Kathmandu Declaration – 2015

The First National Summit of Health and Population Scientists in Nepal, was organized by Nepal Health Research Council (NHRC) from April 11 to April 12, 2015 in Kathmandu, on the auspicious occasion of 25<sup>th</sup> Anniversary Year- The Silver Jubilee Year of the NHRC with the aim of bringing health and population scientists together to promote evidence informed decision making for optimal health and wellbeing of Nepalese people. This two days summit definitely encouraged all researchers for responsible conduct of research on health and finding out the way forward on emerging health and population issues for strengthening national health system of Nepal. Today, we concluded the summit with the grand success.

We, 400 plus participants of this first summit and more than 100 distinguished delegates from different organizations and dozens of academicians together urge to Nepal Health Research Council and Ministry of Health and Population, Government of Nepal to carry forward the following declarations:

1. Budget allocation for research from government is insufficient in order to promote research in the context of national and international research need. Hence, the summit urges to Ministry of Health and Population to allocate at least two percent of national health budget for health research.
2. Every research should be ethically approved prior to conduct in order to maintain norms of research ethics and to encourage all the researchers to carry out the quality health research and respect their scientific work.
3. All research carried out in Nepal, will be led by Nepalese scientists and all the development and research partners will be encouraged to enhance the national research capacity.
4. The national capacity of evidence synthesis and translation will be enhanced among researcher, policy makers and health managers, that will encourage for evidence informed decision-making and implementation of meaningful health program.
5. The summit urges researchers, academicians, policymakers and health managers unite together and form a national forum for health research which ultimately promotes the research culture in the country.

6. The priority of the health research must be focused on to increase quality health services to the poor, marginalized, vulnerable and the underprivileged people to achieve the universal health coverage and to upgrade dignity of those unreached people of Nepal
7. The summit emphasizes to continue ongoing program and research related to infectious and Neglected Tropical Diseases (NTDs) including snake bite.
8. Realizing the increasing burden of environmental impact on health, the summit highlights to generate the evidences on environmental issues as climate change, air and water pollution, toxic substances-lead poisoning and vector bionomics.
9. Considering the global priority on biomedical research, regularization of biomedical sample transfer, human genome, genetic characterization of microorganisms, bioinformatics and patency of genome, the Summit strongly urges to Nepal government to develop national capacity of human resources and technology transfer in collaboration with international scientists and institutions.
10. The Summit realizes the importance of promoting indigenous system of medicine and encourages the concern researchers to carry out the relevant research on traditional healing practices, medicinal plants and minerals and to mainstream them into national and global health system.
11. The summit has raised issues on research priority to NCDs, mental health, disability, accident and injuries thereby to generate the evidences for prevention and control measures.
12. The summit recommends further strengthening surveillance system for immediate response to casualty/disasters, disease outbreaks and formulation of new strategy to reduce the loss of human beings.
13. Provision of national research awards should be established in order to promote research capacity to young researchers to obtain innovative findings.

We thank all the researchers, academicians and practitioners for their valuable contribution to make the Summit a grand success.



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