Health Research Priority Areas of Nepal 2019

Government of Nepal
Nepal Health Research Council
Preface

Health research priority setting practices assist researchers and policymakers in effectively pointing research that has the greatest potential public health benefit. Particularly for low-income countries like Nepal, national health research priorities settings can facilitate the transformation of a donor-driven research agenda to an agenda driven by countries’ needs.

Previously set priorities should be periodically reviewed to ensure that priorities are up to date. The priorities set out in this booklet has come out through rigorous and continuous process of review of different national documents, reports, health sector strategies, global action plan, global strategies, health research prioritization of World Health Organization (WHO), several survey results and current scenario of diseases in the country. After review, the health research areas were discussed and finalized through workshops, consultative meetings as well as expert meetings and past/present policy maker’s meetings. In the course of finalization, there has been involvement of various stakeholders of the relevant departments, divisions, centers, and hospitals within the Ministry of Health & Population (MoHP) including representatives from academic, non-government and civil society sectors.

This document describes the national priority to generate quality evidences in health and finally contribute in evidence informed policy making. I hope that this publication will be useful not only for the identification of health research priorities but also aid researchers and policymakers in effectively targeting health research that is needed the most in a sustainable manner.

I would to express my sincere thanks to Dr. Meghnath Dhimal, Chief Research Officer, NHRC; Dr. Rajendra Kumar BC, Research Advisor, NHRC; Prof. Dr. Prakash Ghimire, Chair of Ethics Review Board, NHRC and Research Officers Dr. Diwakar Guragain, Ms. Namita Ghimire and other research officers of NHRC for their valuable contribution in developing this booklet. Finally, I would like to thank Mr. Nirbhaya Kumar Sharma, Mr. Subodh Kumar Karna and Mr. Bijay Kumar Jha of NHRC for their administrative support and coordination to develop this booklet.

Prof. Dr. Anjani Kumar Jha
Executive Chairman (NHRC)
# Table of Contents

Introduction ........................................................................................................................................................................1

Health Research Areas ..................................................................................................................................................................1

1. Health System: ........................................................................................................................................................................2

2. Non-Communicable Diseases (NCD) .................................................................................................................................5

3. Communicable/Infectious Diseases .....................................................................................................................................7

4. Maternal, New-born and Child Health including Reproductive Health .............................................................................8

5. Mental Health and Substance Abuse ....................................................................................................................................11

6. Accidents, Injuries and Violence ..........................................................................................................................................12

7. Nutrition and Food Safety .......................................................................................................................................................12

8. Environment and Occupational Health and Climate Change ............................................................................................13

9. Ayurveda and Alternative Medicine .....................................................................................................................................15

10. Miscellaneous ........................................................................................................................................................................16
Introduction

Nepal Health Research Council (NHRC) was established through parliament Act in 1991 with an aim To promote quality and ethical standard of health research in the country. The scope of council is to approve, monitor, conduct and promote health research and improve use of health research in Nepal. Major duties and rights of NHRC are to formulate health research policy and give a definite direction for the promotion, implementation, management and utilization of all aspects of health research in Nepal including to specify areas for health research.

Health research areas in Nepal have been set through rigorous and continuous process of review of different national documents, reports, health sector strategies, global action plan, global strategies, health research prioritization of World Health Organization (WHO), several survey results and current scenario of diseases in the country. After review, the health research areas were discussed and finalized through workshops, consultative meetings as well as expert meetings and past/present policy maker's meetings. In the course of finalization, there has been involvement of various stakeholders of the relevant departments, divisions, centers, and hospitals within the Ministry of Health & Population (MoHP) including representatives from academic, non-government and civil society sectors.

Ultimately, the following health research areas have come out and are listed as follows:

Health Research Areas

1. Health Systems
2. Non-Communicable Disease
3. Communicable/Infectious Disease
4. Maternal, New-born and Child Health including Reproductive Health
5. Mental Health and Substance Abuse
6. Accidents, Injuries and Violence
7. Nutrition and Food Safety
8. Environmental and Occupational Health
9. Ayurveda and Alternative Medicine
10. Miscellaneous
Sub-areas within Health Research Areas:

1. Health System:
   - Health Care Delivery System
     - Health Care Services
       - *Basic Health Care Services (BHCS):* Availability of BHCS in Central, Province and Local Levels, Minimum Service Standards, Access, Barriers while Accessing BHCS, Coverage, Efficiency, Equity and Justice, Impact evaluation, Quality of BHCS provided by the Type of Health Facility, Use of BHCS, Client Satisfaction, Health Service Network and Referral System
       - *Diagnostic Services:* Availability of Laboratory Services along with Specific Tests at Federal Levels, Access, Quality of Laboratory Services provided by the Type of Health Facility, Client Satisfaction, Availability of Bio-medical Equipment in Central, Province and Local Levels, Bio-medical Equipment Procurement and Supply Management, Use of Bio-medical Equipment and its Calibration, Quality Assurance (QA) and Quality Check (QA), Use of Diagnostic Services, Effect of certain Bio-medical Equipment (CT-Scan, MRI etc.) in Human Health,
       - *Emergency Health Services (EHS):* Availability of EHS in Central, Province and Local Levels, Minimum Service Standard, Access, Quality of EHS at Federal Levels, Use of EHS, Client Satisfaction
       - *Universal Health Coverage (UHC):* Situation of UHC in Central, Province and Local Levels, Quality of UHC at Federal Levels, Client Satisfaction
     - *Drugs/Medicines/Vaccines/Herbal Products:* Availability of Essential Drugs/Medicines/Vaccines/Herbal Products and its Storage Condition in Central, Province and Local Levels, Access, Dispensing Services, Hospital Pharmacy, Procurement and Supply Management, Rationale use of Drug, Pharmaco/Haemo vigilance, Adverse Effects/Adverse Reaction, Prescription assessment, Inventory management, Drug Resistance, Quality of Drugs/Medicines/Vaccines, Regulation of drug/medicine/herbal product production and supply
◊ **Human Resources for Health (HRH):** Availability of HRH by the Type of Health Facility and targeted Services, Efficiency, Deployment, Recruitment, Production, Capacity Building, Service Assessment, Retention, Quality of HRH, Human Resource Management

◊ **Health Information Management:** Knowledge Flow and Coordination between Different Government Levels, Availability of Required Health Information in Central, Province and Local Levels, Access to Health Information, M & E in Federal Context, Data Reporting System, Health Management Information System (HMIS), District Health Information System (DHIS), Logistic Management Information System (LMIS), Financial Management Information System (FHIS), Integrated Financial Management Information System (IMBIS), Drug Management Information System (DMIS), Research Management Information System (RMIS), Information Gap in Health Sector; Record Keeping - including Birth and Death Register; Health Registry (Cancer, Diabetes, etc.), Hospital Statistics, UHC Monitoring at all level of Governments, Interoperability and Uninterrupted HMIS recording and reporting at each level of government, Uniformity in Health Information, E-recording, Data Quality and Assurance Mechanism

◊ **Health Economics and Financing:** Availability of Health (and also Research) Budget in Central, Province and Local Levels, Health Account (Central, Provincial and Local Health Account), Health Care Financing (Co-financing), Heath Care Expenditure, Out of Pocket (OOP) Expenditure, Public Sector Expenditure, Demand based Financing, Cost Sharing, Health Co-operatives, Socio-economic Impact of Diseases, Financial Sustainability, Treatment Cost (Indoor, Outdoor and Emergency), Risk Pooling, Financial Risk Protection to prevent Catastrophic Payment and Impoverishment, Cost Effectiveness, Financial Hardships, Health Investment and the return, Macro-economics and Health, Audit Arrangements of Health Facilities including Social Audit, Implementation Status of Transaction Accounting and Budget Control System (TABUCS)

- **Governance and Leadership**
  ◊ Governance in Different Types of Health Facility
  ◊ Leadership in Different Health Facilities
◊ Quality of Leadership and their Capacity
◊ Health Facility Management
◊ Transparency and Accountability
◊ Follow of Health Act, its Regulation and Guidelines
◊ Integrity/Ethics, Responsiveness, Health Oversight

- **Health/Medical Insurance and Social Health Security Schemes**
  ◊ Situation of Health/Medical Insurance/Health Benefit Schemes in Central, Province and Local Levels
  ◊ Quality of Available Insurance/Schemes at Federal Levels
  ◊ Use of Health Insurance and Social Health Security Schemes
  ◊ Client Satisfaction
  ◊ Enrollment/Re-enrollment in Insurance Program
  ◊ Pattern of Insurance Coverage among Poor/Ultra-poor
  ◊ Vulnerable and Marginalized Populations
  ◊ Patient Safety Program

- **Other Areas**
  ◊ Policy in Health and Policy for Health and their Implementation,
  ◊ Infrastructure and Logistics
  ◊ Community Empowerment for Active Participation in Health Delivery Issues at local level
  ◊ Right to Health Issues
  ◊ Health Seeking Behavior
  ◊ Social Determinants in Health
  ◊ Evaluation of Health Programs and Trainings
  ◊ Operational Research for Health Program Interventions
  ◊ Inter-sectoral Co-ordination and Networking (Health and Non-Health Sectors)
  ◊ Monitoring of Health Research Centers/Health Institutions/NGOs/INGOs run Health Programs
  ◊ Functional Status of Heath Facility Operational Management Committees and other related Committees
  ◊ Disparities in various Health Indicators in Provinces and Local Levels
  ◊ Disable Friendly Health Service
  ◊ Health related Sustainable Development Goals (SDGs)
2. **Non-Communicable Diseases (NCD)**

*Prevalence, Extend and Magnitude, Risk Factors, Incidence, Age Specific Mortality, Survival, Morbidity, Disability, Surveillance, Early diagnosis, Drug Resistance, Drug Regimen, Therapy, Diagnosis, Case Management, Treatment, Race Immunology and Genetics, Socio-economic and Culture, Promotion (Health Education), Behavior, Rehabilitation, Implementation of Interventions like Package of Essential Non-communicable (PEN) Diseases Package*

- **Cardiovascular Diseases**
  - Hypertension
  - Stroke
  - Ischemic Heart Disease
  - Rheumatic/Valvular Diseases
  - Cardiomyopathy
  - Blood Vessels Disorders in Heart

- **Cancer**
  - Pediatric Malignancies
  - Breast
  - Uro-genital Malignancies (Cervical, Uterine, Prostate, Ovary, Urinary Bladder)
  - Lung
  - Colon-rectal
  - Liver
  - Pancreatic
  - Blood
  - Oral
  - Skin

- **Metabolic Disorders**
  - Diabetes Mellitus

- **Chronic Renal/Kidney Diseases/Genito-Urinary Diseases**
  - Renal Failure
  - Nephritis/Nephrotic Syndrome
  - Urinary Track Infection
  - Urolithiasis
  - Bladder Outlet Obstruction
• **Chronic Respiratory Diseases/Lung Diseases**
  ◦ Bronchial Asthma
  ◦ Chronic Obstructive Pulmonary Disease (COPD)

• **Cerebro-vascular Diseases**
  ◦ Blood Vessels Disorders in Brain

• **Gastro-Intestinal Diseases**
  ◦ Peptic Ulcer Diseases – *Helicobacter pylori (H. pylori)*
  ◦ Liver Disease
  ◦ Infective and Obstructive Diseases (Gallstones and Intestinal Obstruction)
  ◦ Acute Gastroenteritis

• **Skin Diseases**
  ◦ Dermatitis
  ◦ Psoriasis
  ◦ Vitiligo
  ◦ Urticarial
  ◦ Arsenicosis

• **Neurological Diseases**
  ◦ Intracranial Disease
  ◦ Mental Retardation
  ◦ Epilepsy
  ◦ Meningitis/Encephalitis

• **Eye/ENT Diseases**
  ◦ Visual and Hearing Impairment (Cataract, Deafness),
  ◦ Refractive Errors

• **Muscular-Skeletal Diseases**
  ◦ Myopathies
  ◦ Rheumatoid Arthritis
  ◦ Gout
  ◦ Osteoporosis
  ◦ Low Back Pain
  ◦ Osteoarthritis
  ◦ Spondylosis
• **Oral Health**
  ◇ Oral Hygiene Behavior and its Awareness
  ◇ Gingivitis
  ◇ Maxillofacial disorder

3. **Communicable/Infectious Diseases**

   [Etiology, Prevalence, Extend and Magnitude, Risk Factors, Incidence, Age Specific Mortality, Survival, Morbidity, Disability, Surveillance, Early diagnosis, Drug Resistance, Vaccine, Drug Regimen, Management of Control Program, Diagnosis, Carrier, Co-infection, Outbreak, Transmission Method, Case Management, Treatment, Control Program (Management), Vector, Pathogenesis, Race Immunology and Genetics, Socio-economic and Culture, Promotion (Health Education), Behavior, Open Border, Rehabilitation]

• **Tropical Diseases**
  ◇ Tuberculosis (TB)
  ◇ Malaria
  ◇ Japanese Encephalitis (JE)
  ◇ Neglected Tropical Diseases
    ◦ Leprosy
    ◦ Dengue
    ◦ Visceral Leishmaniasis (Kalazar)
    ◦ Cutaneous Leishmaniasis
    ◦ Lymphatic Filariasis (Elephantiasis)

• **Emerging and Re-emerging Infection**
  ◇ Brucellosis
  ◇ Influenza (Bird Flu and Swine Flu)
  ◇ Scrub typhus

• **Skin Diseases**
  ◇ Scabies
  ◇ Fungal Infection
  ◇ Bacterial Infection
  ◇ Viral Infection

• **Zoonotic Diseases**
  ◇ Rabies
  ◇ Leptospirosis
• **Anti-Microbial Resistance (AMR)**
  ◦ Situation of AMR cases in Central, Province and Local Levels
  ◦ Laboratory Services Network and Referral System
  ◦ Epidemiology and Surveillance of Resistant Microbes
  ◦ Molecular Diagnostics of AMR
• **Nosocomial Infection/Hospital Acquired Infection**
• **Parasitic Infection**
• **Diarrheal Disease due to *Vibrio cholera***
• **Acute Respiratory Infection (ARI)**
  ◦ Pneumonia
• **Measles, Rubella, Polio, Diphtheria, Pertussis, Tetanus**
• **HIV/AIDS/STIs**
• **Enteric Fever (Typhoid)**
• **Infective Hepatitis**

4. **Maternal, New-born and Child Health including Reproductive Health**
• **Services**
  ◦ Availability of Maternal, New-born and Child Health (MNCH), Comprehensive Emergency Obstetric and Neonatal Care (CEONC), Ante-natal Care (ANC), Post-natal Care (PNC), Immunization, Family Planning (FP) and Adolescent Friendly (AF) Services in Central, Province and Local Levels
  ◦ Accessibility
  ◦ Barriers while assessing MNCH/CEONC/ANC/PNC/Immunization/FP Services
  ◦ Quality of MNCH/CEONC/ANC/PNC/Immunization/FP/AF Services provided by the Type of Health Facility
  ◦ Use of MNCH/CEONC/ANC/PNC/Immunization/FP/AF Services at Federal Levels
  ◦ Client Satisfaction
  ◦ MNCH/CEONC/ANC/PNC/Immunization/FP/AF Service Network and Referral System
• **Maternal, Neonatal and Child Health Programs including Reproductive Health Program**
  ◦ Process Evaluation
  ◦ Impact Evaluation

• **Early Infant Development and New-born Care Problems**
  ◦ Neo-natal Mortality
  ◦ Morbidity
  ◦ Breastfeeding
  ◦ New-born Diseases
  ◦ Neo-natal Sepsis
  ◦ Congenital Anomalies/Diseases
  ◦ Hypothermia
  ◦ Low Birth Weight (LBW)
  ◦ Prematurity
  ◦ Birth Asphyxia
  ◦ Down Syndrome

• **Childhood Development and Child Health Problems**
  ◦ Child Mortality
  ◦ Morbidity
  ◦ Child Abuse
  ◦ Diarrheal Disorders
  ◦ Blood Disorders [Glucose-6-Phosphate Dehydrogenase Deficiency (G6PD)]
    ◦ α Thalassemia, β Thalassemia, Sickle Cell or Sickle Cell Trait, etc.]
  ◦ *H. pylori* Infection
  ◦ Childhood Asthma
  ◦ Childhood Mental Health Problem
  ◦ Childhood Nutrition and its Trends
  ◦ Micronutrient Deficiency (Vitamin A, Zinc, Iron, Folate, Iodine, etc.)
  ◦ Anthropometric Measurements (Average Height/Weight etc. leading to measure Stunting, Underweight, Wasting etc.)
• **Maternal and Reproductive Health**
  ◇ Maternal Mortality
    ▪ Post partum/Ante partum hemorrhage
    ▪ Septicemia
    ▪ Pre-eclampsia
  ◇ Morbidity
    ▪ Uterine Prolapse
    ▪ Obstructive labor
  ◇ Pregnancy
    ▪ Safe Pregnancy
    ▪ Teenage Pregnancy
    ▪ Unwanted Pregnancy
  ◇ Pregnancy Complications
  ◇ Abortion
  ◇ Institutional Delivery
  ◇ Assisted Reproduction
    ▪ In Vitro Fertilization (IVF)
    ▪ Intra-uterine Insemination (IUI)
  ◇ Contraceptive Prevalence
  ◇ Emergency Contraception
  ◇ Unmet needs for Contraception
  ◇ Maternal Health Problems
    ▪ Infertility
    ▪ Blood Disorders [Glucose-6-Phosphate Dehydrogenase Deficiency (G6PD)
      α Thalassemia, β Thalassemia, Sickle Cell or Sickle Cell Trait, etc.]
    ▪ *H. pylori* infection
    ▪ Anemia (Iron Deficiency Anemia, Sickle Cell Anemia, etc.)
    ▪ Mother’s Mental Health Problem (Post Partum Depression)
    ▪ Maternal Nutrition and its Trends
    ▪ Micronutrient Deficiency (Zinc, Iron, Folate, Iodine, etc.)
    ▪ Anthropometric Measurements (Average Height/Weight)
• Others
  ◇ Health Seeking Behavior
  ◇ Safe Delivery Incentive Program

5. Mental Health and Substance Abuse

• Services
  ◇ Availability of Mental Health (MH) Services including Schemes/Services providing for minimizing use of Alcohol, Tobacco, Harmful Drugs, etc. in Central, Province and Local Levels,
  ◇ Accessibility
  ◇ Barriers while assessing MH Services and Schemes/Services for minimizing use of Alcohol, Tobacco, Harmful Drugs, etc.
  ◇ Quality of MH Services provided by the Type of Health Facility/Institution
  ◇ Use of MH Services at Federal Levels
  ◇ Client Satisfaction
  ◇ MH Service Network and Referral System

• Survey
  ◇ Substance Abuse
    ▪ Alcohol Abuse
    ▪ Tobacco Abuse
    ▪ Drug Abuse
  ◇ Mental Health
  ◇ Psychiatry Morbidity
  ◇ Psycho-epidemiology
    ▪ Psychological Disorder
    ▪ Neurosis and Psychosis
    ▪ Stress and Anxiety
    ▪ Post Traumatic Stress Disorder
    ▪ Shock and Depression

• Others
  ◇ Suicide
6. **Accidents, Injuries and Violences**
   - **Accidents and Injuries**
     - Road Traffic Accidents (RTAs)
     - Burns
     - Trauma
     - Injuries
     - Poisoning
       - Accidental Poisoning (Mushroom Poisoning, Snake and other bites)
       - Insecticide/Pesticide Poisoning
       - Bio-markers of Pesticide Poisoning
       - Drug Overdose
       - Lead, Mercury, Other Heavy Metal Poisoning
       - Childhood Poisoning
   - **Violences**
     - Gender based Violence
     - Sexuality-based Violence
     - Domestic Violence
   - **Others**
     - Radiation
     - Drowning
     - Disaster
     - Emergency Preparedness

7. **Nutrition and Food Safety**
   - **Nutritional Disorder**
     - Malnutrition
       - Protein Energy Malnutrition (PEM)
       - Under nutrition
       - Overweight
       - Obesity
     - Micro-nutrient Deficiency Disorder
     - Bio-markers of Nutritional Disorders
     - Management of Different Nutritional Disorders
• **Food Safety**
  ◦ Food Security
  ◦ Food Quality
  ◦ Food Adulteration
  ◦ Food Poisoning

• **Nutrition and Diets**
  ◦ Pattern of Nutritional Status and its Trends
  ◦ Recommended Dietary Allowance (RDA)
  ◦ Dietary Habits and its Pattern among various Segment of the Population
  ◦ Myths and Misconceptions regarding Consumption of Specific Food Items
  ◦ Community Programs for Nutrition and Its Evaluation
  ◦ Different Approaches to Improve Nutrition

• **Others**
  ◦ Diet and Physical Activity
  ◦ Sports Nutrition
  ◦ Food Fortification

8. **Environment, Climate Change and Occupational Health**

• **Water, Sanitation and Hygiene (WASH)**
  ◦ Situation of Drinking Water
  ◦ Quality of Various Sources
  ◦ Alternative Options of Drinking Water at the time of Emergency such as Disaster
  ◦ Waste Water Management
  ◦ Sanitation Measures
  ◦ Effectiveness of Water Treatment Technologies and their Quality
  ◦ Surveillance and Monitoring of Quality of Water (Bottled, Tape, etc.)

• **Pollution and Waste Management**
  ◦ Indoor Air Pollution
- Fuel Types and Health Impact (Solid Biomass Fuels, Hydroelectricity, Solar Energy, Improved Cooking Stoves and Biogas Installation and health outcomes etc.)
- Economics of Indoor Air Pollution and Health

◊ Ambient Air Pollution
  - Sources of Ambient Air Pollution and Source Correction Measures
  - Heavy Metals in Atmosphere and its Health Hazard
  - Economics of Ambient Air Pollution and Health

◊ Noise Pollution
  - Sources of Noise Pollution and Source Correction Measures
  - Health Effects due to Noise Pollution

◊ Soil Pollution
  - Contamination of Soil
  - Soil-transmitted Helminthes
  - Heavy Metal Contamination
  - Pesticide residues in Soils
  - Micro-toxins in Food grown in Different Ecological Regions

◊ Water Pollution
  - *E. coli* Contamination in Water
  - Physical, Chemical and Biological Contamination of Water
  - Arsenicosis
  - Water Borne Diseases

◊ Domestic/Industrial Waste
  - Solid/Liquid Waste Management
  - Health Facility Waste Management
  - Industrial (Pharmaceutical, Cement, etc.) Waste Management

- **Climate Change**
  ◊ Heat Wave and Human Health
  ◊ Saptio-temporal distribution of Vector Borne Diseases (Malaria, Dengue, chikungunya, leishmaniasis etc.) and water-borne diseases due to Climate Change
  ◊ Emerging Diseases due to Climate Change
◊ Natural Disaster, Anthropogenic Disaster (caused by Humans and their Activities)
◊ Air pollution, climate change and health

• **Occupational Health**
  ◊ Health of People working in Laboratory/Industrial Sector
  ◊ Health of People working in Agricultural Sector that uses Pesticides
  ◊ Exposure limit for the people working in Medical Imaging/Radiological Sector
  ◊ Safety of People’s Health working in Hazardous Areas
  ◊ Promotion of Environment and Health Friendly Technology
  ◊ Child Labor
  ◊ Environment Health Impact Assessment (EHIA)

9. **Ayurveda and Alternative Medicine**

• **Ayurvedic and related Services**
  ◊ Accessibility of Ayurvedic/Homeopathy/Acupuncture/Naturopathy/Unani/Amchi Services in Central, Province and Local Levels
  ◊ Quality of Ayurvedic Services provided by the Ayurvedic Treatment Center/Hospital
  ◊ Use of Ayurvedic and related Services at Federal Levels
  ◊ Client Satisfaction
  ◊ Ayurvedic and related Service Network and Referral System

• **Ayurvedic Medicine**
  ◊ Exploring Medicinal Property of Plants
  ◊ Situation of Ayurvedic Practices for Health in Central, Province and Local Levels
  ◊ Exploring Effective Herbal Treatment for Major Diseases like HIV/AIDS and Cancer
  ◊ Clinical Trials on Herbal Products
  ◊ Production of Herbal Product and its Supply

• **Alternative Medicine**
  ◊ Treatment Pattern of Different Alternative Medicine
  ◊ Situation of Alternative Medicine (Homeopathy/Acupuncture/
Naturopathy/Unani/Amchi) Practices for Health in Central, Province and Local Levels
◊ Exploring Effective Alternate Treatment for Chronic Diseases
◊ Production of Alternative Medicine and its Supply

10. **Miscellaneous**

- **High Altitude Sickness**
  ◊ Acute Mountain Sickness (AMS)
  ◊ High Altitude Pulmonary Edema (HAPE)
  ◊ High Altitude Cerebral Edema (HACE)
  ◊ Other Sickness in High Altitude

- **Disability**
  ◊ Situation of Disability in Central, Province and Local Levels
  ◊ Health and Nutritional Status of Disability Population
  ◊ Rehabilitation and Employment of Disable Population
  ◊ Disability Friendly Health Services
  ◊ Autism

- **Urban Health**
  ◊ Institutional Arrangement for Urban Health
  ◊ Quality of Health Services provided by the Urban Health Centers
  ◊ Use of Urban Health Services at Federal Levels
  ◊ Client Satisfaction
  ◊ Urban Health Service Network and Referral System

- **Geriatric Health**
  ◊ Geriatric Health Problems
  ◊ Social Protection and Rehabilitation
  ◊ Health Services for Geriatric Population in Central, Province and Local Levels
  ◊ Aging and Life Course
  ◊ Nutrition for Geriatric Population

- **School Health**
- **Sports Health**
- **Migrant Health**
Mitigation Measures/Preparation

- **Vulnerable Population**
  - Sex Worker
  - Drug Users
  - Migrant Workers
  - Prisoners
  - Women/Pregnant Women
  - Children
  - Students
  - Slum Dwellers
  - Employees
  - Para-publics (Army, Police and Armed Forces)

- **Academics**
  - Curriculum on Medical and Allied Health, Revision and Incorporation of Health in Academic Courses of School/College/University Level
  - Medical Education and Overall Development
  - Nutrition Education and Evaluation

- **Innovations in Health as well as in Sectors for Health**

- **Globalization**

- **Essential Health Technologies**

- **Health Action in Crisis**

- **Intellectual Property Rights (IPR)**

- **Mobile Health and Tele-medicine**

- **Biological Specimens**
  - Blood and Blood related Materials

- **Ethics and Medico Legal Services**
  - Professional, Medical and Research Ethics

- **Biomedical Research**
  - Drug
    - Drug Discovery Research
    - Drug Trials
    - Research for Bioavailability and Bioequivalence
  - Vaccine
• Vaccine Discovery Research
• Vaccine Trials
○ Human Genetics
  • Genetic Testing
  • Genetic Research
  • Gene Editing
○ Stem Cell Research
○ Bio-medical Innovation
  • Bio-medical Device Innovation
  • Frugal Innovation
○ Device Trials

- **Heredity Diseases**
- **Others**
  ○ Geographical Transition of Diseases
  ○ Disease Mapping
  ○ Connective Tissue
  ○ Immunological Disorder
  ○ Osteoporosis
  ○ Health Promotion and Advocacy
  ○ Public Counseling and Awareness
  ○ Public Health Practice
  ○ Social Taboos
  ○ Service Mapping
  ○ Sectors beyond Health for UHC
  ○ Implementation of Multi-sectoral Interventions
  ○ Data Transfer and Sharing
  ○ Bio-security and Emerging Threats
  ○ Health Communication
  ○ Health Technology
  ○ Social Research for Health
  ○ Outcome Research
  ○ Humanitarian Emergencies and Disaster Research
  ○ Assessment of Human Health Effects of Immune Toxic Agents
  ○ Chemical Risk Assessment and related Toxicological Issues