## Anusandhan Trust (AT)

**Anusandhan Trust (AT)** was established in 1991 to establish and run democratically managed Institutions to undertake research on health and allied themes; provide education and training, and initiate and participate in advocacy efforts on relevant issues concerned with the well being of the disadvantaged and the poor in collaboration with organizations and individuals working with and for such people.

**Social relevance, ethics, democracy and accountability** are the four operative principles that drive and underpin the activities of Anusandhan Trust's institutions. These constitute an ideal framework for building institutions with high professional standards and commitment to underprivileged people and their organisations. The institutions of the Trust are organised around either specific activity (research, action, services and/or advocacy) or theme (health services and financing, ethics, primary healthcare, women and health, etc.); and each institution has its specific goal and set of activities to advance the vision of the Trust.

The Trust governs three institutions:

**(1) CEHAT** (Centre for Enquiry into Health and Allied Themes) the earliest of the three institutions established in 1994 concentrates or focuses on its core area of strength - social and public health research and policy advocacy.

**(2) SATHI** (Support for Advocacy and Training in Health Initiatives)
For last several years, the Pune-based centre of CEHAT has been undertaking work at the community level in Maharashtra and Madhya Pradesh; and also facilitates a national campaign on Right to Health and other related issues.

**(3) CSER** (Centre for Studies in Ethics and Rights) The Trust promoted work on bioethics/medical ethics from the very beginning. The work particularly on research in bioethics and ethics in social science research in health were further consolidated within CEHAT. Since there is a real national need to strengthen bioethics and also at the same time promote ethics in various professions, the Trust decided to establish a long-term focused programme on ethics under a separate centre.

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## Fourth

### Krishna Raj Memorial Lecture on Contemporary Issues in Health and Social Sciences Instituted by Anusandhan Trust

# Equity and Health-Care in the Era of Reforms


## Gita Sen

**Professor, Centre for Public Policy,**
**Indian Institute of Management Bangalore**


***Hosted by***


**CEHAT, Mumbai**
**with**
**eSS, TISS, Dept. of Economics, University of Mumbai**
**P. G. Dept. of Economics, SNDT Women's University**

Anusandhan Trust has instituted the Krishna Raj Memorial Lecture Annual Series on Contemporary Issues in Health and Social Sciences to honour the intellectual and academic traditions that Krishna Raj set in place, and in his memory. This is a humble tribute to the memory of the visionary editor of the *Economic and Political Weekly (EPW).*

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# Abstract

In the mid-1980s prior to the start of the economic reforms, India's healthcare system was, as many scholars have pointed out, already highly inequitable. Over 70 per cent of the health expenditure was out-of-pocket; there were huge rural-urban differences in the availability of services; public services were poor in quality and uneven in reach, and there was a highly unregulated private sector. However, public hospitals even if of doubtful quality were available to the poor especially for inpatient care. Secondly there was significant drug price control although it had begun to erode for some years already with the controlled drugs list getting smaller and smaller. Two important policy shifts occurred with the period of economic reforms: one, the sharp reduction in the controlled drug list leading to significant increase in drug prices, and second, the introduction of two-tier services in public hospitals in an attempt to put more flexible funds in the hands of hospital administrators.

This paper looks at these and other changes through their impact on four different indicators: untreated morbidity, reasons for non-treatment, the shifting public and private mix, and distribution of care across different economic groups, and the cost of care. A class and gender analysis is undertaken going beneath the aggregate numbers using a simple gradient – gap methodology to capture the essence of health inequalities.

The analysis confirms that health inequalities have worsened both over time and cross-sectionally. The period of economic reforms seems to have sharply worsened access and cost of care for the poor. While gender differences continue to be extremely important, the poorest men have also been affected – a phenomenon of perverse catch-up that the paper documents.

## Introduction

Friends, let me start off by acknowledging our collective debt to Krishna Raj whose contribution to informed public debate in this country has no parallel. Not enough can ever be said about how much his quiet, committed persistence was responsible not only for the unique institution of the *Economic and Political Weekly* (EPW), but also for the culture of open, transparent and well-grounded dialogue that he believed in deeply. I am very honoured at being invited to give this lecture in his name. I first met Krishna Raj when I joined the Centre for Development Studies in Trivandrum in the early 1980s, and I have a memory that each time we met over the years he would say, "When are you sending me something for EPW?" and I would say, "Yes, yes I'm going to do it; I'm just working on something and I'm going to send it right away." Of course I didn't always follow through, but it didn't stop him asking again the next time. He always said there was no point in keeping one's analysis within the covers of a book if it's not going to get to the place where people can actually use it and turn it to value; where it can have meaning for others.

I would like to dedicate this talk not only to Krishna Raj but to Professor K.N Raj who was my professor at the Delhi School of Economics and who passed away recently. I feel I have learned a great deal from the teaching and example of both Raj's. I hope that there are many more of us and many more of you, especially the students, who can follow and keep alive their traditions.

Many thanks also to Anusandhan trust and the other institutions that have come together to invite me to give this talk. I want to especially recognise my very long intellectual partnership with an old Mumbaikar whom I stole away to Bangalore and have refused to let go to return to Mumbai so far – Dr Aditi Iyer with whom I have been working closely over many years on health equity and intersectionality. This lecture is based partly on previous work, and partly on our ongoing analysis of the National Sample Survey's 60th round. Many thanks also to Professor Chandan Mukherji, former Director of

the Center of Development of Studies, with whom Aditi and I have worked over the years. He makes sure we don't make any egregious errors in our statistical work, but more than that, he generously brings to our joint work his hugely innovative and fruitful approach to the use of data and data analysis for development.

## Equity In Health - Why Do We Care?

To this audience it might seem very obvious why we should care about equity in health. Obviously, most of us are here because we do care. But in the world of today, in the India of today, equity as such does not have tremendous public or social value. Equity is about relative levels; it is about comparison. An equity-focused approach to policy is only one of three possible approaches which can pit the social activist against the pragmatist and the policy administrator. Consider the question of how to define policy goals with respect to health outcomes or health status. One could say "let us raise the average level". An improvement in the average level can happen in a number of different ways which may be more or less equitable across different social groups. Another approach is the *Antyodaya* approach - raise the level for those at the bottom of the social hierarchy; don't worry about what's happening to the rest. For instance, pay specific attention to Dalit women or rural women or those in the least developed districts, or whoever else is among the worst affected. If, while doing this, the rest also improve or even stay the same, the average will also improve. If the rest stay at the same level, improve less, or worsen, then equity may actually improve. Many approaches, including that of the National Rural Health Mission, fall in one of these two categories, neither of which directly addresses equity. Although they may have a corollary effect on equity, in themselves they don't focus on equity.

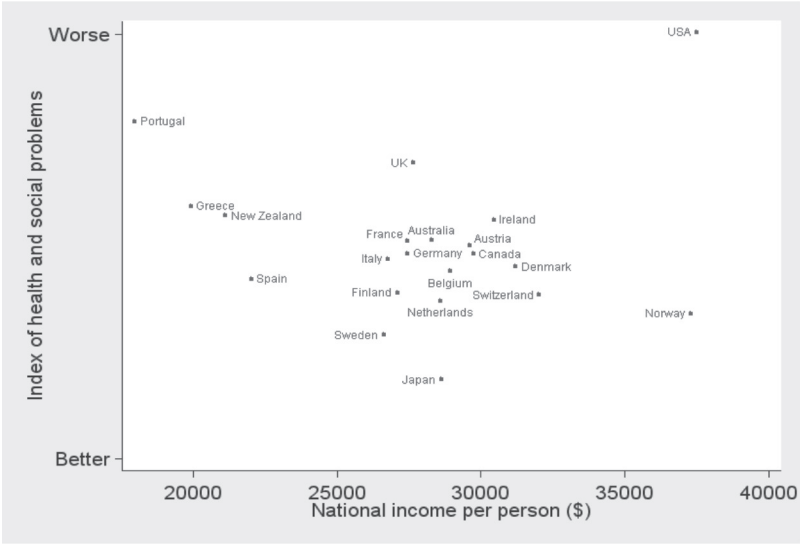
The third approach is to directly focus on improving equity by reducing inequality. This has never been a very popular policy approach because one can reduce inequality in many different ways – worsening outcomes

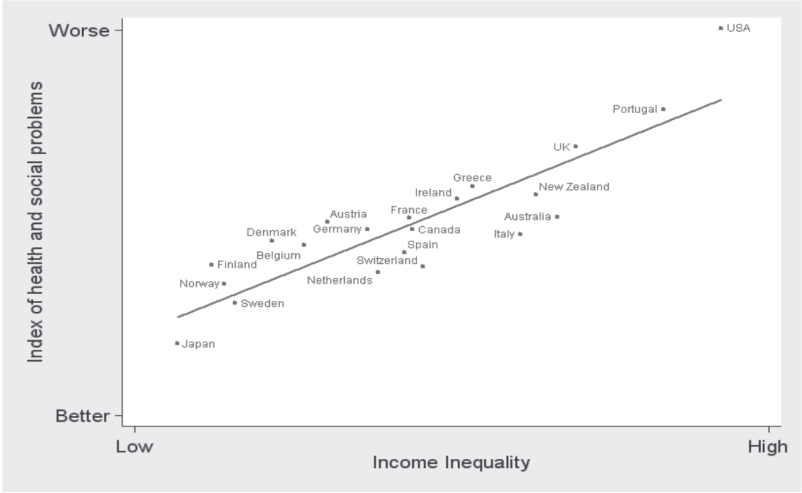
at the upper ends, improving outcomes at the lower end, or some combination of the two. Reducing inequality is never easy to do, and is often politically infeasible especially if it involves worsening the entitlements / outcomes of those at the top or even the middle of the social order. By contrast, focusing on the average level or on improving the health of the worst off plays it safe. Who after all can be against improving the health of poor dalit women? Nobody can because it is not a political challenge, even if it may not be easy to do on the ground. Of course worsening outcomes for the better-off without improving outcomes for those who are worse-off is not a terribly meaningful way of reducing inequality – such approaches are neither politically nor ethically sensible, and I will not be speaking about them.

Why a focused approach to equity[1] may be needed is because it directs our attention to relative positions, and hence to the structures of social relationships. The first two approaches don't ask the hard questions about social structures to which a focus on inequality almost inevitably leads. Inequality usually has, embedded in it, structural relationships that result in negative outcomes that may remain unrecognized in the other two approaches. Furthermore, reduction in inequality per se may lead to unexpected improvements in outcomes. As Richard Wilkinson says "Almost everyone benefits from greater equality. Usually the benefits are greatest among the poor but extend to the majority of the population."

1 In this talk I use the terms equity and equality interchangeably for ease of reference, although this is not strictly speaking accurate. Equity as a concept belongs to the space of justice, while equality is about measurement. The former does not require the latter, and the latter does not automatically lead to the former. For more discussion, see G Sen, A George and P Ostlin, *Engendering International Health: the Challenge of Equity*. Cambridge (Mass), The MIT Press, 2002, pp 1-34.

**Figure 1: Health versus average income and income inequality – OECD countries**




The figures above from Wilkinson and Pickett[2], actually make the point about tackling income inequality head-on; not averages, not for the bottom-most but actually addressing inequality. These two figures are a statistics teacher's dream! They show that an index

2 RG Wilkinson & KE Pickett, *The Spirit Level: Why More Equal Societies Almost Always Do Better*. London, Allen Lane, 5 March 2009.

of health and social, health-related indicators such as life expectancy, literacy, infant mortality, homicides, imprisonment, teenage births, trust, obesity, mental illness, social mobility etc. bears no correlation to average income but is very well correlated to income inequality among OECD countries. The USA is at one end with the worst health-related index and the highest level of income inequality (as well as the highest national income per capita), and Japan and a number of Nordic countries like Norway and Sweden are at the other end. Among these countries, differences in national income per capita, while measurable, do not have any significant impact on health related indicators. In their book *The Spirit Level,* Wilkinson and Pickett argue that, indeed, inequality matters.

But, even those, like Wilkinson and Pickett, who recognize the impact that economic inequality can have on health can sometimes be guilty of what I call a *fallacy of congruence* – the belief that different kinds of inequality can be collapsed into one. Yes, inequality matters for health, but what kind of inequality? Can different kinds of inequality legitimately be collapsed into each other? Does focusing, for instance, on economic class-based inequality tell us enough? And does it always tell us the right things? I remember when I first started working at the Centre for Development Studies, there were a number of people who genuinely believed that poverty and economic inequality were not just the main but the only inequality worth focusing on. Many of us today know that economic class analysis tells us a lot but it doesn't tell us everything. And what is left out is often not trivial. Furthermore, how we look at inequality has not only to be *multi-dimensional* - that is one examines economic class, caste, gender and so on - but also *intersectional.* Intersectionality requires analyzing how the different dimensions interact with each other. This is more complex than a pure multidimensional analysis where the different dimensions are assumed to be independent[3].

3 G Sen, A Iyer and C Mukherji "A methodology to analyse the intersections of social inequalities in health" *Journal of Human Development and Capabilities*, November 2009 10(3): pp 397 – 415.

An example of the fallacy of congruence is contained in Wilkinson and Pickett's[4] analysis of race and economic class, that says "…what matters is the extent of social class differentiation. No one suggests that it is blackness itself which matters. Rather it is the social meaning attached to it…" So far so good. But then he goes on to say "… the fact that it serves as a marker for class and attracts class prejudice – which leads both to worse health and to wider income differences." The fallacy of congruence rears its head, because race is collapsed *apriori* into class. Race is viewed as a marker for class. In itself and by itself it is not seen as having any additional explanatory power. I would argue that one doesn't have to have an ideological position on this. This is really an empirical question, not one to be assumed *apriori*. We must understand how much and what kind of impact the different dimensions of inequality actually have in each context and situation, and how they interact with each other. Class, gender, race and so on are part of the social structures of inequality, and are complex relationships. They don't interact in the same way in each situation or context. What is needed is to do the empirical work that tells us exactly how they interact, and to be able to theorize on that basis so that we can get to a better understanding.

I will come back to this question of congruence a little later. Before that let me first look at what has happened to equity in health-care in roughly two decades - the period from the bench mark year 1986-87 through the midpoint year of 1995-96 and then on to 2004. These are three years of the National Sample Survey (NSS) on morbidity and patterns of use of health services (42nd round – 1986-87, 52nd round – 1995-96, and 60th round – 2004). Few people have analyzed the NSS health data in depth. This lecture is based on an extension of our earlier analysis that was published in EPW[5], and

4 RG Wilkinson and KE Pickett, "Income inequality and population health: a review and explanation of the evidence" *Social Science & Medicine,* April 2006, 62 (7: pp 1768 – 1784.

5 G Sen, A Iyer and A George "Structural Reforms and Health Equity: A Comparison of NSS Surveys of 1986-87 and 1995-96" *Economic and Political Weekly*, XXXVII (14), April 6-12, 2002: pp. 1342 – 1352.

was a comparison of the first two time-points (42nd round and 52nd round). That analysis allowed us to compare a benchmark pre-reform year with the early impact of the reforms. When we started, we were doubtful whether we would see much impact within the short period between 1991 and 1995-96 on patterns of use of health services. In fact we found quite striking changes despite the short time-period. For this talk we have extended that analysis to the 60th round in 2004. In our interpretation we look at both economic class and gender.[6] Some of the interpretation also draws on insights from field work from an action research project which has been going on in Koppal district in northern Karnataka for over 10 years.[7] We have a lot of information from this work and I will draw on some of our insights for the interpretation of the NSS data.

In the mid-1980s, prior to the start of economic reforms, the healthcare system in the country was, as we know, already highly inequitable. Over 70% of health expenditure was out-of-pocket; there were huge rural-urban differences in the availability of services; public services were poor in quality and uneven in reach; and there was a highly unregulated private sector. Nevertheless, public hospitals, even if of doubtful quality, were available to the poor and largely used by the poor, especially for inpatient care. Secondly there was significant drug price control although it had begun to erode in the 1980s. Still, by the time of our benchmark year in the mid-1980s, there were a number of drugs left on the controlled list. There was still a thriving market through reverse engineering which kept drugs available, competitively priced, and reasonably affordable.

What happened in the period after the economic reforms began? Two policy shifts are important for our understanding - one is the very sharp reduction in the controlled drug list leading to significant increases in drug prices, and the second is the entry of user fees.

6 Caste data are not available for the NSS published reports.

7 G Sen, A Iyer and A George "The dynamics of gender and class in access to health care: Evidence from rural Karnataka, India" *International Journal of Health Services*, 37 (3), 2007: pp 537–554.

While user fees in India may not (arguably) have had the kind of impact they have had on education and health in sub-Saharan Africa, what the introduction of user fees has done is to create a two tier system which has had an important impact. Services in public hospitals have been separated into services for those below and above the poverty line. Poor people are supposed to get services including drugs free (although this is rarely the case as is well known due to both 'under the table' payments, and non-availability of drugs). Those above the poverty line have been drawn in systematically during the reforms as a means - through user fees of different kinds - of ensuring that hospitals would have some flexible money through which they could pay for smaller expenses, including maintenance and replacement. By and large, the medical profession has been in favor of this because it gives some money into their hands with which they can undertake urgently needed expenses without having to wait for the slow process of bureaucratic approvals for even minor expenses. However, as I will argue later, this may have had some unintended consequences for equity.

In this talk I will use the NSS surveys to examine trends in *four key indicators of health care: untreated morbidity, the reasons for non-treatment, the shifting public-private mix, and the cost of care.* The methodology used is a simple gradient gap methodology that looks at gaps and at the gradient or the slope of the curve as a way of examining inequality. Before I move to the four indicators, a word about the trends in self-reported illness as recorded by the NSS.

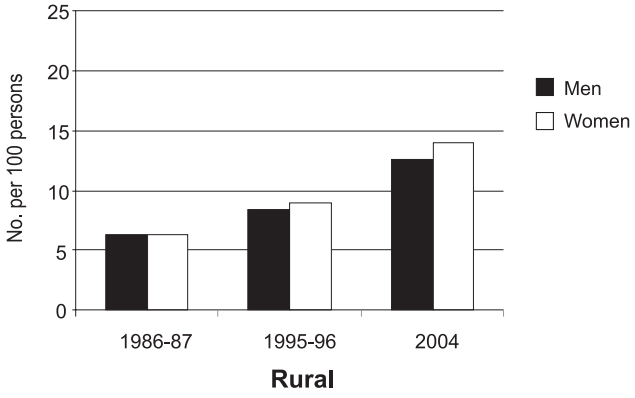
## Perceived Morbidity

All of the NSS morbidity data is self-reported, and self-reported illness data can only be used with caveats because of variability in whether and how people perceive themselves to be ill. So it raises questions of who perceives they are ill, and what is the extent and nature of that perception? Will they report it? Does it get recognised, and even if recognised, will it be

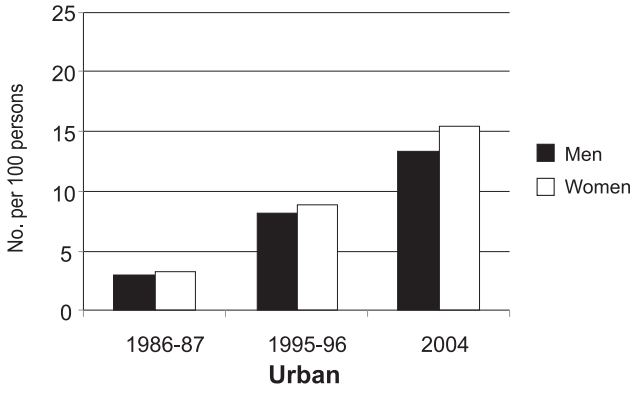
acknowledged as requiring treatment? Such problems with self-reporting can be corrected through more detailed probing[8] but this can probably only be done for a sub-sample of a large survey such as the NSS.

Especially in the bench mark year, but also in the mid 1990's survey the NSS received criticism that there were particular social groups whose illness was being under-counted and under-reported. There was a feeling that illness was not being probed adequately, such that people who have a tendency to suffer in silence - like rural poor women or other rural poor who may not expect to be able to take care of their illness - simply refuse, even in their own minds, to say that they are ill. Such silence or lack of acknowledgement can itself be a way of coping psychologically with illness. Because of these criticisms the NSS attempted to improve recording through better training of field investigators for the later surveys. What was the result?

**Figure 2 – Self-reported morbidity trends (NSS)**




8 N Madhiwala, S Nandraj, R Sinha, *Health, Households and Women's Lives: A Study of Illness and Childbearing among Women in Nashik District, Maharashtra,* Mumbai: CEHAT, 2000.




The rates of reported morbidity went up quite significantly for both men and women in 2004, even higher than the increase recorded in 1995-96. The relative increase was even sharper in urban areas, and while there had been no gender differences in the benchmark year, women reported significantly higher illness by 2004. Apparently, therefore, the NSS was able by 2004 to deal with the problem of under-reporting. But whose illness was actually being picked up?

**Figure 3 – Gradients in perceived morbidity: male versus female (Rural)**

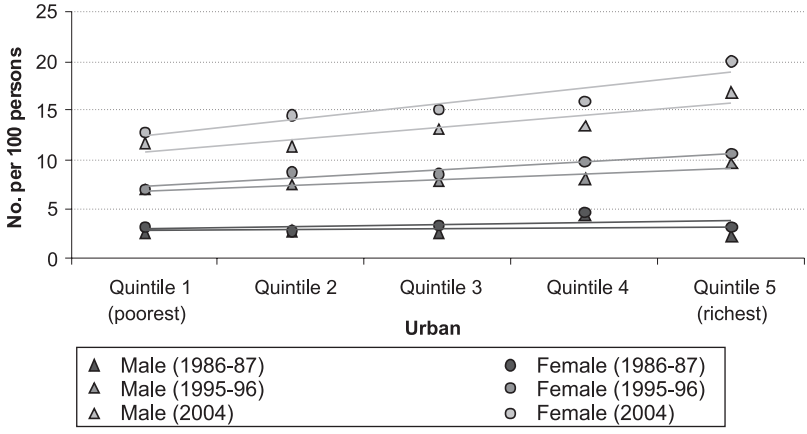



Figure 3 shows that, in the benchmark year, in rural areas, there was almost no gradient between the poorest

quintile and the richest, and very little gender difference in rates of reported illness per 100 persons. In 1995-96, there was no change for the poorest quintile, but a clear gradient thereafter, as well as some opening up of gender differences. In 2004 there were some improvements at the bottom (without any gender difference), but the biggest increases were for those at the top of the income spectrum, especially for women but also for men. So is the NSS counting better and who is it counting? It appears that the NSS is indeed counting better, but mainly the illnesses of the better-off. Its attempts have not borne similar fruit for the illnesses of those at the bottom of the spectrum where much of the problem of undercounting is believed to lie.A similar pattern holds for urban areas also (figure not shown). While the gradients are a bit less steep, they are distinctly tilted towards the richest quintile. What does this pattern over time in self-reported morbidity tell us? Despite the increase in non-communicable diseases in the country, it is not plausible that the rich have actually become more ill than the poor. The burden of communicable disease is still very high and is largely borne by the poor. Furthermore, the poor also carry a significant burden of non-communicable diseases. It appears, therefore, that despite its efforts, the NSS has mainly succeeded in capturing further the illnesses of the better-off in both rural and urban areas.

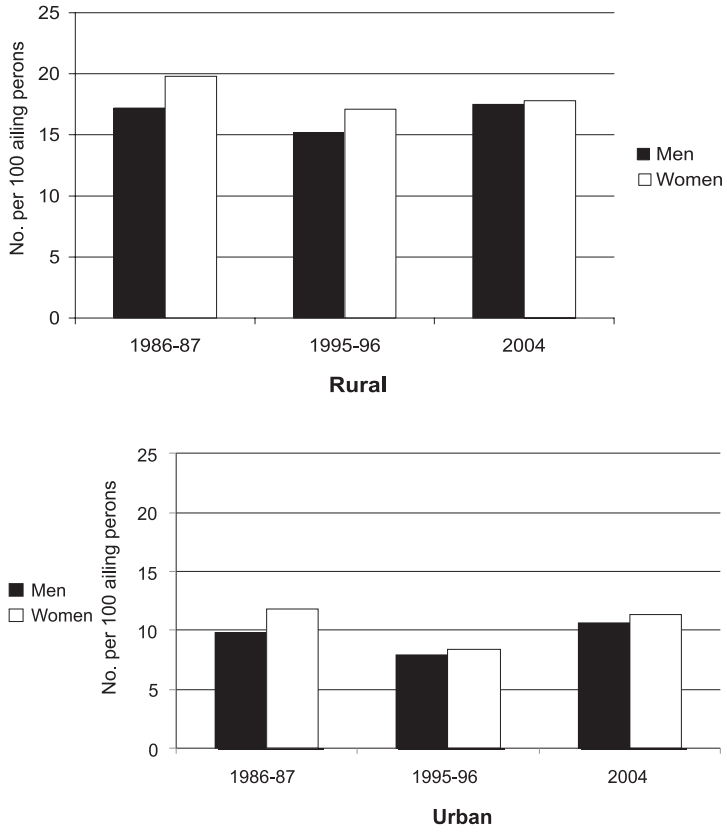
Bearing in mind this caveat that, even in 2004, the illnesses of the poor continue to be undercounted, we examine next the four key indicators mentioned before.

## Untreated Mordibity

Non-treatment of illness can be looked at in two ways: people who never get treated for an illness *versus* people who start treatment but discontinue it for any reason other than getting cured, i.e., they felt the treatment wasn't helping, or they couldn't afford it any longer, or stopped treatment for some other reason. Over the roughly two decades of our analysis, the rates of those who were never treated fell a little in the mid-1990s but

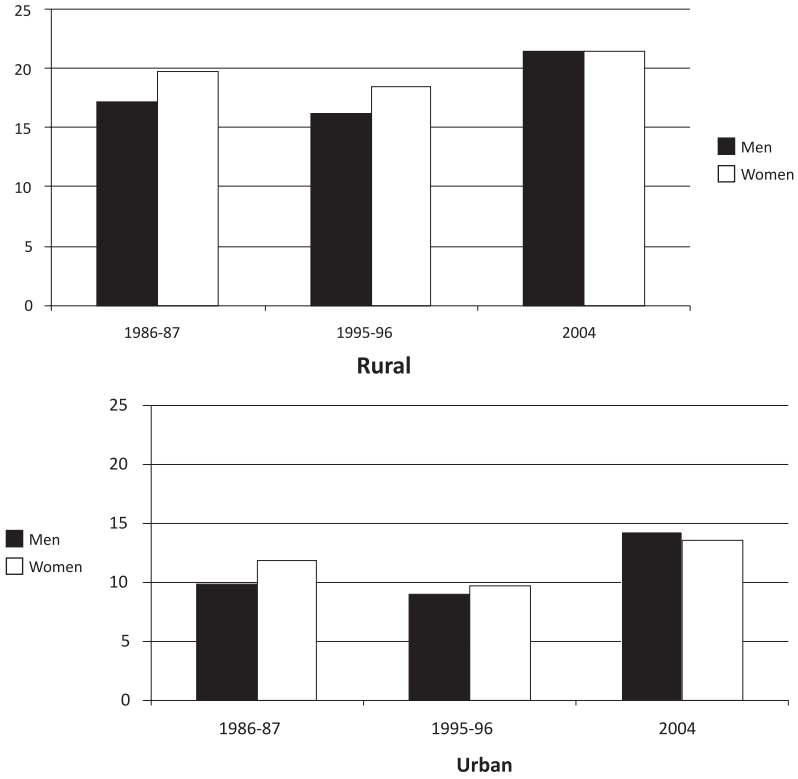
went back to the previous levels in 2004. Rates of never being treated were around 10% in urban and over 15% in rural areas (Figure 4).

**Figure 4 – Rates of never being treated (Rural)**



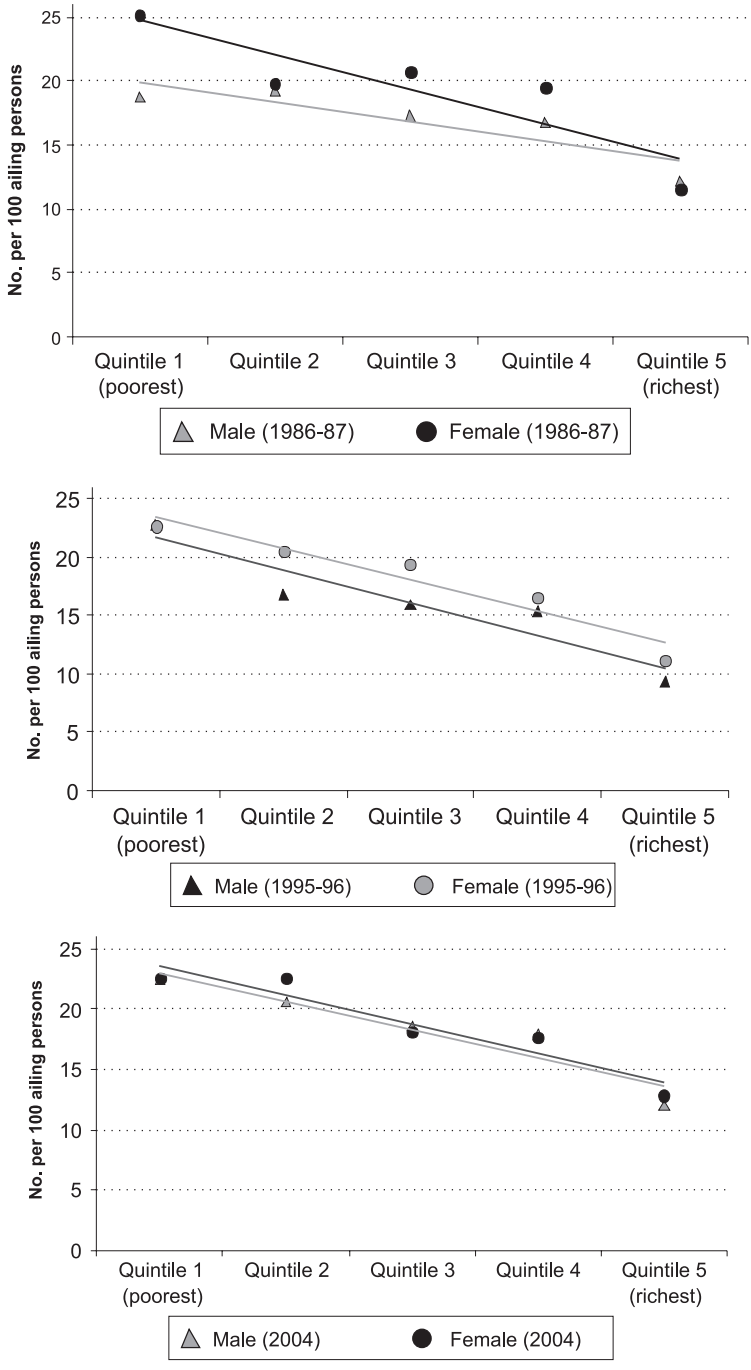

If, however, we combine those who were never treated with those who discontinued treatment, a clear up-trend emerges. While the rates of never being treated are about the same at the start and the end of the two decades, discontinuation rates went up for both women and men in both urban and rural areas. Total non-treatment rates were therefore higher (Figure 5), reaching close to 15% in the urban areas, and crossing 20% in rural areas for both women and men.

**Figure 5 – Rates of never being treated + discontinued treatment**




Looking beneath the aggregates, who specifically were never treated? In the benchmark year, women were clearly worse off in terms of being never treated but this was true mainly for the lower quintiles. As Figure 6 shows, almost 25% of women in the bottom quintile were never treated for illness episodes versus a little under 20% of men in the same quintile. There were significant class gradients and gender differences in untreated morbidity – women and the poor were worse off; however the gender gap was mainly at the bottom and tapered off for the higher quintiles. This is a phenomenon that we have also observed in our work in Koppal – the rationing of the household's health resources in favour of men in the poorer households, often related to being the head of the household but not necessarily because they are income earners.

**Figure 6 – Trends in the gradients for those never treated (Rural)**



By the mid-1990s, the class gradient worsened for all groups. There was some improvement in the rates for the poorest women – I am not sure why – but a sharp worsening for the poorest men. As a result the gender gap tended to close at the bottom. In 2004, there was a further worsening of the gradient for rural men and the gender gap had almost completely closed, largely because men's non-treatment rates went up.

This phenomenon is what we call 'perverse catch up'. There is greater gender equality but it is the wrong kind of equality; it is happening because men especially in the poorer households are tending to become as badly off as the women. Already in the middle 1990s, in the period when health resources came under serious constraints, even the men in poorer households – those who were earlier able to hold onto healthcare to a greater extent than the women – began to be pushed out. By 2004, the gender gap has almost completely closed. There is almost no difference between men and women in each particular class category, but the poorest households have a higher level of non-treatment than that for the men in the benchmark year. A similar pattern holds for the urban areas (figures not shown).

## Insights On Untreated Morbidity From Koppal

Insights on untreated morbidity from an action-research project in Koppal (a poor district in north Karnataka) can help us understand better how the structures of economic class and gender interact. This is part of the analysis of a sample of 12328 individuals belonging to 1920 households in 60 villages, and looks at health seeking behaviour and expenditures for short- and long-term illness, as well as pregnancy.[9] I am only going to show you some odds ratios for long-term illness for the purpose of this lecture.

Using a simple methodology[10] that we developed specifically to study intersectionality (i.e. how different

9 Sen, Iyer, George op cit, 2007.

10 Sen, Iyer and Mukherji op cit.

dimensions such as economic class, gender etc interact with each other) in large data sets, we were able to compare six sub-groups against each other - non-poor men, non-poor women, poor men and poor women and then the poorest men and poorest women. Non-poor refers to the top two quintiles in terms of household consumption expenditure, the poor refers to the next two quintiles, and the poorest is the bottom quintile. The reference group for the comparison is the non-poor men.

**Figure 7 – Likelihood of never being treated for long-term ailments**

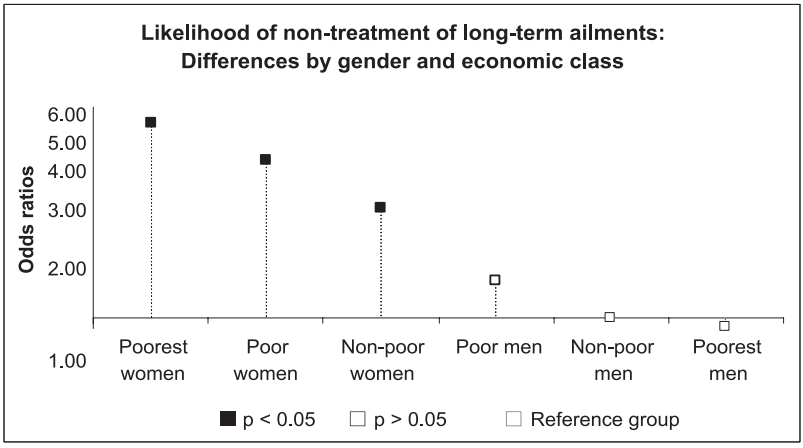


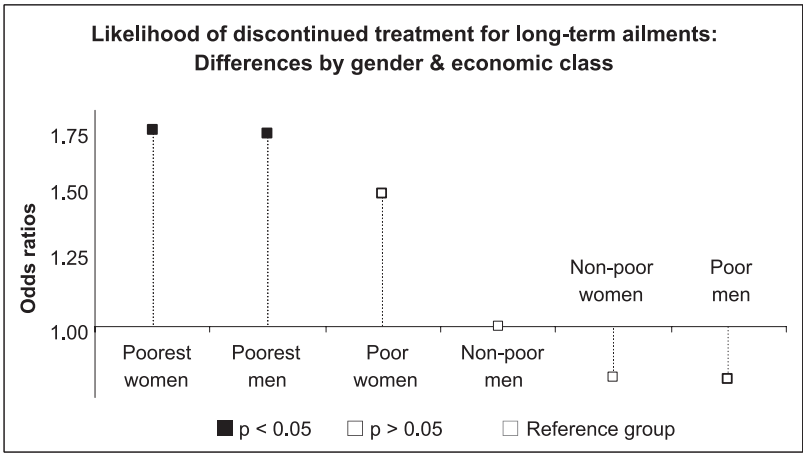

Figure 7 shows us who is really hurting when it comes to never being treated. What you see is that poor men, non-poor men and even the poorest men had very similar rates of non-treatment in the sample. On the other hand, all women, including non-poor women had significantly worse likelihoods of never being treated. Poorest women are almost 6 times as likely to never be treated as non-poor men, but even non-poor women are 3 times as likely to never be treated.

We then asked ourselves why poor and even the poorest men have likelihoods that are not significantly different from the non-poor men. Our hypothesis is that it is the result of gender-based rationing of resources within poor and even the poorest households. When households

are seriously resource-constrained, the men are able to hold on to resources, and it is women who suffer first. This affects the basic decision about whether someone will even be treated when ill. For non-poor women, even though financial resources may not be an issue, gendered structures related to income earning, domestic work, and having another adult female to help appear to be important.

However, the decision whether to be treated is only the first one. As we have seen, treatment may be discontinued for a variety of reasons. Figure 8 shows the phenomenon of perverse catch up affecting the poorest men, and that once they cross the hurdle of never being treated, non-poor women's treatment will have the same likelihood of being discontinued as the men of their households.

**Figure 8 – Likelihood of discontinuing treatment for long term ailments**




The poorest men and poorest women are almost at the same odds ratio – 1.75 times as likely to discontinue treatment as non-poor men. What one can infer is that although the poorest men are much more likely to start treatment than the poorest women, at some point they have to give up. Gender equality happens but in a perverse way. Note, however, that poor men (belonging to

the second and third quintiles from the bottom) still have the same likelihoods as the reference group, and while poor women are more likely to discontinue, this is not statistically significant.

Further analysis of the groups that are in the middle of the social spectrum (such as those we have labeled 'poor' in our sample) provides additional insights into how economic class, gender and other markers of social differentiation such as caste[11] interact. This is an issue whose importance in the Indian political and policy context cannot be overstated. However, analysis of inequality all too often tends to focus on those who are at the extremes of the socioeconomic spectrum, e.g. poorest dalit women versus rich upper class men, to the detriment of our understanding of the groups in the middle. Groups are in the middle precisely because they have a mix of social and economic advantages and disadvantages. Poor men have a gender advantage and a class disadvantage. Non-poor women have a gender disadvantage and a class advantage, and so on. How these middle groups leverage advantage on one dimension to counter disadvantage in other dimensions needs to be looked at much more carefully. In our Koppal example, this is of course what the poor men are doing; using their gender advantage to counter their economic class disadvantage when it comes to treatment for long term illness. Further conceptual and empirical analysis can be found in Sen and Iyer (2010; under review)[12].

I now return to the NSS analysis to examine the reasons for non-treatment that people gave in the three time-points.

## Reasons For Non-Treatment

Since we did not have detailed data on non-treatment for the benchmark year, we compared the mid-1990s with

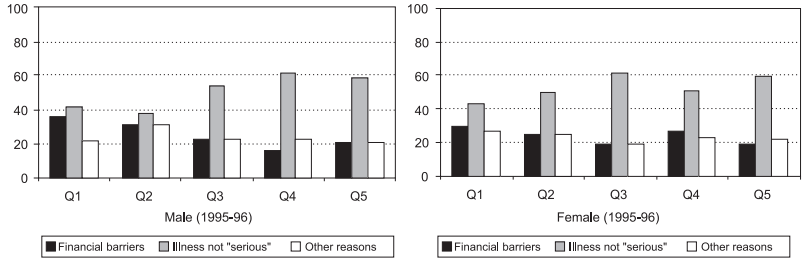
11 In our Koppal work the analysis of health care seeking found that caste was empirically subsumed by economic class. However, this should be viewed as an empirical conclusion valid for this particular analysis, not a theoretical statement about the relevance of caste. Caste must always be part of the *apriori* framework of analysis unless proven otherwise.

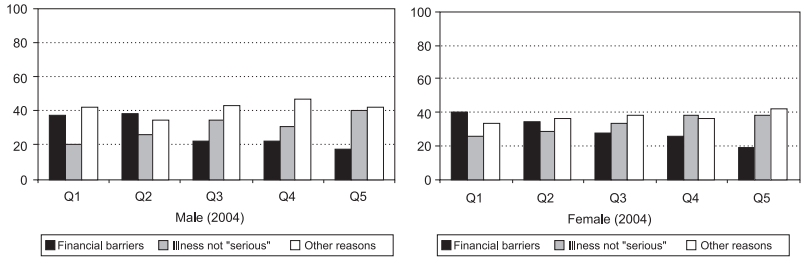
12 G Sen and A Iyer "Who gains, who loses and how: Leveraging socioeconomic advantages to secure health entitlements" 2010 (under journal review).

2004. For our analysis, the reasons were clubbed into 3 categories: financial barriers, illness not considered serious, and other reasons. In the aggregate in both rural and urban India, the consideration of illness as not serious came down, financial reasons went up somewhat, and the mixed grab-bag of 'other reasons' also went up. But disaggregation by economic quintiles and gender in Figure 9 gives us a more nuanced picture.

In 1995-96, 40% of men in the lowest quintile said that financial barriers were the reason for non-treatment. In subsequent class quintiles, financial barriers become progressively smaller. It goes up a little in the last quintile as compared to the fourth, but this could be due to the aspiration for high technology care that even those in the top quintile may not be able to afford. By 2004 we see that it is not just the bottom-most but the next quintile where financial reasons shot up to 40% as well. For women financial reasons traditionally tend to be less important than illness not "serious", reflecting women's tendency to suffer illness in silence. This is what we observe in the graph for the mid- 1990s. But by 2004, financial reasons became much more important and had reached close to 40% for the bottom two quintiles even for women. This was not the case in 1995-96. Our conclusion from this is that, yes, by 2004 healthcare costs have increased for everyone but they are much more damaging for the bottom 40% of both women and men, acting as the most important reason for non-treatment of illness.

**Figure 9 – Reasons for non-treatment of illness (Rural)**






The picture in urban India is less stark but even there, in 2004, the importance of financial barriers went up - around 30% of men in the bottom two quintiles and 40% of women cited this as the reason for non-treatment (figure not shown).

## The Shifting Public-Private Mix

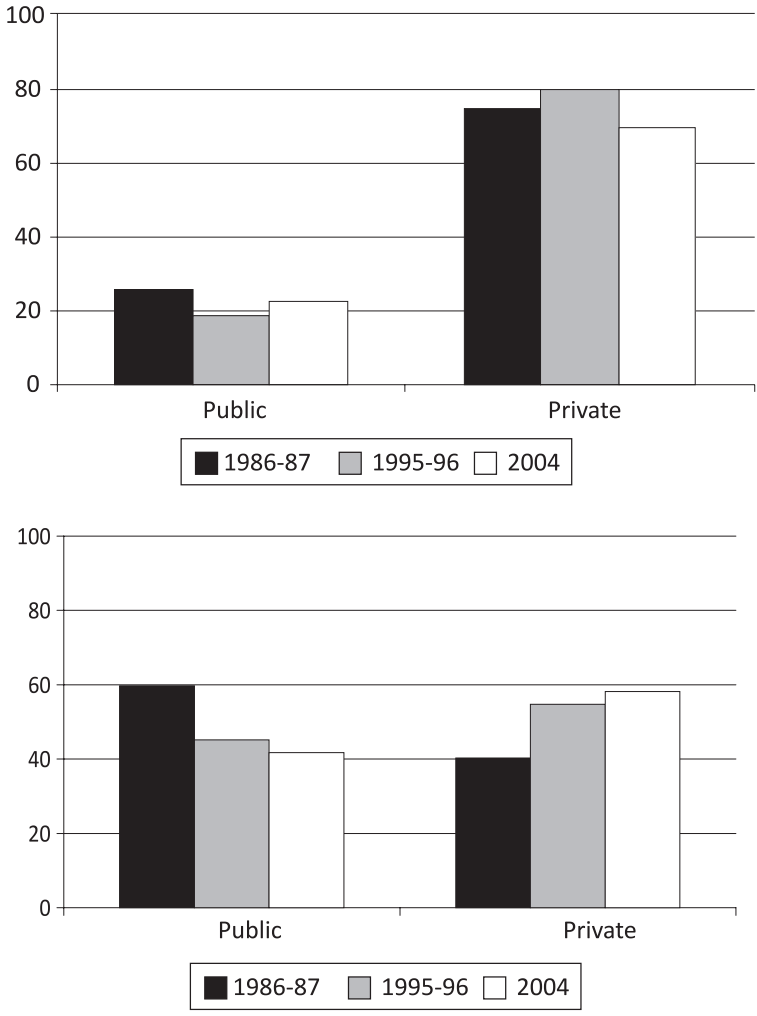
It is now fairly well known that the public-private mix of outpatient and inpatient care has been going through some important changes in the post-reform period[13]. Out-patient care has traditionally been much more in the private sector than the public. In both rural and urban India out-patient care in the public sector has always been quite low. This is reflected in the data for the benchmark year in Figure 10. By the mid-1990s, the share of the private sector - already well over 70% - went up further, but fell back to its previous levels in 2004. What is more striking is what has happened to inpatient care. The public sector used to account for almost 60% of inpatient care in the benchmark year. This 60:40 split of public : private was almost completely reversed by 2004. These patterns are true for both rural and urban areas.

Given that inpatient care is more costly on average, what accounts for this reversal at a time when everything points to greater financial stringency in household health finances? In our earlier paper (Sen, Iyer, and George op cit. 2002), we had hypothesized that the relative costs of

13 G Sen, A Iyer and A George op cit 2002; S Selvaraj and AK Karan "Deepening health insecurity in India: evidence from National Sample Surveys since 1980s" *Economic and Political Weekly*, XLIV (40), Oct 3 2009: pp 55 – 60.

public to private care have been rising, leading to shifts on the margin of some households who might previously have used public inpatient facilities. However, this needs more direct empirical verification.

**Figure 10 – Trends in outpatient and inpatient care (Rural)**




What has happened in terms of inequality? The distribution of hospital use by economic class gives us useful insights. The data in Figure 10 are the %

distribution of use by quintiles, with the top and the bottom further disaggregated into deciles for clarity.

In rural areas, in the benchmark year the use of private hospitals was skewed towards the better off, with the top quintile accounting for 25% of use, while the bottom quintile used 17%. This is not surprising since private hospitals are more expensive. By 1995-96, the distribution became very skewed towards the top (55% of use), while the bottom accounted for only 4%. Although the skewness reduced somewhat in 2004, the distribution continued to tilt towards the better-off quintiles.

What is unexpected, however, is what happened in the public hospitals. In the benchmark year, the use of public hospitals was fairly evenly distributed across the quintiles (around 20% each) The bottom-most quintile accounted for 22% and the top-most around 17%. But by 1995-96 there was a sharp upward shift in the distribution with a 19 percentage point increase in the share of the top quintile at the expense of those lower down, especially the bottom quintile, which fell to under 9%. By 2004 this trend mitigated somewhat and the skewness is not as sharp as in 1995-96, but it is still unmistakably tilted upward. Not only has the bottom quintile lost its share, the next quintile has also reduced its share by about 6 percentage points. This shift in the distribution may well have been due to the new policies of incentivizing the better off to use the public hospitals through special services for user fees. This would be a win-win situation provided we could be assured that the poor were not being dislodged. However, in the absence of additional staff or facilities, and with an emphasis in public hospitals to make sure that 'paying' customers receive the care they expect, it is hard to imagine that the queues haven't become longer for the poor and the real costs in terms of time and lost incomes much greater.

It is not surprising then that discontinued treatment has risen and particularly among the poor. Hospital care in rural India (whether private or public) has become overwhelmingly the prerogative of the have's.

Such a sharp skewing in the distribution of public hospital use is not, fortunately, observable in the urban areas. The bottom two quintiles have been able to hold their own, and although the top quintile has increased its share, this was at the expense of those just below them.

**Table 1 – Trends in distribution of hospitalized patients by MPCE fractiles in private and public hospitals**

*per 1000 distribution*

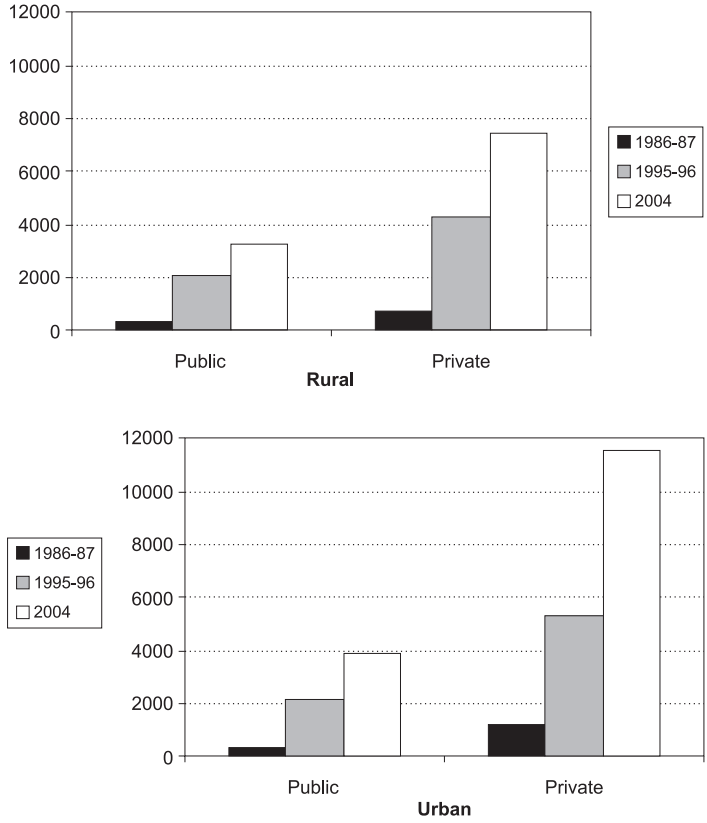
| Sector | Facility | MPCE Fractiles@ | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 00 to 10 | 10 to 20 | 20 to 40 | 40 to 60 | 60 to 80 | 80 to 90 | 90 to 100 | All |
| Rural | Public Hospital | | | | | | | | |
| | 1986-87 | 12.3 | 9.8 | 22.3 | 18.4 | 20.1 | 11.4 | 5.8 | 100.0 |
| | 1995-96 | 3.0 | 5.6 | 15.6 | 17.0 | 23.1 | 14.1 | 21.7 | 100.0 |
| | 2004 | 7.8 | 7.4 | 16.4 | 20.4 | 22.9 | 12.0 | 13.2 | 100.0 |
| | Private hospital | | | | | | | | |
| | 1986-87 | 9.6 | 6.2 | 17.0 | 20.2 | 22.1 | 15.3 | 9.7 | 100.0 |
| | 1995-96 | 1.9 | 2.1 | 7.5 | 11.4 | 21.9 | 17.9 | 37.3 | 100.0 |
| | 2004 | 3.7 | 4.6 | 12.3 | 15.6 | 22.4 | 17.1 | 24.4 | 100.0 |
| Urban | Public Hospital | | | | | | | | |
| | 1986-87 | 12.4 | 13.1 | 22.8 | 21.3 | 21.4 | 5.0 | 4.1 | 100.0 |
| | 1995-96 | 9.6 | 9.5 | 19.2 | 20.4 | 19.3 | 9.7 | 12.3 | 100.0 |
| | 2004 | 12.9 | 15.9 | 19.6 | 19.2 | 19.5 | 8.0 | 4.9 | 100.0 |
| | Private hospital | | | | | | | | |
| | 1986-87 | 9.0 | 7.8 | 19.2 | 18.6 | 29.0 | 9.6 | 6.8 | 100.0 |
| | 1995-96 | 3.2 | 4.2 | 12.7 | 17.4 | 21.0 | 16.4 | 25.1 | 100.0 |
| | 2004 | 5.9 | 7.8 | 15.3 | 18.7 | 23.0 | 14.0 | 15.4 | 100.0 |

## Cost of Care

Anyone in the country who has needed health care in recent decades knows how dramatically costs have risen in both public and private facilities. Krishna[14] and others have documented the critical role of catastrophic health expenditures in forcing households into poverty. The rise in cost is not only due to the import of capital intensive technology and equipment whose costs have to be recovered by hospitals, but also due to drug price decontrol. Figure 11 shows the huge increase in costs in both public and private sectors. In our earlier paper we had argued that the increase in the first decade was much higher than the general price inflation.

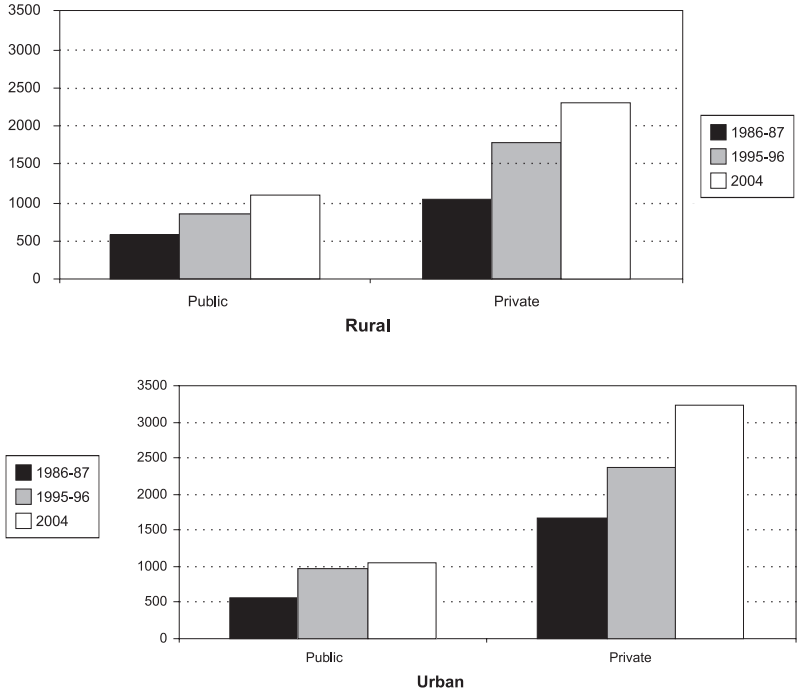
14 A Krishna "Pathways out of and into poverty in 36 village of Andhra Pradesh, India" *World Development*, 34 (2), 2006: pp 271-288.

**Figure 11 – Expenditure on inpatient care: all India (Rupees, current prices)**




Selvaraj and Karan (2009) show that expenditure on hospitalization (Figure 12) at constant prices has gone up over the three periods. In the public sector the expenditure has almost doubled and in the private it has a little more than doubled. In the urban areas, the difference between private and public sector care is much larger.

**Figure 12 – Average medical expenditures on hospitalisation at constant (1986-87) prices**




*Source: Selvaraj and Karan (2009)*

## Conclusion

What does our tour through the three surveys of the NSS and four indicators tells us overall? Our analysis showed that while reporting on illness has improved, this has mainly been for those at the upper end of the socioeconomic spectrum. On the other hand, non-treatment of illness and especially discontinuation of treatment also went up sharply over these two decades. While other reasons, especially non-acknowledgement of women's illnesses, are also important, there has been a serious increase in the importance of financial reasons for non-treatment. This was related mainly to increases in drug prices and also possibly to user charges. Micro-level in-depth studies especially the ones done by Krishna tell us very clearly the importance of

catastrophic health expenditure in pushing households into poverty.

Class gradients of inequality in access to health-care became sharply worse in the 1990s. We were actually quite surprised when we saw this because you don't see such stark differences so quickly. What it points to is how stark the squeeze on the poor was by the mid-1990s. Although the squeeze eased out a little in the middle of the 2000s, it is a longer term trend that is still with us. Significant gender gaps existed in the benchmark year and they persist. But they have been modified in some instances by the phenomenon of 'perverse catch up' particularly by the poorest men. As though this were not enough, the public hospitals that (despite their often poor quality of services) have long been the mainstay of the poor, are now tilted towards the better off. The squeeze on the poor is not only financial, but also in the actual availability of both public and private services.

Recent policy trends suggest much greater policy priority to public health, for which the National Rural Health Mission is the major indicator. The NRHM has many plusses - increased health budget, a focus on maternal mortality which has never been serious before, strong leadership, management inputs with good technical back-stopping, openness to civil society and third party review. But what does it do for health equity, overall access to the poor, health costs or drug prices? These are the health system underpinnings for the NRHM and unless they are addressed, the next NSS survey is not going to look any better in terms of the four indicators we have been looking at. In fact they may look worse given the continuing widening of economic inequality. Health inequalities have worsened both over time and in their cross-sectional dimensions. The period of economic reforms seem to have sharply worsened access and cost of care for the poor. Gender differences continue to be important but we have seen that the poorest men have also been hit hard in addition to the women.

In this talk I have also tried to address the importance of studying health inequalities through not only a multi-dimensional but also an intersectional lens. Methodologies now exist that allow us to do this with both qualitative and quantitative analysis of large data sets. Such approaches are fruitful in providing both nuance and richness on the one side, but also greater validity to our understanding of empirical reality. I would argue that what we need is a much more nuanced, unprejudiced, and open public debate on health inequality in all of its different aspects.

That is really the best kind of tribute we can pay to Krishnaraj's extraordinary work and life.

Thank you.