Eleventh Conference of Indian Association of Social Sciences and Health

Health Transition, Social Change and Development

Conference Dates – 26 – 28 December 2013

Report of the Conference Proceedings

Conference hosted by

School of Public Health, SRM University, Kattankulathur, Kancheepuram

Eleventh Conference of Indian Association of Social Sciences and Health

The eleventh conference of the Indian Association of Social Sciences and Health was held at the SRM University, hosted by the School of Public Health. There was a three day pre-conference work shop held at the School of Public Health, between 23rd Dec and 25th Dec 2013. The main conference was inaugurated on 26th Dec 2013. The welcome address was delivered by Prof. Ch. Satish Kumar, Dean, School of Public Health, SRM University. He referred to the three main thrust areas of the School of Public Health, namely education, research and evidence generation and dissemination of knowledge.

He mentioned that the involvement in the IASSH conference was to fulfill the third aim of the School. He was followed by Prof. Chandraprabha who gave a detailed description of the SRM University, its academic activities, achievements, scope and vision. Dr. Prakasam, president of the IASSH gave his address in which he described the eleventh IASSH

Prof. Ch. Satish Kumar, Dean, School of Public Health – Welcome Address

conference. The Vice President of IASSH, Dr. U V. Somayajulu also addressed the gathering in which he requested that the conference be a platform for generating new research ideas and to do something socially conscious for the society's good.

Day 1 – 26.11.2013

Inaugural Address

Dr. Satish Kumar, Chief, UNICEF – Tamil Nadu and Kerala

Dr. Satish Kumar started his well structured talk with a positive note by mentioning that in this millennium India has the potential to eradicate poverty, eradicate certain communicable diseases like polio and achieving some of the Millennium Development Goals. He mentioned that some of the states have already achieved the MDGs 4, 5 and 7, like Tamil Nadu and Kerala. Several others states are in the process of inching forward towards achieving the goals. But the Empowered Action Group (EAG) states such as Rajasthan, Madhya Pradesh, Chattisgarh, Uttar Pradesh, Bihar and Assam are still left behind in this journey. They are not likely to achieve the MDG by 2015. He pointed out that the health transition that is currently taking place in India is associated with strong social disparities. He pleaded that health disparities in India be a key focus of discussions in the sessions of the conference.

Economic growth alone cannot be sufficient in bringing about social development, said Dr. Satish Kumar. India has achieved a growth rate of 6% economically, but this growth rate has not transformed into a social growth. There are significant disparities in development. Some of these disparities in Infant Mortality Rate, Maternal Mortality Ratio, and Child Death Rates etc. are unacceptable. The impact of

Dr. Satish Kumar, CFO, UNICEF, Tamil Nadu and Kerala – Inaugural Address

economic growth on health depends on two important factors, the way the income is distributed and the extent to which the income is utilized in social sector program. He highlighted that China spends close to 2.7% of the GDP on public health, whereas India spends only 1.2% which is shamefully low. The growth of the public health system is very slow compared to the economic growth in the country. This is the main reason for the poor translation of economic growth into overall development. The poor public health system has driven the patients from the public system towards private care. India is one of the countries with the highest rates of out of pocket expenditure. There is a greater move towards involvement of the private sector in health care and commercial health insurance schemes. These practices have their own negative aspects.

In case of commercial health insurance there is the problem of adverse selection and moral hazard. Moreover commercial insurances are more favorable to tertiary care than primary care and preventive health care. With the increasing health transition, with rising NCD rates and a high existing CD rates there is a need for greater investment in preventive and primary health care.

Health transition and social development largely depends on changing demographic trends, changing disease epidemiology, economic growth, education and other social factors. Natural disasters are also going to have a great say in influencing social development. International trade and traffic and migration will have an influence on demography and social development. Advances in science and technology will also influence social change.

General Agreement of Trade Transactions (GATT) and Trade Related Intellectual Properties (TRIPS) agreements and other such bilateral trade agreements will influence the pharmaceutical market and therefore have a significant impact on social development.

In conclusion, Dr. Satish Kumar mentioned that health transition and social development should not be allowed at the mercy of free market forces. The state should intervene and ensure an inclusive, equitable and sustainable development.

Symposium 1 – Health Transition

Chairperson – Prof. K. Srinivasan

Supplementing implementation research with social science research to address ongoing public health problems – Dr. Sanjay Mehendale, Director, NIE

Dr. Mehendale began his lecture by describing that disease causation can be explained in a complex model involving exposure to risk, reduction of resistance, fall in general health and onset of diseases. He started laying the background of his presentation with a detailed description of the possible roles of social scientists in intervening in the disease causal pathway and preventing diseases.

Dr. Sanjay Mehendale, Director, NIE, Chennai

He mentioned that preventive medicine largely focuses on social interventions to reduce the exposure to disease causing agents and risk factors. He also said that today health care is largely focusing on curative aspects so much that we lose the opportunities to prevent diseases. Several risk factors are behavioral in nature such as smoking, sexual exposure, dietary patterns, physical activity etc. Therefore there is a strong role for social scientists to ensure prevention of risk and minimizing the exposure to risk in these circumstances. Social scientists can also play a role in reduction of disease burden in the community. Early detection of cases by screening, community acceptance of screening strategies, vaccine awareness generation, community acceptance of vaccination strategies are all important steps that social scientists can take to help in reducing disease burden. Preventing disability is another important intervention of the health system in which the social scientists can contribute. Stigma reduction is an essential component of this part. Especially in leprosy the reduction of stigma should go hand in hand with rehabilitation and disability prevention efforts. Making health care available, accessible and acceptable to the community is the main role of social scientists.

Dr. Mehendale said that primary health care is a fundamental human right. It is the first and most basic point of contact of health care. The concept of Universal Health Care encompasses universal availability, accessibility and acceptability. The social scientists should play a major role in ensuring this.

Dr. Mehendale lamented that in the doctor-patient interaction very little time is spent by the doctor with the patient due to the heavy crowd in public health facilities. This leaves very little time for the doctor to address behavioral and social issues. Also medical students are not given adequate training in

social sciences. Social scientists have the power to influence policy in public health and they should be actively involved in the process said Dr. Mehendale.

Dr. Mehendale highlighted that program management aspects in our public health system is very weak. There is a need to strengthen this aspect. The national program of TB, Malaria, Leprosy have been in operation since several years. But the data from these programs has not been effectively utilized in policy making. Important data on drug tolerance, adherence, and side effects of drugs and complications of disease can be generated from the National Program data. This can be very useful in informing policy.

Dr.Mehendale asked, "How many good replicable models are there of community engagement in health policy?" He gave the example of Gadchiroli model of new born care and stated that this model and the Jhamked model are probably the few models which have actually involved the community in policy making. He felt that more active community engagement in health policy making is required. He further raised the question, "How many research findings go back to the community?" While asking this question he emphasized the importance of dissemination of research findings to the community.

While talking about involvement of the private sector in providing health care to the community, Dr. Mehendale mentioned that there is a need for greater parity between private and public health systems. There is a need for regulation of private health care and making them sustainable. There is a need for making health care pro-poor, sustainable, equitable and non discriminatory.

Dr. Mehendale pointed out some approaches for greater involvement of social scientists in public health. The public health system, he said should have a multi sectoral approach. There should be engagement of social sciences in combating stigma, greater penetration of health services into the community, addressing cultural barriers to health seeking behaviors and engaging in dialogues with the community to understand their needs. There is also a need for social prioritization of public health interventions. He recommended that the strategies to combat non communicable diseases should be integrated in the existing platforms of communicable disease control strategies. Mental health, suicide, neurological and development diseases, injury prevention programs need to be developed and integrated into the existing public health programs. Advocacy will play an important role in the coming years with respect to health care delivery.

Dr. Mehendale mentioned the vaccine development and vaccine delivery programs. He said numerous vaccines are developed and ready for implementation in programs. But these vaccine programs have to be done with care to ensure that they are adequately informed by evidence. There is a need to have approaches to public health which engage in international collaborations, international reporting, travel and trade agreements and global strategies for disease prevention, all of which are within the gambit of social sciences and health. The National Institute of Epidemiology did a study to understand the priorities of the community which included MCH, non communicable diseases, vector borne disease control program, tuberculosis followed by HIV/AIDS. He said that people also perceive the needs for more or less the same programs that the policy makers perceive. With the advances in technology in health care, Dr. Mehandale mentioned that the community's acceptance, feasibility and practicability has to be enhanced by the social scientists.

Epidemiological transition and intellectual property rights – Challenges in access to health care for Non Communicable Diseases. – Dr. Sathyanarayana and Dr. Sadhana Srivastava

Dr. Satyanarayana started his talk by mentioning that he will be focusing on non communicable diseases, especially cancer. He said he will be focusing on how to bring down cost of anti-cancer drugs by using Intellectual Property Rights. Dr. Satyanarayana mentioned that while we were busy combating the communicable diseases in India, the non communicable diseases were slowly increasing. He highlighted that the burden of non

Dr. Satyanarayana, ICMR, New Delhi

communicable diseases are high among the poor and marginalized. He mentioned that 80% of all mortality due to NCD is happening in low and middle income countries. The four main NCDs were cardiovascular diseases, diabetes mellitus, cancer and respiratory diseases. The four main risk factors for these diseases tobacco use, alcohol use, physical inactivity and poor diet. Poor countries are hit hard by the non communicable diseases. Access to medications for non communicable diseases is bad. Medications for communicable diseases are provided by the public health system free of cost. For example, TB, malaria and leprosy drugs are provided free of cost. Whereas the drugs for NCD are bought by the people by out of pocket expenditure. Drugs for diabetes and cardiovascular diseases lead to more than 1/3rd of the total monthly income of the poor for drugs alone.

Dr. Satyanarayana mentioned that the number of cancers is increasing in India by 1.2% every year. By 2025 he predicted that there will be close to 5 fold increase in cancers. Dr. Satyanarayana clearly demonstrated that there is a five times increase in the cost of branded drugs in comparison to generics. He said that the economic impact of non communicable diseases leads to a great loss to the national income.

Dr. Satyanarayana highlighted two sets of strategies for cutting the cost of anti-cancer drugs, IPR linked and IPR independent. Dr. Satyanarayana mentioned the Indian Patent Act of 1970 which is a strong act. The Indian Patent Act 2005 is newer but much softer than the original act. He mentioned that the TRIPS flexibility should be used for reducing the cost of anti-cancer drugs.

Two main strategies were mentioned

1. The Compulsory License strategy – in this the state intervenes and gives the license of the drug manufacturing to other companies also, thus making it openly competitive thus reducing the cost.
2. The Section 3d strategy – in this evergreening of products are prevented. The companies are prevented from getting a renewal of patent based on small adjustments in the drug formulation.

India, Thailand and Brazil are leaders in advocacy for patent flexibility. Dr. Satyanarayana mentioned that the safety net of the poor patients' access to cancer drugs has to be protected by using the Section 3d and compulsory license strategies. He also mentioned the importance of the sustained civil society interventions to advocate for this.

Promoting active aging in the Indian context: some observations – Prof. Sivaraju

Prof. Sivaraju made an elegant presentation during which he mentioned that age transition is an important phenomenon in the world, especially in India. There are unique characteristics of the elderly which make them vulnerable. The elderly are treated as passive recipients of care and usually not given enough

Prof. Sivaraju, Tata Institute of Social Sciences, Mumbai

importance as contributors to the economy and the social system. The elderly have to be treated as a potentially human resource group. The main challenges faced by the elderly are financial insecurity, unemployment, poor housing, poor access to health care, social isolation and poor quality of life. It has to be understood that the elderly are a heterogenous group with respect to age categories, gender, caste, geography etc. They cannot be clubbed into one large category of elderly. He gave the example of retirement. Retirement may mean happy transition to a different life style to some elderly, but it may lead to significant distress and depression for some others. This is influenced by the background characteristics of the elderly. Dr. SIvaraju mentioned the Madrid International Plan of Action for Ageing 2002, and said that societies have to be made age inclusive. He highlighted that societies should have supportive structures to help the elderly. Dr. Sivaraju was of the opinion that a unified model of health care for the elderly will not be effective. It has to be individualized to different groups of elderly.

Heterogeneity among the elderly is greater than heterogeneity among the other age individuals. All the 60 plus individuals cannot be grouped into one category. Subgroups have to be made including young elderly, middle old elderly and old old eldery. The social system has to engage in discussions about opportunities for the elderly in terms of employment and social participation. The WHO guidelines of active ageing include not just health but also social, economic, physical and mental aspects. He also mentioned the aspect of emotional poverty of the elderly.

Symposium 2 – Epidemiological Transition

Epidemiology of ageing – an ecological model: an overview – Prof. M. Bagavandas, School of Public Health, SRM University

Prof. M. Bagavandas, School of Public Health, SRMUniversity

Epidemiology is based on the assumption that the health outcomes are not distributed randomly in the population. Rather, the incidence and prevalence of health outcomes, as well as the duration and quality of life, follow specific patterns. The main purpose of epidemiology is to explain those patterns in the population and in turn, this information will lay the foundation for future public health interventions. Epidemiology of aging, both as a perspective and as a set of analytic methods, is especially well suited to examine patterns of health and functioning in an aging population. Epidemiology of aging, as a separate field, is of relatively recent origin. It is not just the sheer number of older people in the population, but the implications of that aging population for patterns of health, functioning, and longevity, as well as the number and types of resources that will be needed to address the needs of this aging population. Research in the epidemiology of aging addresses a variety of topics that are related to health, functioning, and longevity. It also indicates that how these age-associated factors are affected by differences in geography or place, gender, race, ethnicity, and socioeconomic status. Epidemiological research in aging has drawn from a wide range of scientific disciplines, including the biologic, behavioral, social, and environmental health sciences. It uses the epidemiological transition theory as framework for describing and explaining the patterns of health and functioning of aging population. Over the past centuries, mortality and morbidity pattern have been changing all over the world with variation in timing and pace. These changes have been referred to as the epidemiologic transition. This transition is linked to improvements and advances in nutrition, hygiene and sanitation and medical knowledge and technology and this are also known as health transition.

The epidemiological transition theory was first formulated by Omran. This theory focuses on "the complex change in pattern of health, disease and age profile of nations and on the interaction between these patterns and their demographic, economic and sociologic determinants and consequences" (Omran, 1971). This epidemiological transition theory presents a broad conceptual framework that is useful for the study of trends in disease and mortality. The framework which is known as Ecological model set the stage for the development of different strategies to understand and enhance the health and functioning of older populations. Ecological Models are also proposed as a comprehensive framework to summarize the diversity of epidemiological research in aging.

Today, there is renewed interest in using ecological models in Public Health and Epidemiology. The promotion of health and well-being in older population is one of the major objectives of Public Health. The ecological model is a framework used to design, administrate, and evaluate public health programmes related to older population. Aging represents a complex blend of physiological, behavioral, social, and environmental changes that occur at both the level of the individual and at the level of the wider community. It is believed that the ecological model is ideally suited to describe and explain this complex blend (Satariano, 2006). This model is suitable to describe and generate and testing hypothesis about association between summary measure of the population such as food consumption pattern, the incidence or mortality rate of some health outcome and socioeconomic status of that population (Morgenstern, 1998).An ecological model is based on the assumption that patterns of health and well-being are affected by dynamic interplay among biologic, behavioral and environmental factors.

This model also assumes that age, gender, race, ethnicity, and socioeconomic differences play roles in individuals functioning, and therefore directly and indirectly influence health risks and resources (Smedley and Syme, 2000)To identify multiple points of possible interventions in public health, from the microbiologic to the environmental levels. To postpone the risks of disease, disability, and death. To enhance the chances for health, mobility, and longevity. This ecological model is valuable for interpreting and locating new research within the broader context of epidemiology of aging. This model is presented as being ideally suited to understanding the causes and consequences of an aging population and serves as a multidisciplinary foundation for future research and practice in epidemiology of aging. The ecological model, at first, describes the patterns of changes in the demographic and socioeconomic patterns of aging, health and longevity in the population. After describing these patterns, the next task is to find out the reasons for these patterns of changes. This will include the consideration of the characteristics of the physical environment, the social environment and social networks, and health behaviors. This ecological model has a long history. Depending on the time and discipline this model has taken different forms. In some forms this model highlights the interrelationship between biologic, behavioral, and social factors, in other forms it emphasizes significance between social and physical environments. This paper provides an overview of role of ecological model in epidemiology of aging. Important topics of this field such as physical functioning, depression and survival are interrelated and this interrelationship will make us to learn more about the causes and consequences of an aging population. An ecological model, which receives full attention in epidemiology and public health, is well suited to understand this interrelationship.

Epidemiological Health Transition – an overview – Dr. Vidya Ramachandran, NIE

Dr. Vidya Ramachandran started her talk with a description of what is health transition. She mentioned that health transition has two components demographic and epidemiologic. Demographic transition comprises of the shift from a high birth rate, high

Dr. Vidya Ramachandran, NIE, Chennai

death rate state to a low birth rate and low death rate state. India has now reached a stage of demographic transition. There are several models of demographic transition. Some countries like the USA and UK reached their transition state over more than 160-170 years. Certain countries like Japan reached it in about 100 years and countries like Sri Lanka and other low and middle income countries have reached the transition in less than 60 years span. Epidemiological transition is said to go through three phases pestilence and famine, receding pandemics and chronic diseases. India is now undergoing epidemiological transition from communicable to non communicable diseases.

Martens in 2002 has classified health transition in three important stages

- Age of emerging infectious diseases
- Age of medical technology
- Age of sustained health promotion

Health indicators have moved from mortality and morbidity indicators to quality of life indicators. This change in health indicators reflects the epidemiological transition.

Determinants of Health Transition

Some important factors have influenced the health transition namely, development in knowledge, development in economy and social structures, health system development, development in diagnostic and preventive technologies, and development in information and communication technology. The Indian population is growing as well as greying at the same time. In the 1990s the main diseases were lower respiratory tract infections, HIV/AIDS and perinatal mortality, but now the diseases are more

ischemic heart disease, depression and road traffic crashes. This is an indicator of the epidemiological transition. The main challenges of Epidemiological Transition are

- Triple burden of disease – unfinished communicable diseases, emerging and re-emerging communicable diseases and non communicable diseases
- Growing and greying population
- Escalating cost of health care

The actions required to tackle this are:

- Strengthening of health system
- Increase in the public spending
- Development of new technologies for prevention and diagnosis of emerging and reemerging diseases
- Judicious approach to public private partnership
- Equity and quality in health service delivery.

Technical sessions – Parallel Tracks – 26.12.2013

1. Study among slum women on reproductive health in Madurai city, Tamil Nadu – Ms. B Geetha

Structured interviews were conducted to understand the reproductive health of women living in slums. The women had poor awareness about reproductive health including menstrual and reproductive health.

2. Health service development in India – Mrs. Syamala S.

A descriptive study was done to understand health service development. It was found that there was scant attention to policy.

3. Role of health policies and programs in fertility transition in south Indian states - Mr. K. N. M Raju

The details of fertility decline in Kerala were described. The main reasons for this was unnecessary hysterectomies for commercial reasons, reducing age of menopause and high rates of sterilization.

4. Functioning of ASHA under NRHM in UP and Bihar - Mr. Dewaram Abhiman Nagadeve

ASHA's have poor knowledge. There is a need for rigorous training of ASHAs. ASHA should act as a community mobilizer rather than a provider.

5. Performance innovation framework for NRHM mandated second ANMs in Andra Pradesh – Mr. Kalpataru Ravikiran Sharma

The need for a 2nd ANM for a village and their roles and responsibilities were reported. The need for continuous training, job oriented training and performance based appraisal of the second ANM was also presented.

6. Prevalence of anemia and obesity among college going adolescent girls in Puduchery – V Raji Sengumar

The study was done in government supported higher institution in Puducherry. Prevalence of anemia was 67%. About 20% of the girls were obese.

7. Rural health care under NRHM a study with reference to Assam – Ms. Dipanjali Devi

The study was a secondary data analysis. It was concluded that the rural health care of Assam is overburdened.

8. Expectations and experiences of elderly using health care facilities - V Gowri

The elderly had a demand for immediate attention, "happy" with outpatient care and "unhappy" with inpatient care. They were more dissatisfied with government hospitals than private hospitals.

9. Epidemiological modeling and economic evaluation for prioritization of limited public health resources - Mr. Kaja Abbas

Outbreaks of pertussis, fungal meningitis and tuberculosis were compared in terms of DALYs averted. The study reported that prioritization should be done based on cost effectiveness.

10. Disability among elderly population and institutional support: a case study in Pune city – Ms. Malika Mistry

The study was done in seven old age homes. Most of these families asked the families to take care of their elderly when they critically ill.

11. Epidemiological transition in Goa: Implications for health policy based on recent trends in mortality – M.S. Kulkarni

The study was done on a descriptive cross sectional design. Goa has transitioned from a stage of high CD and NCD to a stage of high NCD. Injury and poisoning were the major causes for mortality. Goa is faced by triple burden of disease.

12. Gender and Health: Are the women centered technology interventions adequate? – Dr. Sadhana Srivastava

The Magnivisualizer was assessed as the technological innovation. It is a device which magnifies the lesions in the cervix. Women specific interventions need coordinated efforts at various levels.

13. Disease burden of dengue among fishermen's children in Nagapattinam coast – Dr. S. Vadivel

A sample survey was done among children aged less than 14 years. A total of 236 samples were studied. Incidence of dengue was 54.7% among those less than 5 years, 34.7% among those between 6-10 years and was 10.6% between 11-14 years. It was concluded that socioeconomic, environmental and demographic factors strongly influenced the incidence of dengue.

14. An epidemiological study in clinically suspected rheumatoid arthiritis patients. - Mr. Ausaf Ahmad

A cross sectional study was reported. Women were more affected by RA than men. More than 66% of the cases were from rural areas.

15. Levels of child health transition in Kanniyakumari District of Tamil Nadu. - Dr. Ponnambala Thiagarajan

Two cross sectional surveys were conducted. Hand washing and hygiene education was given and two surveys were conducted before and after. Diarrhea, ARI and other minor ailments were studied. Fever reduced from 34% to 23%. ARI reduced from 46% to 30%. Use of ORS increased from 19% to 26%.

16. Changing pattern of burden of disease and healthy life lost in northeast India. - Ms. Sapana Ngangbam

The study analyzed NSSO data. There is an evidence of escalation of overall burden of disease in north east India. The prevalence of CD is very high.

17. Pregnancy complications among currently married women in rural area of Tamil Nadu - K. H. Bimolata Devi

Primary data was collected from two villages. There was lesser complications in joint families and more complications in nuclear families. The educated had lesser complications during pregnancy compared to the uneducated.

18. Chronic diseases related to aging and disease prevention in slums in Mumbai. - Dr. Vijay M Sarade

Hypertension was found to be high among the elderly above 60 years of age.

19. Reproductive tract infection among young married women of two communities of Chidambaram taluk, Tamil Nadu. - Dr. J. Jhonsi

The study was done by purposively sampling muslim women and women belonging to SC community. RTI is higher among those whose spouses are not educated.

20. Prevalence and risk factors for self reported diabetes among adult men and women in Kerala. – Sandeep G.

The study reported that the prevalence was equal among men and women. Daily consumption of milk was associated with increase in prevalence of DM. The intensity of the disease was more among men compared to women.

21. Prevalence and differentials in chronic problems of elderly women in urban settings of Tamil Nadu – Dr. Neelu Singh

It was found that women were more likely to suffer from multiple diseases compared to men. Older individuals had more chances of multiple comorbidities compared to the younger. There is a need for different policies in different states based on the needs.

22. Estimation of shape of fertility pattern considering non homogenous Poisson process. - Brijesh P Singh

NFHS 1 and 2 fertility transition was analyzed using Poisson process.

Day 2 – 27.11.2013

Symposium 3 – NRHM Assessment

Chairperson – Dr. Navaneetham K

Dr. Navaneetham

The main theme of this symposium was assessment of NRHM. The four speakers of this session presented papers which reflected the various aspects of NRHM and its achievements.

NRHM Progress and issues – Dr. U. V. Somayajulu

Dr. Somayajulu's paper intended to present the various initiatives, the progress and the outcomes of NRHM. The data he presented were obtained from the common review mission reports, and the NRHM reports. Dr. Somayajulu started his presentation with a description of the NRHM. He said that NRHM is a flagship program of the UPA government. It lays thrust on development and strengthening of the health system. The focus areas of this program are the Empowered Action Group states, North eastern states, Jammu and Kashmir, and Himachal Pradesh. The program also lays emphasis on community ownership, decentralization and convergence of services at all the levels. The 12th five year plan has organized the National Health Mission, both rural and urban are clubbed in this. In May 2013, the National Urban Health Mission was started. Community engagement is fostered by the involvement of the community in the village health and sanitation committees, Rogi Kalyan Samiti and the grass roots level workers, the ASHAs. The financial inputs for this program are obtained from the central allocation of budget. Human resource building is an important component of NRHM. Integration of AYUSH into the mainstream is one strategy of the NRHM which is towards this goal. The central government allocation of budget for the NRHM in 2007-2008 was 4974 crores rupees which has increased to 37,330 crores rupees in 2013-14. About 51% of the MoHFW funding went to the NRHM in 2011-12 and out of this fund about 86% have been spent, which is a very positive note mentioned Dr. Somayajulu. The public expenditure on health is only 1.4% of the GDP in India. This is a very low figure and is a cause for serious concern.

Dr.Somayajulu mentioned that the infrastructure improvements are an important aspect of NRHM's achievement. He mentioned that the number of PHCs has increased by 3% in 2011 compared to 2005. But the population covered by a PHC continues to be very low, at 68,442 people per PHC in West Bengal

and 75,870 people per PHC in Jharkhand. There is a 18% shortfall in the number of PHC required in India. Among this Jharkhand has a 66% shortfall, West Bengal 58% shortfall and Madhya Pradesh 42% shortfall. Only 15% of the PHC in India are set as per IPHS. There is no electricity supply in 8% of the PHCs, no regular water supply in 13% of the PHCs and no labor room in 34% of the PHCs.

Further he went on to describe the human resource angle of the health system after the advent of NRHM. The human resources fund for NRHM was 769 crore rupees in 2010-11 and it has increased to 2179 crore rupees in 2012-13. There is a large number of vacancies in the health care personnel requirements. Vacancies of PHC medical officers is 12% in India, with 57% posts vacant in Odisha, 30% posts

Dr. U.V. Somayajulu, Vice President, IASSH

vacant in Gujarat and 45% posts vacant in Chattisgarh. The availability of specialists is also very low.

After this Dr. Somayajulu went on to talk about the Janani Suraksha Yojna and its reach over the past 7 years. The total fund allocation for the JSY in 2005-06 was 98 crore rupees. It increased to 1700 crore rupees in 2011-12. The number of institutional deliveries has also increased in this period. The amount of money given to the mothers as part of the JSY, the timeliness of the disbursal of the money and whether the purpose is met or not all remain questions. While the JSY has increased the number of institutional deliveries, there has not been increase in the facilities and infrastructure of the PHCs.

Dr. Somayajulu concluded by mentioning that the emerging issues of gaps existing in the HR, poor functioning of the 24 by 7 facilities, construction and renovation of new facilities, outsourcing of the specialists, identifying and treating deficiencies of human resource have to be considered before proceeding further into National Health Mission.

Achievement and impact analysis of NRHM in Odisha – Dr. K. Vijayanthimala

Dr. Vijayanthimala divided her presentation into three stages. The first one being a description of NRHM and its activities and achievements, the second being the description of millennium development goals and their achievement status in India and finally the status of social development in India. She used the data from Balangir district of Odisha to highlight these points and compared them to the status in India and in the Odisha state. NRHM has the intention of universal health care in India. Kalahandi, Balangir and Koraput areas are the most remote and underserved areas of Odisha. Odisha has low Total Fertility Rate and Crude Birth Rate but the IMR and MMR are very high in this state. NRHM impact assessment

was done by Dr. Vijayanthimala in Balangir district. This was followed by a brief description of the NRHM.

The second phase of the presentation focused on the Millennium Development Goals. MDG 4 stands for child health and its indicators are reduction of under 5 mortality rate, reduction of infant mortality rate and coverage of measles immunization. Millennium

Dr. K. Vijayanthimala

Development Goal 5 stands for maternal health. The main indicator is reduction of maternal mortality rate by 75% from 1990 to 2015 and universal coverage of all deliveries by skilled birth attendants. The MDG goals for India are Infant Mortality Rate reduction to 28 per 1000, under 5 mortality rate reduction to 42 per 1000 and maternal mortality ratio reduction to 109 per 100,000 by 2015. The infant mortality rate of Odisha in 2011 is 57 per 1000. The infant mortality rate was maximum in Madhya Pradesh (59 per 1000), next highest in Uttar Pradesh (57 per 1000) and least in Kerala (12 per 1000). The states of Kerala, Tamil Nadu and Maharashtra have already achieved the MDG 4 target. The National IMR will reach 45 per 1000 by 2015. But it will not achieve the MDG target. The national measles coverage rate will reach 88% by 2015, which is also short of the MDG 4. The under 5 mortality rate of 54 per 1000 will be achieved by 2015 which is also short of the MDG 4 goal of 42 per 1000. Thus MDG 4 will not be achieved by India by 2015. Similarly Maternal Mortality Ratio of 109 will not be achieved by 2015. The current Maternal Mortality Ratio of India 212 per 100,000. India may reach only 139 per 100,000 by 2015. Coverage of delivery by skilled birth attendants increased from 33% in 1990 to 52% in 2010. The likely achievement of coverage by 2015 is only 62% which is also short of the MDG 5 target.

Following this Dr. Vijyanathimala presented data from the Balangir district. The IMR of Balangir district is 100 per 1000 live births which is very high. The neonatal mortality rate is 75 per 1000 live births. The Under 5 mortality rate is 115 per 1000 live births and maternal mortality ratio is 212 per 100,000 births.

Dr. Viajayanthimala then presented the Basic Capabilities Index (BCI). This index comprises of deliveries attended by skilled health personnel, mortality among children under 5 years of age and number of children remaining in schools up to the 5th grade. The BCI has been computed for 167 countries of all the 193 member states of the UN. Those countries that have an index of more than 98 are those who have already achieved their MDGs. Those countries with an index between 91 – 97 will soon achieve their MDGs and those countries with BCI of less than 90 will miss the deadline for the MDGs.

Dr.Vijayanthimala concluded by saying that social development largely influences the health status of the population and NRHM has contributed to an extent towards this goal.

Public Health Care Delivery System : Message from NRHM's achievements – Dr. A.K. Ravishankar

Dr. Ravishankar started his presentation by showing a few pictures of pre and post NRHM health facilities. He said that pre NRHM the health system was disease oriented cure system and post NRHM it has become health oriented care system. Improved health system has happened following NRHM. There are 2.28 health professionals per 1000 population. The doctor to population ratio was 1 per 63,000 population 60 years ago. The doctor to population ratio currently is 1 in 1,800.

The doctor to population ratio India – 0.5 per 1000, Thailand 0.3 per 1000, Sri Lanka 0.4 per 1000, China 1.6 per 1000, UK 5.4 per 1000 and US 5.5 per 1000. The nurse to population ratio in India is 1 per 1205 whereas in Europe it is 1 per 100-150. The nurse to doctor ratio norm is 2:1, whereas in India it is only 1.3:1. Sixty six percent of nurse appointments have been completed by NRHM and 42% of specialist appointments. There were a total of 1,56,686 contractual appointments during the NRHM of them 45% were ANM and 22% were nurses. A total of 8,89,736 ASHAs have been appointed in India after the advent of NRHM. India has a shortfall of 64.1 lakhs allied health professionals. There has been a 1.6% increase in subcentres in the country, 3.4% increase in PHCs and 44.4% increase in CHC in India. The number of subcentres running in government owned buildings has increased from 50% to 64% after advent of NRHM. The number of PHCs functioning in government owned buildings has increased from 78% to 90%.

Following this Dr. Ravishankar highlighted the human resource achievements of the NRHM. The number of ANMs has increased by 33%. The number of allopathy doctors has increased by 43%. Still there is a 10% shortfall in the number of allopathy doctors. About 23% of

Dr. A.K. Ravishankar

the PHCs do not have a pharmacist. There has been a 34% increase in the number of PHCs which function on a 24 by 7 basis. The proportion of PHCs with 4 doctors or more is 3.4%, 3 doctors 4.5%, 2 doctors 23.6% and one doctor is 61.8%. About 3.6% of the PHCs do not have a doctor. About 22% of the PHCs do not have a lady doctor. About 66% of the PHCs have a labor room, 34% have an operation theatre, 67% have 4 beds. About 10% of the PHCs do not have regular water supply, 8% do not have

electricity and 5.8% do not have a road approach. Only 15.1% of the PHCs are according to the IPHS. There is a 27% increase in the number of women who undergo at least 3 ANC visits in India. There has been a 28% increase in institutional deliveries.

Following this Dr. Ravishankar pointed out some general achievements in the health indicators in India such as reduction in incidence of polio, reduction in IMR, reduction in malaria, reduction in acute diarrheal diseases, tuberculosis and kala azhar and increase in life expectancy and mentioned that these are due to the NRHM. This is debatable as there have been secular trends in these indicators over the years. The role of other socio-economic determinants should also be considered in the reduction of these diseases.

Evaluation of the NRHM program with special reference to ASHA workers in Chittoor district, Andra Pradesh – Prof. Jayashree

Prof. Jayashree shared the findings of research of her PhD scholar. She started by explaining briefly about the NRHM and how Andra Pradesh is one of the high performing states under NRHM. She described the district demographic statistics of the Chittoor district. The population of Chittoor district is 41.7 lakhs, the district is divided into 66 mandals, with 94 PHCs and 644 health sub centres. There are a total of 9 CEMONC centres and 9 CHCs. There is one district hospital and 2 medical college hosptials. There are 39 ambulances (108) and 24 mobile medical units (104). There are no ASHA vacancies in Chittoor district, a total of 69 ANM vacancies and 64% of the 24 by 7 staff nurse positions are vacant. All the positions of Allied Health Professionals are vacant. Of the CEMONC centres all positions are filled in only 2 of the 12 centres. The IMR of Chittoor district is 30 per 1000 live births, the MMR is 100 per 100,000 live births and the total fertility rate is 2.1. The ASHA s were introduced in the district in November 2005. There are a total of 2776 ASHAs in place.

Prof. Jayashree presented findings of her PhD scholars study on ASHA's knowledge levels. She showed that the knowledge levels in the various domains were very poor. Apart from this she also presented date from interviews of the ASHAs. The following factors were presented namely, low remuneration, poor knowledge, huge number of registers to maintain, demand for a regular salary of Rs. 5000 per

months and special training needs.

This was followed by an active discussion on the various aspects of NRHM that was presented in the four papers. Though the session had intensive presentation of numbers and statistics, there was little in terms of interpretations and implications for future policy

Prof. Jayashree

and planning. The speakers either took extreme stands of highlighting the successes / pitfalls of the program, or did not do a balanced analysis. A more focused approach, with state or district specific information would have been more meaningful.

Symposium 4 and 5

Chairperson - Prof. C. P. Prakasam

A review of fertility trends and maternal health in India – 2000-2013 - Dr. Ravi B. P. Verma

Dr. Verma started his presentation by mentioning that he was making his presentation in two parts, namely the year of achieving the total fertility rate and maternal mortality ratio and the second part on review of achievement of targets for total fertility rate and maternal mortality rate for the empowered action group states, southern states

Dr. Ravi B.P. Verma

and all of India. He explained that the methodology he followed is geometric rate of change and ratio method. The southern states have achieved a low TFR whereas the EAG states and the north eastern states still have a high TFR. According to Dr. Verma's estimate India will achieve the target TFR of 2.1 by 2017 – 2032. He said that the huge uncertainty interval is because of several difficulties in mentioning the exact rate of achieving the target. He said that corruption, socio economic developments, and shaky economy of the country will make the prediction of the rate difficult.

He drew comparisons of his method of projection with other methods which were based on regression models. He said that the previous projections that India will achieve the TFR of 2.1 by 2021 are a big dream and it is difficult to estimate such a precise date. He mentioned that poor status of women in the country and low socioeconomic status will hamper the achievement of the TFR goal.

Following this Dr. Verma spoke about the relationship between maternal health and fertility. The declining fertility rate has led to a reduction in maternal mortality ratio. The reduction in birth rate is associated with a ¼ reduction in maternal deaths. Reduction in unintended pregnancies has also led to improved maternal health. Prof. Verma estimated that India will achieve the MDG 5 target of MMR of 109 per 100,000 live births by 2023. He said that Assam and EAG states will achieve this by 2034 and Southern states will have achieved it by 2011. He mentioned that the rate of change of the TFR is slower

than the change in MMR. He also specified that the ratio method of projecting the achievement of the MDGs is a better method than regression methods.

Factors influencing men's participation in maternal and child health care in India – Dr. A.G. Khan

Dr. Khan started his presentation by referring to the Cairo conference of 1994 in which the men's role in RCH was first emphasized. Men are equal partners in reproduction and hence men's participation is important. He presented empirical data from the NFHS 3.

Dr. A.G. Khan

Women who had given birth within the last 5 years were considered. It was asked whether the child's father was present during the ANC visit of the most recent child. About 63% of the women and 74% of the men reported that the child's father was present during the ANC visit. Women working in the organized sector reported more of men's participation than those not working or working in the unorganized sector. Urban men were more involved in the maternal and child health care than rural men. There was a marginal difference in the religions and based on caste in men's participation. Standard of living is an important variable influencing men's participation with those women having a higher standard of living reporting more men's participation in RCH care. When both the husband and wife were of the same age, there was more men's participation in RCH care. When the men were older than the women at the time of marriage there was less participation. Women who married at a later age reported greater men's participation. Women whose partiy was three or more reported less men's participation.

The presentation was interesting and strong statistical methods were used for analysis. But the implications of the findings were not discussed adequately. It would have been more meaningful if the authors had presented the importance of the findings and potential policy implications.

Intimate Partner Violence and unwanted pregnancies – Dr. Dharmalingam

Dr. Dharmalingam started his presentation by mentioning that 55% of women in the reproductive age groups have experienced violence in the past 12 months. Women who have experienced intimate partner violence are more likely to have unwanted pregnancies and child births. There is a clear link between intimate partner violence and unwanted pregnancies. This has been demonstrated in many countries including India and Bangladesh. Some studies have also shown that victims of IPV are less likely to use contraception. This could be probably because victims of IPV are at a lesser ability to negotiate contraception.

Dr. Dharmalingam

Dr. Dharmalingam pointed out two hypothesis with which he started his study. Violence can affect the child bearing intentions and the desire to have children. The other hypothesis is that contraceptive use can be a moderating factor rather than a mediating factor in the association between intimate partner violence and unwanted pregnancies. He mentioned that violence can reduce the woman's desire to have children as additional children would mean decrease in the woman's autonomy and more economic dependence. Moreover then women may not want to bring up a child in the abusive environment. He mentioned that pregnancy intention is an important determinant of unwanted child bearing as well as contraceptive use. This is an important finding because policy to reduce unwanted child birth may focus on increasing contraceptive use, whereas they should address intimate partner violence.

In Dr. Dharmalingam's study data from NFHS 2 was used. About 90,000 ever married women's data was taken and analyzed. Subsequently in 2002-3 there was a follow up study on these women about whether they had children or not and whether they used any form of contraception or not. The variable used were desire for having children (NFHS 2 data), contraceptive use (NFHS 2 data as well as 2002-3 follow up data) and the number of unwanted pregnancies and births (follow up data). The independent variable studied was exposure to any form of physical intimate partner violence (NFHS 2 data).

The important findings of Dr. Dharmalingam's study were that victims of IPV were 21% more likely to want to discontinue child bearing. Higher parity, having live sons, higher education were associated with lesser intention to have children. Victims of IPV were 46% more likely than non victims to have unwanted child births. The important finding was that victims and non-victims were not different with

respect to contraceptive use. He demonstrated another statistical analysis in which the interaction between victimization and contraception use was not different from non-victims and contraceptive use. He concluded saying that the effect of intimate partner violence on contraception is context specific.

Dr. Dharmalingam mentioned that reduction in intimate partner violence can reduce unwanted pregnancies and child bearing.

Correlates of domestic violence by husbands and women's empowerment in a slum community in Mumbai – Dr. Donta Balaiah

Dr. Balaiah presented data from one of his studies in Mumbai slums. He started the presentation describing the background of his study. He said that status of women in the country is still poor. The main objectives of the study were to understand the prevalence of domestic violence by the husband, the socio-economic variables which influence domestic violence and the association between domestic violence and women's empowerment. A slum community in Mumbai was selected for this study. The sample size was calculated to be 1137. Women in the age group of 15-39 years were eligible to participate in the study. The Conflicts Tactics Scale (CTS) was used to measure the level of domestic violence. Women's empowerment and decision making power were also measured.

The main findings of Dr. Balaiah's study were that there was a prevalence of 16.8% of any form of physical violence among the women. Emotional violence was present among 12.4% of them. Sexual violence was reported by 4.8% of the women. Any form of physical, sexual or emotional violence was present among 21.2% of the women.

Dr. Donta Balaiah

Women's empowerment was assessed by three domains namely participation in decision making, freedom of movement, and women's freedom from threat. One third of the women actively participated in decision making. Only 22% of the women had freedom of movement. Women who were less than 25 years of age took less part in decision making. Women's empowerment was associated with lesser domestic violence.

Technical sessions – Parallel Tracks – 27.12.2013

1. Socio-cultural violence against women: a study of Western Region in Nepal – Mr. Lakshmiraj Joshi

The study was done to understand the effects of "Chaupadi Pratha" on health and lifestyle of women. The study was done in a qualitative and quantitative mode. Greater prevalence of 75% was found among illiterate women. There were multiple adverse health effects observed. They were made to stay in unhygienic conditions during their menstrual cycles, sometimes sharing space with animals. The need to change these practices was discussed.

2. Family influence on family size preference of younger generation in rural Bihar – Mr. Abhishek Kumar

The main objective of this study was to find the mother in law's fertility on the daughter-in-law's family size planning. The study was done in the Saran district of Bihar. The contraceptive use rate among the daughter in laws was very low (33%). The mother's and sibling's family size influenced the daughter's family size more than the mother in law's family size. The various pathways of intergenerational transmission of fertility were discussed following this presentation.

3. Food security in India and nutritional status of the population – Mr. Vijay Shankar Vikram

The objective of the study was to analyze the right to food in terms of availability, adequacy and sustainability. The main finding of the study is that the prevalence of under nutrition is negatively related with food price violation and food production variability. After this presentation the various aspects of the Food Security Bill of 2013 were discussed.

4. Social and health problems in old age in India – Dr. Ratnesh Patel

The paper presented the current status of elderly in India and the problems faced by the elderly. The presenter highlighted the need for improved pro-elderly policy in India.

5. Urban – rural differentials in skilled birth attendants in India – a regional glance (1992 – 2006) – Dr. Bal Govind Chauhan

NFHS 1, 2 and 3 data were used to assess the status of SBA in India. The percentage of SBA is increasing both in urban and rural areas. The urban to rural ratio of SBA is very high. The gap between the SBA in urban and rural areas is high. The poor are deprived of access to skilled birth attendants. The southern region shows less economic inequality in access to SBA followed by the west and east.

6. Analysis of migrants of Dharavi – with a perspective on socioeconomic and health status – Ms. K.S. Usha

A total of 500 inter-state migrants were interviewed using a structured questionnaire. A socioeconomic status index and a health index were developed after factor analysis. There was a

strong correlation between these two indexes. Majority of the migrants preferred private hospitals. A large proportion of the migrants went to unregistered practitioners. The study also concluded that the migrant workers who were interviewed were happy with the health care facilities available to them.

7. A study on health conditions of Jorhat slums – Dipankar Sharma

This study was done to assess the health status, factors responsible for good health and consequences of the health status of Jorhat slum dwellers of Assam. A total of 480 households were interviewed. About 61% of the households reported any one or more members suffering from any illness in the past 1 year. Unhygienic physical environment, poor socioeconomic conditions, overcrowding, absence of specific health policy, lack of basic facilities and illiteracy were some of the causes of the poor health status. The study recommended that the state government and municipal board should adopt long term planning for the improvement of the slums.

8. Awareness of sexually transmitted infection and cervical cancer among women in urban slums of Mumbai – D D. Naik, Balaiah Donta

The study was done to assess the knowledge, attitudes and practices and health seeking behavior about sexually transmitted infections and cervical cancer among women in the slums of Mumbai. Women between 19 – 49 years of age who were ever married were eligible to participate in the study. There was a 99% awareness about STI and a 93% awareness about cervical cancer. Higher age women, educated women and women who were working had higher knowledge compared to their counterparts. Awareness about symptoms of STI and cervical cancers was poor.

9. Consequences of migration and its impact on health of the urban poor – Somnath Bhattacharjee

The study was done to understand how migration influences the social, cultural, economic and health aspects of the urban poor. The study found that migrants preferred to go to indigenous medical practitioners. This was because it was less time consuming. They preferred also to go to unregistered practitioners. The continuous socioeconomic backwardness of the migrant workers was found to be the main reason for the overall poor health.

10. Knowledge attitudes practices and factors influencing hand-hygiene among school children in Ranga Reddy District, Andra Pradesh – Srikrishna S.R

A cross sectional assessment was done on a school based sample of children. A total of 600 children were studied. There was good knowledge about hand washing before and after food. Most of the children washed hands with only water and not with soap. They knew that handwashing prevents diseases. Water scarcity was an important factor influencing the hand washing behavior. There is a need to increase awareness about hand washing after using the toilet. Though the knowledge levels on hand hygiene was generally good, the practices were not appropriate.

11. Impact of water scarcity on women's health – a case of Darjeeling Himalayan region – Samhita Chaudhuri

Water is an important determinant of health. Scarcity of water and having to travel long distances to fetch water can adversely affect health. Darjeeling has a heavy scarcity of water. Even water for primary use is not easily available. Water contamination and pollution is very heavy. The solid waste management system is also very poor. During April and other summer months due to water scarcity and polluted water there is a heavy outbreak of diarrheal diseases every year. The government has invested in rain water harvesting and stream recharge system.

12. Quality of Reproductive Health dynamics in urban slums of Delhi – Sangita Mishra

Urban slums in Delhi do not have a good health status. The immunization coverage is very low. A sample of 400 households in that region was studied. Though RCH services were available the households had lack of knowledge about the services and did not access them. Though all services including antenatal care, delivery, postnatal care, immunization, contraceptive services were available they were not used by the people.

13. Review of National Sanitation Policy for urban and rural area and need for private public partnerships in legal framework in India – Mutyala R Prakash

Sanitation is an important dimension of health in India. Poor sanitation can perpetuate the cycle of tuberculosis, malaria, water borne diseases and other infectious diseases. Sanitation improvement should focus on reducing open air defecation and improving solid and liquid waste disposal. There is a need for the government to increase the sanitary facilities in the country. Even in the states in India like Kerala and Tripura where literacy is very high, sanitation is very poor. Public private partnerships should be explored for improving sanitation facilities in India. The PPP framework can be effectively used to improve sanitation facilities.

14. Health services in Himachal Pradesh – Dr. Shashi Punam

In Himachal Pradesh the rates of anemia have fallen. The infant mortality rate has also fallen. There has also been a significant reduction in diarrhea rates. The authors recommend interventions to improvement in utilization of health care services, encouragement of school health care, revision of curriculum of medical and health care professionals, interventions to improve institutional deliveries and interventions to increase immunization coverage.

15. Effects of household factors and type of school management on education performance in primary school, Navi Mumbai – Rita Abbi and P.C.Saxena

Academic achievement determines the students' performance in class. Two districts of Navi Mumbai were taken for the study. Randomly 20% of the students were selected. It was found that private schools have a greater influence on school performance compared to the Navi Mumbai municipality schools. If the parents were educated then the children performed better. Father's income was also directly proportional to the performance at school.

16. Knowledge of family planning among non acceptors in a slum community in Mumbai – Shahina Begum

The study was done to assess the level of awareness among the women having unmet need for family planning. The reasons for not using contraception were assessed. It was found that when the demand for the number of children is met, the use of limiting methods increases.

17. Exclusion of religious minorities in nutrition in India – a comparative analysis – C. Ramanujam

The study was done to compare the nutritional status of men, women and children belonging to religious minorities in comparison to the Hindus. Highest nutritional deficiency was seen among the Buddhists. Women of all religions have poorer nutritional status compared to men. Women of all groups have higher levels of anemia than men. The study concluded that there is a need to promote the nutritional status of all minority groups, especially the Buddhists.

18. Assessment of mental health status with body image perception and eating behaviors among urban adolescent girls – Nivedita Som

A cross sectional study was conducted in Kolkata using a self administered questionnaire to study the association of mental health status with body image perceptions and eating behaviors among urban adolescent girls. Severe depression was seen among girls of higher and middle socioeconomic groups. Lower socio economic groups had lower stress levels. Low self esteem was present among the girls of the high and middle socio economic groups. Mental health status was associated with body image perceptions irrespective of socio-economic status.

19. Fertility, morbidity and mortality of low and high expenditure groups of rural and urban Oraons – Tanaya Kundu Chowdhury

The demographic parameters of the Oraons are changing with the changing socio-economic scenarios.

20. Social disparity in childhood morbidity and curative care in rural India – Rajesh Raushan

With rising economic status morbidity profile improves. Having a separate kitchen is an indicator of lower childhood morbidity. The scheduled tribe households have the least prevalence of childhood morbidities. The household environment has a great influence on childhood morbidity.

21. Social exclusion and health status of Musahar community: a case study of Krusinagar district of Uttar Pradesh – Bibekananda Nayak

Structured questionnaires and focus group discussions were done to understand the health status of Musahar community. There is a need for inclusion of this community into the safety net. Health promotion should reach this community. Political participation of this community will help in achieving this goal. There is a need for increases in the areas of livelihood, self respect and dignity.

22. Out of pocket expenditure of non fatal road traffic injuries – Bornali Dutta

Road traffic injuries lead to huge economic burden. This study was done to understand the out of pocket expenditure. The study was approached from hospital and household perspectives. A sample

of 400 victims was analyzed over a 6 month period. The average monthly income of the participants was about Rs. 1000. All of the expenditure in the participants was out of pocket. The injuries increase the socio economic burden on the household. The households are pushed to take loans to meet these financial burdens.

23. Agriculture, women and maternal health care in Karnataka – Monikamma Nagendrappa

Majority of the agricultural families that were studied were non-nuclear. More than 70% were married by the age of 20 years. The women did not receive support from their husbands to get antenatal and postnatal care. The institutional delivery rate was also very low. The women from agricultural households did not have decision making power.

24. Women's empowerment and its impact on health – Nisha N.D.

Women's empowerment increases the knowledge of the women about family planning, contraception and their impact on their health. Women who have the decision making ability are able to undergo ANC and PNC as well as use contraception. Very few women in rural areas had their own bank account. This was an indicator of their empowerment. This had an influence on contraceptive use and also the choice of contraceptive.

25. Association between physical activity and life style diseases among adult Indians – Dolly Kumari

Physical inactivity is a major determinant of non communicable diseases. Women are at greater risk of physical inactivity compared to men. Rural women are at a much greater risk.

26. Chulha smoke keeps Indian women and children at high risk – Kaveri Patil

Solid fuel use for cooking leads to indoor air pollution which leads to respiratory morbidity among women and children. Lack of infrastructure and facilities in rural areas lead to increased dependence on solid fuels for cooking. Average time taken for cooking in a day in rural areas is about 5 hours. This increases the risk for respiratory illnesses.

27. Is migration a risk factor for HIV spread in urban settings a study of international border district in West Bengal – Arpita Das

Migration is a major risk factor for the spread of HIV/AIDS. Less than 20% of the international border district migrants use condoms regularly. Alcoholism and prostitution is also rampant. Thus these migrants are at a very high risk.

Day 3 – 28.12.2013

Symposium 6 – Health and wellbeing of the elderly

Chairperson – Dr. U.V. Somayajulu

Correlates of independent living of elderly in a rural setting in Tamil Nadu – Prof. Audinarayana

Prof. Audinarayana presented data from a survey that he had conducted in the rural area of Coimbatore. He started by sharing some facts about elderly in India. He said that 320 million elderly are expected to be in India by 2050. The increase in longevity leads to longer life with higher morbidity. The elderly may suffer from multiple comorbidities which may in turn lead to poorer quality of life. The study was done to understand the independent living skills of the elderly, to examine the factors associated with independent living of the elderly and the major determinants of functional status of the elderly. Four rural development blocks of Coimbatore were selected as sample. Four clusters were selected from each of the blocks, this giving rise to 16 clusters. A total of 1206 elderly were assessed. Lawton and Brody's Independent Activities of Daily Living (IADL) scale was used. Some of the activities considered were ability to use telephone, handle finances, food preparation, take own medicines, shopping, housekeeping, laundering and transportation. Correlation and multiple linear regression analyses were done. The main findings were women, single / widowed / separated, backwards and those in nuclear families are more likely to be more independent. Those elderly living with the family were more dependent. Higher age and greater morbidities were associated with reduced independence. Greater years of schooling and greater standard of living index were associated with more independence.

Prof. Audinarayana

Longitudinal Aging Study in India (LASI) – Dr. T.V. Sekhar

Dr. T.V. Sekhar

International Institution of Population Sciences, Ministry of Health and Family Welfare and Ministry of Social Justice have joined together to create a longitudinal research database of elderly research in India. The study proposes to follow up the same households over a long period of time. Revisit will be done every 2.5 years. Socioeconomic, psychological and health related aspects will be studied. Data on social support for the elderly is lacking in India. How this is related to health status and economic security is also not known. The study envisages employing a multi disciplinary team with both self reported health status measurement and actual objective measurements. It is estimated that between 2011 and 2050 the numbers of persons above 75 years of age will increase by 340%. This increase in the numbers of elderly will be associated with increase in NCD. There is no sufficient nationally representative data on NCD and health transition. The LASI will consider adults aged 45 years and older. This is because substantial NCD incidence started before 45 years of age. This cohort when followed for 25 years will give rise to good numbers of elderly in the database. China, Korea, Indonesia, Japan, Europe, UK and USA already have large scale elderly study cohort databases. This study has adapted a lot of ideas and models from these studies. India specific family and cultural aspects have been added. The findings of this study will help inform the National Program for Health Care of the Elderly. Four main domains are covered in this study, firstly health, disease, risk factors, secondly health care and finances, thirdly economic status, livelihood of the elderly and finally social support and social aspects. The study will give us good and reliable estimates of CD and NCD. It will give us an idea of social determinants and risk factors for diseases. We can understand the demography of aging and transition. Household health expenditure, health insurance, health care delivery and health care financing conditions can be understood. Catastrophic health expenditures can be clearly understood. The study will also lead to a sound understanding of the social and family support and networks for the elderly. In addition it will also collect information on the perceptions of

the elderly about their own wellbeing and satisfaction with life. Economic conditions will be assessed including livelihood, employment, economic security and vulnerability.

The study will be done in 29 states and 6 union territories of India. A total of 50,000 individuals will be covered over the age of 45 years. It is a 25 years longitudinal study with a follow up of the sampled households every 2.5 years. There will be a household interview schedule and an individual interview schedule. Computer Assisted Personal Interviews will be done. Dry Blood Spot will be collected to test for CRP, Hb and EBV.

Pilot test has already been done in Karnataka, Kerala, Rajasthan and Punjab. Based on the pilot study several changes have been incorporated into the main study. Average time of administration of the household interview schedule is 30 minutes and the individual schedule is 60 minutes and biomarker testing is 20 minutes.

There are several important implications of the LASI study. The study will inform national policies on health, disease prevention and challenged faced by demographic transition. It will guide health sector reforms in geriatric care and involvement of private sector in health care. The database will be useful to make national and international comparisons.

Health condition and health seeking behavior of elderly in an urban set up – a study from a metropolitan city in India – Prof. C. P. Prakasam

Prof. C.P. Prakasam

A total sample of 800 elderly who were retired from work as bank employees were studied. Their perceived health status and its correlates were assessed. About 61% of the elderly felt that they were well enough. The prevalence of diabetes was 29%. A majority of 65% of the elderly spent time by reading books, papers and magazines. More than 68% of the respondents took treatment only at home. After doing bivariate analysis he fit a probit regression model. The main conclusions of the study were that the economic conditions of the elderly were sound in the young age, but as they grew older the condition worsens.

Portrayal of Indian Elderly in literature and cinema – Prof. D.P Singh

Prof. Singh started his presentation by mentioning that literature and cinema play an important role in representing the social realities. He showed the movie Rui ka Boj (the weight of cotton) in small clips and explained how the movie has captured the life of an elderly person.

Prof. D. P. Singh

Parallel Track

1. Digital Public Health – feasibility of a community led video education for effective behavior change communication – Dr. Kumar Vikrant

The study was done by PATH International in a model similar to the Digital Green model of agriculture education of farmers. Local people were trained to shoot cinemas with low cost camera and technology. These cinemas were short films on health topics. These videos were shown in the Mothers' group meetings conducted by the ASHA and ANMs. It was shown that there was an active participation by the community in these sessions. There was also good knowledge increase pre and post video intervention. Thus the author concluded that this is an effective method of behavior change communication.

2. Ranking of the EAG states using Composite Index – Prof. Ravi Verma

He explained the composite index using crude death rate, crude birth rate, IMR,MMR, under 5 mortality rate. The findings of the study were that all the 13 districts studied in Uttarakhand were developed. About 83% of the districts in UP are underdeveloped. The CI method and the annual report of the ministry of health and family welfare correlated well.

Valedictory Function

The valedictory function was held between 12.30 PM to 1.45 PM on 28.12.2013. The Valedictory address was delivered by Prof. K. Srinivasan.

Prof. Srinivasan spoke about the importance of good quality data and expressed concern over how most of the data provided by the government is of poor quality. He gave the example of HIV prevalence estimates.

Prof. Srinivasan's Valedictory address

He said that originally the HIV prevalence was estimated through sentinel surveillance sites, surveys among high risk groups and intermediary populations like truck drivers. This led to a picture of gradually increasing prevalence of HIV in India. The prevalence was 3.5% in 1998 and it increased to 5.216% in 2005. Then in 2006 the NFHS - 3 survey did a community based assessment of prevalence of HIV and the estimate reduced to 2.76%, a reduction to almost half of the previous estimate. This led to a lot of debate and speculation. Subsequent data collection over the years has shown declining prevalence. The NACP attributed this to effective program functioning. The probably reason for why the original sentinel surveillance data did not give the right estimates was probably pregnant women were not representative of the general population.

He cited another example of how data can be grossly wrong. He compared the NFHS – 3 data on condom use. He took the cases where both the man and the woman in a couple reported condom use and estimated the total number of condoms used. He compared this data with the total number of condoms manufactured and distributed in the country over the period. He included Nirodh (the government supplied condoms), condoms supplied by social marketing and branded condoms. He found that almost 50% of the condoms that were supposed to be used according to the NFHS-3 data were not being used in reality.

Citing these two examples he mentioned that data provided by the government should be viewed with skepticism. It has to be validated by an independent party before accepting the numbers.

Following the valedictory address the rapporteur's reflections were presented.

This was followed by audience feedback. Some of the important feedback included

1. Improvement in rapporteuring – to include details of parallel tracks also in the reflections
2. Appreciation for speedy production of daily newsletters
3. Appreciation for general hosting of the conference and the hospitality

Following this the best poster and the Prof. K.N.M Raju Youth Best Paper awards were given to the respective participants.

Prof. Ch. Satish Kumar, Dean, School of Public Health delivered the vote of thanks and concluded the session.

Certificates were distributed to the participants and the session was adjourned.

Vote of thanks by Dean, School of Public Health, SRM Univ.