

The invisible poor

The urban environment can have a significant impact on health and wellbeing, particularly among the poorest of city dwellers. Siddharth Agarwal discusses how urban planning and design can help improve their situation



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“Urbanisation has resulted in sharper inequalities, specifically in terms of access to elementary necessities”

The global population landscape has been changing very fast over the last century. Lesser-developed countries in Asia, Latin America and the Caribbean have witnessed large growth in their urban population, projected to increase from 2.4 billion in 2007 to 5.3 billion in 2050. At the same time, the urban population of more developed regions is projected to increase modestly – from 0.9 billion in 2007 to 1.1 billion in 2050¹.

Usually rural residents look towards cities as dream destinations with a better quality of life. However, a large proportion of a city's poor find themselves residing in old or new slums, squatter settlements or peri-urban spaces which accompany the sprawl of almost all cities. Urbanisation has resulted in sharper inequalities, specifically in terms of access to elementary necessities such as infrastructure, healthcare and other universally essential services.

The slum population worldwide is projected to grow from an estimated 1.14 billion in 2010 to 1.5 billion by 2020. Over 90% of world's slum population is in developing countries where urbanisation has become more or less synonymous with slum formation². Although not all slum dwellers are poor, slums represent significant concentrations of urban poverty – the physical and psychological wellbeing of slum populations is severely compromised on account of the poor living environment, thus inhibiting their ability to be active, productive and prosperous members of society.

In most cities in developing countries, there is inadequate planned response to growth in the city's population, resulting in the development of peri-urban slums on rural-urban fringes and informal occupation of other available open spaces – mostly government or municipal land. Another important contributor to the growth of poverty clusters is the periodic organised and formal expansion of city boundaries, as well as the designation of hitherto rural areas as urban, e.g. the development of Special Economic Zones or Industrial Areas.

Challenge of slum environments

Slum environments present a unique set of challenges for urban planners and designers. These include:

- *Poor roads, drainage and lack of playing spaces for children.* Slums are at varying levels of vulnerability with respect to housing, land rights, drainage conditions, availability of open spaces and other social sector programmes. Most of the colonies have open drains which are blocked from the disposal of solid waste and no regular cleaning. Vacant space is often used for the disposal of garbage, creating an extremely unhealthy environment. There is also a paucity of spaces where children can play, forcing them to play near large open drains or garbage dumps.
- *Lack of safe water supply and sanitation facilities.* City level data for 43 African

cities shows that 83% of the population lack toilets that are connected to sewers; for the large cities of Asia it is 55%³ and more than 420 million urban residents do not have access to even the simplest latrine. In many cities in developing countries, the scarcity of public water supplies forces many low-income urban residents to purchase water from private vendors, who can charge much more than the cost of municipal water supply. Consequently, people in slums often must pay much more for lower quality water than other urban residents⁴.

Each year 2.2 million deaths, or 4% of all deaths, can be directly attributed to inadequate supplies of clean water and sanitation⁵. Women and children suffer from additional vulnerability to this challenge, often having to haul the water required for domestic use from distant sources. Women and girls are also not able to attend to their sanitary needs during daylight hours or at other times when they need to, due to the absence of sanitation facilities at or near their homes.

- *A large proportion of urban poor reside in unrecognised slums.* Evidence from a detailed assessment of slums in five cities in India, carried out by the Urban Health Resource Centre, shows that the proportion of slums that are unlisted is large and represents about 40% of all slums and 36% of all slum residents⁶. Similarly, in Nairobi, informal settlements constitute 60% of the city's total population⁷. The United Nations (UN) found that in Africa, unintentionally urban poor are being undercounted by large margins. Improved urban planning that is sensitive to the needs of these less fortunate citizens can help improve this situation.
- *Housing and land tenancy.* Since a large proportion of slums are not recognised by the authorities, missing clusters of urban poverty have to deal with many hardships. First and foremost, as informal settlements have no place to live, they are often located on marginal land (along river banks, railway lines, steep slopes and on or near garbage dumps), unseen by most, and are generally prone to natural and man-made disasters. Secondly, they

either live on private or government land which means they would need to be resettled at alternative locations. Thirdly, as unrecognised slums are not part of official government lists, they are left out during the resettlement housing programmes.

Forced eviction is the most disruptive issue faced by the urban poor because it literally moves them from a bad to a worse situation. Many times, evictions of slums are conducted without any due process, consultation, adequate notice or adequate compensation, resulting

in people losing not only their homes (which they have usually built themselves) and personal possessions, but also their livelihood and social networks.

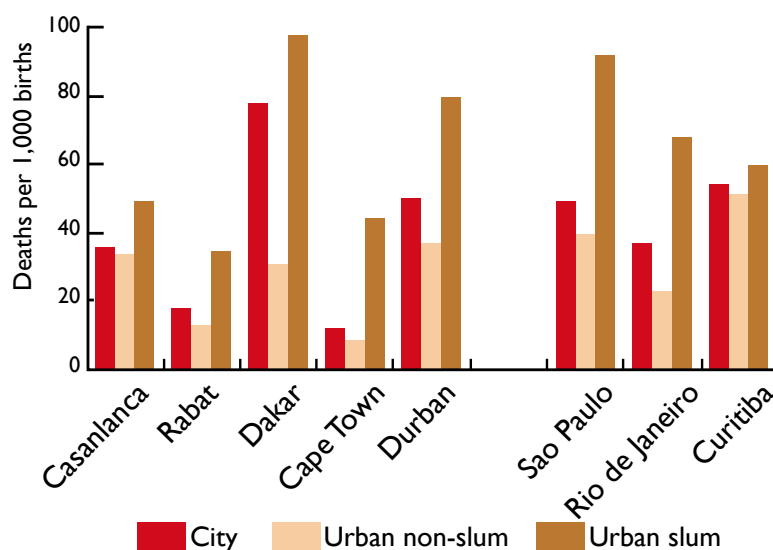
- *Health inequities in urban areas.* It is commonly believed that urban residents enjoy better health status compared to those in rural areas. However, the comparison of urban and rural averages tends to mask the wide disparities that exist within urban areas. An examination of intra-city disparities revealed that the urban poor faced health risks that are

Table 1: infant mortality estimates for urban poor, urban non-poor and rural, by region (rates expressed per 1,000 births)

DHS surveys by region	Rural	Urban poor	Urban non-poor
North Africa	81	60	43
Sub-Saharan Africa	103	89	74
Southeast Asia	59	53	27
South, Central, West Asia	74	69	49
Latin America	69	62	39
Total	86	75	56

Source: Panel on Urban Population Dynamics, 2003

Figure 1: under-five mortality (deaths per 1,000 births) by types of residence in selected cities



Source: UN-HABITAT 2005, Urban Indicators Programme Phase III

Note: Computed from Demographic and Health Surveys (DHS) data, 1995-2003



Undernutrition among children is significantly higher in slum areas

as bad as in rural areas and sometimes decidedly worse⁹. Table 1 shows infant mortality rates among the urban poor, urban non-poor and rural areas in different regions of the world. The urban poor face a significantly higher mortality risk compared to the non-poor across all regions of the world.

- *Health undernutrition among children* is also significantly greater in slums than in non-slum residential areas across most of the developing countries where such comparative data is available. Frequent episodes of morbidity because of poor environmental conditions, along with poor diets, keep the urban poor, especially children, in a vicious cycle of malnutrition and poor health. In the cities of Brazil, malnutrition among slum dwellers is 19% compared with 5% among better-off urban residents. In Cote d'Ivoire, child malnutrition in slums and non-slum areas is 37% and 10% respectively¹⁰. A study carried out in the slums of Delhi showed that 51% of slum families were

food insecure¹¹. In 2005-06 among India's urban population, 54% of children were stunted and 47% underweight in the poorest urban quartile compared to 33% and 26%, respectively, for the rest of the urban population – an indication of the high levels of food security in this segment of the population. It is worth noting that a large majority of these children will, in the next 15 years, form the bulk of the urban informal sector workforce of the world's second-fastest growing economy.

- *Low access to health services.* In spite of physical proximity to world-class health facilities, economic and social barriers often inhibit the urban poor from accessing these services. Based on re-analysis of urban component of India's Demographic and Health Surveys (DHS) programme data for 2005-06, in the poorest quartile, only 40% of children were completely immunised compared to 65% for the rest of the urban population¹². An analysis of the

2003 Mozambique DHS data by wealth quintiles revealed that only 42.6% of the urban children in the poorest quintile received all basic vaccinations compared with 56% in rural areas and 90.5% in the richest urban quintile. Similarly, in Kenya, 72.6% of urban poor mothers delivered at home compared with 65.5% in rural areas and 23.3% among the urban rich¹³. Similar patterns have been observed in the analysis of other health access indices in other countries.

- *Cramped housing and risk of communicable disease.* As more poor people are added to the cities to provide cheap labour, they often live in overcrowded, congested environments. For instance, in Bangladesh slums are characterised by very high population densities and room crowding with the average size of rooms being 76 and 100sqft⁷. Similarly, in Delhi's slums 29,397 people live in one square kilometre¹⁴. And according to estimates of Kenya's Ministry of Housing, Roads and Public Works, in Nairobi alone the urban poor make up 55% of the total

population and occupy less than 5% of the total residential land area¹⁵.

Living in overcrowded slum environments results in increased risk of measles¹⁶ and tuberculosis, while unclean water and poor sanitation conditions predispose slum dwellers to water- and food-borne diseases such as typhoid, jaundice and diarrhoea. Analysis of Indian DHS data for 2005-06 reveals that tuberculosis prevalence among the lowest quartile of the urban population was 461 per 100,000 persons compared with 258 among the rest of the urban population.

- *Uncertain livelihoods.* The level of livelihood stability is closely linked to health. People with regular employment or assured regular income have better health than those with less remunerated or irregular employment¹⁷. Stability mitigates the fear associated with uncertain livelihoods and contributes to a sense of responsibility, self-efficacy and improved interest in children's education and the healthcare of the family.

Making cities safer and healthier

There is a reciprocal relationship between urban social conditions and the actual built environment. For example, poorly planned cities and their suburbs, and inefficient public transit and road systems, can result in long and expensive commutes for low-income workers that fray family and community ties, reduce the opportunity for social gatherings and leisure and recreation, create conditions that make crime and violence, and the accompanying fear; more likely, or reduce access to basic amenities and services such as healthcare and education.

Creating a safe urban environment is vital for health and health equity. This has three broad aspects: creating an environment where unintentional injuries in public spaces and homes are prevented; creating an environment where harmonious social conditions result in low levels of crime and violence, and where the planning and design of the built environment makes it easier to avoid crime and violence; and creating urban environments that are better able to cope with natural hazards.

This calls for a combination of public policies, enforcement of health-protective legislation, good urban planning/design,

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community action and the development of personal and community knowledge, skills and behaviour. It is critical to involve key stakeholders, including communities and vulnerable groups. Fostering links between practitioners to avoid fragmented interventions by different urban management sectors such as urban design, safety, transport, planning, criminal justice and health. Planning approaches that recognise equitable access to public space and use participatory mechanisms to engage communities and stakeholders are among the most promising options for safer cities.

Urban planning and design impact on the urban physical environment in various ways – for example, through the determination of the nature of residential units and infrastructure, the regulation of land use and density and the location of facilities and open space. Depending on how it is done, it can also reduce health inequities via various pathways.

1. *The mapping of urban poor habitations and resources.* An underutilised yet simple method of making the invisible visible is through the spatial mapping of all poverty clusters, including invisible or unrecognised slums. Spatial mapping is essential and serves as an effective tool for the visual depiction of poverty habitations or slums and resources, such as health centres, hospitals, schools and social programme offices. It is also of great importance for bringing unlisted slums to the attention of decision-makers and, subsequently, within the purview of programme planning and service coverage. Such spatial maps, done through sophisticated software such as GIS or drawn by hand, will also allow governments to better prepare and respond to the complexities, as well as to

take advantage of the opportunities that growing urbanisation brings.

2. *Social mobilisation.* Organising and strengthening slum community organisations and processes is increasingly recognised as an effective intervention for addressing health concerns. Slum communities have both the desire and the resourcefulness to find ways to improve their shelters, services and other aspects which impinge on their life. One of the key activities of Shack Dwellers International, a federation of slum and homeless population associations worldwide, is the mobilisation of small savings from residents of low-income urban localities and lending to them in a time of need. As communities interact with each other for this purpose, their sense of being part of the community intensifies and they bond together for issues of common concern such as the threat of eviction or negotiation for better infrastructure and services. Through training and support, it has gradually strengthened the participation of women on both local and city issues, as well as their involvement in discussions about their wellbeing, livelihoods and other needs. Socially sensitive planning and design can provide for meeting spaces in housing colonies for the poor where community groups can meet and carry out their activities.

The credit itself is of immense utility to the community as it is completely excluded from the formal financial market and is often forced to borrow from moneylenders who charge extremely high rates of interest. Despite the small amount of money, it meets crucial crisis needs, and women get community acknowledgement for having created these resources. Similar interventions have also resulted in improved health outcomes in

low-income urban settlements in other regions of the world¹⁸.

Organised community groups are also vital allies to the authorities in reaching out to vulnerable groups: women's groups can be motivated, organised and trained to track health coverage, represent the voice of the community before authorities and negotiate for services; 'TB clubs' can be marshalled to reduce the stigma associated with the disease and encourage patients to adhere to the demanding short-course regimen of treatment¹⁹; and community health volunteers can help local residents access hospitals services and trained local health workers attached to the hospitals then provide follow-up care and lend support during treatment^{18,20}.

3. *Lead programmes in selected countries linking urban design and health.* Given the limited experience in tackling disparities in housing, sanitation, water, space, health inequities in cities and the diversity of the urban situation, it is important to develop lead programmes/early learning sites in selected countries, preferably in Asia and Africa. These programmes, integrating urban planning and design into a comprehensive programme strategy, will provide working examples to stimulate other cities in the same country and also encourage other countries to address urban health challenges systematically. Such programmes should address critical urban health programming issues, such as the inclusion of all urban poor habitations (including unofficial or illegal slums), developing working approaches for coordination among different sectors and stakeholders, and involving and empowering slum communities to tackling the challenges of urban health.

It is also important to document, evaluate and widely disseminate the lessons learnt in implementing these programmes so that they feed into the planning, replication and upscaling of such programmes. They should also produce tools that can be used in further programmes, such as those for the spatial mapping of urban poor habitations, conducting needs assessments, and the monitoring and evaluation of urban health programmes. Lead programmes should ensure that they share knowledge in the form of data and programme lessons, through electronic and other forms of

media, to reach out to the global public health audience.

4. *Equitable access to the benefits of urban life-livelihood opportunities and facilities.* Efficient and affordable public transportation accords greater livelihood opportunities for low-income urban dwellers. In addition, it is important that issues of location are carefully considered. Residents of slums often live there for particular reasons, mainly to be close to livelihood opportunities, and relocation may negatively impact on their livelihoods and thus, ultimately, on their health^{21,22}. Sensitive urban planning, including transportation, at the time of the resettlement of slums is crucial to help resettled slum dwellers revive, or maintain, their livelihoods and reduce the negative impact of having to move out of their earlier habitat.

5. *Facilitate access to adequate shelter with humane and basic living conditions.* Government bodies should also seek support from NGOs and other civil society organisations in planning houses for the poor in terms of design and facilities. They can ensure the involvement of the urban poor in housing and resettlement efforts, so that the plan is developed by those who have to be settled and relocated. For example, the National Slum Dwellers Federation in India works actively with

the Mumbai authorities to develop and implement the resettlement plan and ensure that the most vulnerable are not missed out. They map each household and issue identity cards to each member of the household. This ensures transparency in rehabilitation efforts.

It is essential that the community contribute to the cost of housing upgrades in some way. Experience shows this strengthens a community's sense of ownership of the upgrading process. The contribution can be financial (cash or community loans) or it can take the form of contributed labour and/or building materials, or a mix of these. Upgrading works best when the community's contribution is supplemented by some kind of subsidy, such as donor grants or public project funds. NGOs and slum-based community groups play an important role in loan recovery by encouraging and facilitating slum communities to save part of their earnings in recurring deposits and by making microfinance available to them. Facilitating such regular savings helps the more vulnerable families to benefit from such housing schemes.

It is also important to evolve new methods of land-use planning and management, factoring in population growth projections. One approach is to nurture more middle-level cities, providing them with development focus, infrastructure



Urban planning can help increase food security for the poorest communities

investment and political attention in order to 'prepare' them to offload mega-cities to some extent.

Housing the poor is an urgent and important need for building socially inclusive cities offering equity of life for all. What we need is accurate planning and mainstreaming of the urban poor in the economic growth story of our urban areas.

6. *Provision of a safer living environment with low risk of injuries.* The vulnerable and poorer segments of the city's populace are more at risk of traffic-related deaths, suicides and homicides occurred in low- and middle-income countries. For most types of injuries, people die at a higher rate in low- and middle- income countries than in high-income countries. The poor are at a high risk of injury because they are faced with hazardous situations on a daily basis. As pedestrians on unsafe roads, they are vulnerable to being crushed by vehicles – urban planning/design has a very direct link to the prevalence of traffic accidents. Their workplaces adhere to few safety standards. Their homes, often poorly constructed, are vulnerable to fire. The poor also have less chance of survival when injured because they have less access to health services. Burn injuries of children are common in low- and middle-income countries²³ – childhood burn injuries are generally linked to lack of access to safe forms of energy.

Disasters can also impact in a wide variety of ways on health. For example, flooding can result in injuries, increased faecal-oral disease, increased vector-borne disease (e.g. malaria), increased rodent-borne disease and negative impacts on mental health²⁴. Thoughtful urban planning can mitigate and manage these risks – the planning and design of the built environment can contribute towards resilience to natural disasters, such as flooding and earthquakes (for example, in terms of the design of drainage systems, design of buildings, etc).

7. *Addressing food and nutrition security and the ability to contribute to productivity.* It is noteworthy that a large majority of underweight and/or stunted children will, in the next 15 years, form the bulk of the urban informal sector workforce of the world's developing countries. If we were able to take better care of the nutrition and food security of this segment of the



Communities can, and want to, contribute to the development of urban planning and design solutions

population, they would be more able to make a more robust contribution to the country's economy – with rapid urbanisation, the urban contribution to the GDP of most developing countries is increasing steadily. The significant association of unemployment with food insecurity highlights the need to link the urban poor with employment generation avenues, schemes, skill upgrading, training and linkages with potential employers. The promotion of low-cost nutritious food items and appropriate cooking methods can help families better cope during food insecurity periods. Urban planners need to analyse the impact of current planning on the urban food system, food prices, and need to explicitly put food security for all at the centre of community goals. This is likely to include better regulation of the food market chain and food subsidies, where required, for the more vulnerable urban families.

A more harmonious connection between rural food systems and urban food systems has the potential of mitigating food inflation in cities. In the urban context, where the social support system is weak, motivating and training community members to form groups who could contact and advise peers from the same community would help families make effective nutritional choices and improve their access to information, linkages to food security and nutrition services and provide a support system to

rely on¹⁸. Such initiatives have the potential of motivating other neighbourhoods – and their lessons can be adopted in other cities. Promoting community contributions for development of a community grain bank for coping with periods of food scarcity has been successfully implemented in rural areas²⁵ and could be tried in urban slums.

8. *Equitable availability of space, physical activity and play avenues for children.* Methods of providing spaces for children and adults for playing, cycling, walking and social interaction need to be adapted to suit the urban contexts of low- and middle-income countries. The benefits of designing pleasant urban environments that are conducive to outdoor recreation activities go far beyond the direct health benefits of increased physical activity.

Urban planning has three key conflicting goals: economic growth; environmental protection; and equity and social justice²⁶. People-sensitive, equity-focussed urban planning views the city as a location where the equitable distribution of resources, services and opportunities is a challenge she/he takes head-on. The competition for these is within the city itself, among different social groups. Space is the social space of communities no matter which socioeconomic strata they belong to. Unfortunately, the powerful capture more space and other resources. Spatial justice is essentially about conceptualising space as a

social product and is related to LeFebvre's notion of the 'right to the city'²⁷. Grassroots movements to gently assert for such justice and negotiate for the use of public spaces are key towards helping the socially disadvantaged segments of the city have access to these spaces.

Urban planning/design can potentially assist in reducing poverty and inequity through creating more compact and integrated cities in which all residents have more equitable access to the benefits of urban life, such as livelihood opportunities, physical infrastructure and education (through walking/cycling or through affordable and effective public transport).

9. *Access to a healthy natural environment.* Since local solutions to local problems can prove very beneficial, the affected communities should be involved in these working groups for identifying needs and planning basic facilities such as health, transport and education. This will also require empowering the people first so that they can make a meaningful contribution to the planning process and later take the ownership with the plan. What we need is an enabling policy environment, open-mindedness among urban planners and



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managers, facilitation by those skilled in social planning such as civil society groups, and participation of the affected community to make the transition from peri-urban into urban smooth and people-centric.

Sensitive 'urban planning' will need to be a more flexible and participatory type of planning, including in the design of public spaces – one that is socially-oriented and focuses on equity and sustainability, and not the traditional

rigid approach to urban planning.

About the author

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