ASSESSMENT OF MIZORAM STATE HEALTH CARE SCHEME

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Frequent incidence of illness among households which incur huge amount of money for healthcare bills is a significant reason for poverty and indebtedness in developing countries. Since the poor cannot afford to pay insurance premium high enough to justify private investment, public intervention is necessitated. A number of public health care schemes have come up in India since recently, both at the state and central level. This paper makes an assessment of the performance of Mizoram State Health Care Scheme basically using the database of the implementing agency. Though the scheme has been implemented satisfactorily in certain areas, especially turn-around-time for bill settlements, coverage and financial soundness, the study also indentified the areas where improvements can be made.

Key Words: *Claim Size, Package Rate, Critical Illness, Turn-Around-Time*

INTRODUCTION

A large proportion of the population in developing countries are deprived of institutional health care due to acute poverty. Studies have shown that health care related expenditures often push families below poverty line, and that it is one of the most significant reasons for rural indebtedness (Giz, 2012). Because the poor lack the resources to pay for health care, they are far more likely to avoid going for care, or to become indebted or impoverished trying to pay for it (Devadasan, et. al., 2004). Thus, health security is increasingly being recognized as integral to any poverty reduction strategy (Jutting, 2003). While the objective of poverty reduction remains a central concern, there has been a shift of focus away from poverty reduction per se to social risk management (Holzmann & Jorgensen, 2000). Of all the risks faced by poor households, health risks probably pose the greatest threat to their lives and livelihood. Health shock not only leads to direct expenditures for medicine, transport and treatment but also to indirect costs related to a reduction in labour supply and productivity (Asfaw, 2003). Given the strong link between health and income at low income levels, a health shock usually affects the poor most (Morrisson, 2002). Thus, health care financing continues to stir debates around the world and many low and middle income countries keep on exploring different ways of financing their health system (Dalinjang and Laar, 2012).

One of the main problems faced by majority of the Indian workforce is the frequent incidence of illness and the need for medical care (Giz, 2012). The poorest quintile of Indians is, on an average, 2.6 times more likely than the richest to forgo medical treatment when ill and an estimated one quarter of all Indians fall into poverty as a direct result of medical expenses in the event of hospitalization (Peters, et. al., 2002). The situation is manifested in poor quality of life across the country. A tax based health financing mechanism, as in UK, Cuba and Sri Lanka or a broad based social health insurance programmes as in Germany, France, Mexico, etc is being prescribed as a key instrument of health financing strategy for many low income countries like India (PHFI, 2011). Against this backdrop, one should consider health care finance as not only a welfare measure, but also as poverty alleviation. Since the poor cannot afford to pay for premium high enough to justify private investment, public finance is highly needed to ensure health access to all citizens.

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India has witnessed a plethora of new initiatives both by the central government and a host of state governments who entered the bandwagon of health insurance since recently. One of the reasons for initiating such programmes can be traced to the commitment that the governments in India have made to increase public spending in health care. Given the commitment to upscale government expenditure on health (central and state governments put together) from 1 percent to 2-3 percent of GDP, the central and state governments devised designs to spend the additional resources through innovative schemes. Among others, it included enhanced access and availability of essential health care services which protect households from financial risk through schemes such as the National Rural Health Mission (NRHM) and Rashtriya Swasthya Bima Yojana (RSBY). In addition to these central health programmes, several states had undertaken state specific health care insurance schemes such as Rajiv Aarogyasri Scheme in Andhra Pradesh, Vajapayee Arogyasri Scheme in Karnataka, etc.

Health Care Scheme in Mizoram

The Mizoram State Health Care Scheme (MSHCS) was introduced by the State Government on 1st April 2008 to provide health insurance cover to all its population, except government servants and their dependants. To oversee and implement the Scheme directly and indirectly, a registered society named Mizoram State Health Society (MSHS) was formed with the Chief Minister as the Chairman of the Governing Body. The scheme was initially implemented for a period of one year starting from 1st April 2008 with Reliance General Insurance Company Limited (RGICL) as the implementing agency. A network of both public and private hospitals recognised and approved by the State Government in and outside Mizoram was created to provide cashless treatments to beneficiaries. With the implementation of Rashtriya Swasthya Bima Yojana (RSBY), a centrally sponsored health insurance scheme for families working in unorganized sector, the scope of MSHCS was enhanced by linking it with this new scheme on top up basis since the fiscal 2010-11.

The RGICL implementing the scheme started losing public confidence after 2010-10 as evident by the declining enrolment which drastically reduced to 5398 in 2011-12 from 28811 in 2010-11. There were many issues charged against RGICL for delayed payment of medical bills and rejections for petty reasons. As per the record of the Mizoram Economic Survey, the rejected and pending bills constituted respectively 4.7 percent and 21.5 percent of the total claims received during 2010-11. These together constituted more than 35 percent of the total claim amount. The magnitude was big enough to lose public confidence for this company. Thus, the state government, with expectation of making the scheme more responsible and reliable to the people, resorted to implement on a self-finance basis by its sponsored Society (i.e. MSHS) from 2011-12.

INDICATORS AND DATA SOURCE

The key indicators for assessment on the performance of the scheme adopted in this paper can be classified into two – general feature and functional indicators. The former is constituted by coverage, enrolment and funding sources; while the latter consists of claim profiles including size, illnesses, age-sex composition; speed of claim settlement; and performance of service provider network. The records, either in soft or hard, of the Office of the MSHS formed the basis of the analysis. The soft copy of claimant information database and the hard copies of bills submitted by patients, for a period starting from January 2013 to August 2013, were processed and classified to suit the need of the study. However, as patients suffering from diseases like Hepatitis and Cancer were admitted in the hospitals several times resulting in submission of claims by the same patient multiple of times, they are taken as separate cases to avoid aggregation problem. In addition, the observations and findings

are tested by conducting case studies of some selected patients and interview of medical staffs. Secondary data were obtained from Mizoram Economic Survey (2012-13) and the records of the State Finance Department.

Table 1 : Status of Enrolment under MSHCS and RSBY during 2013-14

District	MSHCS	RSBY
Mamit	240	7784
Kolasib	468	10990
Aizawl	5718	23973
Champhai	359	16407
Serchhip	286	7337
Lunglei	653	17963
Lawngtlai	67	9244
Saiha	239	9849
Mizoram	8030	103547

Source: Mizoram State Health Society, dated 30.8.2013

GENERAL FEATURE OF THE SCHEME

All bonafide citizens of the state who are not entitled to the medical attendance rules of the state or central governments are eligible under the Scheme. It covers expenditure for hospitalization within and outside the state both in public and private hospitals for the listed critical illnesses. Package rates have been made to each of the critical illnesses listed under the scheme. Although the RSBY beneficiaries can avail cashless facilities for treatment in all recognized hospitals up to the limit of Rs.30000, they are also admissible under MSHCS on re-imbursement once this limit is exceeded. One premium package covers 5 members in the family, and extra payment has to be made for any additional member. The premium rates range from Rs.500 for assured amount of Rs.70000 to Rs.1000 for Rs.270000 per family per annum.

Table 2 : Investment of Mizoram Health Care Corpus Fund in 4 Financial Institutions

As on 3.9.2013

Sl. No	**Name**	**Amount (Rs. In lakhs)**
1	Mizoram Rural Bank	6176.75
2	Mizoram Urban Cooperative Bank	500.00
3	Union Bank of India	629.60
4	Industrial Development Bank of India	7654.04
	Total	14960.39

Source: Finance Department, Government of Mizoram, dated 3.9.2013

Table 1 presents the enrolment status under the state's two health care schemes during 2013-14. The enrolment under MSHCS is much lower than that of RSBY. As all the RSBY beneficiaries are automatically eligible under MSHCS for critical illnesses up to Rs.70000 over and above RSBY

without any extra premium payment, the total enrolment come up to 1,11,577 families. Given around 11 lakhs population, it can be said that the coverage of the scheme is very substantial, though the enrolment figure is much below the target of 2.5 lakhs families.

Table 3 : Interest Earned from the Investment of Mizoram Health Corpus Fund

Year	2010-11	2011-12	2012-13	2013-14 (projected)
Amount (Rs. In lakhs)	735.76	1045.27	734.31	1354.67

Source: Finance Department, Government of Mizoram, dated 3.9.2013

Since income received from the premium collected from the beneficiary constitute only around 10 percent of the total fund requirement, the scheme has to be heavily subsidised by the government. Thus, it is funded from two main sources- (i) assistance from the Asian Development Bank (ADB) under Mizoram Public Resource Management Programme (MPRMP) with approved amount of Rs.117.80 crores during 2010-11, and (ii) plan allocation of Rs.50 crores at the start of the scheme in 2008. By the fiscal year 2010-11, the spill over of the initial plan allocation and ADB assistance together constituted Rs.149.6 crores. To ensure long term sustainability of the scheme, the same amount was kept separately under the custody of the State Finance Department who in turn invested it in four financial institutions selected through interest auction. The bank-wise amount of investment is presented in Table 2 and the year wise total interest earned from these investments is given in Table 3.

Table 4 : Summary of Claims of Medical Re-imbursement under MSHCS in 2013

Up to 8.8.2013

Place	No of Cases/ Patients	Amount Claimed (Rs in lakh)	Amount Deducted (Rs in lakh)	Approved Amount (Rs in lakh)	Deduction Rate (%)	Approved Amount per Patient (Rs)
Within Mizoram	1875	306.67	36.67	270.00	11.96	14400
Outside Mizoram	119	97.01	26.09	70.92	26.89	59597
Total	1994	403.68	62.77	340.92	15.55	17097

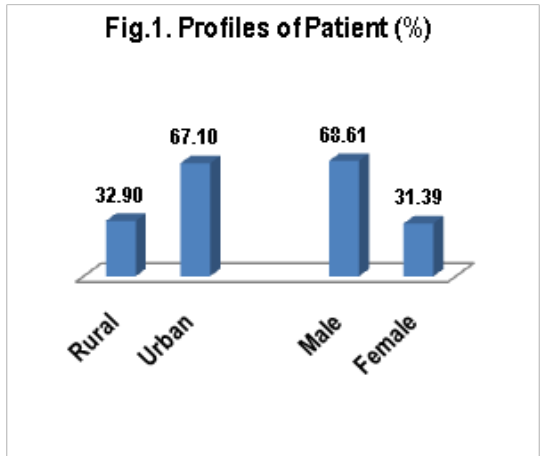
Note : Deduction Rate implies deducted amount as a percentage of claimed amount

Source : Computed from the Data of MSHS, 2013

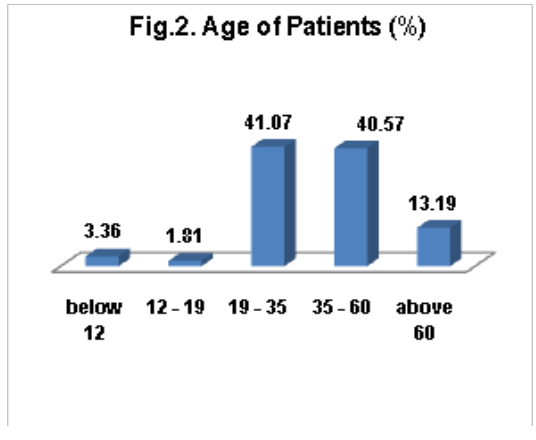
As of August 2013, the total expenditure of MSHS on settlements of claims and administration turned out to be Rs.363.66 lakhs. This is around 26 percent of the amount projected to be obtained from the interest of the Fund invested, which would be lower if we include the beneficiary contribution. This indicated the possibility of earning surplus of more than Rs.700 lakhs during the financial year 2013-14 assuming the same rate of increase in expenditure. Therefore, the state does not face financial problems to meet the expenditure for settlement of claims of the beneficiaries. However, one should not over emphasize sufficiency of fund for the scheme because the enrolment status is well below target and it is very likely that more expenditure requirements will be needed for administration as well as settlements of claims with a surge of enrolment and price escalations in the coming years.

Claims Profile

Table 4 presents the size of claims and settlement under the MSHCS during 2013. Treatment within the State constituted 94.03 percent of claims received while tertiary cares outside the state constitute 5.97 percent. At the same time, of the approved amount of Rs.340.92 lakhs, around 80 percent was spent for settlement of claims within the State, while the remaining 20.8 percent was spent on tertiary care indicating that amount spent for only 5.97 percent of the patients constituted 20.8 percent of total claim amount. Further, the claim size and reduction rate for referral cases is significantly higher than non-referral cases.



It is observed (from Figure 1) that the scheme has benefited more beneficiaries in urban areas than in rural areas as the former constituted 67.10 percent of the total claim received. At the same time, the majority of the patients are males. However, as most of the rural households are eligible under RSBY up to Rs.30000, we cannot overlook the situation where many rural patients end up with the RSBY limit without availing extra amount from MSHCS. Meanwhile, the real risk group for the scheme belong to the person in the age group of 19-60 years. This is presented in Figure 2 as this age group constitute 81.64 percent of the patients who submitted claims and old age (above 60 age) contribute 13.19 percent.



To analyse the profile of the patients by diseases, the unprocessed records of the MSHS were examined and processed to suit our analytical need. In fact, there were a number of diseases or illnesses which the patients suffered from; however, for ease of the analysis these patients are broadly classified into 10 broad categories of illness as set out in the policy guidelines of MSHCS and it is presented in Table 5. This table shows that the majority of patients (63.09 percent) fall under medicine, followed by oncology (25.93 percent). Thus, the two diseases constituted around 90 percent of the total cases. The main contributor of illness is under medicine cases are hepatitis, nephrology, respiratory system, CNS and connective tissue disease.

Table 5 : Distribution of Claimant Patients over 10 broad classification of Critical Illness in 2013 Up to 8.8.2013

Sl. No	Diagnosis (Category of Illness)	No. of Patients	Percent	Average Claimed size (Rs/ claim)	Average Approved amount (Rs/claim)	Deduction rate (%)
1	Cardiology & Cardiothoracic Surgery	7	0.35	99690	78273	21.48
2	Oncology (Cancer)	517	25.93	23999	20024	16.56
3	Medicines	1258	63.09	15956	14417	9.65
4	General Surgery	64	3.21	52554	38053	27.59
5	Ophthalmology	19	0.95	41832	37840	9.54
6	ENT	3	0.15	24437	17686	27.62
7	Orthopaedic Surgery	62	3.11	30425	18835	38.09
8	Paediatrics	37	1.86	12036	9880	17.92
9	OBS & Gynaecology	26	1.30	23622	11807	50.02
10	ICU Care	1	0.05	12290	7573	38.38
	Total	1994	100	20245	17097	15.55

Source: Computed from the Data of MSHS, 2013

The average amount of claims per patients in Rupee is highest in case of cardiology & cardiothoracic surgery followed by general surgery, while it is the lowest in case of paediatrics. At the same time, rate of deduction (difference between approved and claimed amount) for OBS & Gynaecology, orthopaedic surgery and ICU care appears to be very high in comparison with others. This may be due to price escalation, in respect to medicines and treatment, after fixation of package rates and unscrupulous charges made by service providers. This has necessitated review of the package rates for all categories of critical illnesses to cope with price escalation side by side with the monitoring of the rates adopted by the network of service providers.

Care Providers

The contribution of different types of hospitals (or care providers) in respect to the number of patients they have treated is presented in Table 6. It can observed that the state's owned largest hospital, Aizawl Civil Hospital, is the major care provider as the majority (53.76 percent) of the patients who submit medical bills had undergone treatment in this hospital. This is followed by the

state government run Regional Cancer Centre contributing 18.46 percent; while charity hospital (mainly run by Christian churches) contributes substantial portion (9.18 percent) of the total claims. Thus, a network of government hospitals provided care to more than 75 percent of the in-patients under the scheme, while care in the private sector constitute only 13.34 percent.

Table 6 : Claims received from Various Service Providers (Hospitals) as on 8.8.13

Providers	No. of Cases Received	Cases (Percent)
Community Health Centre (Govt.)	4	0.2
District Civil Hospitals (Govt.)	84	4.21
Civil Hospital, Aizawl (Govt.)	1072	53.76
Regional Cancer Centre (Govt.)	368	18.46
Kulikawn Hospital (Govt.)	2	0.1
Churches Hospitals	183	9.18
Private Hospitals	266	13.34
Other	15	0.75
All Cases	1994	100

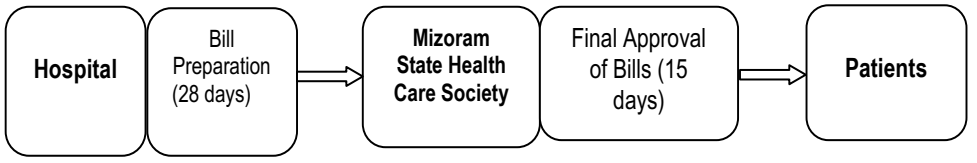
Source: Computed from the Data of MSHS, dated 8.8.2013

The absence of Primary Health Centres (PHC) with unexpectedly lower contribution of Community Health Centre (CHC) is an indication that beneficiaries seek care from distant and more expensive providers located in the State or District Capital whenever they fall ill, even for treatment of minor illness for which they used to approach PHC or CHC in their pre-enrolment period. An interview of the staffs working in these hospitals showed that people normally prefer to travel to the urban areas to seek treatment from a more equipped hospital even for illnesses that could be treated in PHC or CHC keeping in view the possibility of reimbursing their expenditures as they are enrolled under the scheme. The case is suggestive of the presence of moral hazard among the beneficiaries post-insured. Moral hazard in the sense that the scheme encouraged secondary and tertiary cares, rather than primary care. However, it is important to note that many primary care providers are not in position to provide treatment for such critical illnesses listed for the scheme taking into account the limited availability of manpower and facilities.

Turn-Around Time (TAT) Analysis

Shortening of the turn-around time (TAT) or flow of works of activities like enrolment, issuance of ID Cards, claims settlement and payment to the patients should be an all time objective of any health insurance scheme to provide better service to the beneficiaries. In order to analyse TAT for claims settlement, the claim documents submitted by the sampled patients to the office of the Society have been processed to arrive at the average number of days taken to clear the bills by the Society and the average number of days required to finalize the bill submission either by hospital or patients or both. The results are presented in Table 7 and Figure 3.

Figure 3: Time Required for Completion of Medical Reimbursement Bills under MSHCS



Interestingly, the average turn-around time (TAT) as indicated by the average number of days required by the implementing agency of the scheme (MSHS) to approve the medical bills from the date of receiving claims is 15 days with a standard deviation of 10. That is, the expected range of clearing claims by the Society is 5 days to 25 days from the date of submission of bills. It should be noted that necessary condition for any successful health care insurance should be the existence of the system that expedite settlement and disposal of claims. The speed of claims disposal by Mizoram State Health Society is fast enough that it could clear the bills within one month of receiving and hence, this is a commendable achievement.

Table 7 : Average Turn Around Time for Processing of Medical Bills

Sl. No	Speed Indicators	Average No. of Days	Std. Deviation
1	Time taken by MSHS to finalize bills from date of receipt	15	10
2	Gap between DOD and bill approval	60	25
3	Time taken by hospital/patients to finalize and submit bills from DOD	28	25

DOD- date of discharge

Source: Calculated from a sample of 245 claimed documents obtained from MSHS

Another interlinked indicator of TAT are bill preparation time (by hospital) from the date of discharge (DoD) from the hospital and overall bill waiting period between DoD and final approval of bills. The overall bill waiting period as calculated from DoD till final approval turned out to be 60 days (average) with a standard deviation of 25 days. In addition, the average number of days taken to pursue bills, i.e. obtaining the certifications of bills, cash memos, etc by the concerned doctors is 28 days from DoD. This is longer than anticipated given the simple nature of the bills proforma as per the guidelines of the scheme. At the same time, the length of bill preparation period may be significantly reduced if we exclude the cases of referral patients.

Flow of Information

The existence of the mechanism that ensures information symmetry among all stakeholders on the various aspects of the provisions and operational requirements is basic for the success of any health insurance scheme. Since the MSHS is the sole agency for the implementation, it took up the responsibility of coordination of training to various health staff and dissemination of latest information about the scheme to the various stakeholders of the scheme. Table 8 presents the status of the information or capacity acquired by various stakeholders of the scheme such as Doctors, Health Workers, Hospital Staff and Beneficiaries as observed in the field study.

Table 8 reveals that lack of mechanism which ensures efficient routing of the required information has been an inherent problem facing the implementation of the scheme. While the key staffs (Doctors and Health workers) were imparted training on the basic handling of the scheme, the stakeholders in the processing of bills at hospital levels were not given any training. Ideally, the package rates for all types of treatments should be made known to all stakeholders including the beneficiaries. This would greatly reduce rejection of bills, while enhancing the speed of processing medical claims.

Table 8 : Information flow chart for MSHCS as Assessed from the Interview of the various Stakeholders during August 2014

Sl. No	Particulars	Doctors	Health Workers	Dealing staff (Hospital)	Patients/ Beneficiaries
1	Training on Health Care Scheme	√	√	×	×
2	Detailed Information regarding the package rates and coverage	√	×	×	×
3	The position of bill submitted by the concerned patients (approved or rejected)	√	×	√	√
4	Reason for rejection or deduction of claims	×	×	×	×
5	Fund position of the scheme	×	×	×	×

CONCLUSIONS

The existing amount of health care corpus fund invested and interest returns received from this investment indicate the short term sustainability of the scheme financially. To enhance its long term sustainability, it is necessary to raise the component of beneficiary contribution in the corpus fund to reduce the subsidy burden of the State Government keeping in view the worsening of the fiscal position of the state. The speedy process of claim settlements is another positive aspect of the scheme. This is largely the result of financial autonomy given to the implementing agency by the State Finance in respect to approval and sanctioning of medical bills. It may be noted that the State Finance Department releases the fund to MSHS on need basis quarterly.

A serious weakness of the scheme is information asymmetry among the various stakeholders of the scheme including the patients/beneficiaries. Neither the dealing staffs in the hospital, though being the real facilitators in the processing of bills and claims, nor the beneficiaries were given proper training on the package rates. This may have resulted in the high deduction rates and rejections of claims affecting the time taken for its settlement. At the same time, the minimal participation of primary care providers has to be addressed at the policy levels of the State Government to improve their technical capacity in consonance with the various provisions of the scheme.

Age and diseases profiles of the patients showed that the real risk age group is 19-60 years and that excessive amount is being spent on settlement of the cases under ‘Medicines’. Sub-disease level case analysis indicated the substantial position held by chronic Hepatitis C infection, which was professed rather as self-inflicted in a number of cases as a result of poor choice of lifestyle. This

may be manifested in moral hazard among those infected by this disease. At the same time, there are some listed critical illnesses in OBS & Gynaecology, Orthopaedic Surgery, etc. showing excessively high rate of deduction. Thus, streamlining the listed critical illnesses and continuous review of the existing package rates are needed to ensure the success and sustainability of the scheme.

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References

Ahuja, Rajeev (2004), 'Health Insurance for the Poor' in Economic and Political Weekly, July 10.

Asfaw, A (2003), Cost of illness, demand for medical care, and the prospect of community health insurance schemes in rural areas of Ethiopia, Frankfurt; Peter Land Ed.

Dalinjong, Phillip Ayizem and Alexandar Suuk Laar (2012), 'The national health insurance scheme: perceptions and experiences of health care providers and clients in two districts of Ghana', Health Economic Review, SpringerOpen Journal. Accessed from http://www.healtheconomicsreview.com/contents/2/1/13 on 25.09.2013.

Devadasan, N. Ranson K, Damme WV, Acharrya A, Criel B (2006), 'The landscape of Community Health Insurance in India: An overview based on 10 Case Studies', Health Policy 78, 224-234

Giz, PROGNOSIS (2012), Evaluation of Implementation Process of Rashtriya Swasthya Bima Yojana in Select District of Bihar, Uttarakhand and Karnataka.

Gupta, Aloke (2008), Evaluation of Mizoram Health Care Scheme, Health Insurance Consultant, New Delhi

Gupta, J.P, B.B. Sharma, Y.P. Gupata, Reeta Dhingra and K.S. Nair (1992), Financing of Health Care in Non-State Sector in India, National Institute of Health and Family Welfare, Department of Planning and Evaluation, New Delhi.

Holzmann, R. & S. Jorgensen (1995), 'Social Risk management: a new conceptual framework for social protection, and beyond', Social Protection Discussion Paper No.0006. The World Bank, Washington DC.

Jutting, J (2003), 'Do Community-based Health Insurance Schemes Improve Poor People's Access to Health Care? Evidence from Rural Senegal', World Development, Vol.32 (2), pp.273-288.

Govt. of Mizoram (2013), Mizoram Economic Survey 2012-13. Department of Planning & Programme Implementation.

Peters, DH, AS Yazbeck, R. Sharma, G.N.V. Ramana, L. Pritchett and A. Wagslaff (2002), Better Health System for India's Poor: Findings, Analysis and Options, The World Bank, Washington DC.

Public Health Foundation of India (2011), A Critical Assessment of the Existing Health Insurance Models in India.

Wagstaff A and Lindelow M (2008), 'Can insurance increase financial risk? The curious case of health insurance in China', Journal of Health Economics 27, 990-1005.

Wagstaff A, Lindelow M, June G, Ling X, Juncheng Q (2009), 'Extending health insurance to the rural population: an impact evaluation of China's new cooperative medical scheme' Journal of Health Economics, 28, 1-19.