

251

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A Study on Complementariness between National Health Research Policy and Health Research Projects Carried out in Nepal



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Study on Complementariness Between National Health Research Policy and the Health Research Projects Conducted in Nepal

Rationale :

Many health research projects are being funded by the Government, by bilateral and multilateral agencies, NGO, UN agencies, foundations and World Health Organisation. The impact of the health research on overall health care delivery and health promotion has not been assessed. The general impression is that the results of health research is not utilised by decision makers while formulating policy and programmes in health services. The decision makers point of view states that the research undertaken by Health Research Scientists or donor agencies and NGO are limited to their own interest areas rather than on National Health Priorities causing difficulty in utilisation of research findings.

The proposed study aims to review the status of research projects in terms of technical areas and the amount of fund spent for different categories of research. The findings will be very useful to assess the appropriateness of health research projects being funded in the context of priority areas accorded by National Health Policy and National Health Research Policy.

General Objective :

To review different types of Health Research Projects carried out in the context of requirement of the country for health development.

Specific Objectives :

1. To put on record different types of health research conducted in the country are within boundaries of National Health Policy and National Health Research Policy.
2. To do a detailed analysis of the above record taking into consideration the categories of research projects, amount of funding, different funding agencies, research institutions that carried out these projects and status of conduct of these research projects.

Activities :

- (a) To collate and categorise the health research projects undertaken and funded by the Government, National and International NGO and by UN agencies in the country in last three years from January 1997 to December 1999.
- (b) To put on record and assess whether these health research projects are in line with National Health Policy and National Health Research Policy.
- (c) To briefly assess the complementariness of National Health Policy and National Health Research Policy.

(A) Study Design :

This is a **descriptive analytic study** involving collation of all health research conducted in Nepal in last three years and their analysis into different categories.

(B) Data Collection:

Information on Health Research carried out in the last three years was collected from various Institutions. These include the following :

- a. National Health Research Council (NHRC) Nepal Health Research Council Act states that all health research projects must be approved by NHRC before they are implemented. NHRC has the mandate and authority to approve, modify in consultation with the party involved or disapprove health research projects. All health research project approved by NHRC between 1 January 1997 to 30 December 2000 were collated and analysed into different categories like reproductive health, Nutrition, child and adolescent health, TDR, NCD etc.
- b. Universities, Academic Institutions, RONAST, Research Centres - Letters were sent out Royal Nepal Academy of Science and Technology, Institute of Medicine Tribhuvan University, BP Koirala Institute of Health Sciences requesting for information on health research projects carried out in last three years.
- c. Directors and division Chiefs of Ministry of Health, were also requested to provide information on health research.
- d. NGO and INGO - Letters were sent to NGO and INGO requesting information on health research projects carried out, the name of Principal Investigator, funding agency the budget for research, and status of research.
- e. UN agencies - UNICEF, UNFPA, FAO were also requested for information.
- f. Bilateral and multilateral agencies.

(C) Literature Search

Literature search was done for background information on national health policy, national health research policy and national health research priorities. This was done to assess their complementariness

(D) Complementariness

Criteria for assessing complementariness between research carried out and National Health Policy and Research Priorities were based on as to whether the research projects were in line with the national health policy objectives and health research priorities. For this purpose documents on national health policy, and national research policy and priorities were studied.

(E) Categorisation Of Research :

All the health research were categorised into following subheadings :

- (a) Reproductive Health
- (b) Nutritional Diseases
- (c) Child and adolescent health
- (d) Tropical Diseases Research (TDR)
- (e) Infectious diseases
- (f) Non communicable disease
- (g) Substance abuse
- (h) HIV and AIDS
- (i) Health system Research (HSR)
- (j) Human Resources for Health (HRH)

Literature Search on National Health Policy, National Research Policy and National Research Priority :

I. National Health Policy 1991

With the objective of creating a socioeconomic environment which will enable Nepalese citizens to lead a healthy life in conformity with the saying 'Health is Life' the present government is committed to provide preventive and Curative Health Services to the people of Nepal with top priority given to the rural population which comprises 93 percent of the total population of the country.

Objectives of the Health Policy

Priority shall be given to upgrade the health standard of the rural population through the Primary Health Care approach, to provide Family Planning and Maternal and Child Health Service in a more effective manner up to the village level for population control and to provide the opportunity to the rural people to enjoy the benefits of modern Medical Institutions by making those services easily accessible to them.

Targets of the Health Policy

By the year 2000 AD the following targets will be attained :

1. The infant mortality rate will be reduced to 50 per thousand from the present 107 per thousand.
2. The mortality rate of children below 5 years will be reduced to 70 per thousand from the present 197 per thousand.
3. The total fertility rate will be reduced to 1.4 from the present 5.8
4. The maternal mortality rate will be reduced to 4 per thousand from the present 8.5 per thousand.
5. The average life expectancy will be raised to 65 years from the present 53 years.

Proposed Health Policy

1. Preventive Health Services :

The services that are provided for the prevention of diseases fall under the Preventive Health Services. Under these priority will be given to those programmes which directly help reduce infant and child mortality rates. These services will be provided in an integrated way, through sub-health care centers at the rural level. The main programmes under this service are as follows:

1. Family Planning and Maternal and Child Health.
2. Expanded Immunization.
3. Safe Motherhood
4. Diarrhoea and Acute Respiratory Infection Control.
5. Tuberculosis Control.
6. Leprosy Control.
7. Malaria and 'Kalazaar' Control.
8. Control and Prevention of Communicable Diseases.
9. Initiation of Prevention of Non communicable Diseases.
10. Initiation of Primary Health Services in Urban Slums.
11. Prevention and Control of AIDS

II National Health Research Policy

National Health Research Policy is an integral component of National Health Policy. The main objective of Research Policy is to provide positive input for policy development and programme implementation in a cost effective manner, by analysing the strength and weakness in policy and programme delivery system and suggesting recommendation for improvement.

National Health Research Policy envisaged in the National Health Policy 1991 states "*Research in Health Sector will be encouraged. The outcome of research will be applied in decision making for better management of health services.*"

Establishment of Nepal Health Research Council (NHRC)

Nepal Health Research Council was established in 1991 with the main aim of strengthening the national capacity for carrying out health research and to promote its use decision making. The various responsibilities of NHRC include the following :

- ī Promoting a health research culture within health and related sectors, creating awareness and demand for health research - incorporating health research and the utilisation of research findings in the health system management and health policy development processes.
- ī Assisting researchers in their efforts to enhance their research skills.
- ī Maintaining ethical, scientific and technical standards in health research.

Preventive Health Services :	promote dissemination and exchange of information on ENHR concept/methods, research methodologies etc.
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III. National Health Research Priorities :

Research priorities as defined by NHRC in consultation Ministry of Health, NGO, INGO, and Academic Institutions include the following :

- (a) Infectious diseases
- (b) Reproductive health
- (c) Child and adolescent health
- (d) Nutritional diseases
- (e) Non communicable diseases
- (f) Injuries and accidents
- (g) Substance abuse
- (h) Health economics
- (i) Mental health
- (j) Indigenous medicine
- (k) Disabilities
- (l) Health care deliver system
- (m) Environmental health
- (n) Human resources for health

The detailed topics identified under each categories are presented in annex I

Analysis of Data

All research proposal approved by NHRC from 1 Jan 1997 to 31 December 1999 were analysed.

Similarly data were collected from BPKIHS and New Era. Other INGO, bilateral and multilateral agencies, and NGO were also requested to send in information on health research carried out by them.

The research proposals approved by NHRC with the title, name of Principal Investigator, organisation undertaking the research, the funding agency and the status of research is presented in Table 1-7 and Figure 1-3. Similarly Research Projects of BPKIHS are presented in Table 8 and those from New Era in Table 9.

Summary of all proposals approved by NHRC, BPKIHS, and New Era is presented in Table 10. The complementariness between research projects and National Health Policy and National Health Research Priorities are presented in Table 11 and 12 and graphically in bar diagram form in figure 4.

Table 1

Approved Research Proposals by NHRC (1997)

Classification	Title	P.I.	Organization	Funding Agency	Fund	Status
1. TDR / Kalaazar	Studies on Visceral Leishmaniasis (Kalazar in Nepal : A rural villagers in endemic area	Dr. Ananda Ballav Joshi	Department of Community Medicine and Family Health	WHO / Geneva (Requested)	US\$ 23,800.	On going
2. TDR / Malaria	The value of malaria diagnosis: A preliminary study in the Terai district of Nepal	Dr. Jeevan Bahadur Serchand				On going
3. TDR / Filariasis	Study on the prevalence of lymphatic filariasis in selected localities of Kathamandu valley	Dr. R. P. Upreti	NHRC	40,000.00	Rs. 40,000	Complete
4. TDR / Filariasis	Lymphatic filariasis in Nepal: infection disease and environmental perspective	Mr. Krishna Prasad Bjusal	Science and Technology Association			On going
1. Infectious Disease	Epidemiology and microbiological study of infectious disease in Nepal	Dr. S.K.Rai	TUTH / Osaka university school of medicine Osaka Japan/ Kobe university school of medicine			
2. Infectious Diseases	Epidemiological Study of Toxoplasma Gondii	Dr. Shiva Kumar Rai				
3. Infectious Disease /Tuberculosis	Evaluation of two eight months regimens of chemotherapy for the treatment of pulmonary tuberculosis	Dr. Bhawana Shrestha	Nepal Anti Tuberculosis Association / German Nepal Tuberculosis Project	IUATLD / Paris		On going

4. Infectious Disease/ Hepatitis E	Hepatitis E virus infection among foreign residents in Nepal	Dr. Davis R.Shlim	Beecham Biologicals Rixensart, Belgium/			On going
5. Infectious Disease/ Tuberculosis	Improving treatment outcome among tuberculosis patients treated by private medical practitioners in Nepal	Dr. I. Smith	National Tuberculosis center/ United Mission to Nepal	Dept. for International Development (DFID)	L 4,701.00	
6. Infectious Disease/ Tuberculosis	New diagnostic for tuberculosis	Dr. Paul Roche	Anandaban Leprosy Hospital			Complete
7. Infectious Disease / Tuberculosis	A retrospective study of tuberculosis patients at the regional tuberculosis center Pokhara to ascertain factors which determine treatment default	Mr. Tara Joshi/ Mr. Sudhir Adhikari (Manipal College)				
8. Infectious Disease	A prospective study on the incidence of group B hemolytic streptococcus colonization in intrapartum mothers and its effects on neonatal infections	Dr. Sanu Maiya Shrestha				
9. Infectious Diseases	Prospective study of infection and disease among soldiers in the royal Nepal army (Phase III feasibility study)	Dr. Mrigendra P. Shrestha	WARUN/AFIRMS			On going
10. Infectious Disease/ Leprosy	The application of PCR to the diagnosis of leprosy and tuberculosis in a field setting : A clinical trial of two prednisolone regimens in the treatment of type I reaction in Leprosy	Dr. Paul Roche	Anandaban Leprosy Hospital			Complete
11. Infectious Disease/ AIDS	The production of public knowledge about AIDS in Nepal	Dr. Stacy Leigh Pigg		Social Science Research Council ,USA		
12. Infectious Disease/ Leprosy	Investigation of the efficacy of corticosteroid treatment in three aspects of prevention of impairment and disability in leprosy	Dr. Whim H.Van Brakel	Internal Nepal fellowship Leprosy project			

13. Infectious Disease/ Leprosy	Cellular immunology studies in leprosy	Dr. Paul Roche	Leprosy mission Hospital	TDR/ WHO/ Leprosy Mission International	NCRs 386,628.00	On going
14. Infectious Disease/ HEV	Consent for the storage and supplementary testing of sera collected during the study into the prevalence of HEV infection markers and associated risk factors among residents of KTM valley	Ms. Angela Marions	Mc. Farlene Burnet Center for Medical Research			
15. Infectious Disease/HIV	Study of knowledge attitude and practices of injecting drug users about HIV/AIDs in urban area of Kathmandu and Lalitpur District.	Dr. Chandra Kant Jha	IOM		NCRs. 114,000.009 (WHO req.)	
1. Non communicable disease	Survey of Asthma and allergy in Nepal	Mr. Moten Schei (student, Jens Olav Hessen, university of Tromsae, Norway)				
2. Non communicable disease/ Cancer	Effects of stage IV cervical cancer of Nepalese women and their families	Ms. Daya Laxmi Joshi(student master degree in cancer Melbourne institute of Australia				
1. Nutrition	National survey of micronutrient control program and the current state of micronutrient malnutrition in Nepal	Dr. Janardhan B. Khatri Chhitri	APROSC			Not done
2. Nutrition	Efficacy of Zn supplementation in curing night blindness during pregnancy in rural Nepali women a double masked randomized trial	Dr. Keith P. West	Nepal Netra Jyoti Sangh	NNIPS		Complete
3. Nutrition	Nepal national micronutrient survey 1997-1998		New Era	UNICEF		Complete
4. Nutrition	Improving nutrition education messages and strategies in Nepal 1997-1998	Dr. Patric Kolsteren	Prince Leopold institute of tropical medicine, Belgium			

5. Nutrition	Dietary pattern of family and nutritional status under 5 years children in different geographical regions of Nepal	Ms. Kalpana Tiwari	Health Development Service		US \$ 2,898. (WHO requested)	Not done
6. Nutrition	Nutrition and health of school aged children in rural Nepal	Keith P. West	Nepal Netra Jyoti Sangh	NNIPS		
7. Nutrition	A study on anemia control among adolescent girls development of school based intervention program	Ms. Kalpana Tiwari			NCRs, US\$ 2000 (WHO requested)	Not done
8. Nutrition	Feasibility study of fortification for the control of micronutrient malnutrition consumption and market study of potential vehicles	Dr. Ritu Prasad Gartaula	Research Center for Integrated Development, Nepal		US\$ 18,734.00	Not done
9. Nutrition	A study on bacterial contamination of street food in Kathmandu city	Mr. Manoj Thapa			US \$ 2000, WHO (requested)	Not done
10. Nutrition	Preliminary study of dietary preferences of pregnant and lactating women in rural Nepal	Dr. Keith P. West	Nepal Netra Jyoti Sangh	NNIPS		Complete
1. Child Health	Health and educational status of squatters children in Birendranagar Municipality	Dr. Badri Prasad Panta			US \$ 2000, WHO (requested)	Not done
2. Child Health	Intrauterine growth of fetuses by ultrasound in the community	Dr. Dharama Sharan Manandhar	Mother and Infant Research Activities			On going
3. Child Health	Children's workload and its effects on growth in rural Nepal	Ms. Miki Yamanaka	London School of Tropical Medicine			
1. Health Survey	Health and socio economic status of carpet factory workers of the Kathmandu Valley	Dr. T. N. Amatya			NCRs, 590754.00 (WHO req.)	Not done
2. Health Survey	Health survey on foreign visitors to Nepal		Nepal Health Research Council (NHRC)	NHRC	NCRs, 15,000.00	
1. Human Resource for Health	Perception and understanding of health and disease among the health providers and the local people in Jajarkot district, Nepal	Mr. Sishir Subba (Ph. D. Psychology, Dept. university of Copen hagen				

2. Human Resource for Health	Factors related to the utilization of traditional healers of Kavre district	Ms. Kalpana Poudel			Us\$2000.00 (WHO req)	Not done
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1. Reproductive Health	Needs assessment of reproductive health among refugee women (Bhutanese)	Professor Debarati Guha Sapid	CRED-Centre for Research on the Epidemiology of Disaster	Save the Children	US\$ 6522.00	
2. Reproductive Health	A prospective study of the outcome of the of pregnancy among low risk women delivered in a midway unit as compared to a consultant led maternity unit at Patan hospital	Dr. Geeta Rana			NCRs 3432.00(WHO req.)	Not done
3. Reproductive Health	Pap test program	Dr. Indira Shrestha				Not done
4. Reproductive Health	Development of operational model for integrated reproductive health service delivery in Nepal	Dr. Laxmi Raj Pathak	Family Health Division	WHO	US\$ 147103.00	
5. Reproductive Health	A community based descriptive study on maternal health patterns in Jumla district of Nepal	Mrs. Narbada Thapa	Reproductive Health Project Jumla			
6. Reproductive Health	Gynecological and related morbidities among ever married rural women of the central hill region in Nepal	Dr. Reeta Manandhar			US\$2000.00	Not done
7. Reproductive Health/ KAP	Knowledge and perceptions regarding sex education among adolescents and youth in the eastern region of Nepal	Dr. Nilamber Jha			NCRs.2,23,860.00(BP KIHS)	

8. Reproductive Health	Nepal German reproductive project	Dr. Rudolf Schumachar	GSP health systems consultant GmbH Germany/ Soil test private Ltd.			
1. Drug	Investigation on antibiotic activities of Nepalese medicinal plants	Dr. Dinesh Puri	Dept. of Biochemistry, BPKIHS	WHO	NCRs. 22500.00	
1. Metabolic Research / Endocrine	Epidemiological profile of cases presenting as goiter in Pokhara region	Mr. Sushir Raj Pandey/ Mr. Narayan Thapa			NCRs 5600.00	
2. Metabolic Research	Prevalence of non insulin dependent diabetes mellitus population based study	Dr. P. Karki				
1. Immunization	Studies in immunization of the human body by the electro homeopathic medicine	Dr. M.K.Sharma				
1. Mental health	The nature and extent of psychiatric disorders in rural Nepal	Dr. Bhogendra Sharma				
2. Mental health	Prevalence of postpartum depression in urban municipality	Mrs. Sarala Shrestha				
1. HSR	Practice of nursing which leads to standard of nursing service at HMG hospital	Mrs. Bindu Bajracharya	Health Institution and Manpower Development Division		NCRs70900.00 (WHO req.)	Not done
2. HSR	Assessment of diseases health service and health problems in the selected rural areas of Ilam district	Mr. Kailendra Basnet	Local Development Training Academy		NCRs.5,19,000.00	

3. HSR	Examine and document the process and effectiveness of a service linkage project between private practitioners and the public sectors in Nepal	Ms. Anna Kartir Hurtig				
4. HSR	The factors that affect the road traffic accidents and their prevention.	Dr. K.N.joshi	Dept. of general Surgery Bharatpur hospital Chitwan		US\$ 8250.00	
5. HSR	Pilot study of road traffic accidents and adequacy of emergency health services in Kathmandu city.	Mr. Rupak Kumar Aryal				Not done
6. HSR	Health provider and consumer drug utilization pattern characterization of key issue.	Mr. Bal Krishna Khakurel				Not done

Table 2

Approved Research Proposal by NHRC 1997

1. Infectious Disease	15
2. Nutrition	10
3. Reproductive Health	8
4. HSR	6
5. TDR	4
6. Child Health	3
7. Health Survey	2
8. Non Communicable Disease	2
9. Mental Health	2
10. HRH	2
11. Metabolic Research	2
12. Drug	1
13. Immunization	1
Total	58

Table 3

Approved Research Proposals by NHRC(1998)

Classification	Title	P.I.	Organization	Funding agency	Fund	Status
1. R.Health	Pilot study of pap smear screening program.	Dr. Bidur P.Osti	B.P.K.Memorial cancer Hospital	B.P.K.Memorial Cancer Hospital		
2. R.Health	Evaluation of the clean home delivery kit in Nepal	Mrs. Sumitra Bantawa	PATH(program for appropriate technology in health) / ISCA , Nepal(International save the Children Alliance, Nepal)			On going
3. R.Health	A pilot study to develop and introduce home based maternal record	Dr. Hira Shrestha			NCRs.6,18,995.00 (req. WHO)	Not done
4. R.Health	Mothers' satisfaction with delivery services and strategic issues for improvement of delivery services	Ms. Jamuna Tamrakar			NCRs. 61,000.00(WHO req.)	Not done
5. R.Health	Use of DMPA as a risk factors for bacterial vaginosis	Dr. Roshana Shankya				
6. R.Health	The reproductive health care role of maternal and child health workers in Nepal.	Ms. Susan F.Murray	Institute of child health university college London/ Institute of community health			
7. R.Health	A pilot study of menopausal symptoms in Nepal	Mrs. Helen Ohlin	Ostermalmstagatans, Stockholm	SIDA	SEK 285000.00	
8. R.Health	A comparison between an orally administered prostaglandin E1	Dr. Sudha Sharma				On going

	analogue (misoprostol) and syntometrine / syntocinon in the management of the third stage labor					
9. R.Health	Factors influencing early marriage among girls in three rural set of center Nepal	Mrs. Sarala Joshi		Human Reproductive Project	US\$10,461,59.00	Not done
10. R.Health	A comparative study of pregnancy and its outcome between adolescent and older primigravidae in admissions at the maternity hospital	Dr. Sudha Sharma	Maternity hospital		NCRs2,08,060 (WHO req.)	Not done
11. R.Health	To discern lived psycho-social and physical changes experienced by a group of multiparous mothers	Mrs. Sarala Joshi			US\$ 10461 (WHO req)	Not done
1. Child health	Validation and testing of a low cost instrument to monitor for dark adaptation night blindness, the first clinical indication for vitamin a deficiency in children of age 6-48 months	Dr.Burris Duncan	Steels memorial children research center		\$5300.00	

2. Child Health	A multihospital based study of incidence and factors associated with low birth weight babies in Nepal	Dr. D.S.Manandhar	MIRA	UNICEF	US\$ 10,000.00	Complete
3. Child Health	Impact of a community based participatory intervention to improve essential newborn care (ENC) in rural Nepal	Dr. D.S.Manandhar	Mother and infant research activities (MIRA)	WHO	NCRs1,89,100.00	Complete
4. Child Health	Growth retardation and stress levels in Nepalese school children : A non-invasive study of salivary cortisol levels and heart rates.	Dr. D.S.Manandhar	MIRA	British government department of international development		On going
1. Nutrition	Health nutrition and diet survey of adult migrant workers of tribal groups and lower socio economic groups from from the eastern tarai region of Nepal currently residing in the Kathmandu valley	Professor Nameswor P.Sinha	Nepal medical College/ TUTH		NCRs. 497,000.00 (WHO req)	Not done
2. Nutrition	Evaluation of diary products available in Kathmandu valley	Dr. Beda Nidhi Dahal	Integrated Bioscientific Research Group, Kathmandu	Integrated Bioscientific Research Group, Kathmandu	NCRs205,325,00	On going
3. Nutrition	Maternal micronutrient supplementation to reduce low birth weight and maternal and infant morbidity in rural Nepal	Dr. Parul Christian	Nepal Netra Jyoti Sangh	USAID/ Washington		On going

1. Non Communicable Disease	Global case to identify the risk factors of myocardial infection in different ethnic population	Dr. Mrigendra Raj Pandey		Inter Heart StudyMc. Master UniversityHamilton, Ontario	NCRs 250,000.00	On going
1. Infectious Disease	Improving tuberculosis management among private medical practitioners in Pakistan and Nepal: the education of tools for achieving consensus in context appropriate interventions	Dr. D.S.Bam		Department of International Development	L 104,422	On going
2. Infectious Disease	Improving public sector and NGO tuberculosis service delivery in areas with poor access to health service in south Asia	Dr. D.S.Bam		Department of International Development	L 245,124.00	On going
3. Infectious Disease	Surveillance for influenza and other viral respiratory pathogens in Nepal	Dr. Mrigendra P.Shrestha	Walter Reed/AFRIMS Research Unit Nepal	Division of Preventive Medicine, Walter Reed Institute of Research, Washington D.C.		On going
4. Infectious Disease	The effect of thalidomide in the treatment of Erythema Nodosum Leprous	Dr. Paul Roche	Anandaban Leprosy Hospital	Rock Feller University & Leprosy Mission	NCRs 340,000.00	
5. Infectious Disease	A prospective study of infection and disease among army soldiers in royal army	Dr. Mrigendra P.Shrestha	Walter Reed/AFRIMS Research Unit Nepal	Department of Virology, AFIRMS, Smithkline Beecham Biologicals, Rixensart		Incomplete

1. Drug / Therapy	Randomized controlled trial on antibiotic prophylaxis in Nepal	Dr. Meeta Singh			NCRs 581,800.00 (req. human reproductive project)	Not done
2. Drug	Towards an understanding on non compliance	Dr. Joost Meijs	Netherlands Leprosy Relief Association		NCRs.335,450.00	
3. Drug	A randomized controlled trial to assess the effects of family counseling on cure completion rates of short course chemotherapy for tuberculosis.	Mr. Padma Bdr. Khadka (MBBS, Student , Manipal Col.)		Partially funded by Manipal Col.	NCRs. 5,600.00	
4. Drug	A study of legibly of doctors' prescription	Dr. Deepak Subedi(MBBS student, IOM)		NHRC	NCRs.2000.00	

1. TDR	Surveillance of visceral leishmaniasis and HIV CO-infection in Nepal	Dr. V.L.Gurubacharya			US\$15,000.00	Complete
1. High Altitude	Comparative human ecology of health and the resource use system: Biological and behavioral adaptive mechanisms of people living in the high and low altitudes in Bolivia and Nepal	Professor Hiroshi Koshiwazaki		Ministry of Education , Science and Culture, Japan		
1. Human Resource for Health / KAP	A need based study in assessing the aptitude and attitude and other related factors among the students appearing in entrance examination of BAMS and MBBS	Mrs. Madhavi shah		NHRc	NCRs.19,425.00	On going
1. Sanitation /KAP	An analysis of the stools of the(1) cooks in the hostel mess of central campus and (2) other cooks in the hostels outside teaching hospital along with KAP survey	Dr. Paresh Chandra Giri(MBBS student, IOM)		NHRC	NCRs.2000.00	On going

1. Tobacco/ KAP	Prevalence of tobacco use among medical students at IOM and how knowledge regarding its consequences has altered behavior with regards to its use.	Mr. Yogesh Bhusal(MBBS, student, IOM)				On going
1. Behavior Research	Assertive behavior and HIV prevention	Dr. R.R.Dhungana	National Health Foundation	Dr. T.Munukata's personal grant & NHF		On going

Table 4**Approved Research Proposals by NHRC 1998**

1. Reproductive Health	11
2. Infectious Disease	5
3. Drug	4
4. Child Health	4
5. Nutrition	3
6. Behavioral Research	1
7. Non Communicable Disease	1
8. TDR	1
9. Human Resource for Health	1
10. Sanitation	1
11. Tobacco	1
12. High Altitude	1
Total	34

Table 5
Approved Research Proposals by NHRC (1999)

Classification	Title	P.I.	Organization	Funding Agency	Fund	Satatus
1. Human Resource for Health	An evaluation of professional capabilities of public health workers in Dang District , west Nepal.	Mr. Johannes Eijkhout (Study proposal, masters Degree, Liverpool School of Tropical Medicine)				On going
2. Human Resource for Health	Evaluation of the impact of INF's consultant manpower input in the western regional (WRH) Nepal on the delivery of health care	Dr. Shu Joseph Atanga (Student , Liverpool School of Tropical Medicine)				On going
1. Nutrition	Intensification of antenatal supplementation activities in Nepal.	Dr. Dale M.Davis	Hellen Keller International			Complete
2. Nutrition	Indicators of maternal nutritional status.	Ms. Sushma Acharya (Student/Department of food science and human nutrition, university of Hawaii, USA)				On going
3. Nutrition	A study of nutritional status of the under five years age school children of Rupandehi district.	Mr. Surendra Giri			NCRs.165000.00 (WHO req.)	Not done
1. R. Health	Effects of education on local health knowledge, perception and behavior of women and family during pregnancy, delivery and postpartum period in Nepal.	Ms. Akiko Matsuyama (Ph.D. student from John Hopkins University , Dept. of International Health Public and Social Sciences)				On going
2. R. Health	Determinants of male involvement in reproductive health at the community level: A case study in Bheri zone, Nepal.	Dr.John Were Wedenya				Complete

3. R. Health	Evaluation of vasectomy success.	Dr. Kalyan Raj Pandey	Family Health International/ Research Triangle Park, USA	USAID		On going
4. R. Health	Community based study of teenage pregnancy in Jorpati Gokarna and Baluwa VDC of Kathmandu district.	Dr. Pramila Pradhan			NCRs 239,000.00 (req.WHO)	Not Done
5. R. Health	The experience of Nepalese women birthing and parenting in their mother country and Australia	Ms. Colleen Rolls(Post graduate student , La Trobe University Bundoora.)				On going
6. R. Health	Identification of the most effective intervention program among CSW and housewives of the migrant labors, Kailali district	Dr. R.R.Dungana	Nepal AIDs Intervention Institute		NCRs. 695,220.00	Going to start
7. R. Health	A randomized controlled trial of two vasectomy techniques	Dr. T.M.Vaidya	Family Health International, USA/ Research Triangle Park, USA			On going
1. TDR	Case control study to identify risk factors and DAT serosurvey for visceral leishmaniasis in Nepal	Dr. Mahendra B. Bist	Epidemiology and Disease Control Division			On going
2. TDR	Assessing and monitoring malaria therapy efficacy in Nepal	Dr. Mahendra B.Bista	Epidemiology and Disease Control Division/HMG			On going
3. TDR	A field study to determine the potential breeding habitat of Phlebotomus argentipes in Siraha district, Nepal	Dr. Uma Nath Devkota	Primary Health Care Project-GTZ	United States Agency for International international's Infectious Disease	NCRs.723,800.00	Not done

				initiative.		
4. TDR	Assessment of the sensitivity of malaria surveillance in Nepal	Dr. M.B.Bista	Epidemiology and Disease Control Division	United states agency for international development's infectious disease initiative		On going
1. Non communicable Disease	Phase I clinical trials of a new drug currently labeled as DRF 7295 injection in patients with recurrent refractory metastatic colon and breast cancer.	Dr. Madan K.Piya	Dabur Research Foundation	Dabur India Ltd.		On going
1. Vaccine. trial	A phase II prospective, randomized double blind placebo controlled field efficacy trial of a candidate hepatitis E vaccine in Nepal	Dr. Robert A. Kuschner/ Dr. M.P.Shrestha	Walter Reeds / AFIRMS Research Unit	Office of Surgeon General Dept. of the Army/USA		On going
2. Vaccine trial	Evaluation of efficacy and safety of live attenuated J.E. (SA 14-14-2) vaccine in the kingdom of Nepal	Dr. Mahendra Bahadur Bista	MOH/DDA			On going
3. Vaccine Trial	Phase Ib safety and immunogenicity study of a recombinant hepatitis E virus vaccine in healthy adult volunteers in Nepal	Dr. Robert A. Kuschner/ Dr. M.P.Shrestha	Walter Reeds / AFIRMS Research Unit	Office of Surgeon General Dept. of the Army/USA		On going
1. Behavior Research	Carrying head supported loads	Professor Norman C.Heglund		Belgium Government's Funds, University Catholique de Louvin		Complete (not analysis)
2. Behavior Research	Adolescents health maintenance behaviors in Nepal	Mr. Ananda Tamang	Center for Research on Environment Health and Population Activities	WHO/Geneva	NCRs.2,357,254.00	On going

1. Drug Trial	High Altitude headache: Acitaminophen Vs Ibuprofen	Dr. N. Stuart Harris	Medical College of Virginia and Harvard Medical School	Mc. Neil Pharmaceuticals		
2. Drug/Theraphy	Baseline bacteriology and resistance patterns compared to antibiotic prescription patterns in south western region of Nepal	Dr. Jan Egil Afset	United mission hospital, Tansen, Palpa	District doctor training program		
1. Infectious Disease/ HIV/AIDS	STD/ HIV prevalence survey among truck drivers and female sex workers in Nepal Border with India	Mr. Stephen Jay Mills	Family Health International, Kathmandu	USAID	\$ 100,000.00	On going
2. Infectious Disease/ Leprosy	Gender difference in case detection and case holding of leprosy patients in far western and eastern regions of Nepal	Dr. Kamala Burathoki	Leprosy control division	Leprosy Control Division/Netherland Leprosy Relief Association	NCRs.261800.00	On going
3. Infectious Disease/ Leprosy	Cellular immunology studies in leprosy	Dr. Paul Roche	Anandaban Leprosy Hospital	Leprosy Control Division/Netherland Leprosy Relief Association	NCRs 154,000.00	On going

Table 6
Approved Research Proposals by NHRC 1999

1. Reproductive Health	7
2. TDR	4
3. Infectious Disease	3
4. Vaccine Trial	3
5. Nutrition	3
6. Drug	2
7. Behavioral Research	2
8. Non communicable Disease	1
9. Human Resource for Health	2
Total	27

Table 7

Approved Research Proposals from NHRC

Year	1997	1998	1999	Total
1. Infectious Disease	15	5	3	23
2. Nutrition	10	3	3	16
3. Reproductive Health	8	11	7	26
4. HSR	6			6
5. TDR	4	1	4	9
6. Child Health	3	4		7
7. Health Survey	2			2
8. Non Communicable Disease	2	1	1	4
9. Mental Health	2			2
10. Human Resource for Health	2	1	2	5
11. Metabolic Research	2			2
12. Drug	1	4	2	7
13. Immunization	1	1		2
14. High Altitude		1		1
15. Tobacco		1		1
16. Sanitation		1		1
17. Vaccine Trial			3	3
18. Behavioral research			2	2
Total	58	34	27	Grand Total 119

Table 8

Research Proposals from BPKIHS

Year	1997	1998	1999	Total
1. Infectious Disease	8		3	11
2. Nutrition			1	1
3. Reproductive Health	1	2		3
4. HSR	1			1
5. TDR	1		2	3
6. Child Health	4		4	8
7. Non Communicable Disease	8	1	1	10
8. Mental Health	1		3	4
10. HRH	1	3	1	5
Substance Abuse	1	1	2	4
12. Drug	4	3	1	8
Clinical Research	3	2	4	9
18. Behavioral research	3	2		5
Total	36	14	22	Grand Total 72

Table 9

Research proposals from New Era 1998-1999

Classification	Total Number of Proposals
1. HSR	4
2. Child Health	2
3. Behavioral Research	1
4. Infectious Disease	1
5. Nutrition	1
6. Drug	1
Grand Total	10

Table 10

Total Proposals from NHRC, BPKIHS and New ERA

Classification	Number of proposals from NHRC	No. of proposals from BPKIHS	No. of Proposals from New Era	Total
1. Infectious Disease	23	11	1	35
2. Reproductive Health	26	3		29
3. Nutrition	16	1	1	18
4. Child Health	7	8	1	16
5. Drug	7	8	1	16
6. Non Communicable Disease	4	10		14
7. TDR	9	3		12
8. Clinical research		9	2	11
9. HSR	6	1	4	11
10. Clinical research		9	2	11
11. HRH	5	5		10
12. Mental Health	2	3		5
13. Substance Abuse		4		4
14. Vaccine Trial	3			3
15. Immunization	2			2
16. Metabolic research	2			2
17. Health Survey	2			2
18. High Altitude	1			1
19. Tobacco	1			1
20. Sanitation	1			1
Total	119	72	10	Grand Total 201

Table 11

Complementariness between Research Projects, National Health Policy and National Health Research Priorities.

National Health Policy 1991	National Health Research Priorities (NHRC)	Number of Projects / Proposals
FP/MCH Safe motherhood	Reproductive health	29
ARI Diarrhoea	Child and adolescent health	16
EPI		2
Tuberculosis Leprosy Malaria Kalazar Communicable disease HIV/AIDs	Infectious Disease	35
	Tropical disease	12
Non communicable disease	NCD	14
PHC in urban slums	Nutritional disease	18
	Injuries & Accidents	
	Drug use	16
	Health economics	
	Mental health	5
	Indigenous Medicine	
	Human Resource for Health	10

Other Research Proposals

Title	No.
Clinical Research	11
HSR	11
Behavioral Research	8
Substance abuse	4
Vaccine trial	3
Metabolic research	2
Health survey	2
High altitude	1
Tobacco	1
Sanitation	1



Strengths of the Study

- a. NHRC had record of all health research proposal approved by it. It took some time to process all these and enter into a computer data bank.
- b. There was a fair response from many Institutions, INGO, Bilateral agencies to the request from NHRC to provide information on health research conducted by their organisation in last 3 years.

Limitations of the Study

Majority of Health Research has been approved by NHRC. However there were some research undertaken by different Institutions and organisation of which NHRC has no information. This is a limitation of the study. Research were carried out by different organisation and Institutions as follows :

- a. Universities and Academic Institution and have the authority to conduct research on their own under the University Act. It is not necessary to get approval from NHRC.
- b. National and International Non Governmental organisation INGO, get permission to implement programme which may involve research as well from social service coordination council, and such may not go through NHRC.
- c. Bilateral and multilateral agencies and UN agencies have an agreement with different Ministries (other than health) to implement health and health related programme including research with permission from respective Ministry.
- d. Poor and delayed response from bilateral, multilateral, and UN agencies to request for Information by NHRC.
- e. Time constraint : one organisation replied, that the requested information can be provided only after 2 months as the concerned staff were in the field.

Results of the Study

Analysis of the data has revealed that Nepal Health Research Council (NHRC) has approved 58 research projects in 1997, 34 proposals in 1998 and 27 in 1999 making a total of 119 projects.

The title of research proposals, the name of Principal Investigator, organisation responsible for research, source of funding and the status of Research Proposals are shown in Table 1 - 6. The maximum number of research proposal were in Reproductive health consisting of 26 proposals, followed by 23 proposals in Infectious diseases and

sixteen in Nutrition, the rest comprising of 1-9 proposal in different areas. The research areas and topics are presented in table 7.

The proposals approved by NHRC were funded through different agencies. All proposals that have been approved by NHRC has not been funded. The analysis of present status regarding implementation of NHRC approved research proposals has shown that out of all these that have been approved 13 research projects have been completed, 40 research projects are ongoing, twenty four 24 have not been implemented owing to lack of funds. The status of 41 projects is not known as it has not been possible to trace the Principal Investigator owing to change of contact address. One projects has just been implemented recently.

BP Koirala Institute of Health Sciences had approved 72 projects in all in last 3 years with eleven research proposals in Infectious disease, 10 in Non communicable disease, 9 in Clinical research, 8 each in Child health and Drugs use and the rest of proposals in a variety of areas as depicted in Table 8. The projects are in various stage of implementation, some have been completed and others are ongoing. BPKIHS has its own source of funding from Government budget.

New Era, an Non government organisation has conducted 10 research projects through funding from different sources. The areas of research conducted by New Era is presented in Table 9. There are other organisation and Institutions also carrying out Health Research but the information requested were not forthcoming in time.

Altogether 201 research proposals have been approved in last three years (from 1 January 1997 to 30 December 1999). Consisting of 109 research proposals, approved by NHRC, 72 proposals by BPKHIS and 10 proposals from New Era.

The maximum number of research projects were approved in infectious diseases consisting of thirty five proposals, followed by twenty nine in Reproductive Health, eighteen in Nutrition, sixteen in Child Health, sixteen in Drugs use, fourteen in Non communicable disease, twelve in TDR, eleven in HSR and clinical research, ten in human resources for health. There are fewer research proposals in other areas. There are reflected in table ten and eleven.

Regarding complementariness of health research projects to National Health Research Policy, the majority of research proposal / projects have been in area of National Health Research Priorities and in line with National Health Policy as summarised in Table 11. Thus there is a great deal of complementariness between research projects carried out and National Health Research Priorities and National Health Policy.

There is no record of Ministry of Health initiating or commissioning of any of the health research. Funding of research is primarily from International Organisation (INGO) and UN agencies and, it appears the Ministry of Health has no definite fund outlined for promotion of health research.

There are few cases of health system research, which needs to be increased. Health policy research and health economics research is also lacking and needs to be promoted.

Conclusions

The present study on complementariness between health research projects carried out and national health research policy and National Health Research Priorities has demonstrated that there is a good deal of complementariness between them.

Nepal Health Research council approves research projects which has a relevance to the National Health Research Priorities. This policy of NHRC might have contributed towards the high degree of complementariness. NHRC has funded some research projects and provided small grants for thesis work for post graduate students in areas of relevance to National Health Policy and National Health Research Priorities.

Most of the research proposals have been initiated by individual research scientists and organisation, and the topic or area for research seem to have been selected because they have been perceived as important public health problems accounting for magnitude of burden of diseases. The focus on important Public Health problem has also increased the complementariness between research project carried out and the National Health Research Priorities.

Recommendations :

Ministry of Health should promote health system research, health policy and health economics research by commissioning research Institutions and scientists to undertake research in these areas by providing funds for these activities. This will definitely further improve the complementariness and provide useful recommendation for decision making based on evidence, which will have a definite impact on improvement of health status of people of Nepal

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6. Report of High Level Consultative Meeting to Identify Priority Issues for Health in Research - NHRC July 31, 1998.
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The National Health Research Priorities (identified by NHRC in consultation with MOH, INGO, Universitys, NGO)

1. Infectious Diseases :

- a. Tuberculosis
- b. Diarrhoeal diseases
- c. Respiratory tract infection
- d. Hepatitis
- e. Malaria
- f. Japanese Encephalitis
- g. Kalazar
- h. Filariasis
- i. AIDS

2. Reproductive Health

- a. Safe motherhood
- b. Reproductive tract infections including STD and AIDS
- c. Family planning
- d. Abortion
- e. Genital cancer

3. Child and Adolescent Health :

- a. Neonatal health
- b. Early childhood development
- c. Child abuse
- d. Adolescent sexuality and adolescent reproductive health

4. Nutritional Diseases :

- a. Protein - calorie malnutrition
- b. Micro-nutrient deficiency

5. Non-communicable Diseases

- a. Chronic respiratory diseases
- b. Cardiovascular diseases
- c. Diabetes mellitus
- d. Cancer

6. Injuries and Accidents :

- a. Road traffic accidents

b. Burns

7. Substance Abuse :

- a) Alcohol
- b) Tobacco
- c) Drugs

8. Health Economics :

- a) Cost sharing
- b) Public - private mix
- c) Health insurance
- d) Public sector spending

9. Mental Health :

10. Indigenous Medicine

11. Disabilities :

- a) Hearing impairment
- b) Visual impairment
- c) Mental retardation
- d) Physical disabilities

12. Health Care Delivery System :

- a) Efficiency
- b) Coverage
- c) Manpower factors
- d) Drug supply system

13. Environmental Health

- a) Safe water supply and sanitation
- b) Air and domestic pollution

14. Human Resources for Health

- a) Training of appropriate manpower
- b) Deployment and retention of manpower