ADVOCACY DOCUMENT

Social Determinants of Health in Kerala State

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What are social determinants of health and why is it important?

The conditions in which people are born, grow, live, work and age, and the health system are the social determinants of health. Distribution of money, power, power relations in politics and the availability of resources decide these conditions resulting in inequities in health. Even though the definition of health stress the importance of looking at health in a more holistic way apart from a state of absence of disease, the social factors that determine health have not been given due importance in framing policies. Discussions on such determinants of health have remained within the academic circles till recently. We have recently started giving attention to factors that are making people ill while simultaneously planning treating them. ‘Universal access to health care’, is one such social determinant of health.

Social determinants of health on the global agenda – A second primary health care revolution

The World Health Organization (WHO) convened the Commission on Social Determinants of Health (SDH) in 2005 to provide advice on how to reduce health inequities. WHO Member States discussed the report and passed a resolution urging action on social determinants at the 2009 World Health Assembly. It is suggested that implementation of the Commission’s report will improve health, reduce health inequities, which in turn will lead to better development. The Commission’s final report made three overarching recommendations.

- To improve daily living conditions
- To tackle the unequal distribution of power, money and resources
- To better measure and understand health inequities

Implementation of the report requires coherent policy responses across countries and across sectors to review and address the structural determinants which produce stratification within societies such as governance, education systems, labour market structures and redistributive welfare policies. Better health is central for the development process and health inequity is a key indicator in the social determinants approach. The Health Sector, though not more important than the others, remains vital for progress by improving delivery of health care, thus reducing inequities and improving health outcomes.

With this background Kerala University of Health Sciences (KUHS) initiated steps to formulate and clarify its position regarding the draft paper on SDH. It also sought to come out with a compelling summary of our views related to the SDH approach to health. KUHS decided to raise a repertoire of knowledge that would be useful for researchers and policy makers. In the conclave of experts in the field from Kerala Health Sciences
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held on August 6th, 2011 there was a general agreement on the need for focusing and consolidating available evidence and gathering further evidence on social determinants of health in the state. As there was limited data on inequalities in health and especially about the intermediary variables like poverty and lifestyle it was decided to come out with an advocacy document on this subject which can direct the future health research and planning in Kerala. This document is the result of a conscious effort from this group to assimilate the existing knowledge in this area and initiate advocacy.

Health Scenario in Kerala

Kerala has a significant record in the health sector, famously known as the Kerala paradox of economic backwardness & social development. Kerala has the best basic health indices among the Indian States and it is comparable with the developed countries. These include low birth rates, higher female sex ratio, low infant mortality and high life expectancy. The priority given by the society and the administration to health related issues dates back to pre-independence era. Kerala was ahead of other states at the time of Indian independence. thanks to high levels of literacy, female literacy and autonomy, social reforms such as the land reforms, a political climate favouring the rights of the poor and underprivileged, and high public expenditure in social sectors such as education and health. However these achievements have been at a plateau in recent years. For instance Infant Mortality Rate has not been able to touch single digits despite hovering between 10 and 15 for nearly 10 years now.

Even though the mortality rates in Kerala are low, the morbidity rates are pretty high, which has been variously attributed to the heightened awareness and health seeking behaviour, and an ageing population. However an analysis of the morbidity patterns across socio-economic classes within Kerala points towards an unequal distribution of social and economic resources resulting in health inequities. It should be noted that further development of Kerala and achievement of the public health targets of health related Millennium Development Goals is impossible without addressing the social determinants.

Another finding of recent studies is a steady decline in the acute morbidity. However, recurring epidemics of mosquito borne diseases like Dengue and Chikungunya and local food borne epidemics like typhoid and hepatitis are new worries which demand newer and innovative strategies.

Social determinants of health in Kerala

Even though there are attempts to relate the health scenarios to social and economic factors no study so far has attempted to relate it to SDH back ground comprehensively. Even when they have been elucidated in some studies, it has not been given due importance so as to contribute to
the framing of health policy in the state. The following section tries to compile the studies that have attempted to evaluate the existing health scenario with a social determinants background.

We recognise there is paucity of discussion on social determinants of health in Kerala and there is a requirement of greater emphasis on generating information according to social group divide, there has to be some discussion as regard defining social group identities in the state. The conventional socio-economic classification need to be directly applicable in Kerala where there is a swelling of the middle class (in economic terms) over time.

Social-group identities need not merely be on account of caste and religion in case of Kerala, rather such identity divide on Kerala should involve migration, women’s work as well as occupation. Probably there is a need for alternative formulation of social group identity to bring to the real extent of inequities to the fore in health care prevalent in the state.

Another significant aspect that needs to be studied is the behavioural divide in consumption, the unusual pattern of lifestyle adoption that feeds into the kind of epidemiological profile.

In this back ground we believe this repertoire of available evidence will help to initiate more research in the area of SDH and health.

Health vs socio-economic status

Very few studies have tried to assess the linkages between health status and SES in Kerala. Notable among these is the 1987 study conducted by the Kerala Sastra Sahitya Parishad (KSSP) in which the socio-economic status was assessed on the basis of per capita income, housing, education and land ownership. The crude death (7.3 in low SES & 5.08 in high SES) and crude birth rates (31.6 in low SES & 16.0 in high SES) showed an inverse relationship with socio-economic class even after standardisation for age and community distribution. The death rate in the Under-5 population varied from 15.4 in lowest SES to 3.1 in the highest SES, while the marginalised SC/ST population also had higher than average death rates. The differential death rates across socio-economic classes can be attributed to poor living conditions such as housing, sanitation & water supply, behavioural patterns such as smoking & alcohol use, and barriers to healthcare access such as money and travelling. The differential birth rates can be partly explained by differences in education even as there are differences between communities within SES groups. Other social, cultural and political factors need to be explored.

The morbidity pattern including disability also showed an inverse relationship with socio-economic status. The rate of morbidity for the lowest class was 40 percent higher than the rate for the highest class. Prevalence of acute morbidity was 239
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per 1000 in low socio-economic status compared to 162 per 1000 in high socio-economic status. Chronic disease morbidity varied from 152.7 per 1000 in low socio-economic status to 128 per 1000 in high socio-economic status. This also had an effect on the health expenditure patterns such that the poorer sections are forced to spend a larger proportion of their income on health. Among communicable diseases the greatest differences between low and high socio-economic status was for tuberculosis (633%), followed by diarrhoeal diseases (192%) and fever (59%). Even though the study showed a higher rate of the so called affluent diseases among the better off sections, these conditions were also present in the poor who will be more adversely affected due to access and resource constraints. The authors themselves caution about the possibility of under diagnosis and higher mortality in the low SES. The prevalence of preventable disability also shows an inverse relationship with social class. The differences between the two extreme classes amount to 149% (movement disability), 139% (speech and hearing disability) and 201% (visual disability).

Several subsequent studies have highlighted the importance of how differential health outcomes arise from inequitable distribution of social and economic resources leading to poor living conditions. According to a survey published in the International Journal of Health Services, it is clear that if we divide the population into four strata based on wealth and income, there is a 30% increment in mortality among the poorest as compared to the richest in Kerala. There are studies showing caste affiliation as an independent social determinant of health factor in low socio economic groups like Paniyas. Studies show that routine tools can even be inefficient in identifying health inequalities and general affluence can mask the disparities. Studies suggest households in the most marginalised castes and with high health care need require protection against impoverishing health expenditures. This study also showed that households in each caste group vary considerably among themselves in per capita expenditure on chronic episodes.

It seems there is a relatively high rates of utilization of outpatient services in Kerala. It also suggests that the market for outpatient services is segmented. The very poor and casual worker households tend to use public services while the wealthier tend to consult private practitioners. This means a restricted choice of source of care for the poor. There are examples from Waynad which shows not just socio economic status but the issues like the perception of people from this group regarding health care facility, capacity to access the health care and coping strategies they adopt also matters.

Reproductive health

As per the SRS 2004-2005 Kerala still has a maternal mortality rate of 95 (SRS 2004-
06) in spite of the high institutional deliveries the reasons for which are yet to be elucidated. A study by obstetricians suggests it should not be more than 50. This study suggests that most of the maternal mortality could have been avoided with timely and proper medical care. The gross deference between these two studies are likely to be due the difference in the methodology and there is an urgent need of another study to real scenario. There is a significant association between prevalence of reproductive tract infections among women and socio-economic status. Reproductive tract infections were prevalent in 44% of low socio-economic status compared to 27% in high socio-economic status. Hygienic practices were more prevalent in high socio-economic status compared to low socio-economic status with an odds ratio of 3.65. Absence of basic sanitation facilities in resource poor settings and lesser education is associated with poor hygiene and higher prevalence of RTIs.

The economic impact of medical expenditure for even expected events such as pregnancy and delivery is more on the poorer sections. Pregnant women from low socio-economic status met 72% of total expenditure from borrowings while those from high socio-economic status met 91% of total expenditure from own savings. The low SES groups also showed higher fertility rates and more number of teenage pregnancies.

Child health and nutrition

In one of the studies, diarrhoea in Under-5 age group was significantly associated with low socio-economic status, low immunisation coverage and poor environmental sanitation. Prevalence of diarrhoea varied from 20% in kutcha house, 7% in pucca house, 19% among illiterate mothers, and 7% among mothers with secondary or higher education. 18% of under-5 children without toilets had diarrhoea compared to 7% in those with access to toilets. Low birth weight is more in SC/ST and backward casts and more in nuclear families compared to joint families. 24% of women from low socio-economic status had low birth weight babies compared to 10% in high socio-economic status.

High prevalence of malnutrition among tribal children of Wayanad is associated with poor housing, low education of parents and distance from health facilities. 58% mothers with no education and 65% of mothers with primary education had children with moderate to severe malnutrition, while only 34% of mothers with secondary education or higher had malnourished children. Also 90% of children from low socio-economic status were underweight compared to 25% in middle/high socio-economic status. 87% of children from low socio-economic status had stunting compared to 24% in middle/high socio-economic status.
Communicable diseases

Health statistics reports show widespread outbreaks of chikungunya, leptospirosis, malaria and this point towards inadequate vector control and waste management. Use of alcohol was significantly associated with treatment outcomes in TB patients on DOTS. Adverse outcomes were observed in 6.3% of alcohol using TB patients and 2.5% of non-alcoholic TB patients. Verbal autopsy also hinted at unfavourable outcome in the older age group and unsupervised cases. There is evidence to show that not just the incidence of the disease but the adherence to treatment in infectors like HIV is related to the social determinants in the state.

Health expenditure

Lower SES families were significantly more affected in terms of catastrophic health spending while undergoing treatment for acute coronary syndrome. Health security coverage was available for 7% patients from low socioeconomic status and 29% from high socioeconomic status. The health expenditure does not increase with household income; rich and poor spend almost equally on health. Consequently, although the overall share of health spending in annual income varies between 2% and 10% across locations and between districts, For certain income classes at the lower end, it represents 40% to 70% of their incomes. This expenditure includes both catastrophic episodes, out Patient and chronic care in Kerala, unlike some studies from the North India and families are trapped in a vicious cycle of debt and poverty. This suggests designing protection instruments for these requires deeper understanding of how the uncovered financial burden of out-patient and hospitalization expenditure creates negative consequences and of the relative magnitude of this burden on households. It is shown that the most vulnerable populations are the least likely to receive state support. The high out of pocket expenditure is accompanied by private sector surpassing the public sector in service and growth. There is a steady increase in health related expenditure over the years from Rs. 92 per capita to 5269 in 2004 in 2010 survey. This possibly indicates that the upper middle class is the only group that can possibly utilize to the full extent all the potentials offered by today’s ‘technological medicine’. Hospitalizations in Kerala are expensive. It costs on an average of nearly ten thousand rupees per episode of illness for which hospitalization is sought in private sector and around Rs 7000 in government hospitals. The role of the dominant private sector in contributing towards the high out of pocket expenditure has to be explored further.

Non-communicable diseases

Tobacco use is seen significantly more among the low SE groups compared to high socioeconomic groups in Kerala. Morbidity
and mortality attributed to tobacco is higher among the poorest people in the state. In the Kerala Sastra Sahitya Parishad (KSSP) study of 1987, it was reported that among the poor, 51% smoked beedi compared to 19% in the better off group. The NFHS-2 survey showed that 43.5% males with low standard of living index smoked compared to 18% in those who had high index. There is a high prevalence of tobacco chewing in coastal communities which is related to socio-economic factors such as inadequate access, high cost of oral health care and a general lack of awareness. Behavioral risks such as unhealthy diet, low physical activity and tobacco use are high in Kerala. Abdominal obesity has a prevalence of 52% in woman and 26% in men. (Thankappan et al 2010). 36% men in Kerala of age 15-49 smoke.

Elderly
Increase in life expectancy is leading to an increase in non communicable diseases in Kerala. NSSO data 95-96 shows a high prevalence of chronic disorders in older persons (162/1000). Hospitalization of elderly has increased from 276 in 95-96 to 1315 per 100000 in 2004, the reasons for which have to be elucidated.

Mental health
Kerala has a high suicide rate and this has been attributed to family problems, marital reasons, cultural factors, social stigma and lack of focus on psychiatric problems, including paucity of timely professional help. Older persons are vulnerable to psychiatric problems not only due to biology alone but also due to various other social factors such as isolation, poverty, widowhood, lack of caregivers etc. Priority psychiatric diseases such as mental retardation, schizo affective disorders are reported to be 14.57 per 1000 (Shaji et al 1995) in the State. There is concern about mental health of women in the state – stress, depression, anxiety disorders, low level of psychological well - being etc. Medical reasons and illnesses remain the largest single cause for suicides among older persons. Suicide rates in rural Kerala is more than what is reported and suicide account for the highest share of total deaths among women aged 15-24.

Gender
Gender plays a very crucial role in public health. Kerala State is exceptional from other states of India with high female literacy and autonomy. There are studies which showed a higher prevalence of poor health outcomes among lower caste women. However, there are not many studies that looked into gender as a determinant of Health. One of the studies shows a higher proportion of men (63%) had cataract surgery coverage compared to women (58.7%) even though the prevalence among women was much higher (57.4% and 37%). Also 64% of currently married men were operated upon compared to only 51% of currently married women who underwent cataract surgery.
A recent study looked into the role of interventions like self help groups (SHG) in decreasing the health vulnerability. It has been shown that even though SHGs helped in risk mitigation, and income generation and emotional stress it didn’t reduce health risks to physical illnesses in women.\(^\text{32}\)

**Major challenges and actions that need to be taken**

**Governance and policy for intersectoral actions**

Enlightened and committed governance is essential to deal with the fundamental reasons of inequalities in health. Political leaders, bureaucrats and other policy makers should understand the linkages between health and the various social and economic determinants. An integrated and intersectoral program with focus on SDH is essential for addressing various determinants of health and thereby improving the health of the public. Action on structural drivers of the conditions in which people are born, live and work and age has to be initiated. Current concerns such as food and energy security, water availability, economic crisis, climate change etc. can be linked and used as an opportunity for action on SDH. Investments in these areas should be prioritized. Effective intersectoral action can reduce disease burden among vulnerable population by improving working conditions, strengthening social security, upholding family values *etc*. Keeping in mind the role of private sector in the state, Kerala will have to explore initiatives that address the SDH and health equity. A health equity monitoring and surveillance system with the stewardship of political bodies and international organizations also can be of help in the state. A baseline analysis of government policies and programs has to be conducted through an equity lens to design structures, programs, tools and mechanisms to address the issue. We have to explore ways to mainstream actions on the social determinants of health in the process of policy making and ways to implement through efficient mechanisms. Coherence between such policies and actions has to be ensured at all levels in an effort to address equity in health. It is important to look into the role of governance in the achievements Kerala has made in the health scenario and plan the future of the governance acknowledging the role of good governance in achieving health of the community.

**Role of health Systems**

Health system has a decisive role in tackling health inequities, designing programs with a social determinants approach, aiding governance and capacity building. It is time to re evaluate the structure and functioning of the existing health system in addressing the health care delivery needs, its weaknesses and strengths, role in enhancing and ameliorating health equities. This will probably lead to evidence based restructuring of the health system. It should include information systems which measure, describe, understand and track health inequities.
The role of publicly funded and provided health systems in ameliorating the impact of adverse social and economic must be borne in mind while making policies. In many states there has been a tendency to denigrate the role of public health care system on grounds of alleged inefficiency. But if the society does not invest in shared services that are important for the entire community, not just the poor, the services could turn out to be ‘poor services’. This calls for revamping of public health care services that should attain the quality and quantum to provide the needed health care services in the state.

Role of Research

Not much research has been done on identifying the role of various social determinants of health in the state. More research is required in this area to assess the complex interactions of various social, cultural, economic and other factors that affect the health of the people. We need to collect the compelling information to support the advocacy on the social determinants of health and health inequalities that is relevant to the state. Results of such research should guide the training programs and planning programs its implementation. State level or national data does not give a clear picture on the various determinants and hence a segregated data has to be generated based on Socio-economic status, gender, age etc. This is crucial in evaluation and monitoring of programs and the progress made by the state over time. Government could contribute to this by adding essential social and economic data – e.g. education, occupation – to its normal data collection processes and analyse them in relation to the epidemiological data.

Conclusions

Kerala State has attained excellent health indicators as compared to the other states of India but faces major challenges of health inequalities. It is high time that the State of Kerala takes initiatives in main-streaming social determinants of health while it still has the potential to be a model for other states. Government policies have to be sensitive in this area and programs should factor in the social determinants and promote intersectoral activities that promote health and tackle health inequalities. Research in health should look into these social determinants and their interactions to plan programs and mechanisms of implementation. There is a need to evaluate the Kerala model of health and the challenges it faces from a SDH perspective. This will help planning the future better.

Kerala University of Health Sciences believe that it is its responsibility to collect, synthesise and disseminate evidence in this area which will help equip the State in dealing with the challenges in the coming years.

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References


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