

Why is urban health so poor even in many successful cities?

David Satterthwaite

SUMMARY: Urban centres include the world's most and least healthy places in which to live and work. This Brief focuses on why. They feature among the least healthy places mostly because of the failure of national and urban governments to address health and its many determinants. So many of the factors essential to health and well-being are the domain of organizations that are not health agencies, and they do not understand their role as it relates to "health". Nor do urban health issues get the attention they deserve in discussions of urban poverty and poverty reduction. Most official measures of poverty still do not include any direct consideration of health or most of its key determinants. Health among low-income urban dwellers in many nations is as bad as or worse than that of low-income rural dwellers. This is not simply because of a lack of resources – a high proportion of the population of many successful cities still suffers from large and easily preventable health burdens. But where city or municipal governments are committed to healthy cities, and involve their citizens, civil society organizations and private enterprises in this, the improvements in health can be dramatic.

I. INTRODUCTION

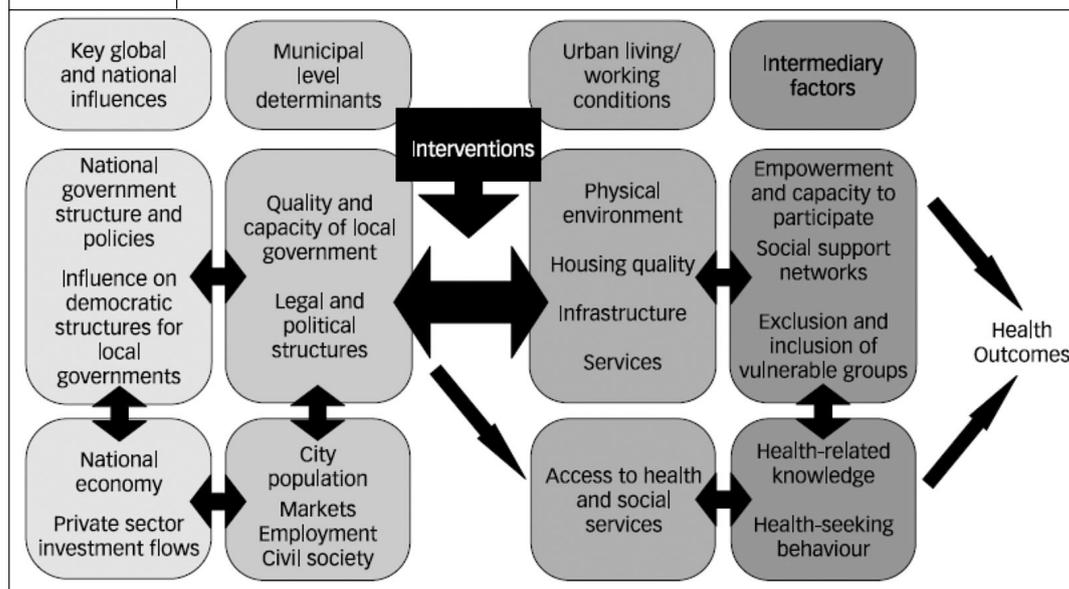
Urban health issues still do not get the attention they deserve in discussions of development or environment. Successful "development" is so intimately related to health – to interventions that directly or indirectly help individuals, households or communities avoid or prevent disease, injury and inadequate food intake. Beyond an absence of disease or injury, "development" means the achievement of living and working conditions that underpin well-being. Environmental management is also intimately related to health, again in these two senses – first by preventing or minimizing airborne, food-borne or water-related diseases and the effects of chemical pollutants and physical hazards; and second, by ensuring good living and working environments that can contribute to well-being. Yet because so many of the interventions that promote health and well-being fall to organizations that are not health agencies or do not understand their role as it relates to "health", little gets done. There are few interventions with greater potential to transform health status than, for example, a well-directed, participatory upgrading programme for "slums" or informal settlements, yet this is not seen as a health intervention.

Figure 1 shows the large range of determinants that influence physical and mental health in urban contexts, which go from the very local (for instance, people's health-related knowledge and community-based social networks) to the city, national and global levels (for instance, global influences on food prices or incomes, or the national government policies that affect the resources available to local governments to address health issues).

Health indicators are among the most powerful measures of the success of development and environmental management – for nations, for cities, for neighbourhoods or groups within cities. For such measures as life expectancy at birth or infant, child and maternal mortality rates, cities around the world can be among the healthiest places – or among the most life-threatening and health-threatening. There can also be enormous differentials in health indicators within cities. There are neighbourhoods within (say) Mumbai or Nairobi with health indicators that compare favourably with those in cities in high-income nations – but in each of these cities around half the population lives in informal settlements, and in most such settlements all the health indicators are dire.

Urban health issues also do not get the attention they deserve in discussions of urban poverty and poverty reduction. Most official measures of poverty still do not include any direct consideration of health or most of its key determinants. They attempt to define the income households need for adequate food consumption – but most do not assess the income needed to rent, buy or build safe, healthy housing and the associated infrastructure and services that are key determinants of health (for instance,

FIGURE 1: A framework for urban health



SOURCE: Kjellstrom, Tord and Susan Mercado (2008), "Towards action on social determinants for health equity in urban settings", *Environment and Urbanization* Vol 20, No 2, October, pages 551–574.

1. Readers interested in urban health issues should note that prior to Vol 23, No 1 (April 2011) on "Health and the city", *Environment and Urbanization* has published 86 papers with the word "health" in their Abstract. There have been two previous special issues on urban health (Vol 5, No 2 (October 1993) and Vol 11, No 1 (April 1999)); and most other issues have dealt with key determinants of health, including Vol 15, No 2 (October 2003) on water, sanitation and drainage, Vol 16, No 2 (October 2004) on violence and security and Vol 19, No 1 (April 2007) on reducing risks from disasters and climate change. All 86 papers are available at no charge at <http://eau.sagepub.com/>.

2. Werner, David with Carol Thuman and Jane Maxwell (1992), *Where There Is No Doctor; A Village Health Care Handbook*, Hesperian, Berkeley, 512 pages.

3. Kjellstrom, Tord and Susan Mercado (2008), "Towards action on social determinants for health equity in urban settings", *Environment and Urbanization* Vol 20, No 2, October, page 551.

4. Basta, Samir S (1977), "Nutrition and health in low-income urban areas of the Third World", *Ecology of Food and Nutrition* Vol 6, pages 113–124.

safe and sufficient water, good sanitation and readily available affordable health care). Most national and city governments give a low priority to improving the many physical and social determinants of health that fall within their jurisdiction, as is the case with most international agencies.

This Brief focuses on four health issues: the failure of national and urban governments to address health (and its determinants); the inequalities within cities and between cities with regard to good health; the question of whether and where there is an urban penalty for health; and the interventions that city governments can take to address health issues.⁽¹⁾

II. WHAT HAPPENS TO URBAN HEALTH WHERE THERE IS NO GOVERNMENT?

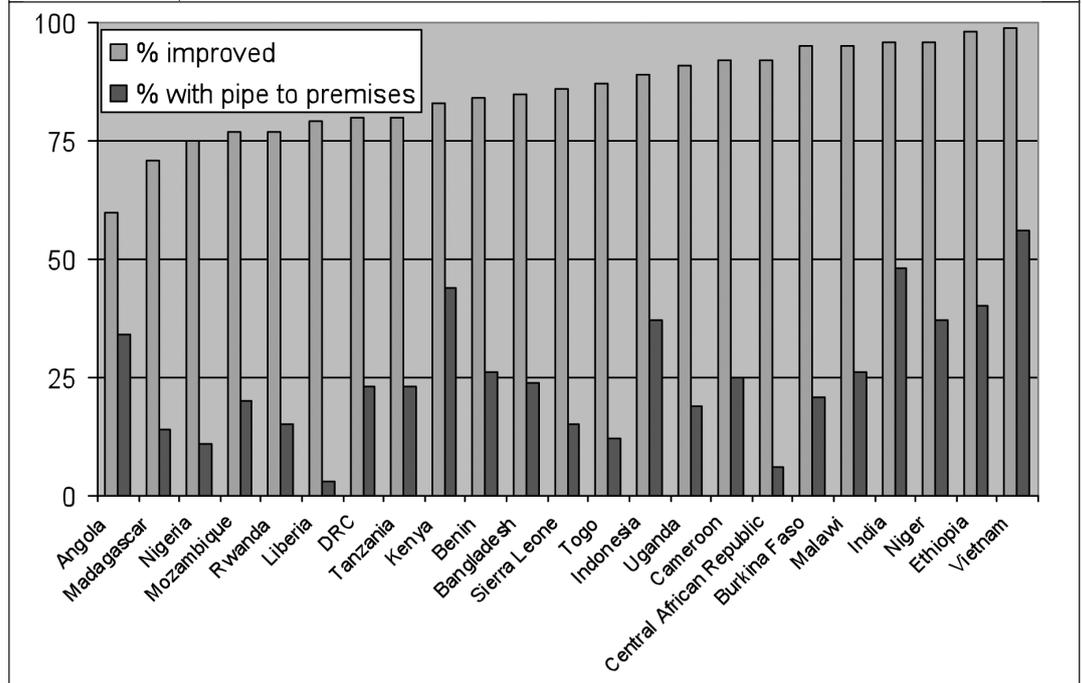
Where There Is No Doctor by David Werner is one of the most influential books on health.⁽²⁾ It gives advice on how to treat illness and injury when no doctor is available, and was written for rural populations. But what advice can be given with regard to urban health in settlements where, in effect, there is no government? Or in cities where there may be doctors and health services, but much of the urban population has no access to them? Within urban areas, much of what is necessary to promote good health falls within the statutory responsibilities of local government.

"Urbanization can and should be beneficial for health. In general, nations with high life expectancies and low infant mortality rates are those where city governments address the key social determinants of health. Better housing and living conditions, access to safe water and good sanitation, efficient waste management systems, safer working environments and neighbourhoods, food security and access to services such as education, health, welfare, public transportation and child care are examples of social determinants of health that can be addressed through good urban governance."⁽³⁾

It also falls to local government to implement building and land use regulations that should have health concerns at their centre – to ensure safe buildings and avoid urban development on unsafe sites. But in most of the informal settlements around the world, which house around 900 million urban dwellers, few if any of these responsibilities are met.

National and city governments fail to ensure provision for what is so basic to health: safe and sufficient water piped to each dwelling; a toilet in each dwelling that is effective in disposing of human wastes, thus reducing the risks of faecal contamination; drainage that prevents flooding; and health care and emergency services that work and that serve everyone, especially those in the lower-income parts of town (including those in informal settlements). It is difficult to understand the reasons for the scale of this failure. It is not from a lack of documentation; it was in 1977 that Samir Basta published his famous paper highlighting the very high infant mortality rates in informal settlements.⁽⁴⁾ It cannot simply be a lack of resources, as a high proportion of the population in many successful cities still lacks these basic services and amenities.

FIGURE 2: The gap between the urban population with “improved” water and water piped to their home



SOURCE: Statistics drawn from WHO and UNICEF (2011), *Progress on Sanitation and Drinking Water: 2010 Update*, WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, Geneva, 55 pages.

5. This paragraph is drawn from the paper by Susan E Chaplin listed on the back page.

6. See the paper by Susan E Chaplin listed on the back page.

7. The statistics presented in this paragraph are from the paper by Siddarth Agarwal listed on the back page.

8. The data available on provision for water and sanitation in low- and middle-income nations are not sufficiently detailed to be able to say who has “safe” water or adequate sanitation (adequate in the sense of being convenient, accessible and minimizing the risk of faecal contamination). “Improved drinking water sources are defined in terms of the types of technology and levels of services that are more likely to provide safe water than unimproved technologies. Improved water sources include household connections, public standpipes, boreholes, protected dug wells, protected springs, and rainwater collections” – see <http://www.who.int/whosis/indicators/compendium/2008/2wst/en/>.

Urban India (the second largest urban population in the world after China) is a good example. It still lacks sanitation more than 60 years after Independence.⁽⁵⁾ In part, this is the legacy of the colonial city and its administration, characterized by inequitable access to sanitation services, a failure to manage urban growth and the proliferation of slums, and the inadequate funding of urban governments. But it is also embedded in the post-colonial state, which, instead of being an instrument for development, has been dominated by coalitions of interests that allow the middle class to monopolize what sanitation services the state has provided. With the economic success enjoyed by so many cities in India, allied to decentralization reforms and democratic structures, one would have expected a rapid increase in the proportion of the populations with (say) adequate water, sanitation, drainage and health care – as has been evident in many Latin American nations. But the urban poor, despite their numbers and their political participation, have not been able to exert sufficient pressure to force governments to implement policies designed to improve their living conditions. The consequence is that public health and environmental policies have frequently become exercises in crisis intervention rather than preventive measures that benefit the health and well-being of the whole urban population.⁽⁶⁾

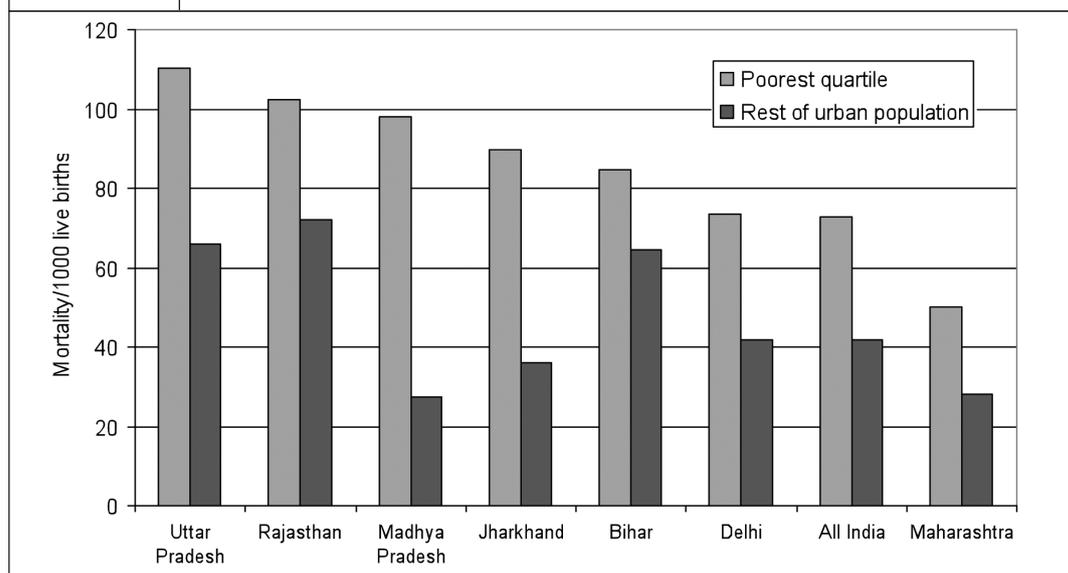
This lack of attention to the health of the urban poor is evident in the statistics on premature mortality, inadequacies in health care, and undernutrition.⁽⁷⁾ In India in 2004–2005, for instance, the under-five mortality rate of the poorest urban quartile in many states was two to three times that of the rest of the urban population.

For the poorest quartile of India’s urban population:

- 60 per cent of children were not completely immunized;
- 54 per cent of children were stunted and 47 per cent were underweight;
- only half of births were assisted by health personnel;
- fewer than one-fifth had water piped into their homes; and
- fewer than half used a flush or pit toilet to dispose of their excreta.

One aspect of this lack of attention to urban health has been the use of inappropriate definitions regarding provision for water and sanitation. What is needed in any urban environment is adequately treated water that is piped into each dwelling and available 24 hours a day. But urban (and rural) dwellers are classified as having “improved drinking water” even if they only have access to public standpipes, taps, boreholes or protected dug wells within one kilometre of the user’s dwelling.⁽⁸⁾ They are classified as having “improved sanitation facilities” even if all they have are simple pit latrines with a slab. So the definition of “improved” water and sanitation is far below the

FIGURE 3: Under-five mortality rates: urban populations of India, Delhi and six states



SOURCE: Agarwal, Siddarth (2011), "The state of urban health in India: comparing the poorest quartile to the rest of the urban population in selected states and cities", *Environment and Urbanization* Vol 23, No 1, April, page 16.

9. See Vol 17, No 1 (April 2005) on meeting the Millennium Development Goals in urban areas.

10. See the paper by Deepa Joshi, Ben Fawcett and Fouzia Mannan listed on the back page.

11. See the paper by Deepa Joshi, Ben Fawcett and Fouzia Mannan listed on the back page.

12. See the paper by Siddarth Agarwal listed on the back page.

13. See the paper by Carolyn Stephens listed on the back page.

14. See the paper by Carolyn Stephens listed on the back page.

15. See the paper by Alice Sverdluk listed on the back page.

16. See the paper by Caroline Moser listed on the back page.

standard needed in urban areas to reduce the risk of human contact with faecal matter. An issue raised in past issues of this journal⁽⁹⁾ needs emphasizing again – these definitions are being used to assess progress towards meeting the Millennium Development Goals, but with such low standards of provision they do not measure who has access to "safe drinking water" and who has access to safe, convenient sanitation. If, for instance, the criterion for "improved water" was water piped into the home, the proportion of the urban population having "improved water" would drop dramatically in many nations (Figure 2).

So many programmes that claim to address sanitation (and that may even move households into the "improved" sanitation category in official statistics) do not provide sanitation to a standard that ensures the key health benefits; or they demand personal investments in situations of highly insecure tenure; or they teach "hygiene practices" that relate neither to local beliefs nor to the ground realities of urban poverty.⁽¹⁰⁾ A study in Chittagong, Dhaka, Nairobi and Hyderabad shows how excreta disposal systems, packaged and delivered as low-cost "safe sanitation", fail to match the sanitation needs of a very diverse group of urban men, women and children. It is of little surprise that the delivered systems remain unused and are not sustained beyond the life of the projects. A resident of a slum in Dhaka exclaimed: "Don't teach us what is sanitation and hygiene."⁽¹¹⁾

III. INEQUALITY

The poorest quartile of India's urban population experiences profound disadvantages in health status, in provision for health care, water and sanitation, and in housing conditions compared to the rest of the urban population.⁽¹²⁾ Figure 3 illustrates this disadvantage with regard to under-five mortality rates for India, Delhi and selected states in India.

Some care is needed in defining and understanding inequalities and acting on them. The measurement of disadvantage and the policy responses they help generate are influenced by whether the focus is on absolute or relative poverty. There is often a lack of clarity in the literature between a differential, an unequal and an unjust distribution of services or resources or health outcomes.⁽¹³⁾ Not all aspects of inequality can be addressed through conventional local government interventions (for instance, in upgrading informal settlements or public transport, or water pricing). To change urban inequalities at root, we need to recognize and address the unjust distributions of power and control of resources that underpin them.⁽¹⁴⁾

Most of the data on links between low-income and health in urban settings in low- and middle-income nations focus on infectious and parasitic diseases. More recently, there has been a recognition that there is a large burden of disease among low-income urban dwellers that comes from non-communicable diseases and injuries.⁽¹⁵⁾ But the implications remain little explored. The very large impacts are evident in the difficulties faced by a community leader in Guayaquil in getting and affording treatment for breast cancer.⁽¹⁶⁾ It serves as a reminder that low-income households in low- and middle-income nations face many of the same health risks from non-communicable

diseases as higher-income groups, but cannot get appropriate treatment from public health care and cannot afford private treatment.

IV. URBAN BIAS OR URBAN PENALTY?

There is clearly a large health penalty among the low-income urban population when compared to the rest of the urban population.⁽¹⁷⁾ This usually begins at birth, is reproduced over a lifetime (often reinforced by undernutrition) and may be recreated through vulnerability to the “double burden” of communicable and non-communicable diseases. The scale of the health burdens among low-income populations or among populations living in informal settlements makes it difficult to see these people as benefiting from “urban bias”. There has long been an assumption among many development specialists that urban dwellers benefit from “urban bias” in the policies and practices of governments when compared to rural residents – although for most low- and middle-income nations little or no evidence has been presented to support this. It has also long been difficult for those who work in informal settlements or with urban poor groups, when confronted with the very poor living conditions, very large health burdens and the animosity of governments (that is often reflected in evictions), to see these people as privileged by urban bias in government policies and resource allocation.

Aggregate statistics often show urban populations as having better health outcomes than rural populations (for example, in infant, child and maternal mortality rates or the proportion of children under height and underweight). What is surprising in many nations is how little health advantage the urban population actually has in these indicators despite the fact that the concentration of middle- and high-income people in urban areas pulls up urban averages. There is a growing literature that shows little or no health advantage to urban dwellers when urban and rural dwellers with comparable incomes or asset bases are compared.⁽¹⁸⁾ Here, there is a need for a much more detailed, disaggregated, location specific knowledge of health burdens and their underpinnings (or determinants) – and this is not provided by the surveys so widely used to inform development policy. Where local government is competent, capable and willing to work in informal settlements, health is probably better for low-income groups than in rural areas, because of the economies of scale and proximity in so many interventions that aim to improve living conditions and provide infrastructure and services. But where local government is incompetent, incapable and unwilling to work with those living in informal settlements (and this is the reality for a very large section of the world’s urban population), there may well be a health penalty for low-income urban populations when compared to low-income rural ones. Without effective local governance, concentrating people, enterprises, motor vehicles and all their wastes produces very unhealthy conditions. We need more proponents of good health who prioritize this in rural and urban areas – not the current division into rural and urban proponents, each carefully selecting only the (limited) range of statistics that apparently support their cause.

V. MOTIVATING CITY GOVERNMENTS TO ACT ON HEALTH

The scope for local and community prevention to improve overall health and support health equity is often underplayed.⁽¹⁹⁾ Yet this can address some of the underlying determinants of health. Improved health and greater health equity depend on community level identification of the underlying causes of illness and injury, and on partnerships within each community among all relevant sectors to address them. Housing and living environments also shape behaviour, making it easier or harder for the residents to engage in health-promoting behaviour. Community prevention interventions can address relevant factors – including safety, affordable good food, reliable transport, opportunities for play and recreation, and access to meaningful education and employment. The actions needed span various levels – from strengthening individual knowledge and skills through community education, to educating providers and leaders (in all sectors), fostering coalitions and networks, changing organizational practice (within government, health institutions and workplaces, among others), to influencing policy and legislation. The development of a matrix can make clear the contributions of different sectors to any health problem and the areas of overlap in prevention.

As the potential contributions to good health from different sectoral agencies become clear – including provision for transport, open space, recreation – so the needed support for this from city governments becomes clear. One example of this is the efforts by Mayor Llorca and his government in Sant Andreu de la Barca (in Spain) to place health at the centre of his social and political agenda and to build a strong movement for public health at the local level.⁽²⁰⁾ It brings back the old links between health and municipalities, which the sanitation movement in the nineteenth century led during the early stages of industrialization and the beginnings of the era of mass consumption. But here, a healthy city is one where all the key social actors (the authorities and local, private and public organizations) commit themselves to a respect for the environment and a strengthening of collective health, with the aim of improving people’s quality of life. The municipal health plan has particular importance as it makes clear the roles of all sectors in contributing to this. It also clarifies how

17. See the paper by Alice Sverdluk listed on the back page.

18. See, for instance, Van de Poel, Ellen, Owen O’Donnell and Eddy van Doorslaer (2007), “Are urban children really healthier? Evidence from 47 developing countries”, *Social Science and Medicine* Vol 65, No 10, November, pages 1986–2003; also Matthews, Zoë, Amos Channon, Sarah Neal, David Osrin, Nyovani Madise and William Stones (2010), “Examining the ‘urban advantage’ in maternal health care in developing countries”, *PLoS Medicine* Vol 7, No 9, September, pages 1–10; and Fotso, Jean-Christophe (2007), “Urban–rural differentials in child malnutrition: trends and socioeconomic correlates in sub-Saharan Africa”, *Health and Place* Vol 13, pages 205–223.

19. This paragraph is drawn from the paper by Sana Chehimi, Larry Cohen and Erica Valdovinos listed on the back page.

20. See the paper by Enric Llorca i Ibáñez listed on the back page.

good urban spatial planning can shape the health of the people by addressing some of the key determinants of health:

- opportunities for active and healthy lifestyles (including regular exercise);
- access to affordable and good quality housing;
- opportunities for social cohesion and social support networks;
- access to job opportunities; and
- access to high quality educational, cultural, recreational, commercial, health and outdoor provision.

In China, awards and competitions are often used to motivate public servants to address health issues or improvements in services. Apart from improving performance, these schemes are good at motivating user participation and spreading good practice. However, the design of those used in China tends to prioritize disproportionately the winning mentality, and sometimes causes high costs and social tension.⁽²¹⁾

21. See the paper by Yongmei Zhang and Bingqin Li listed below.

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Contents list of *Environment&Urbanization* Vol 23, No 1, April 2011

Editorial: Why is urban health so poor even in many successful cities? – *David Satterthwaite*

The state of urban health in India; comparing the poorest quartile to the rest of the urban population in selected states and cities – *Siddarth Agarwal*

Revisiting urban health and social inequalities: the devil is in the detail and the solution is in all of us – *Carolyn Stephens*

Motivating service improvement with awards and competitions – hygienic city campaigns in China – *Yongmei Zhang and Bingqin Li*

Indian cities, sanitation and the state: the politics of the failure to provide – *Susan E Chaplin*

In the first place: community prevention's promise to advance health and equity – *Sana Chehimi, Larry Cohen and Erica Valdovinos*

Health, hygiene and appropriate sanitation: experiences and perceptions of the urban poor – *Deepa Joshi, Ben Fawcett and Fouzia Mannan*

Municipality, space and the social determinants of health – *Enric Llorca i Ibáñez*

Cancer note from the slums – *Caroline Moser*

Ill-health and poverty: a literature review on health in informal settlements – *Alice Sverdlík*

Youth and the city

Youth and "the hood" – livelihoods and neighbourhoods – *Richard Mabala*

The Technical Training Resource Centre (TTRC): building community architects – *Aquila Ismail*

Deaf youth and cultural negotiation in Porto Alegre, Brazil – *Camilo Darsie de Souza and Sabrina de Jesus Ferraz Faller*
"Like we don't have enough on our hands already!" The story of the Kenyan slum youth federation – *Jack Makau*

Climate change adaptation and cities

Cities and greenhouse gas emissions: moving forward – *Daniel Hoornweg, Lorraine Sugar and Claudia Lorena Trejos Gómez*

From theory to practice: building more resilient communities in flood-prone areas – *Tania López-Marrero and Petra Tschakert*

Urban wildscapes and green spaces in Mombasa and their potential contribution to climate change adaptation and mitigation – *Justus Kithiia and Anna Lyth*

Feedback

Housing, institutions, money: the failures and promise of human settlements policy and practice in South Africa – *Benjamin Bradlow, Joel Bolnick and Clifford Shearing*

Social inclusion in Mumbai: economics matters too – *Robert M Buckley*

Nexus between effective land management and housing delivery in Lagos – *Timothy Gbenga Nubi and Chidinma Ajoku*

Human Settlements Group

International Institute for Environment and Development (IIED)

3 Endsleigh Street, London WC1H 0DD, UK

E-mail: humans@iied.org Website: <http://www.iied.org/human>

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