

Fourth National Summit of Health and Population Scientists

April 11-12 2018
Kathmandu, Nepal

'Advancing Evidence of Changing Health Systems in Nepal'

Proceeding Report 2018

Government of Nepal
Nepal Health Research Council
Ramshah Path, Kathmandu

Fourth National Summit of Health and Population Scientists

April 11-12 2018

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Published by

Nepal Health Research Council (NHRC)

Ramshah Path, Kathmandu Nepal

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Acknowledgement

We would like to thank all the joining hands to organize the “Fourth National Summit of Health and Population Scientists in Nepal” with the theme “Advancing Evidence of Changing Health Systems in Nepal” held on 11-12 April 2018.

We would like to sincerely thank all the chairs, moderators of the scientific sessions, presenters, all the delegates, guests, volunteers, media personnel and participants of the summit. Similarly, we would like to express our gratitude to chairs and members of Steering, Scientific and Organizing Committee for their technical and managerial inputs and support.

Further, we would like to express our sincere gratitude to all our collaborating partners of the summit: WHO, UNICEF, GiZ, IPAS, PSI, One Heart World-Wide, Hellen Keller International, VSO, Marie Stopes International, Possible Health, cbm and HERD International, for their support to make the summit successful. We believe that the information, evidence and ideas shared in the events are helpful to address the gap to establish new health system to achieve universal health coverage.

We also believe that the exchange and sharing of research ideas and expertise have encouraged and motivated young researchers to continue the research culture in areas related to health and population.

Finally, we would like to thank all who were involved in this Fourth summit for their huge contribution to make this successful, and we look forward to seeing you all and even more people in our next summit.

Prof. Dr. Anjani Kumar Jha
Executive Chairman
NepalHealth Research Council

LIST OF ABBREVIATIONS

NHRC	Nepal Health Research Council
MoHP	Ministry of Health and Population
GIZ-S2HSP	Deutsche Gesellschaft für Internationale Zusammenarbeit
UNICEF	United Nations Children's Fund
WHO	World Health Organization
VSO	Voluntary Service Overseas
HERD	Health Research and Social Development Forum
PSI	Ministry Of Health
EDP	External Development Partners
MMT	Mrigendra Samjhana Medical Trust
SDG	Sustainable Development Goal
GH	Global health
LMIC	Low Middle Income Countries
QOL	Quality of Life
SRH	Sexual and Reproductive Health
PTSD	Post Traumatic Stress Disorder
PPP	Public Private Partnership
SHIS	Social Health Insurance Scheme
IYCF	Infant and young child feeding
GoN	Government of Nepal
GBV	Gender Based Violence
WASH	Water, improved sanitation and hygiene
ODF	Open Defecation Free

EXECUTIVE SUMMARY

The fourth national summit of health and population scientists on the theme 'Advancing Evidence for Changing Health Systems in Nepal' focused on evidence based health system in Nepal, in the context of transition from central to federal system. The summit was a platform for researchers and policy makers to come together and discuss about the research evidence and their potential implication in health policy making in Nepal.

There were 64 oral presentations in parallel session, 7 presentations in plenary session and 67 poster presentations covering different topics including non-communicable diseases, communicable disease, nutrition and food safety, health systems, mental health, biomedical research, maternal, sexual and reproductive health, neonatal and adolescent health, environmental, occupational and urban health. More than 1200 participants throughout the country were present in the summit.

In addition to the best oral presentation award and best poster award, Mrigendra Samjhana Medical Trust Young Health Research Award, Publication Award from Nepal Health Research Council, Health Research Outstanding Award, Best paper award of Journal of Nepal Health Research Council and Best Employee of NHRC were introduced this year. The declaration of the summit was presented at the end of the summit. The session was concluded with remarks from the executive chairperson of Nepal Health Research Council.

This proceeding report compile the key issues discussed during the summit including the future strategic directions. This report is a resource for wider community including those in research, policy, and academia and all concerned stakeholders.

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BACKGROUND

NHRC is an apex Government body to facilitate health research in Nepal. It began to organize an annual summit of health and population scientists since 2015. The main purpose of organizing this annual summit is to give a platform to the health and population scientists in Nepal to promote the evidence based decision making within the context of changing health system from central to federal.

The Fourth National Summit of the Health and Population Scientists in Nepal was held on 11-12 April, 2018 under the theme of 'Advancing Evidence for Changing Health Systems in Nepal'. The presentations and discussions made by rich diversity of participants from academia, research institutes, government, I/NGOs and external developmental partners, shed light into future actions for research, policy and practice.

This proceeding report summarizes the key issues discussed during the summit including the future strategic directions. This report serves as a resource for wider community including those in research, policy, and academia and all concerned stakeholders.

INAUGURATION SESSION

In the inaugural session of the summit, following distinguished delegates represented in the dais

- Prof. Dr. Anjani Kumar Jha, Executive Chairman, NHRC
- Ms. Padma Kumari Aryal, Honorable State Minister, Ministry of Health and Population
- Prof. Dr. Mrigendra Raj Pandey, Emeritus Chairperson, NHRC
- Dr. Bhojraj Adhikari, Vice Chairman, NHRC
- Dr. Paul Rueckert, Chief Technical Advisor, GIZ-S2HSP
- Dr. Midori Sato, Chief of Health, UNICEF Nepal Country Office
- Dr. Jos Vandelaer, WHO Representative to Nepal
- Dr. Nichola Cadge, EDP Chair Nepal
- Dr. Sushil Nath Pyakuryal, Chief Specialist, MoHP
- Prof. Dr. Gopal Prasad Acharya, Past President, NHRC

Dr. Bhojraj Adhikari, Vice Chairman, NHRC, welcomed all guests, delegates, participants, invitees, on behalf of NHRC. He gave general introduction of the summit and made announcement on commencement of 28th year of NHRC. He highlighted the emphasis of NHRC on generating evidences for evidence based treatment and policy making. He highlighted that NHRC is working hand on hand with MoHP for achieving and delivering quality health as fundamental right of every Nepalese. He highlighted the importance of ethical health research in the country. He thanked everyone for the participation in the summit.

The welcome speech by Dr. Bhojraj Adhikari, was followed by national anthem and formal inauguration of the program by Hon Ms. **Padma Kumari Aryal**, State Minister, Ministry of Health and Population.

Dr. Paul Rueckert, Chief Technical Advisor, GIZ-S2HSP, who was regular attendant of all four national summits of NHRC, appreciated the wide coverage of topics/areas that gets discussed in the summit. He mentioned that more studies are required to reduce out of pocket expenditure in health, especially those of the vulnerable and left behind peoples. The changing federal system of the country should be taken as an opportunity to identify the health sector needs and improve the health of population.

Dr. Midori Sato, UNICEF Representative to Nepal, congratulated NHRC for successful organization of the national summit. She highlighted the need of NHRC to work further on women and children of Nepal. She appreciated NHRC's role in policy making. She was happy to be a part of the summit and made commitment to further support to NHRC in the coming days.

Dr. Jos Vandelaer, WHO Representative to Nepal, congratulated NHRC and organizing committee for organizing the summit successfully. He mentioned that topics being presented and/or discussed in the summit are very interesting. He appreciated the theme of current summit "Advancing evidence for changing health systems in Nepal" to be very timely, given the situation of the country within the context of federal structure. He highlighted the changing health system of the country being a challenge to government, and other sectors including private sectors to address the gap and establish an efficient health system in the country. He suggested that new health system should address all people needs and shouldn't leave anyone behind and need to move towards universal health coverage. He pointed out that the health system should include vulnerable, old, migrants, adolescents and need to focus on wide range of health challenges including new challenges like non communicable diseases

(NCD), climate change, and mental health. He further shared that there is a need for changing health research system as well. He suggested applying strategic approach or planned approach to address the required changes.

Dr. Nichola Cadge, EDP Chair Nepal, opined and highlighted that new more effective interventions means better health. So, there is a need for analyzing national/international health research findings. She emphasized on need for a wide range of research to shift focus on how to improve health. She suggested testing innovative approaches in health research/system, so that not only Nepal, but also other countries benefited from the outcome. Her further suggestions were to study the successful examples of other countries that had undergone to the federal structure of governance, so that we can learn and apply for betterment and effectiveness in health system as per the federal structure of the country. She further pointed to prioritize health research and implement the evidences generated into policies for the betterment of the health of the people.

Honorable State Minister, Ministry of Health and Population **Ms. Padma Kumari Aryal**, in her remarks firstly expressed happiness that health is being discussed and being prioritized. She highlighted the role of research in a country's development. She felt sorry for not being able to attend all the proceedings of the summit due to her busy schedule but she requested NHRC for proper documentation of the summit proceedings/discussions/findings, so that she can refer them back for her reference in policy decisions. She appreciated the role of NHRC for successfully organizing past summits and the present one, especially proving the summit as a platform or forum for scientists. She demanded the alignment of federal health research with federal health system of the country. She further expressed her concern to capacitate the health research to international standard. She committed that MoHP will provide all necessary help to NHRC both at central and provincial level. She expressed her knowledge and the need/importance of allocating minimum of 2% of the health budget to health research. She further repeated her commitment that MoHP will help to any measure for flourishing health research. She valued scientists being assets of the country, and expressed her sincere respect towards them. As her concluding words, she wished for the success of the summit.

Dr. Gopal Prasad Acharya, Past President, NHRC in his remarks congratulated NHRC on successful completion of 27 years and wished for the 28th year. He highlighted the successful clearance of different hurdles by NHRC to establish itself to present scenario. There has been contribution of many scientists, for NHRC achieving such heights. He further congratulated NHRC for planting concept of health research in the country. He further valued the role of NHRC on implanting research culture in the country and involving other sectors also in health research.

Prof. Dr. Mrigendra Raj Pandey, Emeritus Chairperson, NHRC, in his remarks opened the books of history to explain how NHRC had been established. He emphasized and explained how a research committee formed in 1984 BS in a single room, took giant steps to establish itself as a focal body for health research in the country. He mentioned how government started to accept research in the old days and the concept of research council evolved. He remembered the day the NHRC act 1991, was passed. He valued the step he took and the contribution he gave for establishment of NHRC, as the most important decision he had made in his life. He appreciated the roles of other chairmen of NHRC succeeding him. He valued NHRC role on successfully bringing government to focus or consider research in the country.

Dr. Sushil Nath Pyakuryal, Chief Specialist, MoHP, wished everyone for upcoming new year 2075 BS. He expressed the role of NHRC on successfully guiding MoHP in different policy making and in providing health service in the country. He highlighted the role of NHRC in bridging the gap between service provider and the health care need. He cautioned the changing priorities in health research, with food borne diseases being replaced by climate change, mental health, NCD, as new health research priorities. So, he suggested NHRC to cover different priority areas as per the need to meet universal health coverage and providing quality health as a fundamental right of Nepalese population. He expressed his concern regarding less financing in health sector and health research, which has been found to be very low as compared to other countries. He encouraged everyone to take changing federal structure of government of Nepal as an opportunity to establish sound health system, in the country.

Prof. Dr. Anjani Kumar Jha, Executive Chairman, NHRC, thanked everyone for the participation in the summit for making it a successful. Dr. Anjani Kumar Jha on his closing remarks stated that the main aim of this summit is to communicate the research findings from various studies to the policy development level. As Nepal's constitution gives provision of access to basic health care to all the citizens, regular studies, researches and development is required in this field to have successful implementation. He also mentioned that the findings of the papers presented in this summit and will be useful in providing the evidence to develop the plans and policies. Further on his remarks, he provided the statement of appreciation to Government of Nepal, Ministry of Health and Population, sponsors, Developmental Partners, participants and policy makers for their support to organize the summit. He concluded his remarks by giving the commitment to organize such summit in coming days.

The formal inauguration session, was followed by a special Mrigendra Samjhana Medical Trust (MMT) oration lecture by Prof. Dr. Arjun Karki. Prof. Dr. Arjun Karki, started his talk with the vision of current prime minister of the Nepal, "prosperous Nepal happy Nepali". He further highlighted good health being bedrock for social development as truly said by Mark Lalonde. In his talk, he explained the role of health in development. He defined research and explained how research works. He highlighted current gaps in health research and introduced national health research system.

Key points of the presentation

- There is a need for evaluation by self, whether the health interventions being taken are enough or not.
- Health and development are interdependent and health is a prerequisite for outcome of development.
- Health research is considered as essential link to equity in development as reported by Commission on Health Research for Development.
- Research is a critical means of empowerment to understand problems, decide feasible actions and to execute actions efficiently which involves through research cycle consisting of measurement, understanding, developing solution, implementation, and monitoring.
- The 4C's of research, namely culture, competence, capability and commitment has important place in research.
- There is need of National health research systems to have clear policy, strong leadership, capable research workforce, adequate financing, priority setting mechanisms, and strong regulatory framework.

Future direction

- There is need of strengthening the sustainable research capacity of the country.
- There is a need to cover a long way to achieve desirable research capacity
- Adequate investments and collaborative spirit are required to achieve synergy for the research capacity build up in the country

PLENARY SESSION OF THE SUMMIT

PlenarySession I: Health Research in Nepal

The session was jointly chaired by: **Dr. Rita Thapa** and **Prof. Dr. Madan Prasad Upadhyaya**

In this session, 3 plenary lecture related to health research in Nepal were presented. Following are the presented topics with their respective authors:

Topic	Presenter
Health research and financing in federal health system in Nepal	Prof. Dr. Praveen Mishra
NCD, injuries and poverty in Nepal	Prof. Dr. Bhagwan Koirala and Nepal NCDI Poverty team
Health research in Nepal	Dr. Meghnath Dhimal

Session began with the presentation of **Prof. Dr. Praveen Mishra**, on "Health research and financing in federal health system in Nepal". His presentation was focused on explaining the changing federal structure of health system as well as health research system. In his presentation, he also explained in detail about the different aspects of health financing and how health financing functions.

Key points of the presentation

- Health and Medical Research is critical and integral part of the health system.
- The only way to reach to the people at all level is through cost effective measures and innovative health financing.
- There is a need of raising the resources for Universal Health Coverage.
- Three dimensions approach Universal Health Coverage are extend to non-cover, reduce cost sharing and fees, include other services
- Resources to support health care research can be collected through taxes and levies on factors endangering the health like local alcohol or tobacco, luxury tax like air conditioners etc.

Future direction

- Clear picture of Health research and roles of NHRC to the federal context is required.
- Provincial and local health research financing is a challenge and need to be properly addressed.
- There is need to identify sources for generating income for health research.
- Proper planning of health care financing need to be implemented to provide efficient and effective health care to poor and vulnerable people.

Second presentation of the session was delivered by **Prof. Dr. Bhagwan Koirala**, on the title "NCD, injuries and poverty in Nepal". He presented the current scenario and status of NCDI in Nepal. He highlighted the need and working/outcomes of the Nepal NCDI poverty commission. He presented different baseline epidemiological and socioeconomic situational analysis of NCDI in relation to poverty of Nepal. He mentioned the Major causes of burden of NCDI in Nepal and their associated risk factors.

Key points of the presentation

- NCDI is an equity initiative to address NCD and injuries. It also critically examines current policies, advocacy and communication environment in the context of Nepal.

- Estimation of NCD in Nepal, and prioritization of NCDI and the intervention is required for improving health and reducing poverty

Future direction

- Proposed interventions for NCDI should be planned by level of governance as per the federal structure of the government
- Issues that need proper consideration during planning and policy making for providing quality health for people of Nepal includes health insurance, service provision, strategic information, financial protection, resource allocation, governance and advocacy.
- High prevalence of NCD among poor need to be addressed.
- There is need to replacing non communicable disease (NCD) to live long diseases to provide clear message of the disease.

The final session was on title "Health Research in Nepal" by Dr. Meghnath Dhimal, NHRC. He presented in brief about history, objectives and scope of NHRC. He talked about major health research areas of Nepal. In addition to that, he briefed the History of health research, research activities of NHRC as well.

Key points of the presentation

- The total number of proposals approved in NHRC in 2017 was 550. Among them maximum number of studies were proposed to be done in the area of Mental Health and NCDS.
- There are 9 ongoing research programs currently being conducted by NHRC
- Evidences are being generated by NHRC through its research activities.

Future direction

- Research activities needs to be conducted as per the priority areas.

Plenary session II: Global Health

The session was jointly chaired by Prof. Dr. Jagdish Prasad Agrawal and Dr. Laxmi Raj Pathak.

The following papers were presented in plenary session related to Global Health

Topic	Presenters
Opportunities and Challenges of Global health education and research in Nepal	Prof. Dr. Archana Amatya and Dr. Biraj Karmacharya
Climate change, Health and Funding opportunities in Nepal	Dr. Meghnath Dhimal and Rajaram Pote Shrestha
Research ethics and scientific publication	Prof. Dr. Aarati Shah and Prof. Dr. Ganesh Dangal
Innovation in maternal and newborn health to improve service delivery in Nepal	Dr. Ashish K. C.

Session began with the presentation of Prof. Dr. Archana Amatya and Dr. Biraj Karmacharya on Opportunities and Challenges of Global health education and research in Nepal. They highlighted that the process of bringing global health issues into medical teaching has begun in many countries either in the form of electives or full course. However, the curricula in Nepal lack global health teaching. Therefore, they emphasized the importance of incorporating global health education to broaden the understanding of the students in regards to existing health problems in various parts of the world.

They pointed that medical education need to catch up and keep up with the changing health problems

locally and globally as globalization is accelerating and these health determinants are global as well as local. They also explained the differences between Global Health, International Health and Public Health in the context of geographical reach, level of cooperation, individuals or population, range of disciplines and access to health.

Key Points of the Presentation

- Importance of research has come into light even in LMIC despite lots of gaps and challenges
- In Nepal, International Global Health Unit was first established in Institute of Medicine in 2011
- The research studies should be done in the places where problems are generated
- Global Health Program is the bridge that connects the people who have the resources with the people who needs the resources
- Global Health Program is a Multi-disciplinary approach with bidirectional learning that has implications in global context.

Future Directions

- Evidence from GH programs should be generated through rigorous research
- Joint courses needs to be developed including Nepali students
- Collaborative research works should be conducted on a range of GH-related topics
- Each program should be built as a brick for a larger structure
- Developing dedicated academic programs in GH needs to be developed
- We should bother more about opportunities we have rather than magnitude of the challenges

The second presentation of this session was on Climate change, Health and Funding opportunities in Nepal by **Dr. Meghnath Dhimal** and **Mr. Rajaram Pote Shrestha**. Dr. Dhimal shared the effects of climate change such as air pollution, changes in vector ecology, increasing allergens, water quality impacts, water and food supply impacts, environmental degradation, extreme heat and severe weather and its impact on human health. He also notified that the impact of climate change is seen more in the mountainous region. Studies have shown that most common climate sensitive health risks and diseases in Nepal are Vector borne diseases and diarrheal diseases. He further mentioned about different policy provisions that incorporate different issues of climate change at national level. He also mentioned that international organizations are actively collaborating to reduce the impacts of climate change as can be visualized from Paris agreement 2015 and Maléclaration 2017. He further highlighted on opportunity of domestic and foreign funding on climate change in the context of our country.

Key Points of the Presentation:

- Climate change is the biggest global health threat of the 21st century
- Highly sensitive to climate conditions like extreme weather events kill tens of thousands, malaria kills over 600,000, Diarrhoea kills almost 600,000 children, under nutrition kills 3.1 million each year.
- Disease vectors (mosquitoes) have already shifted to at least 2,000 m above sea level.
- The global climate change is expected to increase the risk of diarrheal diseases. Study from Nepal shows rise of 1°C average temperature lead to 4.39% (95% CI: 3.95-4.85) increase in the incidence of diarrhea.
- Tackling climate change could be the greatest global health opportunity of the 21st century

Future Directions:

- There is a need for more research on climate sensitive diseases and risks in Nepal
- Increasing commitment is needed towards climate change worldwide.
- Policy provisions should be incorporated for climate change.
- The most effective measures to reduce vulnerability in the near term are programs that implement and improve basic public health measures such as provision of clean water and sanitation, vector control, provision of nutritious food, pollution control, secure essential health care including vaccination and child health services, universal health coverage, increase capacity for disaster preparedness and response, and alleviate poverty

The third presentation of the session was presented by Prof. Dr. Aarati Shah and Prof. Dr. Ganesh Dangal on Research ethics and scientific publication. Prof. Dr. Shah explained the key ethical issues in health research, public health, clinical care, health organisations and systems and, global health, and big data sharing. Prof. Dr. Dangal explained in brief about the Bio-medical journal publication in Nepal further highlighted the opportunities and challenges. Dr. Dangal also notified that ethical approval letter is required in order to publish article in the journal of NHRC. He stated different reasons for rejection of the manuscripts submitted for publication. He also outlined different ethical issues that could possibly arise during publishing, ways to overcoming such barriers to get published.

Key Issues:

- Several journals in Nepal strive for quality rich articles.
- Most common ethical issues that could arise during publishing are fabrication, falsification, plagiarism and undisclosed Conflicts of interest
- Publishing has become a compulsion rather than an interest.

Future Directions:

- The scientific article should be evidence based, develop related fraternity and, should contribute to the society and policy making.
- Gift authorship, multiple publications from thesis work should be discouraged
- Proper training program should be conducted in scientific writing

In the last presentation of this session was from Dr. Ashish K. C. He detailed on Innovation in maternal and newborn health to improve service delivery in Nepal. He stated that there was a remarkable progress on child survival in MDG era showing under-five mortality rate reduced by 72% and neonatal mortality rate reduced by 57%. He mentioned that care during the labor and child birth including complication and care of the new born would impact the most for mothers and newborns health. In addition, Dr. K.C. explained the workflow of e-health to use the technology for improving maternal and new born health services in remote areas of Nepal.

Key issues:

- Neonatal mortality rate target for 2030 is 12 death/1000 live birth
- Trends and projection of neonatal mortality rate in Nepal indicated that those with highest economic status are 14 years ahead whereas with the lowest are 37 years behind of the target.
- There is wide gap between the rich and poor in relation to access to SBA care.

Future directions:

- Implementation with Innovation should be initiated by addressing health system bottlenecks and

innovating for Quality of Care

- Improving the key indicators structure, standards, process and progress measurement will improve the care through quality improvement.
- Increase the voice of women on Women's rights, and their voices for accountability, attention to bereavement care
- Intentional leadership development should be encouraged especially in countries with highest burden
- Timely measurement of progress and impact has to be emphasized.

PARALLEL SESSIONS OF THE SUMMIT

Parallel Session I: Non Communicable Diseases

This session was jointly chaired by Dr. Baburam Marasini and Dr. Abhinav Vaidya. There were six papers presented in the session related to Non- Communicable Diseases with the following topic

Topic	Presenters
Healing of pressure ulcer with wrap therapy in Bir Hospital, NAMS	Roshani Laxmi Tuitui
Developing non-communicable disease care delivery services in Achham, Nepal	Anirudh Kumar and Santosh Dhungana
Health Related Quality of Life of Renal Transplant Recipients at a Teaching Hospital, Kathmandu	Sheela Thapa
Autoimmune Thyroiditis Among Hypothyroid Individual And Its Association With Vitamin D	Jyoti Palanchoke
Study on relationship between socio economic status and blood pressure control among hypertensive patients: A Cross sectional study in a municipality of Eastern Part of Nepal	Buna Bhandari
Self Care Practices among persons with diabetes mellitus attending a tertiary level hospital	Darshana Dhungana

Assoc. Prof. Roshani Laxmi Tuitui shared about comparing the healing pattern of pressure ulcer (PUSH score) between wrap therapy and conventional method in Bir Hospital. Her study revealed that wrap therapy is not inferior to conventional therapy, so can be used as an alternative method.

Mr. Anirudh Kumar and Dr. Santosh Dhungana shared about feasibility of developing non-communicable disease care delivery services in Achham, Nepal. They shared that Integrated NCD management which includes task sharing and protocol based management is feasible to deploy in resource-constrained, rural settings, can generate improvements in NCD control and can be cost-effective to address the burden of NCDs in LMICs. Enhanced strategies for behavior change and active NCDs surveillance is recommended for future directions.

Ms. Sheela Thapa shared Health Related Quality of Life of Renal Transplant Recipients at a Teaching Hospital, Kathmandu. Study revealed that the overall health related quality of life of renal transplant recipients was good with the highest score being the appearance dimension, while lowest score in physical symptoms dimension. She further recommended a longitudinal study can be conducted comparing the quality of life pre and post renal transplant.

Another paper by Ms. Jyoti Palanchoke covered issue of Autoimmune Thyroiditis among Hypothyroid Individual and its Association with Vitamin D. She concluded that autoimmune thyroiditis was the most common cause of hypothyroidism and significantly associated with low vitamin D level. The study therefore recommends the screening of vitamin D level among AIT patients.

Ms. Buna Bhandari in her paper entitled Study on relationship between socioeconomic status and blood pressure control among hypertensive patients: A Cross sectional study in a municipality of Eastern Part of Nepal showed that there was a negative relationship between income and control of Blood Pressure. She further recommended the need for using population based cohorts; elucidate the relationships between bio-behavioral factors and control of BP and potential mediating factors.

On this last part of this session, Ms. Darshana Dhungana shared about Self Care Practices among

persons with diabetes mellitus attending a tertiary level hospital. The study depicted that majority of clients (89.3%) were found adherent to medications and only 30.3% had good dietary practices. Thus, she further recommended that there is a need of educating clients regarding all the domains of self care practices of diabetes mellitus.

Key Issues of this session:

- Vitamin D deficiency is common in autoimmune thyroiditis patients.
- The findings of relationship between income and control of BP were found opposite to that in Higher Income Countries.

Future Directions

- Screening of Vitamin D level hypothyroid autoimmune thyroiditis patients is highly recommended.
- An integrated approach to NCD management, which is feasible in resource constraint rural settings, should be generated to improve NCD control in LMICs.
- Further study in wrap therapy with larger sample and long term follow up till complete healing is recommended.

Parallel Session II: Nutrition and food safety

The session was jointly chaired by: Prof. Dr. Ramesh Kant Adhikari and Prof. Dr. Lochana Shrestha.

In this session, 6 papers related to nutrition and food safety were presented. Following are the presented topics with their respective authors:

Topic	Presenters
Nutritional status of the cancer patients receiving chemotherapy in an oncology center, Nepal	Bijaya Dawadi
Compliance of iron and folic acid supplementation and status of anemia during pregnancy in the eastern terai of Nepal	Krishna Deo Yadav
Quality of life and nutritional status of geriatric population of Lahan municipality	Ms. Sabita Sharma
Nutritional status of children residing in orphanages in Kathmandu valley	Aasara Shrestha
Dietary practices of lactating mothers, feeding practices to children and their nutritional status	Usha Gautam
Factors associated with complementary feeding practices and stunting among children aged 06-23 months in dalits and non-dalits of Dhanusha district, Nepal	Anil Kumar Sah

Ms. **Bijaya Dawadi**, in the first paper of the session shared about the nutrition status of cancer patients receiving chemotherapy in Bhaktapur Cancer Hospital. Her findings showed that cancer patients receiving chemotherapy were malnourished. So, the nutritional intervention program should be targeted to improve the recovery of such patients.

Mr. **Krishna Deo Yadav**, the second presenter of the session, presented on 'Compliance of iron and folic acid (IFA) supplementation and status of anemia during pregnancy in the eastern terai of Nepal. His findings showed the existence of the iron deficiency anemia during pregnancy, which can be reduced if the compliance rate of IFA supplementation be increased and intake of food rich in heme-iron be promoted.

In the third presentation, **Ms. Sabita Sharma** attempted to explore the quality of life (QOL) and nutritional status of geriatric population of Lahan municipality. She studied the association between nutritional status and QOL in geriatric population of the Lahan municipality of Siraha district, Nepal. She highlighted the poor quality of life among elderly population. The findings showed the need for active ageing interventions that may improve the nutritional status and QOL of elders at the community setting.

Ms. Aasara Shrestha shared her research on 'Nutritional status of children residing in orphanages in Kathmandu valley'. She identified the problems of stunting, and underweight among children residing in the orphanages in Kathmandu valley.

Ms. Usha Gautam, in her presentation, assessed the dietary practices of lactating mothers, feeding practices for children and their nutritional status among mothers and children of Baglung district. Her findings revealed poor dietary practice among mothers, with unsatisfactory feeding practices of the child, which caused high prevalence of wasting, stunting and underweight in children.

The last presenter of the session **Mr. Anil Kumar Sah**, in his research, attempted to identify factors associated with complementary feeding practices and stunting among children aged 06-23 months in dalits and non-dalits. He identified factors significantly associated with minimum acceptance diet (MAD) practices are age of child, child illness and knowledge on child feeding in both dalits and non-dalits children. He further pointed out that stunting is associated with knowledge on child feeding and family types in dalits while age of child was associated in non-dalits.

Key issues of the session

- Case control study need to be studied for nutritional status of patients undergoing chemotherapy. Further study, can be done as per certain cancer types, rather than covering all cancer patients undergoing chemotherapy.
- Nutritional status of cancer patients undergoing chemotherapy changes after a week of treatment
- Dietary practices, feeding practices are important for achieving QOL for all age groups

Future direction

- For achieving QOL, all nutritional considerations discussed need to be achieved.
- These assessment and assessing factors for nutrition studies will be evidences for policy uptake. Many more studies in the field are warranted.

Parallel Session III: Maternal, Sexual and reproductive Health

This session was chaired by **Dr. Kiran Regmi** and **Dr. Bhola Ram Shrestha**. Seven papers were presented in this session. The brief description of the findings presented in this session is as under:

Topic	Presenters
Determinants of Breastfeeding Practice among Mothers Attending a Maternal and Child Health Clinic in Kathmandu	Sharada Acharya
Childbirth Practices and Women's Perceptions towards Childbirth in Western Nepal: A Community Based Qualitative Study	Tulsi Ram Bhandari
Determinants of Fear of Childbirth among the Pregnant Women attending in an Antenatal Clinic, Nepal	Amrita Pahadi
Quality of Life of Women after Hysterectomy In Pokhara	Kalpana Paudel

Youth Friendly Sexual and Reproductive Health (SRH) Services: Deepika Bhatt
an exploratory study on the SRH experiences and needs of
young people in Nepal

Factors associated with complementary feeding practices and
stunting among children aged 06-23 months in dalits and non-
dalits of Dhanusha district, Nepal Sajana Maharjan

Age at Marriage and Reproductive Health Consequences- A
Community Based Cross-sectional Study in Panauti, Nepal Samikshya Neupane

Ms. **Sharada Acharya** presented her paper on Determinants of breastfeeding practice among mothers attending a maternal and child health clinic in Kathmandu. According to the study findings, mothers delivered by caesarean section and low birth weight babies were more likely of delay initiation of breastfeeding. Hence, further recommendation was made on strengthening

Dr. **Tulsi Ram Bhandari** shared research findings on Childbirth practices and women's perception towards childbirth in Western Nepal. In this community based exploratory study, it was revealed that most normal deliveries were conducted at home as child birth was considered as a normal phenomenon. The participants showed their reluctance towards pursuing SBA care at birth due to their cultural norms, beliefs, and practices.

Ms. **Amrita Pahari** in her presentation on Determinants of fear of childbirth among the pregnant women attending in an antenatal clinic, Nepal mentioned that more than one third of the pregnant women had fear of childbirth. Among them, first time mothers, and pregnant women who were not involved in paid work were more prone to fear of childbirth.

Ms. **Kalpana Poudel** presented about Quality of Life of Women after Hysterectomy in Pokhara. Overall findings of the study indicated that at least one fourth of the study participants had below average quality of life. Among them participants ≥ 40 years of age were at greater risk of physical, psychological impact after hysterectomy.

Ms. **Deepika Bhatt** shared about Sexual and Reproductive Health (SRH) practices and needs of young people in Nepal. The study showed that 18-19 years were most common age for first sexual intercourse among the participants. Male had more peer pressure whereas females had more pressure from their partner and husband. It further revealed that youth needed a friendly environment where the services provided were kept confidential, non judgmental attitude of the service provider with flexible opening hours.

Ms. **Sajana Maharjan** presented on factors associated with repeat induced abortion among women seeking abortion in public clinic of Kathmandu. On her report she revealed that at least 31 % of the women seeking abortion had repeated abortion. Having enough children was the most common factor associated with repeated abortion.

In the last presentation of this session, Ms. **Samikshya Neupane** presented on Age at Marriage and Reproductive Health Consequences. Her study revealed that almost half of the respondents got married before the age of 18. There was strong association between early marriage and low maternal healthcare utilization, abortion, still birth, neonatal death, post delivery complication. Further, association is stronger among the respondents who got married at age of ≤ 15 years. Suggestions were made on need of interventions to eliminate early marriage and existing system improvement.

Key points of the session

- Some of the socio-cultural barriers that hinder women from Institutional delivery are lack of transport services especially at night and during rainy season and costly ambulance service.

- In the absence of health facilities, SBA should be trained to give home delivery.
- The common reasons for delayed breast feeding in low birth weight babies are NICU transfer for intermediate care.
- The major SRH needs reported by youth were adolescent and youth friendly environment, including confidentiality, positive attitude of FPs and flexible opening hours.
- Marriage at early age has significantly detrimental footprints on health of teenage mother and their children.
- Deterioration of post operative sexual functioning is more common in vaginal hysterectomy as compared to abdominal hysterectomy.

Future Directions:

- Breastfeeding promotion program with special focus on breast feeding practices related to caesarean section delivery, low birth weight and preterm babies.
- There is need to educate the youth with right information on SRH.
- Individual tailored counseling should be established regarding the contraceptive needs to avoid repeated abortions
- Additional research activities and studies on early marriage and reproductive health is further recommended.

Parallel session IV: Mental Health

The session was jointly chaired by: **Dr. Dipendra Raman Singh** and **Prof. Dr. Saroj Prasad Ojha**.

In this session, 7 papers related to mental health were presented. Following are the presented topics with their respective authors:

Topic	Presenters
A cross-sectional study on stigma towards mental illness among the community people of Shankarapur municipality, Kathmandu	Sirapa Shrestha
Awareness and help seeking behavior regarding mental illness among students in a college of Lalitpur	Grishma Shrestha
Ethnic disparities in trauma severity among the children of Kathmandu affected by 2015 earthquake, Nepal	Shneha Acharya
Post traumatic stress disorder and coping strategies among the adult survivors of earthquake, Nepal	Ishwari Adhikari Baral
Depression in patient undergoing hemodialysis	Pratima Tamang
Screening for preoperative anxiety among patient undergoing surgery at tertiary level hospital	Jayanti Chaudhary
Loneliness and depression among older people living in community	Kamana Mishra

Ms. Sirapa Shrestha, in the first paper of the session shared about stigma towards mental illness among the community people of Shankarapur municipality of Kathmandu. Her findings showed high level of stigma towards mental illness in illiterate people and in elderly people of age 40 and above.

Ms. Grishma Shrestha, the second presenter of the session, presented on 'Awareness and help seeking behavior regarding mental illness among students. Her findings showed that only one fifth of the

students of the college were adequately aware about mental illness and only half of them had sought help when in emotional problems.

In the third presentation by Ms. Sneha Acharya, she shared about the association of ethnicity with the type of trauma severity. She conceptualized the role of ethnic differences in trauma exposure after a disaster, and also emphasized the comparative vulnerabilities of different ethnic groups to the type of trauma they experienced. She highlighted that greater trauma was experienced by Newar and minorities groups' children compared to Brahmins' children.

Ms. Ishwari Adhikari Baral shared her research on 'Post Traumatic Stress Disorder (PTSD) and Coping Strategies among the Adult Survivors of Earthquake of Nepal'. She identified that prevalence of PTSD after ten months of earthquake was high among the adult survivors and vulnerable groups were elderly, females, illiterates and those injured in the earthquake.

Ms. Pratima Tamang, in her presentation, assessed the level of depression in patient undergoing hemodialysis. Her findings revealed high prevalence of depression in hemodialysis patients. She also identified significant association of variables such as education level, job status, marital status and monthly income with depression level.

Ms. Jayanti Chaudhary, in her research, attempted to explore preoperative anxiety among patient undergoing surgery at tertiary level hospital. She identified preoperative anxiety level in around one third patients. She also explored significant association of anxiety with gender and income level and no association with age, marital status, education level, previous surgery.

The last presenter of the session, Ms. Kamana Mishra presented on 'Loneliness and depression among older people living in community'. She demonstrated positive correlation between loneliness and depression.

Key issues of the session

- Risk factors associated with trauma should be explored in all ethnic groups.
- In recent days, mental problems due to obesity are increasing than loneliness. Research should also be focused towards these areas.
- Researcher should be very careful while investigating mental problems in students and validation of such problem should also be ensured.
- Studies should be done on loneliness and social changes being posed with youth/children being involved in smart phones for maximum time.

Future direction

- All studies conducted carry forward recommendations for further research which need to be addressed/ conducted.
- There should be clear understanding regarding no health is possible without mental health.

Parallel Session V: Health Systems, Governance and Financing

The session was jointly chaired by Dr. Nilambar Jha and Mr. Devi Prasai.

In this session, 7 papers related to mental health were presented. Following are the presented topics with their respective authors:

Topic	Presenters
A public Private Partnership for Nepali healthcare: A case study of Charikot Hospital	SP Kalaunee and Binod Dangal

Assessment of health facilities for implementation of package for essential non-communicable disease in Nepal: evidence from baseline study in Kailali and Illam district	Sudip Kumar Ale
Predictors of Affective Commitment among University Nursing Faculties of Kathmandu Valley	Rekha Timilsina
Health inequalities: caste wise variance in major indicators, Nepal	Mirak Raj Angdembe
Factors determining the catastrophic out of pocket payment for healthcare services by Nepalese	Arjun K. Thapa
Knowledge and willingness to pay for Social Health Insurance Scheme among marginalizes adults of Lulang, Myagdi	Insha Pun
An innovative model for Rural Orthopedic Trauma Care	Mandeep Pathak
Policy content and stakeholder network analysis for infant and young child feeding in Nepal	Sumit Karn

Mr. S. P. Kalaunee and Dr. Binod Dangal presented a case study on Public Private Partnership (PPP) for health care of Charikot Hospital. In this study he evaluated the Healthcare service delivery prior to 2015 earthquakes and after PPP implementation. Additional activities such as implementation of Special Mental Health Program and Electronic Health Record System were initiated. They further highlighted the challenges faced as lack of governing policy, execution level challenges: integration, hiring, space for service expansion and contextualizing in the new federal structure.

Mr Sudip Ale Magar, presented paper that assessed existing structure, system of health facilities for implementation of package of essential non-communicable disease in Kailali and Illam District. The study revealed gaps in capacity of health institution and system in terms of training, supply, equipments and diagnostics.

Ms. Rekha Timilsina pointed out the Predictors of Affective Commitment among University Nursing Faculties of Kathmandu Valley. Higher level of affective commitment were seen among nurses who were married, age above 30 years, permanent staff, strong organizational support, high level of job satisfaction, favorable opportunity were some of the predictors of affective commitment.

Mr. Mirak Raj Angdembe analyzed the secondary data from Nepal Demographic and Health Survey 2016 dataset to assess the caste wise variance in major health indicators of Nepal. The data analysis showed that Child mortality was highest and immunization coverage and institutional delivery was lowest in Dalit. Diarrhea prevalence was highest in Newar. In order to reduce equity gaps suggestion was made to improve access and utilization of health services as envisioned by the NHSS, and develop specific interventions to address them.

Mr. Arjun K. Thapa, shared the Factors determining catastrophic out of pocket payment (OOP) for healthcare services in Nepal. The findings showed that study participants belonging to low income group, residing in rural areas or having chronically ill members in the household are likely to face catastrophic payment. He further recommended on need to address affordability along with coverage.

Ms.Insha Pun shared the Knowledge and willingness to pay for Social Health Insurance Scheme (SHIS) among marginalized adults of Lulang, Myagdi. The study findings suggest that almost all the respondents had inadequate knowledge about the proposed SHIS and more than 95% were willing to pay for proposed SHIS.

In his presentation on an innovative model for rural orthopedic trauma care, Dr.Mandeep Pathak mentioned that the referral rate of orthopedic trauma cases was reduced after initiation of this innovative model. In addition, trauma care delivery was improved and skill was enhanced. Further, Measure impact on disability prevention, economic analysis of this model, impact of federalism on this model was needed.

In the last presentation of this session, **Mr. Sumit Karna**, presented on Policy content and stakeholder network analysis for infant and young child feeding (IYCF) in Nepal. This study demonstrated strong policy support for key dimensions of IYCF supported by highly networked environment. He further pointed out that ample of opportunity existed to further strengthen IYCF policy in Nepal.

Key points of the session

- The marginalized groups are willing to pay up to half of the premium amount as determined by GoN for SHIS.
- Limited focus on complementary feeding in the health sector policies
- Existence of caste wise variation is wide in major health indicators in Nepal.

Future Directions:

- PPP should be decentralized to community level for ensuring the quality. More PPP is recommended in coming days.
- Comprehensive awareness and sensitization program on SHIS is recommended. Premium amount for marginalized and marginalized and hard to reach areas needs to be revised as per their capacity.
- Training of health workers, supply of essential medicines and improving the service delivery is necessary for the effective implementation of PEN program in Nepal.
- Health programs and policies should be prioritizing to Dalit, Muslim, and other Terai caste to reduce variation gap of health indicators.

Parallel session VI: Neonatal and adolescent health and GBV

The session was jointly chaired by: **Dr. Bikash Lamichhane** and **Ms. Durga Mishra**.

In this session, 9 papers related to neonatal and adolescent health and GBV were presented. Following are the presented topics with their respective authors:

Topic	Presenters
Experience of Mothers Having Preterm Newborns in Neonatal Care Units	Tumla Shrestha
Every Newborn- Birth Indicator Research Tracking in Hospitals	Ms. Amrita Shrestha
Utilization of Adolescent Friendly Services and its Associated factors: A mixed Method Study	Kristee Napit
Intimate Partner Violence and Maternal Nutritional Status in Nepal: Findings from NDHS, 2016	Ramesh Prasad Adhikari
Experience of Sexual Harassment in Public Transport among Female Health Science Students	Jyoti Lamichhane
Evidence-based family centered intervention on prevention of violence against women and girls in migrant communities of Baglung district, Nepal	Geeta Devi Pradhan
Newborn Service Readiness of Primary Level Health Facilities of Eastern Mountain Region of Nepal	Ambika Thapa
Improving access to Menstrual products in Nepal	Lhamo Yangchen Sherpa
Access to Family Planning products and services for Unmarried Male and Females in Nepal	Sushma Rajbanshi

Ms. Tumla Shrestha, in the first paper of the session shared experiences of mothers having preterm newborns in neonatal care units. Her findings showed both positive and negative experiences of having preterm infant in neonatal care unit (NCU) at the Tribhuvan University Teaching Hospital (TUTH). She further illustrated that although some negative experiences couldn't be removed, mother's involvement in infant care and support provided by nurses brought positive experiences with effective copying.

Ms. Amrita Shrestha, the second presenter of the session, presented on 'every newborn-birth indicator research tracking in hospitals'. Her study was a part of a multi-country study with the objectives of validating the newborn indicators collected from the health facilities and evaluating the quality of care provided. It further planned to identify the true numerator and denominator for global and national every new born indicator.

In third presentation Ms. Kristee Napit attempted to explore a mixed method study on utilization of adolescent friendly services (AFS) and its associated factors in Bhaktapur district. Her results pointed out a very low utilization of AFS in the area. She further highlighted the importance and need of increasing awareness of the importance of the adolescent friendly sexual and reproductive health services and creating an enabling environment in the service delivery site to increase service utilization.

Mr. Ramesh Prasad Adhikari, shared his research on 'intimate partner violence and maternal nutritional status in Nepal: findings from NDHS, 2016'. He identified that intimate partner violence and maternal nutritional status is associated with each other in Nepal. He further emphasized on need of national and sub-national health and nutrition policies and programs, including Nepal's multi-sectoral nutrition plan, focusing in the issue.

Ms. Jyoti Lamichhane, in her presentation, assessed the experiences of sexual harassment in public transport among female health science students of Manmohan Memorial Institute of Health Sciences. Her findings revealed significantly high prevalence of sexual harassment. She further illustrated that with increasing population and limited vehicles people are left with no option rather than travelling in the overcrowded vehicles where chances of experiencing various sorts of sexual harassments are very high.

Ms. Geeta Devi Pradhan, in her research, attempted to explore evidence based family centered intervention on prevention of violence against women and girls in migrant communities of Baglung district, Nepal. She identified that the family centered intervention has improved the lives of young married women and their relationship with in-laws and husbands. She also highlighted that as the family-centered model was feasible in migrant communities, it needs to be further scaled up in Nepali settings.

The other speaker of the session, Ms. Ambika Thapa, evaluated the newborn service readiness of primary level health facilities of eastern mountain region of Nepal. Her results found that health facilities had medium readiness for newborn services. To further increase newborn service readiness, improvement in transportation facilities, trainings with skill retention strategy, utilization of guidelines are required.

Ms. Lhamo Yangchen Sherpa, the other presenter of the session, evaluated improving access to menstrual products in Nepal. The study pointed that the total number of menstrual products currently sold/available in Nepal is far below what would be required to reach millions of women and adolescent girls in need for menstrual hygiene management (MHM) products every month. She highlighted the need to reduce the cost of MHM products to make it more affordable.

The last presenter of the session, Ms. Sushma Rajbanshi presented on 'access to family planning products (FPP) and services for unmarried male and females in Nepal'. Her study illustrated although youth felt shy, fearful, and cautious to reach out to buy FPP, unmarried youths mostly knew and use condoms, emergency contraceptive pills and withdrawals FP method.

Key issues of the session

- Menstruation being a biological process, voices was raised not to tax the MHM products.
- Processes/programs should be initiated to eliminate stigma in adolescents related to sexual and reproductive health services.
- As most of studies are based on malnutrition, overweight/obesity also needs consideration for nutrition studies.
- Repetitive respondents should be avoided during qualitative studies.
- Family planning services should be re-written removing planning word, and opting for more friendly names.

Future direction

- Future researches should be more focused mixing qualitative research with quantitative research.
- All the studies presented dig out the gap in the health system of the country, so policy makers should be aware of these gaps.
- Instead of depending only on government body, more and more public/private bodies of the health system need to be aware to fulfill the gaps.

Parallel Session VII: Environmental, Occupational and Urban health

The session was jointly chaired by Prof. Dr. Bandana Pradhan and Dr. Sharad Chandra Karna

In this session, seven papers were presented on the issues of Environmental, Occupational and Urban health related research.

Topic	Presenters
Water, improved sanitation and hygiene related practices and their interactions on under five children wasting, stunting and underweight	Som Kumar Shrestha
Musculoskeletal disorders among computer using employee of commercial banks of Pokhara Lekhnath Metropolitan City	Pradeep Bhandari
Situation of Water, Sanitation and Hygiene(WASH) and diarrheal diseases after Open defecation Free (ODF) declaration and associated factors: a cross sectional study of Makwanpur District, Nepal	Simrin Kafle
Health Risks and Behavior of Informal Waste workers in the Kathmandu Valley, Nepal	Yuba Raj Baral
Addressing Hypovitaminosis D in Nepal, a sunny country: a public health concern in Nepal	Binod Kumar Yadav
Knowledge and Perception regarding rational medicine use an responsible self medication among different stakeholders at Lalitpur	Nisha Jha
An innovative model for Rural Orthopedic Trauma Care	Mandeep Pathak
Policy content and stakeholder network analysis for infant and young child feeding in Nepal	Sumit Karn

In the first presentation, Mr. Som Kumar Shrestha shared about Water, improved sanitation and hygiene related practices and their interaction on under-five children wasting, stunting and underweight. The

findings suggested that there was significant association between household WASH related variables and different forms of under-nutrition among under-five children.

In his presentation, **Mr. Pradeep Bhandari** raised the issue of Musculoskeletal disorder (MSD) among computer using employee of commercial banks of Pokhara, Lekhnath Metropolitan city. In this cross sectional study, high prevalence of MSD in back, neck and shoulder was seen. The highest co-related factors of MSD were smoking, long working hours, posture and comfort of the chair. More than one fourth of the respondents reported uncomfortable sitting position and chair, not enough leg and arm space, lack of adjustable monitor and keyboard and less micro break within the work hour.

Ms. Simrin Kafle demonstrated the situation of Water, Sanitation and Hygiene (WASH) and diarrheal disease after Open Defecation Free (ODF) declaration and associated factors in Makwanpur District. In this cross sectional study, WASH status in the study area was lower than the criteria for ODF declaration. However, diarrheal disease in decreasing trend of five children was found decreasing after the declaration of ODF. The WASH related knowledge among mothers was significantly associated with WASH status of households irrespective of their economic status.

Mr. Yuba Raj Baral highlighted the issues of health risks and behavior of informal waste workers in the Kathmandu valley. In this cross sectional study, findings indicated that informal waste workers were at risk of injury, infectious disease and chronic conditions, such as respiratory & mental ill health. Access to health services & proper use of personal protective equipment (PPE) could help to reduce the occupational risks.

Dr. Binod Kumar Yadav presented a paper addressing issues of Hypovitaminosis D in Nepal. Several studies related to hypovitaminosis D conducted in Nepal indicated that Diabetes Mellitus and Autoimmune thyroiditis are closely associated with Vitamin D deficiency. In addition, nearly half of the healthy study population had vitamin D deficiency and among them 13.7% had severe deficiency. Based on such studies, the presenter concluded that despite being a sunny country, hypovitaminosis D is common in Nepal.

Dr. Nisha Jha compared the knowledge and perception regarding rational medicine use and responsible self-medication among different stakeholders before and after an educational intervention. The study findings indicated that there were differences in the mean pre-intervention scores among different subgroups. There was no significant increase in scores among FCHVs while some scores increased among media personnel and among HCPs. Therefore, it was concluded that a single session may not be enough to bring about significant changes in knowledge and perception.

In the last presentation of this session, researchers **Ms. Anju Sigdel** and **Ms. Samjhana Bhujel** shared their experiences while conducting their research on differently abled population. They shared that most of the hearing deficiency participants lacked good communication with their family. They also faced ignorance from their teachers and society which led to psychosocial disturbance. One of the barriers for attending higher education was found to be long distance of the institution from their residence. They mentioned that the presenters were proud to be assumed as a role model for the participants to prove disability is not a barrier if given opportunity.

Key Points of the session:

- Informal waste workers are at high occupational health and safety risk.
- There is high prevalence of symptoms of MSD mostly affecting back, neck and shoulder
- The practice of WASH was lower than the existing knowledge among the households.
- WASH related variables is directly associated with under-nutrition among children under five.
- Increasing awareness & access to PPE may increase use of PPE may reduce the occupational risks.
- Comfortable chair, enough resting space for knee, feet and arms provision of micro break within the work hours, educating employee on symptoms of MSD would be beneficial to reduce the prevalence of MSD.

- Policies on WASH intervention could reduce the nutrition related morbidity and mortality among children under five.
- Population based study is recommended to assess the Vitamin-D level and its related factors.

Parallel session VIII: Communicable diseases and miscellaneous (Human genetics, disabilities)

The session was jointly chaired by: Dr. G. D. Thakur and Assoc. Prof. Prakash Ghimire.

In this session, 6 papers related to communicable diseases and miscellaneous (human genetics, disabilities) were presented. Following are the presented topics with their respective authors:

Topic	Presenters
Active case detection during leprosy post exposure prophylaxis (LPEP) intervention is an important method to detect hidden leprosy cases in early stage from high risk population	Gopal Pokharel
Risk profile of tuberculosis patients visiting treatment centers in selected districts of Nepal	Indra Prasad Poudyal
Distribution of Hemoglobinopathies in the ethnic group of Nepal	Gita Shrestha
Assessment of the systemic involvement in patients with sickle cell disease in far western region of Nepal	Shubhesh Raj Kayastha
Demographic and injury-related determinants of resilience among people who sustained spinal cord injury from the 2015 earthquake in Nepal	Muna Bhattarai
Understanding the barriers to young persons with disability's access to sexual and reproductive health information and services in Nepal.	Raman Shrestha

Mr. Gopal Pokharel, in the first paper of the session shared about active case detection during leprosy post exposure prophylaxis (LPEP) intervention as an important method to detect hidden leprosy cases in early stage from high risk population. LPEP is a chemoprophylaxis study providing single dose rifampicin to family and social contacts of leprosy patients. His findings showed LPEP was an effective active case detection method to detect hidden leprosy cases.

Mr. Indra Prasad Poudyal, the second presenter of the session, presented the risk profile of tuberculosis patients visiting treatment centers in selected districts of Nepal. His study suggested a notably high percentage of undiagnosed hypertension and diabetes among TB patients. He further pointed the necessity of link between national TB program and non communicable diseases.

In third presentation by Ms. Gita Shrestha, she attempted to explore distribution of hemoglobinopathies in the ethnic group of Nepal. Her study identified betathalassemia heterozygous, HbE homozygous, HbE heterozygous, HbE HbD heterozygous types of hemoglobinopathies among the samples studied. She pointed out the ignorance of the general mass of people being ignorant about these genetic disorders they carry.

Mr. Shubhesh Raj Kayastha, shared his research on 'assessment of the systemic involvement in patients with sickle cell disease in far western region of Nepal'. His study demonstrated bone pain, repeated blood transfusions, dilated and segmented conjunctival blood vessels, hyperemic disc, pulmonary regurgitation, tricuspid regurgitation, pulmonary arterial hypertension, splenomegaly, hyposplenism, cholelithiasis were associated with patients of sickle cell disease. His study further concluded multi-system involvement being common in sickle cell disease.

Ms. Muna Bhattarai, in her presentation, assessed the demographic and injury-related determinants of resilience among people who sustained spinal cord injury from the 2015 earthquake in Nepal. Her findings revealed that more than half of Nepalese who sustained SCI from the 2015 earthquake in

Nepal had not achieved a high level of resilience 2 years later. The results highlighted the importance of providing appropriate intervention and allocating continuing support to the Nepalese people with SCI.

The last presenter of the session, **Mr. Raman Shrestha** presented on understanding the barriers to young persons with disabilities access to sexual and reproductive health (SRH) information and services in Nepal. Her study illustrated only a quarter of respondents consulted a SRH service provider while most respondents believed one or more misconceptions about family planning methods. The barriers identified for obtaining necessary services were, familial, societal and health service provider discrimination, communication barriers, and lack of disability friendly infrastructure, information and policy.

Key issues of the session

- The topics presented were very interesting, with good initiative for scientific insights supplemented with valid queries and answers during the discussion.
- Policy and programmatic interventions to link TB and NCDs is required.
- The proper screening of thalassemia need to be carried out to avoid carriers being propagated. Marriage of carriers should be avoided.

Future direction

- A national thalassemia control program is required in the country. Appropriate policy should be adopted for addressing the key issues discussed and gaps in health system pointed out.
- Need of understanding and incorporating the opinion and experiences of young persons with disabilities while developing and strengthening disability friendly sexual and reproductive health services.

CLOSING SESSION OF THE SUMMIT

In the closing session of the summit, following distinguished delegates represented the dais.

1. Prof. Dr. Anjani Kumar Jha, Executive Chairperson NHRC
2. Dr. Bhojraj Adhikari, Vice- Chairman, NHRC
3. Dr. Sandhya Chapagain, Board member, NHRC
4. Prof. Dr. Mrigendra Raj Pandey, Emeritus Chairperson, NHRC
5. Dr. Shyam B.K, Board member, NHRC

The session was facilitated by **Dr. Sushil Baral**. He summarized the whole session and read out the Declaration of Summit with detail explanation. Participants were requested for the feedback in the summit declaration and were endorsed.

Award ceremony

The awards in the summit were presented in the different categories:

Award	Name
Mrigendra Samjhana Medical Trust Young Health Research Award	Dr. Sunil Munkarmi
Publication Award from Nepal Health Research Council	Dr. Meghnath Dhimal
Best paper in oral presentation	Ms. Muna Bhattarai
Best poster presentation	Dr. Smriti Pant
Health Research Outstanding Award	Dr. Dinesh Neupane
Best paper award of Journal of Nepal Health Research Council	Mr. Bishnu P. Upadhyaya
Best Employee of NHRC	Mr. Nirbhaya Kumar Sharma

Dr. Bhoj Raj Adhikari on his remarks emphasized on the research activities towards one world one health. As Nepal is moving towards federal system, the political reforms should be made through generated evidences. He also mentioned that the summit comprised of 66 oral presentation, 67 poster presentations, and 16 chairs working in health and development sectors. Dr. Adhikari also committed to the declaration throughout the year.

Closing Remarks

On behalf of NHRC, Prof. Dr. Anjani Kumar Jha delivered the closing remarks. Prof Jha thanked all the participants, NHRC family, scientific committee, steering committee for successful completion of the summit. He also thanked collaborators of the summit for their support. He thanked Karki Banquet for providing the venue for the summit. He also notified about the PG Grants and State Grants awarded this year for motivation to the researches. In addition he was hopeful to add other awards like best state grant award and best PG grant award next year. Finally he concluded with the commitment to follow the summit declaration.

In the press meet following the closing session, Dr. Jha briefed journalists about the summit, major activities, and key issues discussed during the two days summit.

SUMMIT DECLARATION

Fourth National Summit of Health and Population Scientists in Nepal

'Advancing Evidence for Changing Health Systems in Nepal'

Nepal Health Research Council

11-12 April 2018, Kathmandu, Nepal

Health research is one of the cornerstones for shaping health system that is strong, resilient, accessible, affordable, responsive and sustainable. We acknowledge that such health system contributes to achieving Universal Health Coverage. It is a foundation for harnessing demographic dividend, inclusive economic growth, prosperity, equity, social justice and quality of life. We recognize the recent political changes in the country with re-structuring of state and governance systems which provide an opportunity for advancing research and innovations to strengthen health system in the country.

Building on the foundation of health research practices in Nepal, and acknowledging the importance of harnessing evidence to strengthen national health system, Nepal Health Research Council in collaboration with a number of institutions, organized the 4th annual National Summit of Health and Population Scientists in Nepal on 11-12 April 2018. The rich discussions and deliberations at the summit highlighted the 'need for actions' under a number of key areas that are aimed to accelerate accomplishment of the summit theme '*Advancing Evidence for Changing Health Systems in Nepal*'.

We, the delegates, representing the Ministry of Health and Population, Nepal Health Research Council, professional councils and associations, academic institutions, bi-lateral and multilateral agencies, civil society, private sector, and individual researchers and scientists, collectively commit to the following declarations;

Undertake a rigorous appraisal of health research system including available resources, institutional and individual expertise, areas of research priority, with a view to advancing research system in federal context addressing needs of different sections of population;

Continue quality research for generation, synthesis and application of knowledge towards improving health system performance to contribute to achieve universal health coverage;

Continue high-level political advocacy for developing Centers for Excellence in health research;

Advocate for effective implementation of the international and national commitments made by the country for allocating adequate resources in health research;

Promote and adhere to responsible conduct of research practices,

Strengthen mechanisms to promote research capabilities of young researchers and scientists by increasing availability of research grants and capacity building opportunities and

Foster partnership among academia, research institutions, private sectors and researchers to enhance research capabilities and innovations - at national and international levels - that would address federal, provincial and local health research priorities.

FOURTH NATIONAL SUMMIT OF HEALTH AND POPULATION SCIENTISTS IN NEPAL

'Advancing Evidence for Changing Health Systems'

April 11-12, 2018

Kathmandu, Nepal

[Program Schedule](#)

Day 1, 11 April 2018, Wednesday	
8:00-09:00	Registration/Breakfast
9:00-10:30	Inaugural Session <ul style="list-style-type: none"> Welcome and objectives of the summit, Dr. Bhojraj Adhikari, Vice Chairman, NHRC Remarks by Dr. Paul Rueckert, Chief Technical Advisor, GIZ Nepal Remarks by Dr. Midori Sato, Chief of Health, UNICEF Nepal Remarks by Dr. Jos Vandelaer, WHO Representative to Nepal Remarks by Dr. Nicholas Cadge, EDP Chair Nepal Prof. Dr. Gopal Prasad Acharya, Past President, NHRC Remarks by Prof. Dr. Mrigendra Raj Pandey, Emeritus Chairperson, NHRC Remarks by Dr Sushil Nath Pyakuryal, Chief Specialist, MOHP Remarks by Chief Guest Honorable Ms. Padma Kumari Aryal, State Minister, Health and Population Closing remarks by Prof. Dr. Anjani Kumar Jha, Executive Chairman, NHRC Oration Speech by Prof. Dr. Arjun Karki
10.30-11:00	Tea Break /Poster Presentation
11:00-12:50	Plenary Session I (Health research in Nepal)-(Chair:Dr. Rita Thapa and Madan Prasad Upadhyaya)
11.00-11:20	Health research and financing in federal health system Prof. Dr. Praveen Mishra in Nepal
11:20-11:40	Health research trends and ongoing research projects Dr. Meghnath Dhimal in Nepal

11:40-12:00	NCD, injuries and poverty in Nepal	Dr. Bhagwan Koirala and Nepal NCDI Poverty team
12:00-12:20	Oration Speech	Prof. Dr. Arjun Karki
12:20-12:50	Discussion followed by Chairs Remarks	
12:50-13:50	Lunch	
13:50-15:20	Parallel Session I: Non-Communicable Diseases (Chair: Dr. Baburam Marasini and Dr. Abhinav Vaidya)	Parallel Session II: Nutrition and food safety (Chair: Prof. Dr. Ramesh Kant Adhikari and Prof. Dr. Lochana Shreshtha)
13:50-14:00	Healing of pressure ulcer with wrap therapy in Bir Hospital, NAMS	Roshani Laxmi Tuitui
14:00-14:10	Developing non-communicable disease care delivery services in Achham, Nepal	Anirudh Kumar and Santosh Pandey
14:10-14:20	Health Related Quality of Life of Renal Transplant Recipients at a Teaching Hospital, Kathmandu	Sheela Thapa
14:20-14:30	Autoimmune Thyroiditis Among Hypothyroid Individual And Its Association With Vitamin D	Jyoti Palanchoke
14:30-14:40	Study on relationship between socioeconomic status and blood pressure control among hypertensive patients: A Cross sectional study in a municipality of Eastern Part of Nepal	Buna Bhandari
14:40-14:50	Self Care Practices among persons with diabetes mellitus attending a tertiary level hospital	Darshana Dhungana
		Factors associated with complementary feeding practices and stunting among children aged 06-23 months in Dalits and Non-Dalits of Dhanusha District, Nepal
		Nutritional Status of the Cancer Patients Receiving Chemotherapy in an Oncology Centre, Nepal
		Compliance of Iron and Folic Acid Supplementation and Status of Anemia during Pregnancy in the Eastern Terai of Nepal
		Quality of Life and Nutritional Status of Geriatric Population of Lahan Municipality
		Nutritional Status of Children residing in Orphanages in Kathmandu Valley
		Dietary Practices of Lactating Mothers, Feeding Practices to Children and their nutritional status
		Usha Gautam

14:50-15:20	Discussion followed by Chairs Remarks		
15:20-15:50	Tea Break /Poster Presentation		
16:00-17:30	Parallel Session III: Maternal, Sexual and reproductive Health(Chair: Dr .Kiran Regmi and Dr.Bhola Ram Shrestha	Parallel Session IV: Mental Health (Dr Dipendra Raman Singh and Prof. Dr. Saroj Prasad Ojha,	
15:50-16:00	Determinants of Breastfeeding Practice among Mothers Attending a Maternal and Child Health Clinic in Kathmandu	Sharada Acharya	A cross-sectional study on stigma towards mental illness among the community people of Shankarapur municipality, Kathmandu
16:00-16:10	Childbirth Practices and Women's Perceptions towards Childbirth in Western Nepal: A Community Based Qualitative Study	Tulsi Bhandari	Ram Awareness And Help Seeking Behavior regarding Mental Illness among Students in a college of Lalitpur
16:10-16:20	Determinants of Fear of Childbirth among the Pregnant Women attending in an Antenatal Clinic, Nepal	Amrita Pahadi	Ethnic disparities in trauma severity among the children of Kathmandu affected by 2015 Earthquake, Nepal
16:20-16:30	Quality of Life of Women after Hysterectomy In Pokhara	Kalpana Paudel	Post Traumatic Stress Disorder and Coping Strategies among the Adult Survivors of Earthquake, Nepal
16:30-16:40	Youth Friendly Reproductive Services: an exploratory study on the SRH experiences and needs of young people in Nepal	Deepika Bhatt	Depression in patient undergoing Hemodialysis
16:40-16:50	Factors associated with repeat abortion among women seeking abortion in Paropakar Maternity and Women's Hospital	Sajana Maharjan	Screening for preoperative anxiety among patient undergoing surgery at tertiary level hospital

16:50-17:00	Age at Marriage and Reproductive Health Consequences- A Community Based Cross-sectional Study in Panauti, Nepal	S a m i k s h a Neupane	Loneliness and depression among older people living in community	Kamana Mishra
17:00-17:30	Discussion followed by Chairs Remarks			
17:30-18:00	Tea Break / Poster Presentation			
18:00-20:30	Reception Dinner with Cultural Programme			
Day II, 12 April 2018, Thursday				
07:30-08:30	Breakfast			
08:30-10:20	Plenary Session 2 (Global Health)- (Chair:Prof. Dr. Jagdish Agrawal and Dr. Laxmi Pathak			
08:50-09:10	Opportunities and challenges of education and research in Nepal	Archana Amatya and Biraj Karmacharya		
08:50-09:10	Climate change, health and funding opportunities for Nepal	Meghnath Dhimal and Rajaram Pote Shrestha		
09:10-09:30	Research Ethics and Scientific Publication	Aarati Sah and Ganesh Dangal		
09:30-9:50	Innovation in maternal and newborn service delivery in Nepal	Ashish K.C		
9:50-10:20	Discussion followed by Chairs Remarks			
10:20-10:50	Tea Break and Poster Presentation			
10:50-12:50	Parallel Session V: Health Systems, Governance and Financing (Chair: Dr. Nilambar Jha and Prasai,)	Mr. Devi	Parallel Session VI:, Neonatal and adolescent health and GBV (Chair: Dr. Bikash Lamichhane and Ms. Durga Mishra)	
10:50-11:00	A public Private Partnership for Nepali healthcare: A case study of Charikot Hospital	SP Kalaunee and Binod Dangal	Experience of Mothers Having Newborns in Neonatal Care Units	Tumla Shrestha

11:00-11:10	Assessment of health facilities for implementation of package of essential non-communicable disease in Nepal: evidence from baseline study in Kailali and Ilam district	Sudip Kumar Ale	Every Newborn- Birth Indicator Research Tracking in Hospitals	Elisha Joshi
11:10-11:20	Predictors of Affective Commitment among University Nursing Faculties of Kathmandu Valley	RekhaTimalsina	Utilization of Adolescent Friendly Services and its Associated factors: A mixed Method Study	Kristee Napit
11:20-11:30	Health inequalities: caste wise variance in major health indicators, Nepal	Mirak Raj Angdembe	Intimate Partner Violence and Maternal Nutritional Status in Nepal: Findings from NDHS, 2016	Ramesh Prasad Adhikari
11:30-11:40	Factors determining catastrophic out of pocket payment for healthcare services by Nepalese households	Arjun K. Thapa	Experience of Sexual Harassment in Public Transport among Female Health Science Students	Jyoti Lamichhane
11:40-11:50	Knowledge and willingness to pay for Social Health Insurance Scheme among marginalized adults of Lulang, Myagdi	Insha Pun	Evidence-based family centred intervention on prevention of violence against women and girls in migrant communities of Baglung district, Nepal	Geeta Devi Pradhan
11:50-12:00	An Innovative Model for Rural Orthopedic Trauma Care	Mandeep Pathak	Newborn Service Readiness of Primary Level Health Facilities of Eastern Mountain Region of Nepal	Ambika Thapa
12:00-12:10	Policy content and stakeholder network analysis for infant and young child feeding in Nepal	Sumit Karn	Improving access to Menstrual products in Nepal	Lhamo Yangchen Sherpa
12:10-12:20	-	-	Access to Family Planning products and services for Unmarried Male and Females in Nepal	Sushma Rajbanshi
12:20-12:50	Discussion followed by Chairs Remarks			

12:50-13:50 Lunch

13:50-15:30 Parallel Session VII: Environmental, Occupational and Urban health-(Chair: Prof. Dr. Bandana Pradhan and Dr. Sharad Chandra Karna) **Parallel Session VIII: Communicable Diseases and Miscellaneous (Human genetics, Disabilities)- (Chair: Dr. G.D Thakur and Prof. Dr. Prakash Ghimire)**

13:50-14:00 Water, improved sanitation and hygiene related practices and their interaction on under-five children wasting, stunting and underweight. **Som Kumar Shrestha** **Active Case Detection during Leprosy Post Exposure Prophylaxis (LPEP) intervention is an important method to detect hidden leprosy cases in early stage from high risk population** **GopalPokharel**

14:00-14:10 Musculoskeletal disorder among computer employee of commercial banks of PokharaLehknath Metropolitan city **Pradeep Bhandari** **Risk profile of tuberculosis patients visiting treatment centers in selected districts of Nepal** **Indra Prasad Poudyal**

14:10-14:20 Situation of Water, Sanitation and Hygiene (WASH) and diarrheal disease after Open Defecation Free (ODF) declaration and associated factors: a cross sectional study of Makwanpur District, Nepal **Simrin Kafle** **Distribution of Hemoglobinopathies in the Ethnic Group of Nepal** **Gita Shrestha**

14:20-14:30 Health Risks and Behavior of Informal Waste Workers in the Kathmandu Valley, Nepal **Yuba Raj Baral** **Assessment of the systemic involvement in patients with Sickle cell disease in far western region of Nepal** **Shubhesh Raj Kayastha**

14:30-14:40	Addressing Hypervitaminosis D in Nepal, a sunny country: a public health concern in Nepal	Binod Kumar Yadav	Demographic and injury-related determinants of resilience among people who sustained spinal cord injury from the 2015 earthquake in Nepal	MunaBhattarai
14:40-14:50	Knowledge and perception regarding rational medicine use and responsible self-medication among different stakeholders at Lalitpur	Nisha Jha	Understanding the barriers to young persons with disability's access to sexual and reproductive health information and services in Nepal.	Raman Shrestha
14:50-15:00	Strengthening the Voices of Adolescents with Disabilities in Nepal	CBM International	-	-
15:00-15:30	Discussion followed by Chairs Remarks			
15:30-16:00	Tea Break and Poster Presentation			
16:00-17:00	Award Presentations & Closing Session			
17:00-17:30	Press Meet (Closed Session)			

POSTERS PRESENTED IN THE SUMMIT

Theme 1: Adolescent Health

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|-------|--|------------------------|
| 2.1.1 | Causes and Consequences of Child Marriage in Kapilvastu District, Nepal | Ms. Sunita Thapa |
| 2.1.2 | Health Risk Behaviors among Secondary Level Students in Pokhara Valley: A School-based Health Survey | Mrs. Kamal Ranabhat |
| 2.1.3 | Early Marriage and Adolescent Pregnancies in Nepal: Promoting Gender Equity | Mr. Hari Jung Rayamazi |

Theme 2: Ayurveda & Other Traditional and Complementary Medicine

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| 2.2.1 | The pharmacological importance of Lentinus edodes | Mr. Grinsun Sharma |
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Theme 3: Biomedical Research (Including Anti-microbial Resistance)

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| 2.3.1 | Clinico-microbiological Profile of Surgical Site Infection and Their Antibiotic Sensitivity Pattern among Post-operative Patients Admitted in Tertiary Care Hospital, Kathmandu, Nepal | Dr. Neha Shrestha |
| 2.3.2 | Non-fermentative Gram Negative Bacilli Infection and Their Antimicrobial Susceptibility Pattern among Hospitalized Patients in a Tertiary Care Hospital, Kathmandu | Mr. Santosh Kumar Yadav |

Theme 4: Communicable Diseases (Infectious & Tropical Diseases Including Neglected Tropical Diseases)

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| 2.4.1 | Bacterial Etiology of Lower Respiratory Tract Infections and Their Antimicrobial Susceptibility Pattern among Patients Visiting a Tertiary Care Hospital of Kathmandu, Nepal | Ms. Sajani Prajapati |
| 2.4.2 | Compliance to Directly Observed Treatment Short Course (DOTS) Chemotherapy among the Pulmonary Tuberculosis Patient in Kathmandu District of Nepal | Dr. Sudhir Kumar Shah |

Theme 5: Contraception

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| 2.5.1 | Knowledge, Attitude and Practice on Contraception among Married Women of Reproductive Age Living in Squatters of Kathmandu Valley | Ms. Priyanka Khatiwada |
| 2.5.2 | Knowledge, Attitude and Practice on Emergency Contraception among Undergraduate Students in Lalitpur District | Ms. Prativa Thakuri |

Theme 6: Disabilities

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| 2.6.1 | Introduction of Disability Cards: A Study on Disability Policy Implementation in Okhaldhunga VDC, Okhaldhunga, Nepal | Ms. Namrata Pradhan |
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Theme 7: Emergency, Trauma and Critical care (Including Injuries and Accidents)

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| 2.7.1 | Risky Road Behavior among Youth of Higher Secondary and Undergraduate Level Students of Kathmandu District | Ms. Suyasha Koirala |
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Theme 8: Environmental and Occupational Health (Including Climate Change, Indoor Air Pollution)

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| 2.8.1 | Indoor Carbon Monoxide (CO) Exposure and its Association with Exhaled CO in Woman Exposed to Different Cooking Fuel Smoke at Chitwan, Nepal | Dr. Sudesha Khadka |
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2.8.2	Personal Exposure to Particulate Matter During Cooking with Different Cooking Fuels: A Cross-sectional Study in Rural Dwellings of Chitwan, Nepal	Dr. Smriti Pant
2.8.3	Occupational Safety and Health Status among Workers of Textile Industries in Bhaktapur District	Ms. Mehendi Prakash
2.8.4	Personal Exposure to Particulate Matter during Cooking with Different Cooking Fuels: A Cross-sectional Study in Rural Dwellings of Chitwan, Nepal	Dr. Smriti Pant
2.8.5	Assessment of Renal Function and Severity of Muscle Injury in Patients with Organophosphorus Poisoning: A Hospital Based Study	Ms. Saru Twayana
Theme 9: Essential Medical Products (Including Pharmaceutical Products, Pharmacovigilance and Rational Use of Drugs)		
2.9.1	Parental Misuse of Antibiotics in the Management of Upper Respiratory Tract Infection in Children Attending a Tertiary Hospital in Nepal	Dr. Suchita Shrestha
2.9.2	Availability, Affordability and Price Variations of Cardiovascular Drugs in Kathmandu Metropolitan City	Ms. Sabitra Pandey
Theme 10: Gender Based Violence		
2.10.1	A Study of Perception of Male Adolescents regarding Sexual Harassment in Bhaktapur District	Ms. Nirmala Prajapati
Theme 11: Geriatric Health		
2.11.1	Life Satisfaction and Insomnia among Community Dwellers Elderly of Lalitpur	Assistant Professor Bina Rana Khagi
Theme 12: Health Care Delivery System (Health Services, Including Quality of Care)		
2.12.1	Knowledge and Practice Regarding Endotracheal Care among the Health Professional of Shahid Gangalal National Heart Center, Nepal	Ms. Punam Dahal
Theme 13: Health Economics and Health Care Financing		
2.13.1	Cost-effectiveness Analysis of Oral Hypoglycemic Agents for Type-II Diabetes at TUTH	Mr. Saroj Dhakal
Theme 14: Health Information Technology in Health Service and Research		
2.14.1	Seroprevalence of Hepatitis-c Virus and Tuberculosis Co-infection among HIV Infected Individuals	Ms. Urusha Maharjan
Theme 15: Health Policy, Management, Leadership, Governance (Stewardship) and Policy Evidence Nexus		
2.15.1	Does Poor Benefit from Free Health Care Policy? Empirical Evidence from Nepal	Dr. Nirmal Kumar Raut
Theme 16: Health Workforce (Human Resources for Health)		
2.16.1	Human Resource in Dentistry: Present Status and Future Prediction	Prof. Dr. Rabindra Man Shrestha
2.16.2	Stress: How is it Affecting Service Delivery and Health of Nurses?	Ms. Samjhana Baral
Theme 17: Industry, Academia and Partnership		
2.17.1	Perception of Nursing Students towards Clinical Learning Environment in Selected Colleges of Kathmandu	Ms. Srijana Sunuwar
2.17.2	Analysis of Drug Promotional Literatures Distributed by Pharmaceutical Companies in Nepal	Dr. Pravin Prasad

Theme 18: Maternal Health

2.18.1	Factors Associated With Use of Maternal Health Services in Nepal: Analysis of the 2016 Nepal Demographic and Health Survey	Mr. Prithutam Bhattarai
2.18.2	Experiences of Women Affected With Uterine Prolapse: A Qualitative Study	Ms. Rabina Thagunna
2.18.3	Utilization of Maternal Health Services among Mothers Having Under Five Year Children of Tamang Community at Nuwakot District	Ms. Sarmin Lama
2.18.4	A Comparative Study to Assess sFlt-1: PlGF Ratio in Pregnant Women with and without Preeclampsia	Dr. Vivek Pant
2.18.5	Maternal Healthcare Utilization and Choice of Place of Childbirth in Sindhupalchok District of Nepal	Dr. Mukta Singh Bhandari
2.18.6	Does Readiness and Quality Affect Client's Satisfaction with Antenatal Care Services in Nepal?	Mr. Bishnu Prasad Dulal
2.18.7	Comparative Study on Women Satisfaction of Childbirth between Birthing Center and Labor Room of Maternity Hospital, Kathmandu	Prof. Radha Ranabhat

Theme 19: Mental Health, Substance Abuse and Dementia

2.19.1	Depression and Stress among Tribhuvan University Students in Kathmandu Valley	Mr. Aayush Timsina
2.19.2	Relapse Problem among Clean Addicts in Kathmandu District	Ms. Rashmi Ghimire
2.19.3	Knowledge and Personal Belief on Mental Illness among Bachelor Level Students inside the Ring-Road of Kathmandu Valley	Ms. Alisha Acharya
2.19.4	Postpartum Depression and its Associated Factors among Women of Godavari Municipality, Nepal	Ms. Anisha Chalise
2.19.5	Parental Stress and Coping in Rearing Children with Intellectual Disability	Ms. Amrita Shrestha

Theme 20: Neonatal and Child Health

2.20.1	Prevalence and Associated Factors of Childhood Overweight/ Obesity among Primary School Children in Lalitpur District	Ms. Ashmita Karki
2.20.2	Influence of Parental Child Feeding Practices in Children's Dietary Intake and Weight Status	Ms. Shrijana Pandey

Theme 21: Non Communicable Diseases

2.21.1	Breast Cancer Knowledge and Screening Practices among Women of Changunarayan Municipality, Bhaktapur, Nepal	Ms. Sameera Gautam
2.21.2	Knowledge and Practice Regarding Prevention of Osteoporosis among Middle-aged Women of Selected Areas in Biratnagar	Ms. Bhawana Wosti
2.21.3	Lived Experiences of Adults with Myocardial Infarction Residing in Kathmandu	Ms. Urmila Shakya
2.21.4	Anxiety and Depression among Patient with Thyroid Disorders Attending a Tertiary Level Hospital of Kathmandu	Ms. Binu Gorkhali

2.21.5	Knowledge and Practice of Breast Self Examination among Women of Reproductive Age in Butwal Sub-metropolitan City	Ms. Saraswati Sharma
2.21.6	Quality of Clients with an Ostomy Attending in Nepal Ostomy Association	Ms. Susmita Shiwakoti
2.21.7	Bacteriology and Antibigram of Uropathogens Isolated from Renal Disease Patients attending Tribhuvan University Teaching Hospital	Ms. Anuja Dahal
2.21.8	Prevalence and Associated Risk Factors of Lower Limb Varicose Vein in Nurses Working in Tertiary Level Hospital	Ms. Anuja Chaulagain
2.21.9	Knowledge, Attitude and Practice Regarding Breast Cancer and its Screening Methods among Women Visiting NMCTH	Ms. Sampada Bhatta
2.21.10	Quality of Life of Patients with COPD Attending Nepal Medical College and Teaching Hospital	Ms. Greeshma Pokharel
2.21.11	Prevalence, Associated Factors, Awareness, Treatment, and Control of Hypertension: Findings from a Cross-sectional Study Conducted as A Part of A Community Based Intervention Trial in Surkhet, Mid-western Region of Nepal	Dr. Mahesh Kumar Khanal
2.21.12	Oral Health Status of Permanent First Molars among School Children Aged 8-12 Years in Kathmandu	Dr. Anju Khapung
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Theme 22: Nutrition, Food Safety and Security		
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2.22.2	Knowledge, Attitude and Practice of Hygiene among School Food Handlers in Kathmandu Metropolitan City	Ms. Prasansha Basnet
2.22.3	Understanding Barriers and Facilitators of Healthy Eating in Hospital Site Cafeterias in Central Nepal	Dr. Dipesh Tamrakar
2.22.4	Treatment of Dysgeusia Related to Cancer and Its Treatment: A Systematic Review	Ms. Durgeshwori Munankarmi
2.22.5	Factors Associated With Discontinuation Of Exclusive Breast Feeding Among Mothers With Infants In Selected Hospitals, Mid-Western Region	Asso. Prof. Kamala Uprety
Theme 23: Sexual & Reproductive Health		
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2.23.2	Age at Marriage and Reproductive Health Consequences- A Community Based Cross-sectional Study in Panauti, Nepal	Dr. Samikshya Neupane

2.23.3	Knowledge and Attitude on Sexual and Reproductive Health among Adolescents in Selected Public Schools, Lalitpur	Prof. Sulochana Shrestha
2.23.4	Quality of Life among People Living with HIV/AIDS in Bharatpur, Chitwan	Ms. Rojina Baral
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