



# 11

## SOCIAL INFRASTRUCTURE: URBAN HEALTH AND EDUCATION

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In over fifty years since independence, India has developed an extensive public delivery system for the provision of health care. This was preceded in 1946 by the Bhole Commission that recommended basic health services be provided for all through Primary Health Centres (PHCs). In line with the recommendations, PHCs were set up all across the country, each serving about 30,000 inhabitants in its vicinity. At the time, the urban population of India was less than 18 per cent. Since then, the urban population has grown over fourfold to 285 million of over the 1 billion people living in India. 22.6 per cent of this 285 million live in slums (GOI 2001).

As in the case of health services, provision of education for all in India has also largely been envisaged within the public delivery system even though this sector has a significant presence of private providers. Since independence the government has launched various schemes and programmes for increasing literacy among all sections of the population, the Sarva Shiksha Abhiyan and the Right to Education Bill are the two seminal steps in this direction. Recently there has been a growing demand for privatization and growth in the number of private institutions. This phenomenon is more strongly visible in the urban areas where there is a greater proportion of literate population as well. As per the latest Census of India (2001), 80 per cent of the urban population is literate as opposed to 59 per cent in the rural areas.

According to the Asian Development Bank India's urban population is expected to reach 550 million that is, over 40 per cent of the total population by 2020<sup>1</sup>. Figures released by the Planning Commission indicate that in 1999–2000 about

<sup>1</sup> <http://www.adb.org>

The author acknowledges the assistance of Siddhartha Datta and Mayank Singh in putting together this chapter. Help from Mridusmita Bordoloi, Aali Sinha and Peeyush Bajpai was invaluable in estimation exercises. All errors are mine.

23.4 per cent of the urban population was below the poverty line (as against 76.3 million, that is, 32.4 per cent in 1993–4). However, variations both across and within economic classes, castes, and states are high. Many disenfranchised segments suffer from high levels of deprivation not revealed by aggregate numbers. This also affects their health indicators.

The *Food Insecurity Atlas of Urban India* (MSSRF 2002) suggests approximately 38 per cent of children below the age of three years in urban India are underweight and more than 35 per cent short for their age. Further, a high proportion of the urban poor are not able to meet the nutrition norms laid down by the Indian Council of Medical Research (ICMR).

It is not clear whether the urban poor are generally better off than the rural poor. On the one hand, aggregate figures such as wages, poverty levels, expenditures, all show better performance of urban areas. It is also believed that access to schools and health facilities is better in urban areas. On the other hand casual employment, daily wages, high level of competition for the few unskilled jobs, all contribute to the vulnerability of the urban poor.

An aspect of urban poverty rarely captured by published data relates to the condition of those living at the fringes of the urban economy such as footpath dwellers, street-children, and the homeless. There are no scientifically derived estimates on the extent of urban homelessness and the conditions of the homeless. Data sources such the National Family Health Survey or the National Sample Surveys, do not contain information through which this segment of the urban poor can be studied.

### KEY ISSUES

Both large survey-based studies as well as case studies have repeatedly shown that education and health services in India are characterized by (i) inadequate and inferior infrastructure; (ii) poor public service delivery; (iii) lack of quality choices



for consumers; and (iv) lack of access especially for the poor due to a high dependence on relatively expensive privately provided services.

However, this is not for the want of policy attention to this sector. Central and state governments have, since independence, been devoting substantial funds and public effort towards provision of education and healthcare. Somehow the efforts have not yielded the desired results.

The aspects of policy failure could be categorized as follows:

- Attention to the challenges posed by the rapidly increasing population has been inadequate.
- Delivery mechanisms are poorly designed.
- Implementation of policies and schemes is poor.
- Appropriate institutional mechanisms to bridge need gaps are absent.
- Democratic institutions do not appear to be adequately answerable for the failure of the public delivery system.

India after independence adopted the Mahalanobis model of economic development with a strong emphasis on a self-sufficient manufacturing base with a prominent role for the public sector. Valuable resources as well as policy attention were channelled towards fulfilling this objective necessitating the relatively lower priority to social sector investments. So while China and Sri Lanka were developing a strong human resource base, India was focusing on a large manufacturing sector. Consequently, as population expanded, the shortfall in public provisioning in the social sector grew more and more prominent.

Poorly designed delivery mechanisms, in hindsight, were a natural outcome of the assigned role of the government as a 'provider' and not as a 'supplier' of education and healthcare. Despite the economic reforms through the 1990s, social sector administration is still characterized by a high degree of centralization in operations, dependence on central and state funding, government employees on the staff, and command and control type programmes and schemes. The net result is that the government is seen as 'providing' education and health care facilities and not servicing its consumers, especially the underprivileged.

There are not many excuses for poor implementation where in fact there are many examples across the world where rich or poor countries have evolved quality public health and education delivery. Even within India, the experience of Kerala has shown that the government could have met with greater success even with the given basket of schemes and measures had implementation been proper<sup>2</sup>. The current trend of circumventing public delivery needs to be treated with caution

<sup>2</sup> As per the UNDP, while over 65 per cent of hospital beds in India are located in government hospitals, poor health outcomes relative to health expenditure show that both public and private health facilities are sub-standard. (See [www.undp.org.in/report/IDF97/idfedubl.htm](http://www.undp.org.in/report/IDF97/idfedubl.htm))

as well. Issues related to poor implementation need to be corrected rather than going in for untested public-private partnerships or NGO-based delivery mechanisms which could invite a new set of problems related to poor regulation and control—which could be even more difficult to redress.

For institutional mechanisms to bridge need gaps strong and empowered local level bodies are required. Local bodies are best suited to identify problem areas at the micro level and provide appropriate solutions. In the absence of a healthy local government capable of funding and implementing policies independently, top down approaches continue to be the only quick way of addressing important issues. An extreme example would be the battle against HIV in large cities. Municipal bodies hardly play a role in fighting HIV at the local level; nor is there any stress on the matter from the state or even the centre. HIV strategies today are funded by international organizations, devised on the basis of international studies with best practices borrowed from elsewhere.

A motivated leadership accountable to its people could redress any or all of the above aspects. However our democratic institutions do not reflect the health and educational aspirations of the people. While large masses of the poor are aspiring for access to quality education and health care, and are resorting to private sector purchases in order to fulfil their needs, this does not appear to be a matter of political debate or administrative concern. At least where public delivery of social sector services is concerned, our democratic political institutions have failed us.

Economic literature is rich with studies on the education and health sector in India identifying problem areas, providing solutions, estimating investment requirements, making recommendations for policy and institutional changes. The PROBE survey has been a landmark study on education in the country (PROBE 1999). It painstakingly documents the inadequacy of school infrastructure and services. Basic facilities such as furniture, blackboards, toilets, playgrounds, not to speak of teaching aids are missing in many if not most public schools. The goal of 'at least two reasonably large all weather rooms' avowed in the Operation Black Board is far from ambitious, yet it remains unrealized in a majority of the schools. A World Bank study found that enrolment is not a big issue anymore; attendance, transition, completion and learning outcomes are emerging as bigger challenges (World Bank 2002). Many parents not only recognize the value of educating their children but also are also willing to invest the meagre resources they can afford. There is growing evidence that private schools are mushrooming and children even from poorer families are being sent there (Indicus Analytics 2005). Similarly, poorer sections of the population are increasingly resorting to private suppliers for both hospitalized and non-hospitalized care. Though detailed studies in line with the PROBE are missing for the health sector, there is enough

evidence to document the increasing irrelevance of public sector health care delivery.

Our objective in this chapter is to collate disparate data, information, and insights from the literature to identify key challenges in ensuring basic primary education and health services to urban dwellers and broad areas of action.

### STRUCTURE OF EDUCATION DELIVERY

Schooling in India has historically been privately provided where in teachers, who also had religious or spiritual preoccupations, formally imparted education. The state was rarely engaged in the business of providing education. Despite this, access to some basic schooling was available to both the rich and the poor. British records from Punjab in the north to Madras Presidency in the south reveal that students and teachers were not limited to the upper castes only. In fact the caste-wise break-up in different provinces of the Madras Presidency shows that lower castes often formed the *bulk* of the students. While access to education was perhaps not entirely egalitarian or widespread, the poorest could obtain some initial schooling for their children in an era when state subsidies were largely absent (Dharampal 2000).

Who pays for education is not merely an issue of equity. It has extremely important implications for incentives related to quality of service, contextual relevance of the curriculum for the student, and the cost of schooling. Many key thinkers and policy makers in the history of India have recognized this.

...The village schools were not good enough for the British administrator, so he came out with his programme. Every school must have so much paraphernalia, building, and so forth. Well, there were no such schools at all...There are statistics left by a British administrator which show that, in places where they have carried out a survey, ancient schools have gone by the board, because there was no recognition for these schools, and the schools established after the European pattern were too expensive...

I defy anybody to fulfil a programme of compulsory primary education of these masses inside of a century. This very poor country of mine is ill able to sustain such an expensive method of education....

—M.K. Gandhi at Chatham House, London,  
20 October 1931

Despite the recognition of the inappropriateness of a large publicly funded run schooling system for Indian conditions, the debate on public versus non-public never took off. Instead it took on the colour of Indian versus British. Perhaps as a result, post-independence India continued to follow a system that was considered seriously flawed not

because of its colonial nature but because it was unsuited to the Indian context<sup>3</sup>.

Alternatives to the colonial system were promoted by many leaders—Mahatma Gandhi's 'education for life'; Rabindra Nath Tagore's education for self-development, practised in Shantiniketan; and Zakir Hussain's thrust on 'Nayee Taleem' are only a few examples<sup>4</sup>. None of these were adopted by post-independence India. With some modifications in course content, the colonial structure was retained and expanded. Despite that, large masses of the population have remained outside the orbit of the benefits from the public education system in India.

Educational deprivation has two dimensions:

- lack of schools and poor infrastructure; and
- poor quality of teaching.

The latter is the combined effect of lack of school supplies, insufficient incentives for teachers, and weak links between the school system and society. There has been a greater policy emphasis on the provision of more schools ('quantity') than on activities that actually take place inside classrooms ('quality').

At the elementary level, universal access to quality infrastructure and effectiveness of teaching are serious challenges (Agarwal 2000). Many schools lack access to basic amenities; they have no playgrounds, drinking water, or toilet facilities. As of 2002, 1693 primary schools in the urban areas have been identified which have no school building (NCERT [2002]).

While there has been a continuous upsurge in the number of schools established at the primary level, thus increasing physical access to schools, the low quality of education provided in these schools remains a critical issue in India's educational system within which, even those children who have completed five years of primary schooling may not be functionally literate and numerate. Thus, we cannot overlook the fact that the literacy rate figures for the country may not translate to effective literacy (and numeracy) in the population. The system is also beset with a large dropout rate (34.9 per cent in Class I–V and 52.8 per cent from class I–VIII as of 2002–3) compounded by teacher apathy, teacher absenteeism and a very high pupil teacher ratio (42:1 as of 2002–3) (GOI 2004).

### Types of schools

There are large number of schools financed and run by various arms of the government (central and state government and local or municipal bodies). There are also many private schools

<sup>3</sup> Needless to say, Gandhiji drew inspiration from the works of historians and educationists, many of whom were British located in India. The annals of the East India Company as well as the *Gazetteer* preserve some of this debate. (See Dharampal 2000 for a survey)

<sup>4</sup> See <http://www.un.org.in/JANSHALA/jan1999/ffjfyrs.htm>

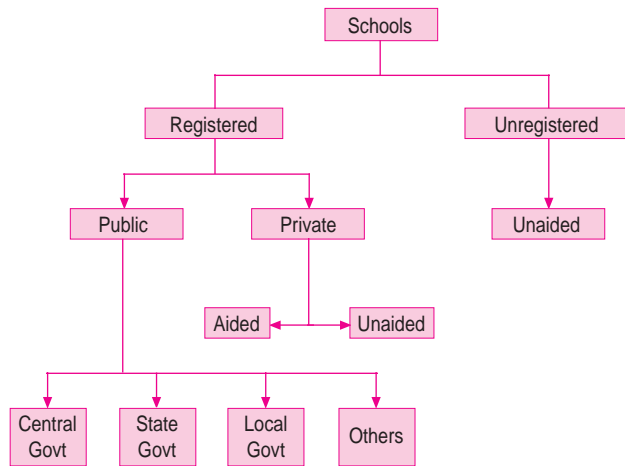


Fig. 11.1 Structure of the Schooling System in India

some of which are 'aided' by the government. Aided schools have to follow a set of rules and regulations similar to government schools. The key difference is that they are managed by private entities that could be a trust or a society, and tend to charge higher fees; as a consequence the incentives for quality education are somewhat better. Non-aided private schools are not governed by the majority of such regulations. The private registered schools include those affiliated to religious bodies, run by missionaries of different religious faiths and denominations, societies and trusts of charitable organizations, and those run by individuals on a non-profit basis. There are also a large number of informal or unregistered schools. These are entirely unregulated and receive no public funding. Private schools run explicitly for profit are largely absent among the registered schools. Most well known public schools for instance are run by non-profit educational trusts. Increasingly however, profit driven educational institutions are coming up in large numbers, mostly unregistered and un-recognized by the regulatory agencies (see Figure 11.1).

### Institutions and the state

With an Amendment in 1976, Article 42 of the Constitution entrusted the central government with direct responsibility for promoting educational facilities for all segments of society. Prior to this the central government was only responsible for the education of minorities. The constitution set the goal of free and compulsory education of comparable quality for all children below age fourteen irrespective of caste, creed, location, or sex and empowered the states to set standards for education within their jurisdictions. Despite this joint responsibility borne by state and central governments, the central government plays the preponderate role because it drafts the five-year plans, which draw up the education policy and allocate funds for the education sector. In 1986 the National Policy on Education

initiated a series of long-term programmes towards the goal that by 1990, all children by age eleven would have five years of schooling or its equivalent in non-formal education. By 1995 all children up to age fourteen were to have been provided free and compulsory education. Though the 1990 target was not achieved, by setting such goals, the central government was seen to be at least expressing its commitment to the ideal of universal education.

The Department of Education, part of the Ministry of Human Resource Development, executes the central government's responsibilities in educational matters. The ministry coordinates planning with the states, provides funds for experimental programmes, and acts through the National Council of Educational Research and Training (NCERT) and the University Grants Commission for higher-level education. These organizations seek to improve education standards, develop and introduce instructional material, and design textbooks in the country's numerous languages.

State-level education ministries coordinate education programmes at local levels. City school boards are under the supervision of the state education ministry and associated departments as well as the municipal bodies. In rural areas, either the district board or the *panchayat* is meant to oversee the school board. In practice however, it is the state government bureaucracy that wields maximum control. State governments provide most educational funding, although since independence the central government has increasingly borne the cost of educational development as outlined under the five-year plans (Box 11.1).

Academic support systems have also been developed at national and state levels through NCERT, NIEPA (National Institute of Educational Planning and Administration), NCTE (National Council for Teacher Education), SCERTs (State Council for Educational Research and Training), DIETs (District Institute of Education and Training), BRCs (Block Resource Centre), and CRCs (Cluster Resource Centre) to provide technical support and guidance to the elementary education system.

### SCHOOLS IN INDIA

India has the second largest education system in the world. Between 1950–1 and 2002–3, the number of primary schools increased nearly threefold in India, from 209,671 to 651,382 respectively. The number of upper primary or middle schools by 2002–3 was 245,274. Eighty four per cent of rural habitations in India now have a primary school located within a distance of 1 kilometre. Of the 651,382 schools in 2002–3, the government or local bodies managed about 90 per cent. As of 2002–3 about 123 million students were enrolled in class I–V and about 47 million students in class VI–VIII. The number of teachers during the same period was about

## Box 11.1

**Role of the Indian State in Primary Education**

Governments both at the centre and states have been trying, and perhaps more so in the last two decades to attain the goal of universal primary education. The recent All-India efforts, initiated by the central government are briefly mentioned below.

*The 73<sup>rd</sup> and 74<sup>th</sup> Constitutional Amendments*

The 73<sup>rd</sup> and 74<sup>th</sup> CAAs underlined the role to be played by local bodies both in rural and urban areas with respect to provision and governance of education. The 11<sup>th</sup> and 12<sup>th</sup> schedules, included in the Constitution through the above-mentioned CAAs, identified educational governance and provision as one of the functions to be devolved to the local bodies. The 11<sup>th</sup> schedule includes among other functions of panchayati raj institutions (PRIs) the following: 'education including primary education and secondary schools, teacher's training and vocational education, adult and non-formal education, literacy and cultural activities' (73<sup>rd</sup> CAA, 11<sup>th</sup> schedule). The 12<sup>th</sup> schedule listing the power, authorities and responsibilities of Urban Local Bodies (ULB) states the following with respect to education—'...Promotion of cultural, educational and aesthetic aspects' (74<sup>th</sup> CAA, 12<sup>th</sup> schedule, Article 243W).

*District Primary Education Programme (DPEP)*

The Government of India launched DPEP in 1994 to attain the goal of universal elementary education. This programme was attempted with a totally new approach of district specific planning, decentralized management and community participation, empowerment, and capacity building at all levels. Some of the stated objectives are to:

- provide all children with access to primary education;
- reduce dropout rates at the primary school level to less than 10 per cent;
- strengthen the capacity of national, state and district level institutions; and
- set up organizations for planning, management, and evaluation of primary education.

The DPEP was launched with the assistance of various multilateral aid agencies and foreign government bodies. Most of the monetary assistance was either in the form of soft loans or outright grants.

*Sarva Shiksha Abhiyan (SSA)*

The central government launched the Sarva Shiksha Abhiyan in 2001. In 2002, the 93<sup>rd</sup> Amendment to the Constitution decreed free and compulsory education to all children between the ages 6–14. The aim of SSA is to provide meaningful and quality education to all children between the ages 6–14 by 2010. Some major objectives of the SSA are:

- All children complete five years of primary schooling by 2007.
- All children complete eight years of schooling by 2008.
- Bridge social and gender gaps in primary education by 2007 and in elementary education by 2010.

The SSA is implemented in partnership with state governments. The funds required for this programme are shared by the central and state governments in 75:25 ratio during the 10<sup>th</sup> five-year plan and eventually in a 50:50 ratio.

*Draft Bill for Free and Compulsory Education*

A Bill to provide free and compulsory education to all children between the ages of six to fourteen years was prepared under the previous government regime. The present government has recirculated the bill for discussion in 2005.

*Others*

- The 86<sup>th</sup> Amendment of the Constitution in December 2002 made free and compulsory education for all children in the 6–14 age groups a justifiable fundamental right.
- The Centrally Sponsored Schemes for elementary education were streamlined and rationalized, through a zero-based budgeting exercise and all the schemes were converged under five major schemes: Sarva Shiksha Abhiyan (SSA); National Programme for Nutritional Support to Primary Education (Midday Meals Scheme); Teachers Education; Kasturba Gandhi Balika Vidyalaya (KGBV); and Mahila Samakhya.
- The Midday Meal Scheme was universalized at the primary level, with the central government providing conversion cost, enhanced transport subsidy in addition to supplying food grains free of cost to states/Union Territories.
- A 2 per cent Education Cess has been levied on income tax, excise duty, custom duty and service tax since 2004 for financing basic quality education.
- A Prarambhik Shiksha Kosh, a non-lapsable fund for funding SSA and the Midday Meal is being established and the proceeds of the Education Cess will go into this.



1.91 million (classes I–V) and 1.58 million (class VI–VIII). Besides these schools, there are a quarter of a million non-formal education centres (GOI 2004) (Figure 11.2).

A comparison of the number of primary schools between the Sixth All India School Education Survey (1993) and the Seventh All India School Education Survey (2002) conducted by the NCERT suggests an increase of about 25 per cent in the number of primary schools in the country (Table 11.1). Dropout rates also declined somewhat from 39.03 per cent to 34.89 per cent during this period.

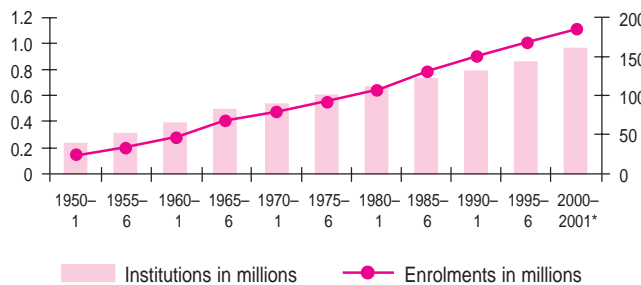
**Table 11.1**  
Growth of Primary Schools in India (1993–2002)

Primary Schools	All India
1993	570,455
2002	651,381
per cent change	14.19

Source: NCERT (2002)

The number of out-of-school children, estimated at 42 million at the beginning of the Tenth Plan has come down to 23 million in April 2003 and further to 8.1 million in September 2004. Various innovative strategies have been evolved to educate street children, working children and physically or mentally challenged children.

The high growth in the number of students and schools has however been predominantly in the private sector. Through the 1990s and till early 2000 annual growth has varied between 7 to 10 per cent in the number of private unaided schools in the country. However the private schools aided by the government and the public schools have grown at a much more stable 2 per cent (see Table 11.2). This growth in private schools has been in spite of the opening of large number of schools under the SSA.



**Fig. 11.2** Growth in Number of Institutions and Enrolments from 1950–1 to 2001–2

Note: \*Provisional  
Source: GOI (2003)

**Table 11.2**  
Annual Percentage Growth in Number of Schools by Management

Type of institution	1993–4 to 1996–7	1996–7 to 2001–2
Public	1.8	2.4
Private aided	1.9	2.1
Private unaided	10.4	7.5

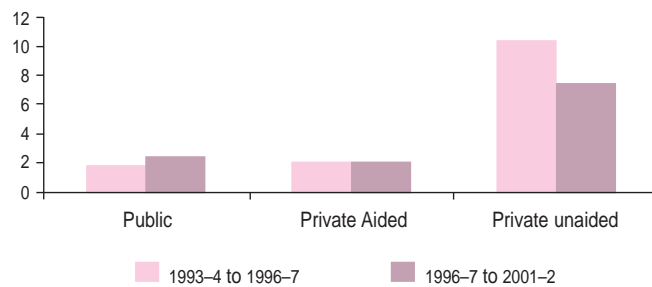
Source: GOI (2003)

In percentage terms the highest annualized growth among all school levels has been at the high school and higher secondary school level (7.8 per cent overall) and private unaided schools have been growing in number the most rapidly in this segment (10.3 per cent). But even among primary schools, growth of the private unaided schools has been four times the aggregate growth (see Figure 11.3; Table 11.3).

No doubt the base of private unaided schools is low. Only 10 per cent of all schools are private unaided schools in the country but at the higher levels almost one in four schools is private unaided (Table 11.4).

Of the over 900,000 schools in the country, the bulk is primary schools. Primary schools are predominantly government schools. But the share of private schools increases rapidly as the level of education goes up.

The bulk of the higher education schools in the country is already in the private sector. However, a large majority of



**Fig. 11.3** Average Annual Percentage Growth in Number of Schools 1993–4 to 1996–7 and 1996–7 to 2001–2

**Table 11.3**  
Annual Percentage Growth in Schools (by management) between 1993–4 and 2001–2

	Primary	Middle	Higher	All
Government	2.2	3.4	3.8	2.6
Local body	0.3	1.2	-0.6	0.4
Private aided	-1.2	0.5	3	1.3
Private unaided	6.3	7.7	10.3	7.8
All	1.4	3	4.4	2.1

Source: Selected Educational Statistics, various years, Department of Secondary and Higher Education, Government of India.

Table 11.4  
Distribution of Schools 2001–2

	(per cent)			
	Primary	Middle	High	All
Government	47.5	47.4	36.2	46.0
Local body	43.5	29.1	6.3	35.6
Private aided	3.1	7.8	34.0	8.1
Private unaided	6.0	15.8	23.6	10.4
Total	100.0	100.0	100.0	100.0
All (number)	638,738	206,269	126,047	971,033

Source: GOI (2003)

these constitute private aided schools that are similar to government schools in terms of the salaries, regulations, and procedures that they have to follow. Other tables also reveal that the importance of private aided schools is falling rapidly over time. Private unaided schools are becoming more and more important at all education levels.

During the 1990s, of all the new schools that have been set up, 22 per cent of the primary schools have been private unaided ones. The figure is even higher for higher levels. This could possibly be because much of the government focus is targeted at elementary levels. But increasing demand for higher education has led to the establishment of many new private schools at the higher levels.

Data on rural–urban break-up are not available for 2001–2. However those from 1993–4 indicate that the private schooling phenomenon is especially strong in urban areas.

Among primary schools private schools were located primarily in the urban areas. Greater than a third of all primary schools in 1993–4 in urban areas were private. Since aided schools tend to be fewer at the primary level it is probable that the bulk of these were private unaided primary schools.



Fig. 11.4 Percentage Share of Public–Private Schools across Levels of Education in Urban Areas

Note: U+A Unaided plus Aided

Source: NCERT (1993).

Table 11.5  
Change in the Number of Schools in the Last Decade

Schools by type of management	Change between			Per cent distribution of new schools 1993–4 to 2001–2
	1993–4 to 1996–7	1996–7 to 2001–2	1993–4 to 2001–2	
Government	31,299	17,188	48,487	71.0
Local body	–8237	15,102	6864	10.1
Private aided	–1578	–376	–1954	–2.9
Private unaided	6415	8470	14,885	21.8
Total	27,899	40,384	68,283	100.0

Source: *Selected Educational Statistics*, various years, Department of Secondary and Higher Education, Government of India.

However, almost 5 per cent were also there in rural areas. This share of private schools in rural areas increases as we move up the educational levels. For instance private schools account for the majority of the higher secondary schools in rural areas as well (Figure 11.4).

The above statistics deal with registered schools only. We will later visit the issue of education in unregistered schools for whom no data exist. In any event, the above discussion reveals some very important aspects of private schooling in India. These are summarized below:

- The growth rate of private unaided schools is higher than the private aided and the public ones.
- The growth of private schools is predominant at the higher levels; however, private unaided schools have witnessed rapid growth at all levels.
- Private schools tend to be lesser in number in the rural areas. However, the share of private schools (aided + unaided) increases steeply with rising levels in rural areas as compared to the urban areas.

### Physical Infrastructure

School infrastructure isn't only about the physical inventory available to the teacher to impart education but also the environment conducive to learning. A clean and pleasant atmosphere goes a long way in encouraging school participation. Further, initiatives taken by motivated teachers and staff are essential for a meaningful schooling experience.

The expansion of enrolments in India hasn't been matched by a comparable expansion of education facilities. The general quality of primary school infrastructure in India is also poor. It is certainly inferior in the rural areas but even in urban areas the infrastructure is well below the acceptable standards. This is most obvious in the condition of school buildings. From 1986 to 1993 the percentage of primary schools operating in



open space has decreased and simultaneously the percentage of schools operating in *pucca* buildings has increased but still there are many schools that are held in open. According to the Seventh All India School Education Survey 2002 (NCERT 2002), about 84 per cent of the primary schools in the urban areas were operating from a *pucca* building with adequate classrooms for teaching and around 2 per cent in open space. As of 1993 about only 44 per cent of the primary schools at the all-India level had drinking water facility and about 9 per cent of the primary schools had separate urinals and only 5.1 per cent had separate lavatories for girls. The figures for the primary schools in the urban areas were much better, but the majority of urban schools also did not have such basic facilities.

According to the Seventh All India School Education Survey, 2002 about 15 per cent of the primary schools are running with only one teacher. Alarming, around 1.5 per cent of the primary schools do not have any teacher (Annexe Table A11.4). This 1.5 per cent translates to a fairly large number of schools supposedly educating an even larger number of young children. Information available on certain physical aspects such as availability of black boards, furniture, playgrounds, textbooks, and library facilities from the Sixth All India Education Survey held in 1993 reflects that the government run schools which were far behind the private schools (Annexe Tables A11.5 and A11.6). This holds true in the urban as well as rural areas and one can safely assume that the present situation is not likely to be much different.

### COVERAGE AND ACCESS

Even though access to education is increasing it can hardly qualify as universal. It is determined by a mix of factors, ranging from availability and quality of education to a child's social coordinates. Various aspects of school participation such as enrolment, completion, attendance, and drop out rate indicate the extent of access.

#### Enrolment

School participation in India is significantly affected by factors such as place of residence, gender, and economic status. The National Family Health Survey (NFHS) data suggest that enrolment shares are significantly higher for males, urban children, and those who are economically better off. Enrolment of rural children in the 6–7 years age group stands at 77 per cent while that for urban children stands at 88 per cent (Table 11.6).

It can be surmised that, rural children, especially girls from poor households are more likely to remain outside the schooling system. While it is true that female enrolment lags behind males, we do observe increases in female enrolment in both urban as well as rural areas over time indicating progress

in the right direction. In rural areas the enrolment of girls in the 6 to 7 years age group belonging to the poorest households has increased from 33.5 per cent to 58.4 per cent between the 1992–3 and 1998–9 (Table 11.6).

The enrolment share of 8–10 year olds by quintiles shows a very significant difference between the lowest and highest rural quintiles, this is not the case for urban areas. Moreover, female enrolment is much less than the male enrolment in the lowest quintile. The education delivery systems especially in the rural areas haven't been able to bring the same proportion of girl children into their fold as boys even though enrolments have increased for all children over time (Table 11.7).

The overall results suggest that enrolment shares are rising rapidly. Translating this to greater attendance and completion rates remains a challenge.

Table 11.6

Proportion of 6–7 Year Olds Enrolled in School by Sex and Quintiles

Category	NFHS 1 (1992–3)			NFHS 2 (1998–9)		
	Lowest quintile	Highest quintile	Total	Lowest quintile	Highest quintile	Total
Rural						
Male	50.25	83.71	64.60	69.28	90.04	80.09
Female	33.50	79.60	53.38	58.47	90.33	74.13
Total	42.41	81.70	59.23	64.10	90.18	77.24
Urban						
Male	61.20	96.02	82.37	77.27	98.16	89.22
Female	58.26	94.48	79.78	76.17	98.14	87.76
Total	59.83	95.32	81.17	76.77	98.15	88.53

Source: Author and Indicus Analytics estimates using data from *National Family Health Survey*, Indian Institute of Population Studies, Mumbai.

Table 11.7

Proportion of 8–10 plus Year Olds Enrolled in School by Sex and Quintiles

Category	NFHS 1 (1992–3)			NFHS 2 (1998–9)		
	Lowest quintile	Highest quintile	Total	Lowest quintile	Highest quintile	Total
Rural						
Male	59.56	93.81	77.02	76.00	95.08	85.53
Female	37.09	86.80	58.90	62.70	91.79	76.19
Total	49.15	90.48	68.40	69.70	93.56	81.12
Urban						
Male	72.86	96.86	89.22	83.35	99.05	92.99
Female	59.96	94.31	84.30	75.58	98.06	89.90
Total	67.03	95.66	86.89	79.66	98.60	91.54

Source: Author and Indicus Analytics estimates using data from *National Family Health Survey*, Indian Institute of Population Studies, Mumbai.

### Completion

Completion rates are measured specific to education levels: primary, middle or secondary. Grades 1 to 4 are considered to be primary school in most states (some are from 1 to 5); grades 5 through 8 are considered to be upper primary or middle (6 through 8 for some states).

Table 11.8 shows that only about a third of the population within the 10 to 12 years age group has completed primary school. Clearly, a majority of those enrolling at the ages 6 to 7 does not make it through the primary level by ages 10 to 12. Many of those that don't drop out are taking longer to complete primary school than is the prescribed norm<sup>5</sup>. As expected, for females, and those in rural areas, completion shares are lower. The male–female disparity is highest in the lowest quintiles in rural as well as urban areas. The divergence (in terms of percentage point difference) between the top and the bottom quintiles also is similar across rural and urban areas (Table 11.8).

### Out of School

Another aspect of access to schooling is related to those who are not in school. These include those who have never enrolled and those who have dropped out.

**Table 11.8**  
Proportion of 10–12 plus Year Olds Having Completed Primary School

Category	NFHS-2 (1998–9)		Total
	Lowest quintile	Highest quintile	
Rural			
Male	24.81	51.04	36.26
Female	18.19	49.87	30.13
Total	21.62	50.49	33.37
Urban			
Male	37.82	66.94	52.45
Female	30.44	67.39	51.92
Total	34.52	67.15	52.20

Source: Author and Indicus Analytics estimates using data from *National Family Health Survey*, Indian Institute of Population Studies, Mumbai.

<sup>5</sup> Many children report starting primary school at age 5 and most states have 4 grades in primary school. A child who starts at 5 years of age and completes school in the minimum time will complete by 9 years of age. Many children start school at age 6 and some may also drop a year due to many uncontrollable factors. The maximum age by which a child should have completed primary school is 11 years (6 years of age at starting school plus 5 years to complete). Some states, however, have 5 grades in primary school. For children in these states the relevant age group is considered to be 10 to 12 years.

Schooling attainments are, to very great extent, affected by an individual's social coordinates. Hence it is seen that across quintiles, as one goes up the economic class, there is decline in the proportion of population in the age group of 10–19 who are out of school. While the lowest economic class has the highest proportion of population in both urban and rural areas that are out of school, the top most economic class has the lowest share in this category. Further groups such as females, SC/STs are at a greater disadvantage with respect to education. Scheduled Tribes have the highest share of children who are out of school followed by SCs and OBCs. The non-backward castes (labelled 'Others') have the lowest non-attendance rates (Table 11.9).

**Table 11.9**  
Proportion of Out of School Population in the Age Group 10–19 Years

Social group	Rural	Urban
Scheduled tribes	52.90	31.59
Scheduled castes	48.34	36.19
Other backward castes	44.03	34.43
Other (non-backward castes)	34.36	22.47
5 quintiles of monthly per capita expenditure		
Q1 (lowest economic class)	54.27	45.44
Q2	47.38	35.25
Q3	43.15	28.80
Q4	38.39	20.70
Q5 (highest economic class)	29.35	10.64
Total	42.84	28.88

Source: Indicus Analytics (2003a)

Interestingly, the differences between social classes are *less* than the differences between the economic classes. Moreover, the differences are more in urban areas than in rural areas in the case of economic classes; and more in rural areas than urban in the case of social classes. This strongly indicates that economic factors play a larger role in determining deprivation in urban areas while social-class is of greater relevance in rural areas.

### Transition Rate

Transition rate can be calculated for transition from middle to secondary, from secondary to higher secondary, and from higher secondary to graduation. Consider the transition rate from middle school to secondary schools; this is calculated as:

$$\frac{\text{Persons currently attending secondary school}}{(\text{Persons currently attending secondary school} + \text{Persons completed middle but not in school})}$$

### Transition from middle to secondary

In the case of both male and female population in the secondary school attending age, not more than 50 per cent of them move from middle to secondary level of education. The situation is worst in case of rural females with as low as only 38.55 per cent proceeding from middle to secondary school. The transition rate is directly proportional to the economic well being of a group. The higher the economic status more the transition of students from middle to secondary level of schooling. While the transition rate is 31.66 for the lowest quintile, it is 73.08 for the top quintile (Figure 11.5). Thus the economic well being of a household seems to play a major role in continuation of studies to higher levels. The inter-quintile differences in transition have serious ramifications for inequality levels in the future.

### Attendance and Transition: Key Patterns

The enrolment for secondary school sharply declines from that in the middle school level. This pattern of decline is also along expected lines—the decline is higher for the underprivileged sections—females, lower castes, rural youth, and lower economic classes.

The transition rates are much lower in the middle to secondary stages than in higher stages. (Indicus Analytics 2003) This suggests many (not mutually exclusive) possibilities for policy. Factors that promote dropping out are already strong during early adolescence. These factors, such as income earning options, house-related work, inability to keep up with pressures related to studying, etc., need a counteracting force at the middle school stage itself. The midday meal scheme for instance is an important but only one such factor. The possibility of putting up crèche's close or within the premises of schools is



Fig. 11.5 Transition Rates from Middle to Secondary Levels, Rural and Urban

Source: Indicus Analytics (2003a)

another<sup>6</sup>. Improving the quality of schooling specifically for under-achievers is a key area where there is scope for intervention. If economic factors and outside income earning options are important, then linking education with vocation-related course-work could have a positive impact on transition. Moreover, dual status of part-time employment and education during early adolescence should not be discouraged and perhaps even promoted if we want to keep the poor in school.

But none of the above is possible given the present level of infrastructure available for imparting education. The non-responsiveness of the state to the requirements of basic education can be considered the greatest impeding factor for progress in the education sector. Despite high enrolment levels and impressive achievements in basic literacy the fact remains that most children continue to drop out even before they have completed elementary education.

### Quality of Schools and Schooling

The World Bank study (2002) finds that the poor parents not only recognize the value of educating their children but also are willing to invest meagre resources in children's education. But a complex set of factors conspire against them. The key concern is no longer enrolment; attendance, transition, completion, and learning outcomes are emerging as bigger issues.

In all the states, the learning outcomes of children are way behind expected or acceptable standards. For example in Uttar Pradesh the study team observed that most of the children in classes III, IV and V were neither able to read fluently from their textbooks nor could they solve simple addition or subtraction problems. The situation was not dramatically different in Karnataka. Those who could read and write either have literate parents (especially mother) and/or attended private tuition classes. The first generation school goers barely managed to recognize alphabets and could at best, read a few words.

Group discussions in the community revealed that most parents across states feel that the quality of education has gone down. The teachers do not really care if the children of the poor learn to read or write. Teachers are not accountable for learning outcomes of children, especially in the light of the no-detention policy.

The cohort study done on the basis of the school records gives a fairly positive picture. As the midday meal and the dry ration are linked with attendance, official records do not always reveal the correct situation with respect to regularity of attendance. Teachers are reluctant to admit that children drop out and hence many names show up in the registers and some of them are marked as long-term absentees. Clearly, children from poor households are not very regular school goers.

<sup>6</sup> To ease the burden on older siblings of taking care of younger ones.

Actual teaching time in class is another important concern. Observations in the classroom and discussions with children revealed that the actual teaching time is well below the expected norm. In multi-grade teaching situations, barely 20 minutes of each period is spent on actual teaching. Children are left to do their own work when the teacher is busy with another group.

Teaching and learning materials used in the schools do not lend themselves to multi-grade teaching or self-learning. Teachers take turns to attend schools where there are three or more teachers. The team found that in Uttar Pradesh teachers collect 'fees', official or unofficial. Teachers in government primary schools often asked children to get Rs 5 to 10 during national festivals, for issuing of transfer certificate, etc.

There is growing evidence that private schools are mushrooming all over and that children are being sent to private schools if the parents can afford them. In some cases parents decide to send their children to private schools, even if they cannot really afford it. Parents seem to believe that children learn fast and are able to cope with their studies if they are enrolled in tuition classes. The findings of the World Bank study are not isolated, just about every field study finds similar results. However, there are significant inter state differences.

Some state governments have made efforts to address cadre management concerns to rationalize teacher deployment in their attempt to ensure that teachers reach all the schools.

On the other hand, lack of sustained mobilization and corresponding governmental efforts in other states remain matters of deep concern.

### SUMMING UP

The government of India has funded massive expansion of infrastructure post-independence, in both rural and urban areas. This has contributed to the enormous increase in enrolment rates as also basic literacy in the 1980s and 1990s.

However, education administration, the quality of infrastructure, teaching mechanisms, and curricular content leave much to be desired. A large proportion of those who are enrolled drop out from schooling altogether while many others are observed to leave free public schools to join fee paid private schools which are growing rapidly as a segment.

Unlike roads and power, the efficacy of social infrastructure is as crucially dependent upon service delivery as on physical provision. The Indian educational establishment has largely failed in this regard mainly due to the lack of answerability of the educational establishment to the masses it seeks to educate. This is well reflected in the Public Interest Litigation Case going on in Delhi for the last more than 7 years (Box 11.2). If this is the condition of the capital city of the country the state of affairs in the rural areas can only be imagined.

#### Box 11.2

##### The How and Why of the Poor Infrastructure and Services at Public Schools: A Case Study

The ALLU (All India Lawyers Union, Delhi Unit) in this Public Interest Litigation (PIL) has highlighted the failure on the part of the Municipal Corporation of Delhi (MCD) and the Government of Delhi to provide in their schools the basic amenities like drinking water, electricity, fans, toilet blocks, desks, playground, play material, pucca building, tatpatti, boundary walls, black boards etc. . It was highlighted that 64 primary school buildings housing 327 classrooms have been declared dangerous by the works departments of MCD several years ago with no follow up action to demolish and re-construct these structures or provide alternatives to the children. Classes are still being held in these schools. It is submitted that the state of MCD schools is deplorable. Either there are no school buildings and students attend classes in tents or buildings are in a precarious condition. It was also highlighted that MCD has occupied 15 out of 19 classrooms of the Primary School in Naveen Shahdara and is using the same for zonal offices. Seven hundred students studying in the said school have been deprived of their classrooms. In another Primary School at Krishna Nagar, MCD has occupied the entire playground for running its offices. It was also highlighted that as many as 137 primary schools have been running in tents for the last several years and almost all the schools are in very bad shape. Though the Delhi Government has been making repeated promises to construct school buildings, no concrete steps have been taken thus far. Sixty-five primary schools run by the MCD do not have toilet blocks. Eighty-three have no electricity connections. These are in addition to the 137 in tents, which do not have these facilities in any case. Fifty-four primary schools of the MCD do not provide drinking water. In each of these schools, there is an average of 600 students. Some schools are drawing groundwater with hand pumps though its fitness for drinking purposes is not ascertained; sanitation arrangements in such schools are non-existent.

The court has directed the Government of Delhi to improve the facilities in the schools repeatedly, but the matter is still pending. The Court has been monitoring the progress in the matter.

*Note:* All India Lawyers Union (Delhi Unit) vs. MCD and others, C.W. 5329/ 1997 (Delhi H.C.) Date of filing: 5 December 1997. Status: Pending.

*Source:* [http://www.socialjurist.locatorbiz.com/edu\\_pil\\_basicaamenities.html](http://www.socialjurist.locatorbiz.com/edu_pil_basicaamenities.html)

## HEALTH CARE STRUCTURE

### Background

According to the *Human Development Report 2001* of the UNDP, India ranks among the last 40 countries in terms of its general human development indicators. Of the many measures that contributed to India's poor showing, health indicators were among the lowest. This is not surprising given the high poverty levels and a climate conducive to the multiplication of disease vectors. Infant mortality rate, life expectancy, malnutrition and the prevalence of deadly diseases and immunization levels are key indicators of health status of a country. Within India there are large variations in these indicators across states (for instance, see Table 11.10).

According to epidemiological transition theories, as a country moves up the economic ladder communicable diseases become relatively less prevalent and non-communicable ones become more important. The Indian situation is still highly biased towards communicable diseases—in fact, much more than an average low/middle income country (Table 11.11).

**Table 11.10**  
Infant Mortality Rates in Indian States and Comparable Countries 1998–9

States and Comparable Countries	Under 5 mortality (Per '000)
Kerala	19
Mauritius	19
Argentina	22
Guatemala	53
Maharashtra	58
Tamil Nadu	63
West Bengal	68
Karnataka	70
Punjab	72
Haryana	77
Bolivia	84
Gujarat	85
Andhra Pradesh	86
Assam	90
Zimbabwe	103
Orissa	104
Bihar	105
Rajasthan	115
Sudan	121
Uttar Pradesh	123
Madhya Pradesh	138
Benin	157
India	95

Source: WHO (2001); Registrar General of India (1999)

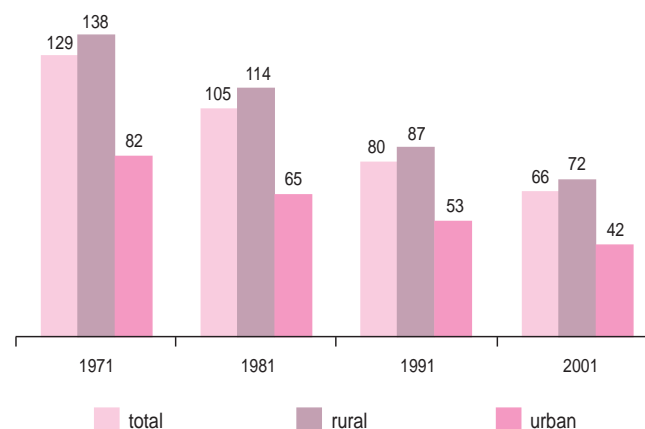
**Table 11.11**  
Distribution of Disability Adjusted Life Years (DALYs) as per Major Categories of Ailments

Disease/Condition (per cent of total)	World	High income countries	Low and middle income countries	India
I. Communicable diseases, maternal and perinatal conditions and nutritional deficiencies	40.9	7.2	43.8	50.3
II. Non-communicable conditions	43.1	81.0	39.8	33.0
III. Injuries	16.0	11.8	16.4	16.7
TOTAL	100.0	100.0	100.0	100.0

Source: WHO (2001)

Considerable difference between rural and urban areas exists. At 42 infant deaths per 1000 live births, IMR in urban areas is much below that in rural areas, but continues to be unacceptably high. It is well known that maternal education, higher maternal age at childbirth, greater interval between successive births, regular antenatal check ups, tetanus inoculation, intake of iron and folic acid tablets, breast-feeding practices, good hygiene and access to proper medical care are crucial in determining the survival of the infant. Poor health care services along with poverty have contributed to the high mortality, morbidity and as a result, low life expectancy.

It has been observed that the poor are more susceptible to morbidity and mortality and therefore are likely to have a lower life expectancy. Nutritional deficiencies, lack of access to basic amenities such as safe drinking water, sanitation, health and education services can lead to ill health and



**Fig 11.6** Infant Mortality Rate in India (1971–2001) (deaths per '000 live births)

Source: Registrar General of India (2002)

Table 11.12  
Life Expectancy Over Time

States/UTs	1992–6		1993–7		1996–2001	
	Male	Female	Male	Female	Male	Female
India	60.1	61.4	60.4	61.8	62.4	63.4
Andhra Pradesh	60.8	63.0	61.2	63.5	61.5	63.7
Assam	56.1	56.6	56.6	57.1	57.3	58.8
Bihar	60.2	58.2	60.4	58.4	63.6	62.1
Gujarat	60.5	62.5	60.9	62.9	61.5	62.8
Haryana	63.4	64.3	63.7	64.6	63.9	67.4
Himachal Pradesh	64.4	65.0	64.6	65.2	NA	NA
Karnataka	61.1	64.5	61.6	64.9	61.7	65.4
Kerala	70.2	75.8	70.4	75.9	70.7	75.0
Madhya Pradesh	55.1	54.7	55.6	55.2	56.8	57.2
Maharashtra	63.8	66.2	64.1	66.6	65.3	68.1
Orissa	56.9	56.6	57.1	57.0	58.5	58.1
Punjab	66.4	68.6	66.7	68.8	68.4	71.4
Rajasthan	58.6	59.6	59.1	60.1	60.3	61.4
Tamil Nadu	62.8	64.8	63.2	65.1	65.2	67.6
Uttar Pradesh	57.7	56.4	58.1	56.9	61.2	61.1
West Bengal	61.8	63.1	62.2	63.6	64.5	67.2

Source: Central Bureau of Health Intelligence (1999)

morbidity and eventually result in mortality (Bajpai et al. 2005). However, the life expectancy differential between women and men is still below the international norm (Indicus Analytics 2004).

### Structure of Health Care Delivery

Due to the federal nature of Indian system, health care services are divided under State list and Concurrent list. While some items such as public health, hospitals, and sanitation fall in the State list, others such as population control and family welfare, medical education, prevention of food adulteration, and quality control in manufacture of drugs are included in the Concurrent list. The Union Ministry of Health and Family Welfare is the central authority responsible for implementation of various programmes and schemes in areas of family welfare, prevention, and control of major diseases.

### Rural Health Infrastructure

In urban areas municipal bodies and district administrations are supposed to provide infrastructure and services. In rural areas sub-centres that are designed to cater to a population of 5000 in plains and 3000 in hilly/tribal areas form the lower most tier of the healthcare delivery system. One multi-purpose male worker and a multi-purpose female worker manage each

sub-centre. A lady health visitor (LHV) supervises a cluster of six sub-centres. According to statistics from the Union Ministry of Health, as on 30 June 1999 approximately 137,000 sub-centres were operational in the country<sup>7</sup>.

At the next level, the primary health centres (PHCs) act as the first contact point between the community and a medical officer. A medical officer and 14 paramedical staff are required as per the guidelines to operate a PHC. The PHC covers six sub-centres and has 4–6 beds for in-patients. PHCs are ideally designed for 20,000 to 30,000 people and are supposed to serve an average of 25 villages. The activities of a PHC involve curative, preventive, and promotion services. They are also used for providing Family Welfare Services. There were about 23,000 PHCs operating in the country in 1999.

At the top of the three-tier primary healthcare system catering to rural India are the Community Health Centres (CHCs). These are intended to cater to 120,000 people each in approximately 200 villages within the vicinity. A CHC should have at least four medical specialists—Surgeon, General Medicine, Gynaecologist, and Paediatrician—supported by 21 paramedical staff. It should have a minimum of 30 beds for patients and some basic medical equipment and facilities like an operation theatre, X-ray machine, labour room and a laboratory. The CHCs also act as referral centres for four PHCs within its purview. There were 2935 CHCs functioning in the country as of 1999.

In addition to the above primary healthcare system, there are various centres that have been established over different plan periods by various ministerial departments.

There are 47 Health and Family Welfare Training Centres running in the country with the objective of improving the quality of service provided by medical and paramedical personnel. Besides these there are the Rural Health and Training

Table 11.13  
Staff as per Facilities, All India 1999

Category	Persons	Staff per 100,000 rural population
ANM	134,086	18.69
MPW (M)	73,327	10.22
Health Asstt (F)/LHV	19,426	2.71
Health Asstt. (M)	22,265	3.10
Doctors at PHCs	25,506	3.55
Specialists	3741	0.52
Lab. Technicians	12,709	1.77
Nurse Midwife	17,673	2.46

Note: Estimated Rural Population for 1999 has been used

Source: <http://health.nic.in/infra.htm>

<sup>7</sup> Data for the later years are not available as yet.



Centre (RHTC), Najafgarh and Family Planning Training and Research Centre (FWTCRC), Mumbai, that impart training services to medical staff to cater to specific needs.

### Special Schemes for Urban Areas

Municipal hospitals exist in most Indian cities but generally public hospitals are quite inadequate for the rapidly expanding urban population. Apart from a large private sector, the different public health infrastructure that cater to the urban population include state governments' PHCs, industrial hospitals, dispensaries and hospitals set up as part of the Employees' State Insurance Schemes (ESIS), and Urban Health and Family Welfare Centres (UHFWCs) run by city municipal corporations. Most of these provide curative services but do not cover the slum populations (Sahni and Kshirsagar 1993). The urban primary health care infrastructure has been established through specific schemes and programmes sponsored and funded by the central and state governments. Even though these services exist, there are no uniform organizational structures. Some of the specific schemes have been elaborated below.

### All India Hospital Post-Partum Programme

This programme runs in addition to the Health Ministry's Reproductive and Child Health (RCH) project. The main objective of the programme is to promote family planning and spacing of birth and provide services such as medical termination of pregnancy (MTP), sterilization, and the usual follow up services. As per the official estimates there are 550 centres at the district level and 1012 sub-divisional level hospitals. There are three types of post-partum centres: Type-A covering medical colleges/institutions undertake more than 3000 obstetric and MTP cases annually, Type-B that undertake between 1500 to 3000 cases annually and Type-C covering institutions that undertake less than 1500 cases annually<sup>8</sup>. Health centres under this scheme focus on maternal health and the approach followed is that of family planning as this programme was initiated with an aim of motivating women in the reproductive age groups and their husbands towards adopting the small family norm. Increasing awareness of the people in this direction is another specific objective of the post-partum programme.

### Urban Family Welfare Centres (UFWCs)

Urban Family Welfare Centres have been operational since the first five-year plan providing—outreach services, primary

health care, MCH, and distribution of contraceptives in urban areas particularly in slums. The UFWCs provide family welfare services through existing health institutions and newly established clinics. They also operate through the Urban Revamping Scheme. As per the Ministry of Health and Family Welfare, at present 1083 centres are functioning<sup>9</sup>. There are three types of Urban Family Welfare centres based on the population covered by each centre (Table 11.14).

Table 11.14  
Urban Family Welfare Centres

Type	Population covered	No. of units
Type I	10000–25000	326
Type II	25000–50000	125
Type III	Above 50000	632

Source: <http://health.nic.in/infra.htm>

### Urban Revamping Scheme—Health Posts

This scheme was introduced in 1983 with a view to provide service delivery outreach, primary health care, family welfare and maternal and child health (MCH) services in urban areas. There are 871 health posts functioning in 10 states and 2 UTs. There are four types (A to D) of health posts sanctioned based on the population covered by each health post. Type A covers areas with less than 5000 population, Type B covers areas with 5000–10,000 population, Type C is for areas with population 10,000–25,000 and Type D is for areas with population 25,000–50,000.

### Sterilization Beds Scheme

This scheme was launched in 1964 to provide sterilization and tubectomy operation facilities in hospitals where such cases could not be admitted due to lack of availability of beds. The scheme envisages greater involvement of non-government organizations (NGOs) as it is supposed to be run not only by government hospitals but also by local bodies and voluntary organizations. As of April 2000 Government of India is supporting 3217 sterilization beds throughout the country. Out of this total, 84 per cent are with NGOs, 14 per cent with local bodies and 2 per cent with the state governments. In order to expand the tubectomy facilities and involve NGOs further, the government has made a provision of sanctioning 200 such beds each year during the Ninth plan period.

<sup>8</sup> Official Website of the Ministry of Health and Family Welfare. <http://mohfw.nic.in/dofw%20website/about%20us/infrastructure%20frame.htm>

<sup>9</sup> Official Website of the Ministry of Health and Family Welfare. <http://mohfw.nic.in/dofw%20website/about%20us/infrastructure%20frame.htm>

Data on urban health infrastructure is not collected by the Ministry of Health and Family Welfare. Unlike the three-tier primary healthcare system of sub-centres, primary health centres and community health centres in the rural areas, a primary healthcare system in the urban areas does not exist. In urban areas, public hospitals, dispensaries and clinics that are generally more focused on curative aspects of medicine, rather than primary health care and dissemination of information. As a result private health care plays a critical role in bridging a need gap for the urban population.

### PHYSICAL INFRASTRUCTURE

Even though over the plan periods the number of community health centres, primary health centres and sub-centres has increased substantially, infrastructure facilities remain inadequate (Annexe Table A11.7). Of the total dispensaries and hospitals in the country, 46 per cent and 67 per cent are found in the urban areas respectively. As will become clear in later sections, the major provider of health care in India is the private sector along with voluntary organizations. The larger out patient care is the monopoly of the private health sector. Of all the dispensaries and hospitals 54 per cent and 73 per cent respectively are privately managed (Annexe Table A11.8). As per NSSO data about 24 per cent of the urban population is living below the poverty line and the lack of adequate public health facility is bound to adversely affect their chances of accessing proper health care.

A succinct indicator of health infrastructure is the number of hospital, beds and dispensaries per 100,000 population. Between 1961 and 1998 in urban areas the number of hospitals has increased, but there hasn't been a corresponding increase in the number of beds and dispensaries per 100,000 population. On the contrary, these ratios show a declining trend across time (Annexe Table A11.9). According to the Health Information of India<sup>10</sup> in 2003 there were about 58 medical practitioners per 100,000 population while there were about 80 nurses per 100,000 persons (Annexe Table A11.10). There were only 67 hospital beds per 100,000 population in India (Annexe Table A11.11).

### USAGE AND ACCESSIBILITY OF HEALTHCARE FACILITIES

Though in quantity terms, the size of the health infrastructure is not insignificant, its distribution is lopsided. For instance, there is one qualified doctor for 802 people and one hospital for 11,744 people, besides one bed for 693 people in the country. But there are serious imbalances in the distribution of these facilities. In Tamil Nadu for instance, at least 70 per cent of 37,733 allopathic physicians are in the private sector

while 10,000 are in government service. There are nearly 10,000 doctors in and around Chennai. Therefore, the ratio of doctors to population changes from 1:800 for Chennai to 1:1590 for the state average. Smaller cities and rural areas are from all available evidence quite underserved, both by the private and public sectors (Muraleedharan and Nandraj 1998). Even though the above-mentioned study is almost a decade old, it is indicative of the fact that today the conditions are likely to have worsened since 1995–6.

About a quarter of urban residents live in slums characterized by open drains, lack of adequate sewerage, lack of municipal facilities, and overall poor living conditions etc. Combined with a high concentration of people, conditions are likely to favour a greater incidence of communicable diseases.

Among all the urban poor reporting ailments of any kind, a majority (41.29 per cent) report suffering from fever of short duration (less than 15 days). This figure for the urban rich is only 28.68 per cent (Table 11.15). The urban poor live in insanitary conditions and are prone to communicable diseases. However diseases such as diabetes, cataract and problems related to blood pressure is found more often amongst the urban rich. These occur mainly due to their lifestyle as also their higher age profile (Table 11.15).

Interestingly, survey data reveal that the urban poor are less likely to report having suffered from ailments in the past 15 days than the richer quintiles. This lower reported morbidity for the lower quintiles might be the result of different age distributions across economic classes. The urban poor tend to be younger than the richer sections. A comparison of 0 to 14, 15 to 59 and 60 plus year olds among urban poorest and richest quintiles shows that there are two urban poor in the

Table 11.15  
Distribution of Ailments NSSO, 1995–6

Type of ailments	Urban Quintile (UQ) 1 (poor)	Urban Quintile 5 (rich)
Fever of short duration	41.29	28.68
Respiratory infection	8.87	8.13
Communicable diseases	4.53	2.97
Water borne diseases	7.83	5.45
Related to age and lifestyle	5.99	19.07
Affecting sense organs	3.93	4.27
Others	31.31	27.68
Total reporting illness	100	100

*Note:* Respiratory infections include cough and acute bronchitis, acute respiratory infection. Communicable diseases-include whooping cough, TB, chicken pox, measles, mumps, etc. Water borne-diseases include diarrhoea, gastroenteritis, dysentery, and gastrointestinal diseases. Diseases related to age and lifestyle-include diabetes, heart diseases, blood pressure etc.

*Source:* Author's estimates from NSSO (1995–6). *National Sample Survey 52nd Round.*

<sup>10</sup> Central Bureau of Health Intelligence (2003)

60 plus age group for every three among the urban rich. At the same time, for two urban poor in the 0 to 14 years age group, there is one rich (Table 11.16).

The lower age profile of the poor is also likely to contribute both to the distribution of ailments as well as lower likelihood of an ailment. If we look at age-specific reported ailments, the urban poor have higher reported morbidity levels across all age groups.

As age increases, not only does the likelihood of ailment go up, but also it increases much more among the poorer sections than the better off. In sum, therefore, the variations in the profile of ailments between the lowest and highest income quintiles in urban areas are due to differences in living conditions and age distribution (Table 11.17).

### Accessibility

The term ‘accessibility’ here broadly refers to the ability of a person to avail health services. Accessibility is affected by factors such as prices, distance, the opportunity cost of obtaining treatment, etc. The data sources available do not provide enough in-depth information to gauge the levels of accessibility. However, some indirect inferences are possible.

Out of every 100 people reporting an ailment amongst the urban poor, about 13 do not receive any kind of treatment. The survey contained queries related to cause of not obtaining

treatment. The options given to the respondents were not mutually exclusive or exhaustive. The pre-identified options listed for the respondent were: no medical facility, financial problem, ailment not serious, lack of faith, long waiting and others (NSSO 1995–6).

Take for instance the option ‘ailment not serious’. In many cases those who have lower ability to access treatment (for reasons such as lack of funds) may consider some ailments to be ‘not serious enough’. This implies that appropriate care has to be taken in interpreting these results and some interesting insights do emerge from the responses.

About 72 per cent of the urban rich ascribe not receiving treatment to ‘ailment not serious’, whereas only 48 per cent of the urban poor identify the same reason. Lack of facilities also does not show up as a significant cause of no treatment for the urban poor. Not surprisingly, a third among the poor not getting any treatment, ascribe it to the lack of funds. This figure for the rich is only about one-tenth. Clearly, the data indicate that while facilities are not inaccessible for the urban poor whose ailment levels are higher, treatment cannot be availed by a large proportion due to a lack of funds.

Moreover, the availability of health care providers in the vicinity is also likely to play a strong role in determining accessibility (Gill et al. 1996). Studies have also found the lack of a systematic and well functioning referral system as affecting accessibility of the poor (Garg 1995). Garg in her study documents the importance of public facilities not so much as a first entry point for the poor but as facilities that are accessed if the ailment/problem continues. Combined with the results above, this would indicate that even where private facilities are present, the paucity of public facilities (that tend to be cheaper) affects accessibility, especially if the ailment continues. In short the poor do continue to access the public facilities. Poor quality, poor infrastructure and poor spread of public facilities affect them the most. Hence, health care services need to be improved and expanded in the public sector. On the other hand, experiments on public funded

Table 11.16  
Age-wise Distribution of Urban Population

Age Category (in years)	Lowermost 20 per cent	Topmost 20 per cent
0 to 14	43.5	21.2
15 to 59	52.4	72.5
60 plus	4.1	6.3
Total	100.0	100.0

Source: Author’s estimates from NSSO (1995–96), *National Sample Survey 52<sup>nd</sup> Round*

Table 11.17  
Urban Morbidity: Percentage Ailing in a 15 day Span, NSS 1995–6

Age group (in years)	Lowermost 20 per cent	Topmost 20 per cent
0 to 14	5.0	4.2
15 to 59	5.1	4.3
60+	20.3	11.7

Note: Morbidity measured as percentage of persons who have had any ailment in the past 15 days

Source: Author’s estimates from NSSO (1995–6), *National Sample Survey 52<sup>nd</sup> Round*

Table 11.18  
Percentage Distribution of Causes of Non-treatment, NSS 1995–6

	Rural lowermost 20 per cent	Urban lowermost 20 per cent	Urban topmost 20 per cent
No medical facility	12.2	1.3	0.0
Financial problem	32.8	29.6	9.1
Ailment not serious	42.5	48.4	72.0
Lack of faith	4.2	7.1	1.4
Long waiting	0.6	0.5	1.9
Others	7.8	13.1	15.7
All	100.0	100.0	100.0

Source: Author’s estimates from NSSO (1995–6), *National Sample Survey 52<sup>nd</sup> Round*

but private provision (for profit or non profit) of services have not occurred in sufficient numbers or scales to obtain empirical insights into their efficacy.

In short, there are three important issues related to accessibility, quality, price, and the public–private choice. All three are likely to affect utilization as also the type of facility accessed. The poor are affected adversely when quality levels in public health services are poor. Significant numbers may not be accessing health care services despite the presence of private providers. However, the next section will show that most do access private health care providers.

### Utilization

Private healthcare provision through hospital and non-hospital treatment has been growing rapidly since 1986–7 across all economic segments. First, consider non-hospitalized (outpatient) treatment. Both the urban rich and poor are increasingly shifting to non-government facilities for treatment. More than three quarters (78.6 per cent) (NSSO, 1995–6) of the urban poor prefer to avail treatment by non-government sources; up from two-thirds in 1985–6. The shift is also observed in the richer sections though to a lesser extent. Overall, the usage of public facilities is declining (Table 11.19).

**Table 11.19**  
Distribution of Non-hospitalized Treatments by Source in the Last 15 Days

	Lowermost 20 per cent			Topmost 20 per cent		
	NSS	NSS	Change	NSS	NSS	Change
Urban	42	52		42	52	
Government sources	32.7	21.4	-11.3	20.4	13.1	-7.3
Non-govt. sources	67.3	78.6		79.6	86.9	
Total	100.0	100.0		100.0	100.0	

Source: Author's estimates from NSSO (1986–7), *National Sample Survey 42<sup>nd</sup> Round*; NSSO (1995–6), *National Sample Survey 52<sup>nd</sup> Round*

There are many different types of public facilities; of these public hospitals are the key source of treatment. Among private sources, private doctors are the major service providers. The distribution of population utilizing various types of government and non-government sources for treatment as outpatients also suggests that about 78 per cent of the urban poor availing treatment obtain it from private sources (Table 11.20). But the distribution for rural areas is also similar. In other words, the urban poor who are more proximate to public health facilities than their rural counterparts, utilize them at the same rate. Clearly some combination of waiting time and poor quality is behind this.

The analysis of cost per ailment by facility shows that overall there has been a 50 per cent increase in the real cost of treatment per ailment (not including cost of medicines). However, the increase has been the *least* for private hospitals and nursing homes. The increase in expenses in public hospitals in real terms has been of the order of approximately 80 per cent. In a study conducted on the urban poor in India it was found that that prices faced by the poor at all key facilities have increased during the mid-1980s and 1990s (Indicus Analytics 2003b). The increase in expenditures associated with public facilities, combined with perceived poor quality or lack of faith, have contributed to the shift towards private health providers (Table 11.21).

**Table 11.20**  
Distribution of Non-hospitalized Treatments by Source in the Last 15 Days

	NSS—1995–6	
	Urban lowermost 20 per cent	Rural lowermost 20 per cent
Public hospital	19.02	10.52
PHC/CHC	0.83	10.08
Public dispensary	1.51	1.31
All government sources	21.36	21.91
Private hospitals	14.15	9.17
Nursing home	3.96	4.63
Charitable institution	1.18	0.30
ESI doctor, etc.	0.58	0.28
Private doctor	50.21	50.86
Others	8.51	12.83
All non-govt. sources	78.60	78.07
Total	100.0	100.0

Source: Author's estimates from NSSO (1995–6), *National Sample Survey 52<sup>nd</sup> round*

**Table 11.21**  
Expenses per Ailment Related to Non-hospitalized Treatment by Major Sources (at constant 1986–7 Rupee prices)

	NSS—1986–87	NSS—1995–96
	Lowermost 20 per cent	Lowermost 20 per cent
Public Hospital	38.1	69.5
Private Hospital	52.9	63.3
Nursing Home	97.2	105.1
Private Doctor	40.7	60.2
Total	43.1	61.5

Source: Author's estimates from NSSO (1986–7), *National Sample Survey 42<sup>nd</sup> Round*; NSSO (1995–6), *National Sample Survey 52<sup>nd</sup> Round*

A study of the Dharavi slums of Mumbai reveals that many prefer availing treatment from private sources for minor ailments (Department of Health Studies 1995). Daily wage earners prefer private practitioners to urban health centres. Unavailability of medicines and inconvenient timings also contributed to low utilization of UHCs (Garg 1995). We may surmise that similar considerations apply to public hospitals as well. The current conditions will be no different.

An innovative urban health programme was implemented in Indore with the involvement of local communities, elected representatives, technical staff, and the private sector (Box 11.3). A similar programme is currently being implemented in Agra. This kind of focused approach is aimed at understanding the problems of those living in a state of deprivation and their particular susceptibility to mortality and morbidity. Further involvement of the various stakeholders extends greater accountability and greater utilization of public services.

Box 11.3  
Indore Urban Health Programme

*Siddharth Agarwal, Sandeep Kumar, and Prabhat Jha*

Indore, the economic capital of Madhya Pradesh is also its most populous city. The decadal population growth (1991–2001) has been 47 per cent with a burgeoning slum population (Census 2001). The total slum population of Indore is estimated at over 600,000 inhabitants, approximately one-third of the total population of 1.8 million in 2001. The USAID supported Environmental Health Project initiated an Urban Health Programme (UHP) in 2002 for Indore which involved local stakeholders to identify a total of 539 slums beyond the official list of 438. Through a health vulnerability assessment exercise the most vulnerable areas of the city were identified to consciously focus more resources here.

Based on the urban health situation analysis of Indore, participatory planning with stakeholders in the city and the slum assessment exercise, two partnership programme approaches were implemented in Indore.

*NGO–CBO Partnership Model*

This model aims at demand generation for healthcare services by building social infrastructure and linking slum communities with public and private maternal and child health (MCH) facilities. Five NGO–CBO consortia are taking this cause ahead in 75 slums covering 125,000 inhabitants. The NGO–CBO model has a 3-tier structure with the NGO building networks with service providers and offering supportive supervision, the LEAD CBO supporting capacity building and community linkage and the BASTI CBO representing the community and ensuring reach of services. Over two and a half years beginning April 2003 NGOs–CBOs have coordinated directly with Health Department and private/charitable institutions to organize at least 50 MCH outreach camps each month. There has been significant improvement in timely immunization coverage, increased trained attendance in home deliveries and better infant feeding behaviours. Through NGO–IMC–Community linkage, renovation of toilet complexes has been completed in selected slums. The strengthened social infrastructure is evident from the health promotion and negotiation capacity of about 40 of the 88 Basti CBOs most of which have been encouraged and strengthened during the programme period.

WARD COORDINATION MODEL

This approach was also experimented with as a part of the Indore Urban Health Programme in Ward 5 with a slum population of over 50,000. This is a public sector driven approach, focusing at supply/service improvement targeted at immunization outreach. As a part of this model the EHP (Environmental Health Project) has facilitated convergence of government and non-government bodies, private agencies, community groups and charitable organizations to conduct regular outreach in all vulnerable slums initially of Ward 5 of the city of Indore (which is divided in 69 administrative units or Wards). The Ward coordination committee meets once a month to review progress and develop strategies to utilize local resources in a complementary manner.

Since November 2003 through coordinated action, immunization camps have organized each month with steady increase in coverage. Seven camps are held each month, 3 by the NGO and 4 by the Health Department covering 26 underserved slums (approximately 40,000 population) in the Ward. The Ward Committee is collaborating with technical experts from the Indian Academy of Pediatrics and the National Neonatology Forum for enhanced quality of services and community counselling.

The main learning from this extensive programme is that all slums are not equally vulnerable. Many of the more susceptible ones are hidden from policy attention. These need to be identified and prioritized in the implementation of health and other welfare programmes. Involvement of the universe of stakeholders is necessary to ensure optimal utilization of resources and avoid duplication of services. Building linkages between the service providers and underserved slum communities through their representatives in the form of CBOs ensures increased willingness and demand for services at the slum level, matched with provision of quality services to meet this demand. Empowerment of slum communities is imperative for enhancing the quality of urban life.

*Note:* Views expressed here are of the authors of the box.

To summarize, therefore, it can be argued that the poor increasingly prefer private sources even if they can ill afford it; public facilities are more likely to be utilized for the lack of any other option.

The data on hospitalization and the utilization of facilities show trends similar to outpatient treatment. The dependence on public hospitals has gone down during the period from 69 per cent in 1986–7 to 61 per cent in 1995–6 (Figure 11.7).

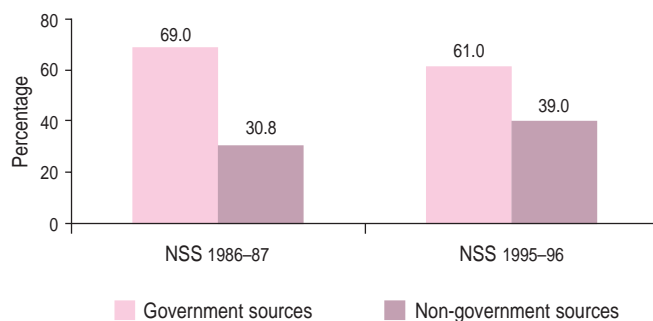


Fig. 11.7 Hospitalized Treatment of Urban Poor by Source

The impact of the poor quality of service delivery in public hospitals is seen more acutely in the hospitalized care of the richest quintile. This figure stood at 50 per cent in public hospitals in 1986–7. However by 1995–6 this had fallen to slightly over 25 per cent (Table 11.22). Since price is not likely to be a significant issue for the better of segments (while quality is) the figures suggest that there has been a relative decline in the quality of care available to all. The emphasis, really, is on the term relative—quality may have fallen, stayed the same, or even improved—but compared to that available from private hospitals it is perceived to be of unsatisfactory standards.

Another issue, which lends itself to analysis is that related to the number of days a patient is hospitalized. Duration of stay in hospitals has gone down significantly for the urban poor. It is unlikely that this is due to a change in medical practices—as the duration has in fact increased for the richer sections. Neither does there appear to be a change in ailment patterns during the period. One causal factor may be related to the pressure of the cost of care—whether it is borne by the government, or by the family of the ailing (Figure 11.8).

As a part of the NSS 52, when households were asked to identify the amounts accessed from various sources to spend towards healthcare, it was found that most respondents use multiple sources. The urban poor predominantly use three sources: borrowings, past savings and current income in this order of preference.

Dependence on current income is higher for the urban poor than the urban rich. Nandraj et al. (2001) also finds that poor households spend inordinately large shares of their

Table 11.22  
Percentage Distribution of Hospitalized Treatment by Source  
(in the last 365 days)

	NSS 1986–7		NSS 1995–6	
	Urban lowermost 20 per cent	Topmost 20 per cent	Urban lowermost 20 per cent	Topmost 20 per cent
Public Hospital	68.3	46.5	58.8	26.3
PHC	0.7	0.5	1.8	0.6
Public dispensary	–	–	0.4	0.1
All Government sources	69.0	46.9	61.0	27.0
Private hospital	23.5	36.8	28.2	52.2
Nursing home	4.4	12.2	7.2	15.6
Charitable Institution	2.0	2.5	2.9	4.6
Others	0.9	1.2	0.7	0.5
All Non-government sources	30.8	52.6	39.0	73.0
Missing	0.2	0.5	–	–
Total	100.0	100.0	100.0	100.0

Source: Author's estimates from NSSO (1986–7), *National Sample Survey 42<sup>nd</sup> Round*. NSSO (1995–6), *National Sample Survey 52<sup>nd</sup> Round*.

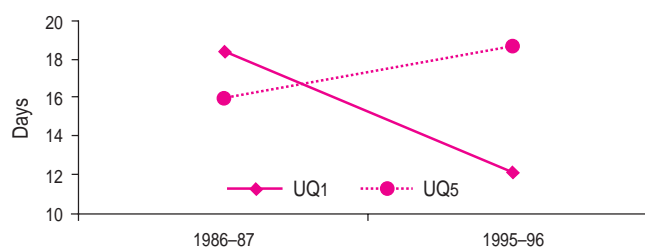


Fig. 11.8 Average Duration of Stay in Public Hospitals

Source: NSSO (1986–7), *National Sample Survey 42<sup>nd</sup> Round*. NSSO (1995–6), *National Sample Survey 52<sup>nd</sup> Round*.

Table 11.23  
Source of Finance for Hospitalized Care, NSS (1995–6)

Source of finance	Urban		Rural	
	Lowermost 20 per cent	Topmost 20 per cent	Lowermost 20 per cent	Topmost 20 per cent
Borrowing	33	17	34.3	31
Past saving	26.1	41.5	20.2	25.5
Current income	18.1	9.9	14.1	10.4
Not specified	11.6	7.1	15.4	10.8
Other sources	5.4	11.2	6.9	8.4
Sale of assets <sup>a</sup>	4.8	5.2	8.7	13.1
Reimbursement by employer	1	8.1	0.4	0.8

Note: <sup>a</sup>Include draught animals, ornaments, and other physical assets  
Source: NSSO (1995–6), *National Sample Survey 52<sup>nd</sup> Round*.



incomes on health care services. A large part of expenditures for treatment comes from borrowings for the poorer sections. The better off sections in the urban areas utilize their savings for the purpose. There is a lack of reimbursement schemes for urban poor, many of whom are daily wage earners.

Another source of finance, mostly for the rural households is the sale of assets that includes land holdings, accessories and animals in possession. Urban poor tend to have fewer valuable assets such as land and draught animals hence reliance on current income is a limiting factor in maximizing the utilization levels for the poor. The poor therefore resort to informal borrowings from family and friends. Since friends and family are also likely to belong to lower economic classes, the levels of borrowings are also constrained.

A single episode of major illness is enough to deplete the life-savings of most individuals in India. In fact, there is data to suggest that such illnesses can push families below the poverty line. During 1986–96, the number of people who could not access healthcare because of financial reasons doubled over the baseline<sup>11</sup>. In brief, health and utilization of health care services show that the condition of urban poor is no better than their rural counterpart, and much worse than the richer sections. They are shifting from public to private in large numbers, and many are receiving lower care than before.

### *Experiences and Policy Conclusions in Health Care*

There are various factors that are increasingly making private hospitals and clinics the preferred first contact level of health facilities. Two detailed studies of poor living in Mumbai explore some of these reasons (Box 11.4).

### **SUMMING UP**

In economic terms, educated and healthy people build a healthy nation with a healthy growth rate. Yet social infrastructure in India does not receive the importance it should. Social infrastructure of a nation not only presents the human face of the economic growth process, but represents the very essence of well rounded progress. Moreover, it reflects how the society cares for the underprivileged and provides hope and opportunities to economically challenged people in improving the lot of their next generation.

In the education sector we observe that the growth rate of private unaided schools is higher than the private aided and the public ones. The growth of private schools is predominant at the higher levels; however, private unaided schools witness a rapid growth at all levels. Basic primary education is largely provided by the public sector. Its

<sup>11</sup> See ‘The economics of TB’ by Sandhya Srinivasan at// [www.infochangeindia.org/features23.jsp](http://www.infochangeindia.org/features23.jsp).

continuation, however, is under a cloud as the quality of infrastructure is poor and deteriorating. The non-responsiveness of the state to the requirements of basic education can be considered to be the most important problem facing the education sector. Despite high enrolment levels and extremely impressive achievements in basic literacy the fact remains that most children continue to drop out even before they have completed elementary education.

Unlike physical infrastructure such as roads and power, the efficacy of social infrastructure is dependent upon the delivery of services, and that is where the Indian educational establishment has been largely a failure. The reason is the lack of answerability of the educational establishment to its users, the children.

Data on health infrastructure is sparse in general and more so in the case of urban health infrastructure. One reason for non-availability of information is that the Ministry of Health and Family Welfare does not collect data on the health care systems in urban areas. Another important reason is that there is no well-organized public healthcare system in the urban areas. The government’s efforts have till now been directed towards rural health and thus there is not much attention given to urban areas. Condition of urban poor is no better than their rural counterpart, and much worse than the richer sections.

The poor availability and accessibility of public social infrastructure and services are critical factors in their declining importance, not necessarily because the private sector is much better. Access to public services is extremely important—location (slums), conditions and adequacy (students per classroom, fans, blackboards, playgrounds, etc. in the case of education and likewise in health)—are closely linked to the quality of service provision and therefore in turn accessibility and use. Better service provision can only come about with better maintenance and greater expansion of infrastructure. Greater infrastructure however would require greater allocation of public funds. These funds need to come from the centre or the state. Local governments are unlikely to generate enough funds to serve the purpose. Overall social infrastructure—health and education—requires (i) greater decentralization within the government, (ii) greater public–private partnerships, (iii) greater involvement of consumers and local governments and associations either through e-Governance or sample surveys in the decision making process.

### **WAY FORWARD**

Improvements are not possible if the quality of physical infrastructure is poor, but they are even more unlikely if institutions are weak. Empirical results reveal the extremely inadequate infrastructure for both urban education and health care delivery. The non-responsiveness of the state to the requirements of basic education and health care can be

## Box 11.4

**Hospital Based Urban Health Care and Health Centres**

The study entitled *Hospital Based Urban Health Care Services (1996)* by Foundation for Research in Community Health (FRCH), Mumbai, explores the nature of health needs and problems for which people seek the out-patient services of the public hospital, the level of care needed for these ailments and people's help-seeking behaviour and utilization of the health care services. The survey was conducted in the King Edward Memorial (KEM) Hospital in Mumbai, which is a private health care provider. It has bed strength of 1800 and 28 departments belonging to the basic care and superspecialities. According to the study on an average, 5000 people attend the out-patient department (OPD) daily in the hospital.

The study finds that 54 per cent of the out-patients belonged to the urban unorganized sector and two-thirds of the user households had per capita income of less than Rs 500 per month. Also over half the users were drawn from the close vicinity of the hospital itself, with only about a quarter coming from Greater Bombay. As a specialist clinic, the gynaecology OPD was utilized equally by women in the suburbs and the inner city. In the range of diagnosed conditions, diseases due to infections took up over 25 per cent of all OPD cases, ranging from 40 per cent in Medicine and Paediatric Medicine OPDs to 20 per cent in Surgery to 12 per cent in Gynaecology OPD. It was found that the majority of the people (60 per cent) needed secondary level care; this indicated a limited scope for decreasing the load on public hospitals so long as specialist services are centralized in them. Public hospitals in Bombay are free and have open accessible facilities. It is often assumed that people 'unnecessarily' use higher-level facilities for lower levels of health care. However, not only was specialist care indicated in about half the cases, but over 70 per cent of the users had sought prior treatment. The provider most commonly contacted (50 per cent) at the onset of the illness was the private practitioner.

Long lasting relationships, close proximity to their residence and convenient timings were some of the reasons for resorting to private practitioners. There were, however, limits to continuing private treatment. Lack of quick relief that people associated with minor conditions and the prospects of costly treatment led them to seek higher care. The most common reason for changing the prior provider, especially the private practitioner (57 per cent) was due to 'no relief' for the patient. The unplanned expansion of private practitioner services in the localities served by the dispensaries was highly visible. According to Municipal Corporation data estimates, there was one private practitioner for less than 2000 people in the municipal ward (420,000 population) in which the hospital was located. In comparison, the dispensary was meant to serve a population of 50,000. The public system could hardly match the coverage of the private sector or consider itself the main provider of first level care.

Another study entitled *Improving the Performance of Reference Health Centre: A Case Study of Urban Health Centre (UHC), Dharavi, Bombay (1995)* by the Department of Health Studies, TISS, assesses the role of the Dharavi Urban Health Centre, in providing primary health services to the residents of Dharavi.

The study highlighted that overall utilization of the UHC was low for all the services. The UHC was bypassed by the catchment population, as most people prefer to use private sources for minor ailments and rely on the teaching hospital close by for major illnesses. Private practitioners are preferred especially for the treatment of minor ailments. Private practitioners are in the vicinity and they offer quick cure and provide personalized treatment. The poor who are daily wage earners find the timings of private practitioners suitable. The other factors responsible for the low utilization of the UHC besides inconvenient timings were; non-availability of medicines and the feeling that the services provided by private practitioners and the teaching hospital are better. Although most of the people utilize private practitioners for minor illnesses, they depend on public facilities for major illnesses. More than half of the (55 per cent) private practitioners referred patients to the teaching hospital, while 15 per cent of them referred their patients to other private practitioners. For investigations, voluntary agencies offering subsidized services were preferred. The reasons for the non-referral of patients to UHC by the private practitioners were that they had a poor opinion about the competence of their staff and quality of service provided.

considered to be the most important problem facing the social sector.

Both for education as well as the urban health care, it is poor delivery of the services that has exacerbated the consequences of poor infrastructure. Both are symptoms of failure of the institutional set-up in delivering what they set out to do and improvements can be brought about by altering the delivery and institutional mechanism. First, ensure that the poor have adequate choice. The continuation of both private and public set-ups providing services should be encouraged. This should not mean that public delivery should

be at the cost of the private or private delivery at the cost of the public.

Second, ensure that public delivery mechanism is strengthened. What ever be the difficulties in doing so, this is a necessary criterion for the welfare of the underprivileged segments of the society. This requires that appropriate incentives be built in. A system of rewards and incentives needs to be introduced at all levels of the delivery hierarchy. The first step in this is related to measuring of the quantum of services available. Outcomes are rarely observable in a short span of time. A system of consumer surveys, consumer complaints,



and redress needs to be set up. Incentives could be in the form of matching the observed improvements with a system of rewards. The current time-bound promotion system works against the institution of such incentives, however it is possible to institute many different types of monetary and non-monetary rewards.

Third, giving up of hope that the state can ever provide social services successfully can never lead to productive

action. Local governments need to be allocated these tasks in an unambiguous fashion, outcomes regularly assessed and publicized, and responsibility for both successes and failures clearly assigned. Currently, both in the health and education sectors, responsibilities have not been adequately assigned. And if at all, these have been assigned to officials far removed geographically and hierarchically from the users of the services.

## ANNEXE

Table A11.1  
Distribution of Primary Schools by Infrastructure Facilities—  
Rural+Urban ( per cent)

Particulars	Primary school		
	1986	1993	2002
Buildings			
Open space	7.5	3.8	2.4
Tents	0.5	0.4	0.2
Thatched huts	5.5	3	
Kuchcha	13.9	9.1	4.3
Partly Pucca	16.3	18.7	12.2
Pucca	56.3	65.1	81
Classrooms			
Per cent of schools with adequate class rooms	18.7	37.6	NA
Drinking water/toilets			NA
Drinking water	47.4	44.2	NA
Urinals	15.5	18.9	NA
Separate urinals for girls	5.2	8.7	NA
Lavatories	6.3	10.9	NA
Separate lavatories for girls	2.8	5.1	NA

Source: Working Group Report on Elementary and Adult Education, Tenth Five Year Plan 2002–07, Government of India; and NCERT (2002)

Table A11.2  
Urban Primary Schools Having Drinking Water and Toilet Facility

per cent schools having urinal facility	58.53
per cent schools with separate urinal for girls	33.85
per cent schools having lavatory facilities	46.86
per cent separate lavatory for girls	27.04
per cent schools having drinking water facilities	67.24

Source: NCERT (1993)

Table A11.3  
Building Types of Primary Schools in Urban Areas (per cent) 2002

Type of School Building in 2002	Urban Areas
Pucca	83.62
Partly pucca	11.65
Kuchcha	2.57
Tent	0.18
Open space	1.98
Total schools in 2002	78290.00

Source: NCERT (2002)

Table A11.4  
Number of Primary Schools with One/No Teachers  
(Rural+Urban)

Number of schools	651383.00
Schools with one teacher	97670.00
per cent of schools with one teacher	14.99
Schools with no teacher	8462.00
per cent of schools with no teacher	1.30

Source: NCERT (2002)

Table A11.5  
Availability of Blackboards, Furniture for Teachers and Students—Urban

Management	Total no. of schools	per cent schools according to management	Total no. of sections	per cent sections facing shortage of blackboards	per cent sections that have no mat/furniture	per cent schools having playground
Government	18648	29.66	98205	29.59	31.89	32.98
Local body	22832	36.31	133929	15.76	18.88	51.17
Private aided	7079	11.26	51864	5.74	11.82	63.27
Private unaided	14315	22.77	77898	1.25	4.18	73.22
Total	62874	100.00	361896	14.95	18.23	52.16

Source: NCERT (1993)

Table A11.6  
Number of Schools with Library and Allied Facilities—Urban

Management	Total no. of schools	per cent schools having library	per cent schools subscribing newspaper/magazines	per cent schools having textbook bank
Government	18648	41.63	14.08	27.73
Local body	22832	34.43	15.07	22.63
Private aided	7079	48.65	51.67	27.14
Private unaided	14315	32.36	62.57	29.23
Total	62874	37.69	29.71	26.15

Source: NCERT (1993)

Table A11.7  
Growth of Health Centres

Plan number	Plan period	Community health centres	Primary health centres	Sub-centres
First	1951–6		725	
Second	1956–61		2,565	
Third	1961–6		4,631	
Fourth	1969–4		5283	33,509
Fifth	1974–9	214	5484	47,112
Sixth	1980–5	761	9115	84,376
Seventh	1985–90	1910	18,671	130,165
Eighth	1992–7	2633	22,149	136,258
Ninth	1997–2002	3043	22,842	137,311

Source: Health Information of India (various issues)

Table A11.8  
Dispensaries/Hospitals and Beds in Urban Areas 2002 (All India)

	Dispensary	Hospitals
Total (urban + rural)	22291.00	15393.00
Urban total	10278.00	10288.00
per cent urban areas	46.1	66.83
Beds		
Total (urban + rural)	29662.00	683545.00
Total beds (urban)	13670.00	498287.00
per cent beds (urban)	46.08	72.9

Source: Central Bureau of Health Intelligence (2004)

Table A11.9  
Number of Urban Hospital, Beds and Dispensaries per 100,000 Population

Year	Hospitals per 100,000 population	Hospital beds per 100,000 population	Dispensaries per 100,000 population
1961	2.50	NA	6.35
1981	3.12	261.56	7.26
1991	3.51	241.96	5.38
1996	4.30	207.64	6.70
1998	3.70	188.55	5.50

Source: Central Bureau of Health Intelligence (respective years), Health Information of India, [www.cehat.org](http://www.cehat.org)

Table A11.10  
Number of Allopathic Medical Practitioners Registered with Medical Council of India along with Ratio

Year	Medical practitioners	Population (in crores)	Medical practitioners per 100,000 population	Nurses per 100,000 population
1951	618	36.11	17.11	5 <sup>a</sup>
1961	837	43.92	19.06	9
1971	1511	54.82	27.56	14
1981	2687	68.33	39.32	21
1991 <sup>b</sup>	3936	84.63	46.51	40
2000 <sup>a</sup>	5556	100.86	55.09	77
2001 <sup>a</sup>	5771	102.86	56.11	78
2002 <sup>a</sup>	6070	104.48	58.10	
2003 <sup>a</sup>	6254	106.24	58.87	80
2004 <sup>a</sup>	6397	107.99	59.24	

Notes:

<sup>a</sup> Data is provisional. <sup>b</sup> Includes projected population of J&K, where 1991 census could not be held.

1. Registered Medical Practitioners data are given by Medical Council of India and relate to Allopathic System of Medicine.
2. Population figures for the years 1951, 1961, 1971, 1981, 1991 and 2001 are the actual census figures for Registrar General of India (RGI).
3. Population figures for the years 1982 to 1990 and 1992 to 1995 (as on 1 March) are taken from the report of the Standing Committee of Experts on Population Projections, CSO.
4. Population figures for the years 1996 to 2000 and 2002 to 2004 (as on 1 March) are taken from Provisional Population Tables, Paper-1 of Census of India, 2001(RGI).

Source: Central Bureau of Health Intelligence (2004)

Table A11.11  
Allopathic Hospitals and Beds (all types) along with Ratio of Population (All India)

Year (as on 1 January)	No. of hospitals	No. of hospitals per 1 million	No. of hospitals beds		No. of beds (all types)	
			Actual	Ratio per 100,000 population	Actual	Ratio per 100,000 population
1952	2694	7	–	–	117178	32
1962	3054	7	0	0	230000	57
1972	3862	7	0	0	348655	64
1982	6804	10	476226	68	569495	83
1992	11174	13	642103	75	810548	95
1997	15170	16	662372	70	892738	94
2002	15393	15	683545	67	914543	89

*Notes:* Figures of number of beds (all types) relate to Allopathic establishments: hospitals, dispensaries, CHCs, PHCs and sub-centres, Sanatoria and TB Clinics and other health establishments, total hospitals and hospital beds reduced (from 2001) due to exclusion of CHCs and non-reporting.

*Source:* Directorate of Health Services of States/UTs

Table A11.12  
Characteristics of Urban Population in India

Urban Conditions Source Year	Urban population in million Census of India		per cent Urban population below poverty line NSSO		per cent population in slums Census
	1991	2001	1993–4	1999–00	2001
	217	285	32.4	23.6	22.59

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