Healthy cities or unhealthy islands? The health and social implications of urban inequality

Carolyn Stephens

"No man is an **Island**, complete in itself; every man is a piece of the **Continent**, a part of the **whole**; if a **piece** is washed away by the **Sea**, Europe is the less, as well as if a **Promontory** were, as well as if a **House** of your **friends** or of **your own** were; any man's **death** diminishes **me**, because I am involved with **Mankind**; And therefore never send to know for whom the **bell** tolls; It tolls for **thee**." John Donne, *Meditations* XVII (1609).

SUMMARY: *This paper suggests that governments and international agencies must address the large and often growing levels of inequality within most cities if health is to be improved and poverty reduced. It describes the social and health implications of inequalities within cities and discusses why descriptions of the physical symptoms of poverty (and their health implications) are more common than analyses of the structural systems which produce and perpetuate poverty. It also describes the health problems from which low-income groups in urban areas suffer more than richer groups including those that are not linked to poor sanitary conditions and those that are more linked to relative poverty (and thus the level of inequality) than to absolute poverty.*

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This paper received excellent

I. INTRODUCTION - THE PROSPECTS OF AN EQUITABLE URBAN ENVIRONMENT

THIS PAPER PRESENTS an overview of the health and social implications of urban inequalities and inequity. It aims to build on previous work by the author and to develop the ideas raised in previous editions of *Environment and Urbanization* on urban poverty.[1] By writing directly about urban inequality and inequity, rather than urban poverty, the paper intends to stimulate discussion on the wider issues of poverty's relation to wealth. By using health and social impacts of urban inequality and in-

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1. See *Environment and Urbanization* Vol.7. No.1, April 1995, especially: Wratten, E., "Conceptualizing urban poverty", pages 11-37; Latapi, A.E. and M. Gonzalez de la Rocha, "Crisis, restructuring and urban poverty in Mexico", pages 57-77; Amis, P., "Making sense of urban poverty", pages 145-159; Moser, C.O.N., "Urban social policy and poverty reduction", pages 159-145; and Chambers, R., "Poverty and livelihoods: whose reality counts?", pages 173-205.

2. Silver, H. (1995), "Reconceptualizing social disadvantage: three paradigms of social exclusion", pages 57-81; also Wolfe, M. (1995), "Globalization and social exclusion: some paradoxes", pages 81-103 in Rodgers, G., C. Gore and J.B. Figueiredo (editors) (1995), *Social Exclusion; Rhetoric, Reality, Responses*, International Labour Organization, Geneva.

3. See reference 1, Chambers (1995); also Sen, A. (1981), *Poverty and Famines: An Essay on Entitlement and Deprivation*,

equity as a focal point of the discussion, the paper also intends to provoke thought on some of the fundamental issues of human development trajectories.

It is challenging, if daunting, to discuss equity at this historical moment. It is challenging because, working as an epidemiologist, I am routinely asked to write about urban poverty and health. It is rarer to get the opportunity to address **directly** the implications of urban inequality and inequity for peoples' survival chances and quality of life. It is still more common (not just for health specialists and despite recent conceptual advances) to analyze the implications of the physical symptoms of an economic and social condition called poverty - in isolation from the structural systems in which poverty is produced.

At the theoretical level, it is also daunting to realize that most academic thought has not unpicked the causal web of equity, poverty and health in a way that drives policy forward in a profound way. Conceptual thinking on poverty is changing rapidly to include new semantics - for example, social exclusion and cohesion,[2] vulnerability and livelihoods.[3] However, one should not be ahistorical or arrogant in celebrating late twentieth century theoretical advances on understanding poverty. In policy terms, today's inequalities have confounded considerable thought and action for several thousand years rather than the last century alone (Aristotle, for example, wrote on inequality in *Politics*[4] and Thomas More wrote eloquently on social cohesion in *Utopia* in 1516) .

Most profoundly, theoretical advances in understanding poverty run counter to trends in macro-economic and political reality. Conceptual thinking is advancing but political ideas about, and policies aimed towards, equity are at a low. Polarization within and between societies is increasing.[5] Wealth is concentrating in few hands. Ironically (and concurrently), contemporary policy frameworks for tackling inequalities are perhaps less capable of the necessary breadth of vision than at many other times. Analysts are only now in the process of recognizing "polarization" and "social exclusion" as characteristic symptoms of an increasingly globalized world economy - where value systems are individualistic and competitive market forces are deified.[6] Little attention is paid to what these divisive processes mean for the well-being of the growing numbers of people living in urban centres. Perhaps John Donne, in the seventeenth century, amongst many philosophers from different cultures understood the challenge better when he wrote of the linked destiny of all people and their thread of common aspirations and humanity.

This paper will focus on the social and health implications linked to urban inequality. Health is used as a basic measure of urban quality and inequality of life - health indicators act as a fundamental reflection of equity in policy. The paper focuses on evidence of health inequalities within urban areas although it is impossible to be comprehensive about so large an area; it will not discuss the link between rural poverty and urban inequalities,[7] neither will it discuss, in any depth, inequalities between regions.[8] The paper will also focus on the **health and**

social implications of inequalities within cities (after a short section on definitions) rather than reviewing the extensive evidence on inequalities in urban conditions.

The paper is organized into seven sections. After this first introductory section, Section II clarifies the definitions used. Section III presents evidence on the social and health implications of inequalities of access to the means of survival - in other words, the "basic needs" of life. Section IV presents growing evidence on the health and social implications of inequalities in the distribution of opportunity and satisfaction of aspirations - the new inequalities. Section V presents evidence which suggests **some** convergence of experience, in equity terms, internationally (as well as polarization). Section VI discusses whether current conceptual debates provide policy levers to assist either understanding or action. The final section discusses briefly the policy implications of urban inequality for the development trajectory.

II. PRELIMINARIES - DEFINITIONS, MYTHS AND MEASURES

THIS PAPER WILL not concentrate heavily on the descriptive evidence of urban inequalities in living and environmental conditions since this is covered well elsewhere.[(9)] It is necessary however, to make some preliminary points. The first relates to the scale of the challenge and the problem of myths.

By the 1980s, 40 per cent of the total global human population had become urban citizens, most of them living in the (often) rapidly growing towns and cities of Africa, Asia and Latin America. Living in an urban area does not mean "development" for many of these people - between 30 and 70 per cent of people in cities and towns of the so-called South live in "poverty", characterized by household and neighbourhood environmental deprivation and in circumstances of extreme social and economic stress.

Until the 1970s, urbanization was still construed as a positive development process in terms of its implications for health and well-being: urbanization=development=health.[(10)] This idea stemmed in part from an analysis of simple rural/urban comparisons which used aggregate figures on urban conditions and pitted rural-urban statistics against each other to indicate regional inequality.[(11)] Urban social scientists have taken several decades to refute this myth. It is, to an extent, still currency in policy and analytic terms.[(12)] However, it is now clear that deriving policies on the basis of the rural-urban divide misled on two counts. First, it concealed gross socio-economic, social and health inequalities **within** urban centres. This soon seems illogical when one considers that individual urban centres sometimes contain between 2-14 million people (the size of many national populations) with huge and obvious differences in conditions between groups.[(13)] Secondly, and more fundamentally, as a measure of the **process** of inequality, "rural/urban" missed the point. Rural-urban is, in simple terms, a spatial descrip-

Clarendon Press, Oxford; also Amis, P. and C. Rakodi (1994), "Urban poverty: issues for research and policy", *Journal of International Development* Vol.6 (5), pages 627-634; and Moser, C. (1996), *Confronting Crisis: A Summary of Household Responses to Poverty and Vulnerability in Four Poor Urban Communities*, Environmentally Sustainable Development Studies and Monographs Series, The World Bank, Washington D.C.

4. "Where some people are very wealthy and others have nothing, the result will be either extreme democracy or absolute oligarchy, or despotism will come from either of those excesses" (Aristotle *Politics* 4.1296a).

5. See reference 2, Silver (1995) and Wolfe (1995); also reference 2, chapters in Rodgers, G., *et al* (1995) especially Faria, V.E. (1995), "Social exclusion and Latin American analyses of poverty and deprivation", pages 117-131; Tchernina, N. (1995), "Patterns and processes of social exclusion in Russia", pages 131-147; Figueroa, A., T. Altamirano and D. Sulmont (1995), "Social exclusion and social inequality in Peru", pages 201-215; Rapoport, S.G., R. Cobo, L.P. Paredes, *et al* (1995), "Economic restructuring and social exclusion in Mexico", pages 215-229; also Wilkinson, R.G. (1996), "Health and society" in Blaut, D., E. Brenner and R.G. Wilkinson (editors) (1996), *How Can Secular Improvements in Life Expectancy Be Explained?* Routledge; and David, P.H., L. Bisharat and S. Kawar (1991), "Using routine surveys to measure mortality: a tool for programme managers", *Social Science and Medicine* Vol.33 (3), pages 309-319.

6. See reference 3, Wolfe (1995); also Korten, D. (1995), *Sustainability and the Global Economy: Beyond Bretton Woods*, Forests, Trees and People, Newsletter 29.

7. However, it is necessary to

tion and is not evocative of the processes of inter-dependence between people and goods in both areas. There is evidence that macroeconomic policies based on this divide exacerbated the fragility of the urban poor and did not help the rural poor substantially.[14] It is argued that poverty has urbanized - to an extent, the rural poor have become the urban poor.[15] A third point, related to the processes of inequality, is the link between poverty and wealth - and of both of these with power. A rural-urban divide may predict power relations between regional groups - as Lipton suggested when he wrote that "...the most important class conflict today....is not between labour and capital but between the rural classes and the urban classes"[16] - but it does not necessarily do so. Concurrent with urban and rural poverty, a tiny proportion of people in many cities of the South live in conditions as, or more, privileged than those for the average population of cities of the North. The urban/rural dichotomy has diverted attention over the last decades from the complexity of power relations between rich and poor in rural and urban areas.

This raises the question of definitions of urban inequality - does it differ from urban poverty? And does it matter? Certainly, urban inequality is far less discussed than urban poverty. Urban poverty is the "critical theme of the 1990s" for the South[17] as it was at the turn of the last century for the North.[18] "Poverty" does not necessarily imply a problem of inequality or inequity. The 1990 *World Development Report*[19] is quite clear about this: poverty is the "inability to attain a minimal standard of living" measured by household incomes and expenditure on basic needs.[20] The same report goes on: "Poverty is not the same as inequality. The distinction needs to be stressed. Whereas poverty is concerned with the absolute standard of living of a part of society - the poor - inequality refers to relative living standards across the whole society."[21] Many authors disagree with this approach on grounds of validity - arguing that using just absolute measures of basic need (income, facilities, education, etc.) ignores the complex ways in which people actually obtain, or are prevented from obtaining, resources. Sen, Chambers and more recently Amis and Rakodi, Wratten and Friedmann[22] suggest that analysis must include an understanding of vulnerability and disempowerment which emphasizes the importance of assets and debt, as well as access to public resources and political process. Perhaps most importantly, conceptual notions such as vulnerability take us closer to accepting that poverty is always relative - implying political and social "poverty" as well as economic or basic need deprivation; such ideas have the advantage of suggesting the processes by which people are **made** vulnerable by other people. It makes one turn, once again, towards the rich as part of the problem.

In Europe, and to a lesser extent North America, the discussion is different. First, in societies where almost everyone has access to "basic needs", "poverty" has to be established as a relative concept.[23] This implies, theoretically, that poverty is not a phenomenon which exists in isolation of the levels of living and privilege experienced by other members of society. Notions

state at the outset that there is substantial evidence that urban and rural poverty are inextricably linked. Recent macroeconomic forces have, in many cases, urbanized the rural poor and deepened the trap of urban poverty (Amis and Rakodi (1994)). The implications of this for the traditional idea of the rural-urban health divide are profound.

8. UNDP compiled an excellent review of such inequalities in 1992 - see United Nations Development Programme (1992), *Human Development Report 1992*, Oxford University Press, New York.

9. Hardoy, J.E., S. Cairncross and D. Satterthwaite (editors), (1990), *The Poor Die Young: Housing and Health in Third World Cities*, Earthscan Publications, London; also Harris, M. (1992), "Introduction" in Harris, M., (editor) (1992), *Cities in the 1990s. The Challenge for Developing Countries*, UCL Press, London, pages ix-1; also Hardoy, J.E. and D. Satterthwaite(1989), *Squatter Citizen: Life in the Urban Third World*, Earthscan Publications, London; and Hardoy, J.E., D. Mitlin and D. Satterthwaite (1992), *Environmental Problems in Third World Cities*, Earthscan Publications, London.

10. Harpham, T., P. Vaughan and T. Lusty (1990), *In the Shadow of the City: Community Health and the Urban Poor*, Oxford University Press, pages 1-237; also Harpham, T. and C. Stephens (1991), "Urbanization and health in developing countries from the shadows into the sporlight", *Tropical Diseases Bulletin* Vol.88 (8), pages 1-35; and Hardoy, J.E. and D. Satterthwaite (1991), "Environmental problems of Third World cities: a global issue ignored?", *Public Administration and Development* Vol.11, pages 341-361.

11. Lipton, M. (1988), "Why poor people stay poor: urban bias in world development" in Gugler, J.

of relative poverty allow discussion of how individuals are influenced by overall societal aspirations. Essentially, such ideas imply the linked destinies of all people in society, recognizing that people's aspirations are often governed by the models of the upper level of societies in terms of privilege or reverence.[24] In urban areas, where the extremes of wealth and deprivation co-exist as close neighbours, this is particularly important.

On the whole, the subleties of "relative" poverty and "vulnerability" remain a conceptual battle of academics and measures of "quality" between groups and individuals is still basic and mechanistic. Many analysts continue to see the needs of the "vulnerable" and relatively poor in terms of inadequacies in physical standards of living or in social needs such as education and health care.[25] Also, research on urban poverty, or vulnerability, is rarely placed in a comparative framework which suggests the degree of inequality in the distribution of forms of vulnerability within a whole city. Inequalities, when measured, are inequalities in the distribution of basic needs and only very occasionally access to political process. Moser has advanced the work at micro-level. She, with several authors, stresses intra-household and gender differences in control over resources[26] as well as differences in costs of basic services between groups.[27] However, it is still not common to see work which suggests differences in degrees of vulnerability between all groups within urban societies.

There is also a distinction between distribution of risk and distribution of control - this is the difference between **inequality** (a description) and **inequity** (a question of injustice). It is rare to see evidence on the social and health implications of the distribution of vulnerability between groups **in relation to the distribution of health and social gains or disbenefit or, more importantly, responsibility for distribution of those disbenefits**. The distinction is not academic. In health terms, directly, the extent of urban inequalities reflects individual or group differences in personal susceptibility to illness and, often more importantly, exposure to risks. Indirectly, health inequalities reflect the extent to which individuals and groups have control over their own and others' exposure to risk. If one social group avoids death or illness consistently, while another does not, health **inequalities** may be the result of differences between groups in exposure to environmental risks and ability to treat their health effects. There are inequalities, for example, in access to water and sanitation facilities or education opportunities between groups in cities - these may lead to health **inequalities**, often in incidence and prevalence of infectious diseases. However, if one group benefits to the disbenefit of another group, this is an **health inequity**. Using the same water example, the urban poor often have least access to piped water and are forced to pay more than the wealthy for poor quality and limited quantities of water from vendors. This becomes a doubly regressive taxation[28] in which one group is doubly disbenefited (in health and economic terms) while another doubly gains. Put bluntly, the poor pay more for their cholera. This is not simply a question of water - another stark example is in air pollution and car

(editor) (1988), *The Urbanization of the Third World*, Oxford University Press, New York, pages 41-51; also United Nations Development Programme (1994), *Human Development Report 1994*, Oxford University Press, Oxford, pages 1-101; and UNICEF (1990), *Children and Women of Ghana. A Situation Analysis*, UNICEF, Accra, pages 1-253.

12. Glewwe, P. and K.A. Twum-Baah (1987), *The Distribution of Welfare in Ghana, 1987-88*, LSMS Working Paper No.75, World Bank, Washington DC., pages 1-94; also Brewster, D.R. and B.M. Greenwood (1993), "Seasonal variation of paediatric diseases in the Gambia, West Africa", *Annals of Tropical Paediatrics* Vol.13, pages 133-146; and Brehm, U. (1993), "Regional inequalities of child mortality in peninsular Malaysia with special reference to the differentials between Perlis and Kuala Terengganu", *Social Science and Medicine* Vol.36, No.10, pages 1331-1334.

13. See reference 9, Hardoy, Cairncross and Satterthwaite (1990); also reference 10, Harpham and Stephens (1991); and Rossi-Espagnet, A., G.B. Goldstein and I. Tabibzadeh (1991), "Urbanization and health in developing countries: a challenge for health for all", *World Health Statistics Quarterly* Vol.44 (4), pages 186-245.

14. See reference 3, Amis and Rakodi (1994); also World Bank (1990), *World Development Report 1990 Poverty*, Oxford University Press, Oxford.

15. See reference 3, Amis and Rakodi (1994).

16. See reference 11, Lipton (1988).

17. Cheema, S. (1992), "The challenge of urbanization" in Harris, M., (editor) *Cities in the 1990s: The Challenge for Developing Countries*, UCL Press,

use. The poor are less likely to own, drive or use cars but are more likely to live by busy roads and, as a consequence, suffer excess localized exposure to air pollution and a higher risk of accident.[29]

Words are important - different terms for a problem imply very different conceptual understanding and, hence, completely different policy. **Variation**, a word now preferred by the UK government in their documentation of health patterns between social classes in the UK, has replaced even the descriptive term "inequality" in some analyses and suggests random chance in distribution of health impacts related to social class within the UK. Box 1 sums up some alternative definitions (using Chambers and Oxford English dictionaries).

Box 1: The Changing Language of Poverty and Inequality

Absolute poverty **= inability to attain a minimal standard of living**
Relative poverty **= relative living standards across the whole society**
Vulnerability **= emphasizes the importance of assets and debts as well as access to public resources and political process**
Variation **= difference in structure among members of a related group**
Inequality **= difference, unevenness, dissimilarity**
Inequity **= lack of equity, an unjust action**

A final point of definition relates to the difficulty in measuring urban inequalities and inequities and their implications for quality of life. This paper draws substantially on health studies to examine the implications of urban inequalities and inequities. This is partly because, as a bottom line, unequal distributions of health disbenefit (measured by death or illness) are fundamental measures of inequities in urban social processes. More broadly, unequal chances of life and death between groups testify to the fundamental aims of human development. As UNDP's Human Development Report of 1992 argues "...the purpose of development is to create an environment in which **all people** can expand their capabilities, and opportunities can be enlarged for both present and future generations."[30]

Obviously, measures of death and disease do not suggest the complex idea of quality of life or relative opportunity. More fundamentally, these measures imply directly the immediate risks which individuals and groups are exposed to in their physical and biological environments (water, soil, air, etc.), but not the **processes** which create the exposures. Sheaffer, writing for WHO argues that "...because they control how resources are used and how goods and risk exposures are created, social environments are the dominant determinants of human well-being."[31] It is extremely difficult to attribute directly health disbenefits to urban inequalities and inequities in vulnerability. It is relatively easy to measure the implications of biological contaminations of water, food and soil. We have very limited conceptual or analytic understanding of how to link complex health impacts to inequalities or inequities of access to opportunity and relative aspiration.[32] With these definitional points in mind,

London, pages 26-33.

18. Engels, F. (1987), *The Conditions of the Working Classes in England*, Penguin, London. 4th Ed., pages 1-293.

19. See reference 14, World Bank (1990).

20. Access to public goods which influence survival - "a basic need": these are variously defined but generally mean food, water, shelter, basic sanitation, education and basic health care.

21. Chambers, R. (1992), "Poverty in India: concepts, research and reality" in Harriss, B., S. Guahn and R.H. Cassen (editors), *Poverty in India; Research and Policy*, Oxford University Press, Bombay, pages 301-332.

22. See reference 3, Sen (1981); see also reference 21; also reference 3, Amis and Rakodi (1994); also reference 1, Wratten (1995).

23. Townsend, P. (1979), "Conclusion 1: the social distribution of poverty and trends in the 1970s" in *Poverty in the UK*, pages 893-912; and Townsend, P. (1993), *The International Analysis of Poverty*, Harvester Wheatsheaf, Hemel Hempstead, pages 1-285.

24. See reference 23, Townsend (1993).

25. See reference 10, Harpham, Vaughan and Lusty (1990); also Appasamy, P., S. Guhan, R. Hema, *et al.* (1995), "Social exclusion in respect of basic needs in India" in Rodgers, G., C. Gore and J.B. Figueiredo (editors), *Social Exclusion: Rhetoric, Reality, Responses*, International Labour Organization, Geneva, pages 237-253; and Brockerhoff, M. (1995), "Child survival in big cities: the disadvantages of migrants", *Social Science and Medicine* Vol.40 (10), pages 1371-1383.

26. Moser, C. (1994), *Preliminary*

the following sections look at the health and social implications of urban inequalities and inequities. The review begins with the implications of the "basic needs" which influence people's survival. It will become clear that the subleties discussed above are under-explored in research to date.

III. THE IMPLICATIONS OF URBAN INEQUALITIES IN BASIC NEEDS

POLICIES TODAY ORIGINATE from approaches developed for the nineteenth century urban poor. In the face of massive levels of tangible "poverty" in terms of access to water, shelter and sanitation in urban areas in the nineteenth century, the first priority for policy makers seemed to be distribution of access to "basic needs" which would guarantee survival for the urban poor. Those lobbying for equity pursued this point with health statistics. For example, in 1842, Chadwick, in his report *The Sanitary Condition of the Labouring Population* "...drew attention to the relation between the accumulation of excrement, overcrowding and lack of clean water and the incidence of disease and premature death."[33] The "sanitary" concept of the city was born. This meant, crudely, a preoccupation with solving the poor's health problems through dealing with the effects of biological contaminations mainly related to water supply, sanitation, food contamination, hygiene and waste disposal. Basic economic employment enabling the poor to buy housing and food was the natural corollary to this - ensuring a minimum acceptable living standard and thus survival of the poor past the infectious risks of childhood. Summarizing a huge literature, it is probably fair to say that by the mid-twentieth century, this had turned into approaches built around "basic needs"[34] - a notion of priorities that tackles first the **survival** of the poor. Urban basic services policies in the South serve as an example of these ideas and a huge number of analysts stress their importance.[35]

a. Describing Inequalities in Survival

One of the easiest ways to look at urban inequality is to document the unequal distribution of basic needs. At the end of the twentieth century, many towns and cities in the South remain dogged by "basic needs" problems. These create endemic water-borne diseases and occasional health crises - intermittent epidemics are classic examples of the latter which gain cities their often contradictory reputation as sources of pestilence.[36] Diarrhoeal disease for infants remains a large-scale killer in many cities.[37]

Increasing evidence - there are now hundreds of studies - suggests that, for many in the South, urban "health" is a myth.[38] And health inequalities? Basically, there are massive inequalities in health indicators related to access to basic needs both between cities and within them. Within countries, there is some evidence that inequalities in child mortality and morbidity exist

Results from Lusaka, Metro Manila and Guayaquil of Research Project on Urban Poverty and Social Policy in the Context of Adjustment (unpublished).

27. See reference 3, Moser (1996); also Cairncross, S. and J. Kinnear (1992), "Elasticity of demand for water in Khartoum, Sudan", *Social Science and Medicine* Vol.43 (2), pages 183-189.

28. See reference 27, Cairncross and Kinnear (1992); also Benneh, G., J. Songsore, J.S. Nabila, *et al* (1993), *Environmental Problems and the Urban Household in the Greater Accra Metropolitan Area (GAMA) - Ghana*, Stockholm Environment Institute, Stockholm.

29. World Health Organization, (1992), *Our Planet, Our Health. Report of the WHO Commission on Health and Environment*, World Health Organization, Geneva; also Townsend, P., N. Davidson and M. Whitehead (1992), *Inequalities in Health*, Penguin, London, 2nd Ed., pages 1-438.

30. See reference 11, United Nations Development Programme (1994).

31. Schaefer, M. (1993), *Health, Environment and Development: Approaches to Drafting Country-level Strategies for Human Well-being Under Agenda 21*, World Health Organization, Geneva.

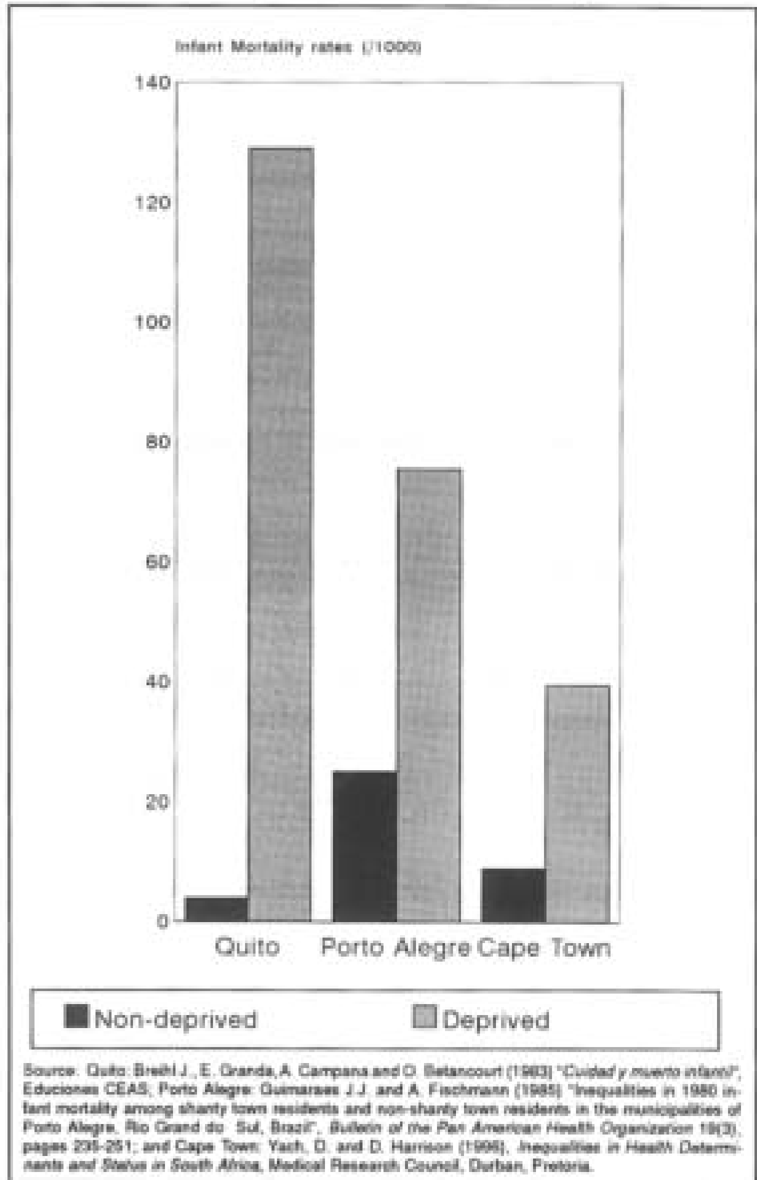
32. "Hygiene behaviour topic network", *Garnet Newsletter*, Issue 2 (June), pages 1-13; also Wilkinson, R.G. (1994), "The epidemiological transition: from material scarcity to social disadvantage?", *Daedalus*.

33. Acheson, D. (1992), "The road to Rio. Paved with good intentions", *British Medical Journal* Vol.304, May, pages 1391-1392.

34. Smith, R. (1995), "The WHO: change or die", *British Medical Journal* Vol.310, pages 543-544;

between large and smaller cities,[39] with poor children in small urban areas disadvantaged compared to their counterparts in big cities.[40] Looking within cities, there are now hundreds of studies of low-income and squatter communities in African, Asian and Latin American cities. These repeatedly suggest high death and disease rates for infants (under 1 year old) and children (under 5 years old), - between two and ten times higher in deprived than in non-deprived areas of cities.[41] Figure 1 gives just three examples of inequalities between groups in infant mortality rates.

Figure 1: Urban inequalities in Infant Mortality



Source: Quito: Breihl J., E. Granda, A. Campana and O. Betancourt (1983) "*Cuidad y muerte infantil*", Educiones CEAS; Porto Alegre: Guimaraes J.J. and A. Fischmann (1985) "Inequalities in 1980 infant mortality among shanty town residents and non-shanty town residents in the municipalities of Porto Alegre, Rio Grand do Sul, Brazil", *Bulletin of the Pan American Health Organization* 19(3), pages 235-251; and Cape Town: Yach, D. and D. Harrison (1996), *Inequalities in Health Determinants and Status in South Africa*, Medical Research Council, Durban, Pretoria.

also McMichael, A.J. (1995), *The Health of Persons, Populations - or Planets? Epidemiology Comes Full Circle* (unpublished).

35. England, R., H. Feirman, C.O.N. Moser, *et al* (1989), "Urban basic services Evaluation No.1: Guayaquil, Ecuador, evaluation of the primary health care component", *Health and Life Sciences Partnership*, also Wang'ome, J.K. (1995), "Public health crises of cities in developing countries", *Social Science and Medicine* Vol.41 (6), pages 857-862; also Cairncross, S. (1989), "Water supply and sanitation: an agenda for research", *Journal of Tropical Medicine and Hygiene* Vol.92, pages 301-314; also Brockerhoff, M. (1993), *Child Survival in Big Cities: Are the Poor Disadvantaged?*, Population Council Research Division Working Papers, New York, 58th Ed., pages:1-54; and Bradley, D., C. Stephens, T. Harpham, *et al* (1992), *Urban Management Program Discussion Paper 6: A Review of Environmental Health Impacts in Developing Country Cities*, The World Bank, Washington DC., pages 1-58.

36. Horton, R. (1996), "The infected metropolis", *Lancet* Vol. 347, pages 134-135.

37. See reference 35, Cairncross (1989); also Esrey, S.A., R.G. Feachem and J.M. Hughes (1985), "Interventions for the control of diarrhoeal diseases among young children: improving water supplies and excreta disposal facilities", *Bulletin of the World Health Organization* Vol.63, pages 757-771; also Esrey, S.A., J.B. Potash, L. Roberts, *et al* (1990), *Health Benefits From Improvements in Water Supply and Sanitation: Survey and Analysis of the Literature on Selected Diseases*, (unpublished); and reference 9, Hardoy, Cairncross and Satterthwaite (1990).

38. See reference 10, Harpham, Vaughan and Lusty (1990); also reference 10, Harpham and Stephens (1991); and World

b. Explaining Inequalities in Survival

Explanations for many urban health inequalities focus on the immediate living conditions of the poor. One reviewer concludes that "...overwhelming empirical evidence from all developing regions now links poor 'housing' conditions in urban areas to childhood diseases and injuries."[(42)] Many other reviews come to similar conclusions.[(43)] The evidence from the South is used to suggest large-scale needs for better basic living conditions for the urban poor. Directly, this is the case; the lack of "basic needs" for large groups of urban people affects survival, particularly of children, and means continued impacts from infectious diseases on other vulnerable groups (particularly pregnant women and the elderly) who live in areas without "basic needs."[(44)] This is not the full extent of the problem - most studies do not describe inequalities between groups within cities as a whole. They look only at the "vulnerable" and at the differences within them.[(45)] Moreover, equity is rarely placed overtly on the agenda in descriptions of the health inequalities which result from the "housing conditions" faced by the poor. It is possible to do this - and it becomes clear that poor children not only experience higher rates of illness than their wealthier neighbours but also that their parents often pay more for their contaminated food and water, their crammed, ill-built homes and for the limited services to which they have access.[(46)] In other words, the poor often pay higher prices for their ill-health and discomfort than their wealthier neighbours who pay less for cheap "basic" luxuries such as personal swimming pools, air-conditioned cars and spacious, well-serviced homes. Moreover, the good health experienced by the wealthy is at the expense of the health of the poor - the air-conditioned car which protects the solitary wealthy passenger in cities adds an extra dose of pollution to the city; the maintenance of the swimming pool is often at the expense of drinking water in poor areas of cities. The arguments of principles such as "the polluter pays" stress the dirty diesel buses used by the poor and the dirty home industries in the informal sector. Off the agenda are the inequities in society which drive the poor's reliance on polluting resources. Such inequities are rarely analyzed, let alone put on the policy agenda.

This discussion does not suggest that policy makers and researchers should forget the importance of survival of poor urban children who die daily from infectious diseases, and accidents and injuries related to an inadequate living environment. Nor is the importance of access to basic needs to be undervalued. However, there are two further important questions. The first is whether or not access to "basic needs" is the extent of the "inequality" problem in urban areas. The second is whether urban inequality can be addressed by dealing only with one end of the society - the poor - in isolation from tackling the other end - the rich. This is a key conundrum for cities - and societies - internationally.

Health Organization (1993), *The Urban Health Crisis: Strategies for Health for All in the Face of Rapid Urbanization*, World Health Organization, Geneva.

39. Timaeus, I.M. and L. Lush, L. (1995), "Intra-urban differentials in child health", *Health Transition Review,* Vol.5 (2).

40. See reference 35, Brockerhoff (1993).

41. See reference 35, Bradley, Stephens, Harpham, *et al*; also Bradley, D., C. Stephens, T. Harpham, *et al* (1991), *A Review of Environmental Health Impacts in Developing Country Cities*, World Bank/UNDP/UNCHS, Washington DC.

42. See reference 25, Brockerhoff (1995), page 10. By housing, Brockerhoff means household facilities in terms of water, sanitation, food storage, shelter, space and waste disposal.

43. See reference 9, Hardoy, Mitlin and Satterthwaite (1992); also reference 10, Harpham and Stephens (1991); also reference 41, Bradley, Stephens, Harpham, *et al* (1991); and Tabibzadeh, I., A. Rossi-Espagnet, and R. Maxwell (1989), *Spotlight on the Cities: Improving Urban Health in Developing Countries*, World Health Organization, Geneva, pages 1-174.

44. See reference 41, Bradley, Stephens, Harpham, *et al* (1991); also Stephens, C., I. Timaeus, M. Akerman, *et al* (1994), *Environment and Health in Developing Countries: An Analysis of Intra-urban Differentials Using Existing Data. Collaborative Studies in Accra and São Paulo and Analysis of Urban Data of Four Demographic and Health Surveys*, London School of Hygiene and Tropical Medicine, London, pages 1-128.

45. See reference 3, Moser (1996); also reference 35, Brockerhoff (1993); and Asthana,

S. (1995), "Variations in poverty and health between slum settlements: contradictory findings from Visakhapatnam, India", *Social Science and Medicine* Vol.40 (2), pages 177-188.

46. See reference 3, Moser (1996); also reference 27, Cairncross and Kinnear (1992); and Songsore, J. and G. McGranahan (1993), "Environment, wealth and health: towards an analysis of intra-urban differentials within Greater Accra Metropolitan Area, Ghana", *Environment and Urbanization* Vol.5, No.2, pages 10-34.

47. Bobadilla, J.L., J. Frenk, T. Frejka, *et al* (1990), *Health Sector Priorities Review: The Epidemiological Transition and Health Priorities*, Population and Human Resources Department, World Bank, pages 1-26; also Monteiro, C.A. (1982), "*Contribuicao para o estudo do significado da evolucao do coeficinete da mortalidade infantil no Municipio de Paulo (SP), Brasil nas tres ultimas decadas (1950-79)*", Revista de Saude Publica Vol.16 (1), pages 7-18; and Bisharat, L. and H. Zagha (1986), *Health and Population in Squatter Areas of Amman: A Reassessment after Four Years of Upgrading* (unpublished).

48. FUNDACAO SEADE (1990), "*Informe Demografico. Migracao no interior do Estado de São Paulo*" in Fundacao SEADE Vol.23, pages 1-207.

49. Medical Officer of Health, (1992), *Annual Report: Cape Town, 1992*, Ministry of Health, Cape Town, South Africa, page 10.

50. See reference 44, Stephens, Timaeus, Akerman, *et al* (1994).

51. Mutatkar, R.K. (1994), *Public Health Problems of Urbanization in a Developing Country* (unpublished).

IV. BEYOND BASIC NEEDS - THE URBAN HEALTH TRANSITION

IN SOME REGIONS of the world, policy makers have pursued the alleviation of urban health inequalities through the distribution of basic needs in cities. This has improved the survival of urban poor children as well as improving substantially basic living conditions for the poor and the overall population.[47] There is now evidence that, in some areas of the world, urban populations are moving through what is known as the health transition. This is seen in the shift in patterns of urban causes of death from infectious to chronic diseases. Heart diseases and neoplasms, the illnesses of adults and the elderly, now emerge as important urban problems. This is the case in urban areas as diverse as São Paulo in Brazil,[48] Cape Town in South Africa,[49] Accra in Ghana[50] and even in urban areas of Maharashtra in India.[51] Box 2 describes the health transition.

Box 2: The Health Transition

The health transition is the net result of three components: the demographic component (the ageing of population related to declining fertility and mortality rates); the risk factor component (changes in exposure to the underlying causes of specific diseases through factors such as vaccination, nutrition, environmental sanitation or traffic related pollution and injuries); and the therapeutic component (changes in the probability that an ill individual will die as a result of changes in access to, use of and effectiveness of curative health services).

Industrialization and urbanization can affect each of these components: urban areas experience a more rapid transition in fertility patterns towards smaller families; may have a higher frequency of risk factors for chronic diseases; and there is some evidence that health services may contribute to better survival in some urban populations.

SOURCE: This draws on Feachem R., T. Kjellstrom, C. Murray *et al*, (editors) (1990), *The Health of Adults in the Developing World*, World Bank.

The emergence of changes in the patterns of death and disease in cities as a whole implies that, in some cities, a broad set of policies bringing access to basic needs to most or all people has succeeded in helping the survival of urban populations beyond the risks of the infectious and parasitic diseases associated directly with unhygienic living conditions. This, combined with access to basic health care and vaccination, may address substantially the **survival** of the urban poor's children. Many

cities in Latin America have moved through this transition to some extent. The process has been fast for some cities such as São Paulo in Brazil[52] and Santiago in Chile. The process is facilitated by a combination of nineteenth century approaches (access to water, sanitation, basic nutrition) combined with the latter-day success of immunization against some of the major childhood killers. Cities are potentially changing more rapidly in health terms than in the past. Internationally, infant and child mortality rates more than halved between 1960 and 1990 (an achievement which took more than a century in Europe and North America).[53] Immunization against communicable diseases is now extensive with notable successes in urban areas.[54] There is thus evidence that the health transition is underway in some cities. Obviously, for many cities, this "transition" has not been achieved. However, the health profiles of cities past the "sanitary crisis" raise the harder questions of urban inequality and begin to raise the more profound questions of development.

52. See reference 47, Monteiro (1982).

53. See reference 8, United Nations Development Programme (1992).

54. Wills, C. (1995), "A journal of the plague weeks", *Independent on Sunday* Vol.23 July.

V. THE NEW URBAN INEQUALITIES: CONVERGENCE AND POLARIZATION

UNTIL RECENTLY, LITTLE information has been available to express the health impacts of urban inequality in terms of the "extent of the problem."[55] If an extensive analysis is done of overall inequalities, it becomes clear that an isolated analytic focus on the lack of basic needs for particular groups and their immediate consequences in terms of infectious disease obscures a much bigger inequality picture for adults and for overall quality of life.

55. See reference 43, Tabibzadeh, Rossi-Espagnet and Maxwell (1989).

a. Describing the New Urban Inequalities

It has been argued for some years, on the basis of little actual evidence, that a "double burden" of potential health impacts may exist for poor groups in cities [56] - in other words, the poor suffer not only from higher rates of infectious diseases but also from the chronic diseases of adulthood. There is increasing health evidence that this is true. Alongside or replacing child health problems in cities, there are large-scale inequalities in adult health between groups in urban areas of some cities.[57] Patterns of health inequalities continue - but they have emerged in other impacts such as violence, heart disease and overall adult illness.[58] This suggests the complex impacts of urban inequality - even if a poor individual survives the infectious disease risks of childhood, the direct early health impacts of poverty appear to be succeeded by inflated risks of non-communicable diseases, particularly violence, and, increasingly, circulatory diseases in adulthood.[59]

This is not a new story - there is a considerable amount of evidence of adult health inequalities in well-developed countries and towns of the North. It is important to note that the scales of inequalities in social and health terms within European and North American cities are very different to those in cities such

56. See reference 10, Harpham and Stephens (1991); also reference 43, Tabibzadeh, Rossi-Espagnet and Maxwell (1989); also reference 44, Stephens, Timaeus, Akerman, *et al* (1994); and Stephens, C., T. Harpham, D. Bradley, *et al* (1990), *Health Impacts of Environmental Problems in Urban Areas of Developing Countries. An Analysis of the Epidemiological Evidence for the WHO Experts Committee on Urbanization*, World Health Organization, Geneva.

57. See reference 44, Stephens, Timaeus, Akerman, *et al* (1994); also Yach, D. and D. Harrison (1996), *Inequalities in Health Determinants and Status in South Africa*, Medical Research Council, Durban, Pretoria.

58. See reference 44, Stephens, Timaeus, Akerman, *et al* (1994).

59. See reference 44, Stephens, Timaeus, Akerman, *et al* (1994); also reference 56, Stephens, Harpham, Bradley, *et al* (1990); also Frenk, J. (1993), *The Health Transition and The Dimensions of Health System Reform*, (unpublished); and Frenk, J., J.L. Bobadilla, J. Sepulveda, *et al* (1989), "Health transition in middle-income countries: new challenges for health care", *Health Policy and Planning* Vol.4 (1), pages 29-39.

as Calcutta, Accra or São Paulo. Yet, health inequalities for non-infectious diseases have been long recognized and debated in Europe.[60] It is disturbing that, added to this, there is emerging evidence that there are elements of **convergence** in the experience of the "double burden" of health disadvantage for the urban poor, internationally. Recent studies suggest that, in many cities of the North, the so-called "old diseases of poverty" are re-emerging. In particular, the re-emerging diseases are re-establishing themselves as the health burdens of the urban poor in the major cities of the North. The convergent experience is that of a health disadvantage for some urban people. International patterns in urban inequalities are clear from evidence on three important urban health impacts - urban violence, heart diseases and re-emerging infectious diseases.

b. Inequalities in Urban Violence and Heart Diseases

Violence has been described as "epidemic" in several contexts including many urban areas of Latin and North America along with African and, increasingly, Asian cities.[61] In public health terms, deaths from violence, either through deliberate injury via physical assault or through traffic, occupational and home injuries, overshadow infectious diseases as child and adolescent killers in some urban environments.[62] For example, violence (mostly homicides) accounted for 86 per cent of all deaths in boys aged fifteen to nineteen in São Paulo in 1992 and over half of all deaths in five to fourteen-year olds.[63] This health impact does not fall evenly in either the North or South - either for accidents or deliberate violence. For example, in the UK, there are gross inequalities in death rates from injuries: boys under 14 in the UK's lowest social class have a ten-fold greater chance of dying from fire, falls or drowning than those in the highest social class.[64] This parallels inequalities in Sao Paulo in 1992, where death rates from homicides were eleven times higher for adolescent boys in deprived areas than for adolescents in wealthier areas.[65] There are few data from African towns but health data from Cape Town and Johannesburg demonstrate large-scale inequalities[66] in death rates from deliberate homicide between racial groups. Urban violence, again homicides, in the United States shows similarly epidemic and similarly skewed patterns. In the States, health inequalities reflect racial discrimination particularly for Black, Hispanic and American Indian groups. Death rates for Black Americans in Harlem, one of the poorest areas of New York, were the highest in the city in 1990 and 50 per cent higher than that for all blacks. This meant that men in Harlem were less likely to reach the age of sixty-five than men in Bangladesh.[67] Studies from other American cities show a similar pattern. In Kansas City, black adolescents (twelve-sixteen years) have a thirteen-fold greater risk of firearm injury than their white neighbours (541 compared to 42 per 100,000 persons per year).[68]

Urban violence does not just affect people through death and disability. Traumatic injury and death, particularly from deliberate violence, is articulated as a major mental health concern

60. Davey-Smith, G., D. Blane and M. Bartley (1994), "Explanations for socio-economic differentials in mortality. Evidence from Britain and elsewhere", *European Journal of Public Health* Vol.4, pages 131-144; also Whitehead, M. (1988), *Inequalities In Health*, Penguin Group, London, 4th Ed, pages 1-399; and Whitehead, M. (1995), "Tackling inequalities: a review of policy intiatives" in Benzavel, M., K. Judge and M. Whitehead (editors), *Tackling Inequalities in Health. An Agenda for Action*, Kings Fund, London, pages 22-53.

61. See *The Urban Age* Vol.1, No.4, especially: Pinheiro, P.S. (1993), "Reflections on urban violence", page 3; Hasan, A. (1993), "Karachi and the global nature of urban violence", pages 1-4; Ndiaye, M. (1993), "Dakar: youth groups and the slide towards violence", page 7; Guerrero, R. (1993), "Cali's innovative approach to urban violence", pages 12-13; de Noronha, J.C. (1993), "Drug markets and urban violence in Rio de Janeiro: a call for action", page 9; also Pan American Health Organization (1990), "Violence: a growing public health problem in the region", *Epidemiological Bulletin* Vol.11 (2), pages 1-7; and Zwi, A. (1993), *Public Health and the Study of Violence: Are Closer Ties Desirable?* (unpublished).

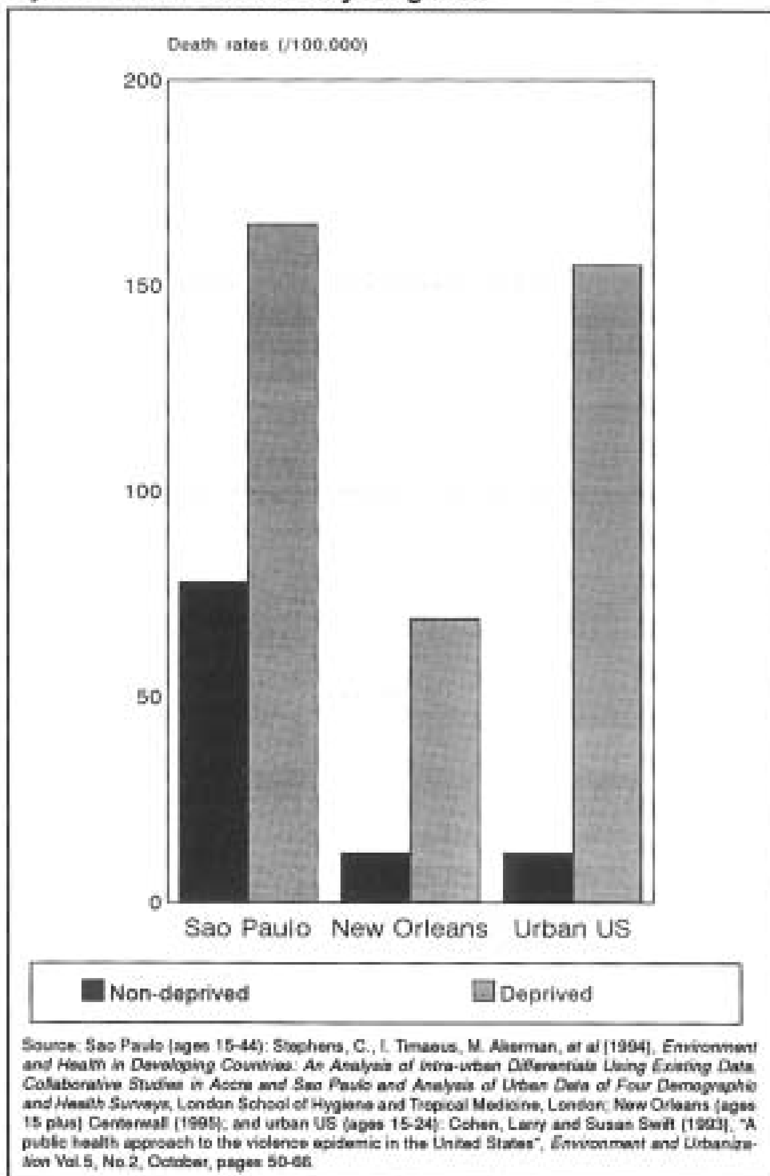
62. See reference 61, de Noronha (1993); also SEMPLA (1992), *Base de Dados para o Planejamento*, SEMPLA, São Paulo; and Laurenti, R. (1972), "*Alguns aspectos epidemiol ogicos da mortalidade por acidentes de transito de veiculos a motor na cidade de São Paulo, Brasil*", Revista de Saude Publica Vol.6 (4), pages 339-341.

63. See reference 44, Stephens, Timaeus, Akerman, *et al* (1994); also reference 62, SEMPLA (1992).

64. See reference 29, Townsend, Davidson and Whitehead (1992).

perceived by the poor (and often rich) in cities as diverse as Lusaka,[69] São Paulo,[70] Metro Manila[71] and Washington DC.[72] Additionally, although girls and women are less likely to be killed in homicide incidents, they are extremely vulnerable to sexual violence. There is little detailed documentation in cities of the distribution of rapes and sexual violence between groups in cities. However, it is clear that poor women more often find themselves in circumstances which put them at risk. Rape and domestic violence was citied as a major "environmental problem" facing homeless women in Calcutta in 1995[73] - women reported that they felt unable to sleep and were at risk using communal

Figure 2: Inequalities - some convergence? Violence, injuries and accidents in young men



Source: Sao Paulo (ages 15-44): Stephens, C., I. Timaeus, M. Akerman, *et al* (1994), *Environment and Health in Developing Countries: An Analysis of Intra-urban Differentials Using Existing Data. Collaborative Studies in Accra and Sao Paulo and Analysis of Urban Data of Four Demographic and Health Surveys*, London School of Hygiene and Tropical Medicine, London; New Orleans (ages 15 plus) Centerwall (1995); and urban US (ages 15-24): Cohen, Larry and Susan Swift (1993), "A public health approach to the violence epidemic in the United States", *Environment and Urbanization* Vol.5, No.2, October, pages 50-66.

65. See reference 44, Stephens, Timaeus, Akerman, *et al* (1994).

66. See reference 57, Yach and Harrison (1996).

67. McCord, and Freeman, G. (1990), "Excess mortality in Harlem", *New England Journal of Medicine* Vol.322 (3), pages 173-177.

68. Dowd, M.D., J.F. Knapp, J.F. and L.S. Fitzmaurice (1992), "Paediatric firearm injuries, Kansas City 1992. A population based study" in *Paediatrics* Vol.94 (6)I, pages 867-873.

69. See reference 26.

70. See reference 44, Stephens, Timaeus, Akerman, *et al* (1994).

71. See reference 26.

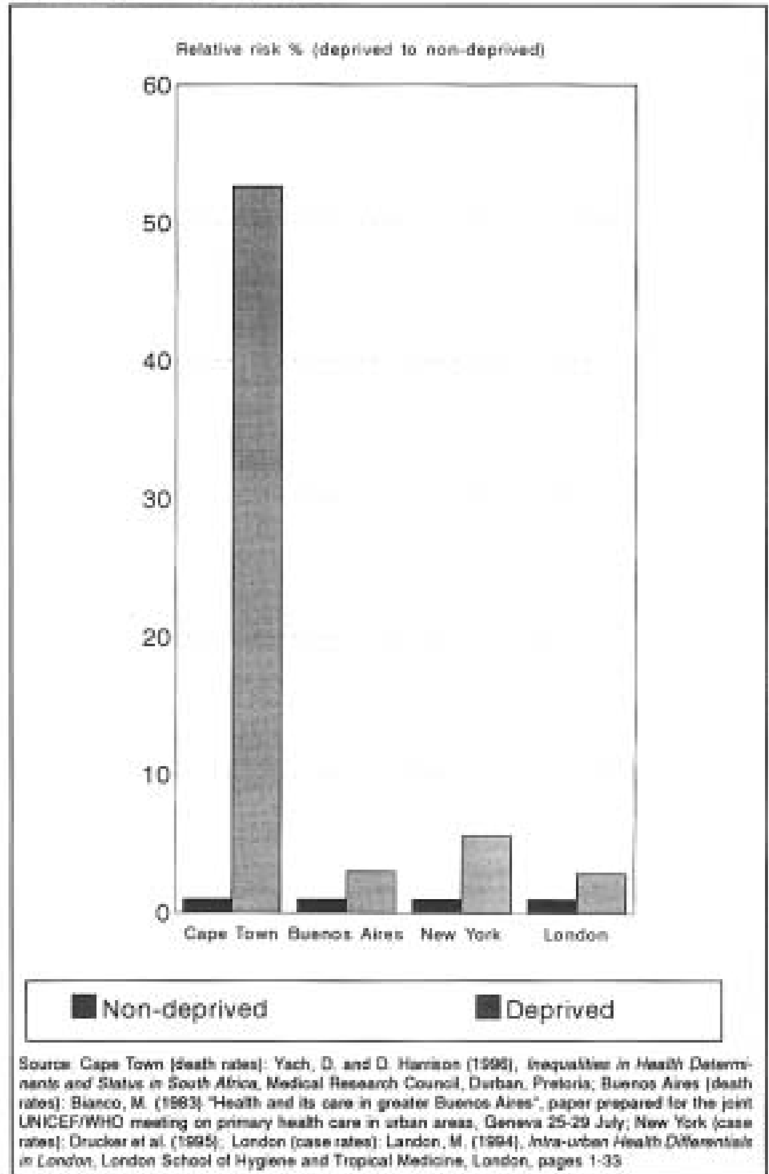
72. *Epidemiological Comments* (1994), Vol.21 (6).

73. Stephens, C. and M. Gupta (1996), "Ignorance or lack of control?" in *WHO Environmental Health Newsletter* Vol. 25, page 10.

toilets or public washstands at night. Figure 2 shows evidence of the unequal impacts of violent death, both from assault and other injuries, in cities.

Violence is not the only indicator of the "new" inequalities. Heart disease is a major cause of death in most countries in the North yet it has been known for some time that the poor experience higher rates of death and disability from this.[74] Individual actions contributing to high risks of heart disease include smoking, lack of exercise, stress and diets with high cholesterol and high sodium levels. Recent controversial data suggest early childhood deprivation may also influence risks - some scien-

Figure 3: Inequalities - some convergence? Relative risks for the poor - TB returns



Source: Cape Town (death rates): Yach, D. and D. Harrison (1996), *Inequalities in Health Determinants and Status in South Africa*, Medical Research Council, Durban, Pretoria; Buenos Aires (death rates): Bianco, M. (1983) "Health and its care in greater Buenos Aires", paper prepared for the joint UNICEF/WHO meeting on primary health care in urban areas, Geneva 25-29 July; New York (case rates): Drucker et al. (1995); London (case rates): Landon, M. (1994), *Intra-urban Health Differentials in London*, London School of Hygiene and Tropical Medicine, London, pages 1-33

74. Feachem, R., T. Kjellstrom, c. Murray, *et al* (1990), "Adult mortality: levels, patterns and causes" in Feachem R. T. Kjellstrom, C. Murray, *et al* (editors), *The Health of Adults in the Developing World*, World Bank, Washington DC.

75. Barker, D.J.P., C. Osmond, P.D. Winter, *et al* (1989), "Weight in infancy and death from ischaemic heart disease", *The Lancet* Vol.8663, pages 577-581; and Baker, D. (1994), "Poverty and ischaemic heart disease: the missing links", *The Lancet* Vol.343, pages 496.

tists suggest that poor maternal nutrition may be important.[75] There is still little known about heart disease in the South generally and even less on risks from heart disease in vulnerable groups particularly in urban areas of the South. These have been termed "diseases of affluence"[76] but current data indicate that death rates from circulatory diseases in both North and South are, in fact, highest among the poor.[77] Figure 3 shows some recent evidence. Studies are few but evidence from cities such as Santiago suggests also that, as in the North, the urban poor smoke more, drink more heavily and are more obese.[78] Returning to problems of measurement, this is only a description of the direct health risk behaviour of the poor. Anthropological studies point to the reasons for such actions and suggest that smoking and drinking are coping strategies for dealing with the stresses of the disadvantage trap.[79]

76. See reference 51; also World Health Organization (1992), "Hypertension plaguing the middle class in developing countries", *The Health Courier* Vol.2, No.1, page 24.

77. See reference 74.

78. World Bank (1990), *Chile: the Health Sector Challenge*, The World Bank , Washington.

79. See reference 5, Wilkinson (1996).

c. Inequalities in the "Re-emerging" Urban Diseases

And what of the "re-emerging" infectious diseases? These, it is argued, are concentrating in the popularly characterized "exploding" cities of the South or the "underclass" of the North. It is certainly true that some cities are in crisis - but the emerging diseases are not altogether a new phenomenon. Urban malaria, for example, has never gone away in many areas of the world.[80] Some infectious diseases are returning after decades of apparent control. Associated with the immune system compromise brought about by HIV infection, tuberculosis (TB) is re-emerging in some cities in Europe. Again, in reality, for the urban poor in the South, TB never went away.[81] In the North, it is important to distinguish whether or not TB, the old disease of "urban poverty", is returning solely through its link to HIV or also as a symptom of increasing polarization of social groups in which the conditions of the relative poor have deteriorated dramatically. A mixture of both is likely. AIDS and HIV are now diseases of relative poverty in the North and South, affecting those forced into hazardous sex trades as well as those relying on unsafe drug use.[82] Increasing levels of homelessness in some Northern cities, as well as increasing "ghettoization" of groups, seems also to be linked to the re-emergence of urban TB. For example, a recent study of childhood tuberculosis in the Bronx in New York suggests an increase (between 1970 and 1990) in residential crowding and in childhood tuberculosis. Children living in areas where over 12 per cent of the households were severely overcrowded were six times more likely to develop active TB than their neighbours.[83] Overcrowding was associated with increased household poverty, greater dependence on public assistance, Hispanic ethnicity, larger household size and a high proportion of young children. In London, a study of urban health inequalities in 1994 found TB to be concentrated among the unemployed and those in rented accommodation.[84] Two-fold health inequalities exist in London in terms of rates of tuberculosis and bronchitis. Figure 4 shows the relative risks of TB in four centres.

The new inequalities are not confined to the familiar cities

80. Lines, J., T. Harpham, C. Leake, *et al* (1992), *Trends, Priorities and Policy Directions in the Control of Vector-borne Diseases in Urban Environments* (unpublished).

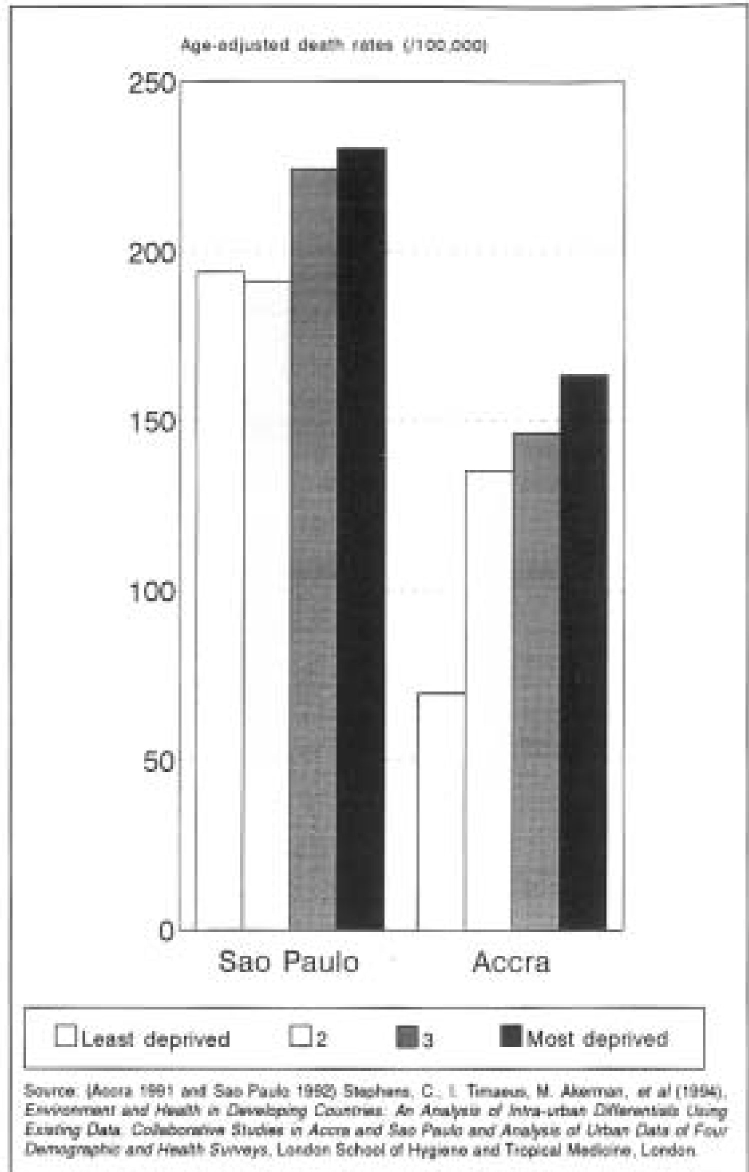
81. See reference 38, World Health Organization (1993).

82. Porter and Ogden (forthcoming).

83. de Cock, K.M., S.B. Lucas, D. Mabey, D., *et al* (1995), "Tropical medicine for the 21st century", *British Medical Journal* Vol.311, pages 860-862.

84. Landon, M. (1994), *Intra-urban Health Differentials in London*, London School of Hygiene and Tropical Medicine, London, pages 1-33.

Figure 4: Urban inequalities - double burdens. Heart diseases



from regions of the North and South. Recent data from Russia and other regions of Eastern Europe show sometimes dramatic increases in overall death rates since 1989.[85] Violence, infectious diseases and circulatory diseases, and overall death rates are escalating in some areas. There are few figures on the social distribution of these health changes but economic data suggest a process of polarization mirroring that in Western Europe and some nations of the South.[86] The rise in death rates in Russia, overall, have been severe enough to reduce life expectancy by five years - an almost unprecedented backslide in life chances for a population past the heavy risks of childhood diseases.

85. Werna, E., I. Blue and T. Harpham, T. (1996), "The changing agenda for urban health" in *Changes in The Urban Landscape: From Habitat I to Habitat II*.

86. See reference 5, Tchernina (1995).

VI. EXPLAINING THE NEW INEQUALITIES AND LOOKING FOR POLICY LEVERS

RECENTLY, CONCERNS HAVE been expressed over the lack of logic in tackling urban poverty in isolation from the whole urban system.[87] This tends to be an argument put forward by urban planners, macroeconomists and social policy experts to deal with the scale and complexity of urban poverty, mostly in its "basic needs" sense. Evidence on health inequalities and inequities is also compelling but rare. Even evidence on inequalities in infectious and parasitic diseases argues profoundly for the importance of tackling the whole system - it is not easy to deal with inequalities in water distribution without dealing with the whole system. For example, in Accra, Ghana, cholera occurs most frequently in the the drier seasons in people in the deprived areas of town.[88] These people suffer from diseases related directly to buying contaminated stored water. Indirectly, their health disbenefit is linked to very localized water shortages, which they experience, whilst those in wealthier areas often do not even suffer a diminution of water pressure in their taps or swimming pools.[89]

The evidence of a double burden of urban health inequalities suggests also the need for policies way beyond the scope of current interpretations of "basic needs" strategies.[90] How do we interpret the complex health statistics on urban inequality? This section will look at this in three ways: questioning interpretive frameworks on urban inequalities; looking at historical policy levers and policies; and, finally, raising the larger question of the logic of our development trajectory.

a. Interpreting Complex Inequalities

In health terms, urban inequalities can be related to the levels of "absolute" poverty in cities, in the sense that this predicts access to basic health-protecting services and homes. However, consistent urban health disadvantage and a range of infectious and non-communicable diseases throughout child and adulthood suggests something more complex about the implications of relative disadvantage in the urban society.[91]

It may be true that, if basic needs are provided, survival of the urban poor follows. However, evidence of continued inequalities in health suggests that basic needs approaches do not take away health disadvantage. Inequalities in violence and heart diseases are not solved with basic needs solutions - there are neither vaccines nor simple infrastructure solutions.[92] For the South, with its massive basic needs concerns, the evidence suggests caution - tackling the basic needs of the poor is a symptomatic approach to a structural problem not a systematic one which addresses the position of people in the overall society.

b. Historical Policy Levers

History suggests lessons for interpretation. The Metropolitan Sanitary Commission of 1848-9 noted disapprovingly of **"...the**

87. Cohen, M. (1992), "The new agendas: urban policy and urban development" in Harris, M., (editor) *Cities in the 1990s: The Challenge for Developing Countries*, UCL Press, London, pages 9-24.

88. See reference 44, Stephens, Timaeus, Akerman, *et al* (1994); also Adadey, K.O. (1992), *Greater Accra Regional Health Administration Annual Report 1991*

89. See reference 28, Benneh, Songsore, Nabila, *et al* (1993); also reference 44, Stephens, Timaeus, Akerman, *et al* (1994); Ministry of Local Government (1992), *Strategic Plan for the Greater Accra Metropolitan Area*, Department of Town and Country Planning, Ministry of Local Government Ghana, pages:1-202.

90. It is important to note that the original basic needs concepts included the "...participation of the people in making decisions which affect them" (ILO 1976, page 32). The same document suggest that achieving basic needs required "...changing the pattern of growth and use of productive resources."

91. See reference 29, Townsend, Davidson and Whitehead (1992); also reference 44, Stephens, Timaeus, Akerman, *et al* (1994); also reference 84; also Jorge, M.H.deM. (1980), "*Mortalidade por causas violentas no Municipio de São Paulo, Brasil (I: Mortes Acidentais)*" *Revista de Saude Publica* Vol. 14 (4), pages 475-508; also Wing, S. (1994), "Limits of Epidemiology", *Medicine and Global Survival* Vol.1, No.2, pages 74-86; and Kreiger, N. (1994), "Epidemiology and the web of causation: has anyone seen the spider?", *Social Science and Medicine* Vol.39, No.7, pages 887-903.

92. Editor (1994), "Plague in India: time to forget the symptoms and tackle the disease", *The Lancet* Vol. 344 (8929), pages 1033-1035.

absence of cleanliness, of decency and all decorum.. where people live irregularly or on unsuitable diets and at the same time filthily they must expect to perish."[93] By the end of this century, we have in many ways progressed from this understanding. But it is still very possible to read characterizations of the conditions of urban poverty which extract it from its societal context and the processes which create it. McKeown, for example:

93. Luckin, B. (1986), *Pollution and Control. A Social History of the Thames in the Nineteenth Century*, Adam Hilger, Bristol, UK, pages 1-198.

94. McKeown, T. (1988), *The Origins of Human Disease*, Blackwell, Oxford, page 131.

> "Urban migrants have already **created** formidable problems in respect of food, hygiene, education housing and health...at best underemployed and are usually unemployed, **creating** high crime rates in the shanty towns in which they must live. Often these **septic fringes** in the towns have vital statistics that are much worse than those of rural areas."[94] (My emphases).

Discussion of violence in cities often highlights problems of logic in many of the current interpretive frameworks on urban inequality. Violence most eloquently suggests the difficult distinction between "worthy" urban poverty and urban inequality or inequity. It is common for studies to point to the infectious disease and "shameful"[95] high infant mortality rates experienced by people with a lack of basic needs. The deaths and disease are invoked as a dire consequence of the physical symptoms of poverty. This is more problematic for problems outside child and infant health where the attempts to discuss poverty in isolation of its context leads to deeply moralistic language. Thus, the complex problems of the "urban poor" as characterized by WHO: "...stress, alienation and unhealthy behaviour predisposing to cardiovascular, neoplastic and mental diseases, as well as to accidents in the home, at work and on the road... social instability, promiscuity and prostitution which in a context of poverty and low education can lead to alcohol and drug abuse, crime, child abuse and sexually transmitted diseases."[96]

95. See reference 74.

96. Rossi-Espagnet *et al*, (1991), "Urbanization and health in developing countries: a challenge for health for all", *World Health Statistics Quarterly,* Vol.44 (4), pages 186-245.

It does not seem reasonable to suggest that young children hit by infectious diseases are victims of poverty but that older boys in the same communities are to be indicted for deliberate violence driven by "criminality". It seems more reasonable to suggest that violence is a consequence of the more difficult aspects of relative poverty - that violence is a symptom of deep social anomie provoked by inequality and inequities in cities. This is substantiated by studies of violence in the South and studies of relative poverty in the North. Sergio Pinheiro, professor of political science and director of the Centre for the Study of Violence in São Paulo, has a more progressive interpretation: "Life in the city, especially for the poor, is a constant battle disguised as competition..."[97] Authors in the UK argue for the importance of relative social disadvantage rather than absolute material deprivation in explaining health inequalities.[98] Wilkinson, basing his argument on international analysis of income differentials and health, contends that "...it is less a matter of the immediate physical effects of inferior material conditions as of what the social meanings attached to those condi-

97. See reference 61, Pinheiro (1993), page 9.

98. See reference 29, Townsend, Davidson and Whitehead (1992); also Ferreira, C.E.C. (1989), "*Mortalidade infantil: a manifestacao mais cruel das desigualdades sociais*" in São Paulo em Perspectiva Vol. 3 (3), pages 24-29.

tions make people feel about their circumstances and themselves."[99] Urban violence seems more credibly to be explained by such an analysis than by one which suggests that poor urban children who survive infections become criminals.

99. See reference 32, Wilkinson (1994), page 6.

c. Policy Levers to address Inequalities

Policy levers to address late twentieth century urban inequality are very little understood at present. It is probably fair to say that we are still at the stage of getting equality and equity back onto the policy agenda. Why do we need progress? Townsend's conceptual work is useful:

> "The more the concept of poverty is narrowed the easier it is to argue that the national growth of material wealth is all that is required....the more the concept is widened the more we admit that a complex combination of growth, redistribution and reorganization of social associations has to be discovered."[100]

100. See reference 23, Townsend (1993), page 33.

How do we get to this? Chambers argues that "...anti-poverty action has often been justified to the rich and powerful by appealing to enlightened selfishness: this has stressed mutual interests and the bad impacts of poverty, suffering and deprivation on those who are better off." He goes on to suggest that "...to rely on arguments about mutual material interests is to risk loss of support if they do not exist. Ethical arguments are stronger, surer and better." Chambers' views on "common decency, compassion and altruism" are shared by a growing (theoretical rather than policy) group who talk of "values", "equity" and "social cohesion."[101] In distinguishing these arguments, Chambers draws on deep historical policy levers. A combination of enlightened self-interest and "noblesse oblige" suffuses the writings of policy makers in the eighteenth and nineteenth centuries on the conditions of urban poverty. This combination suggested that the poor would infect the rich with their diseases;[102] that the poor were needed for the armies, factories and productivity of the nations;[103] and that the poor would revolt if they did not get their basic needs.[104] In addition, the poor were to be pitied for their weakness and, therefore, helped.[105]

Many of these arguments are more difficult today - as recent policy reality suggests. The plague in the poor areas of Surat, India provoked Europe to raise its substantial drawbridges and the discussion of the "coming plagues" is not couched in language to lever altruistic change but to encourage more drawbridges.[106] This is not only happening internationally but within cities. A recent writer in South Africa likened this within his own city of Cape Town to the medieval cities of Europe with their fortressed, privileged areas and homes surrounded by the exploited deprived.

Altruism suffers also in the face of today's complex urban inequalities. Child deaths are regular invocations for altruism. Violence is less easily so - current policy responses suggest a

101. See reference 2, Silver (1995) and Wolfe (1995); also Rodgers, G. (1995), "The design of policy against exclusion" in Rodgers, G., C. Gore C. and J.B. Figueiredo (editors), *Social Exclusion: Rhetoric, Reality, Responses*, International Labour Organization, Geneva, pages 253-283.

102. White, K.L. (1991), *Healing the Schism. Epidemiology, Medicine and the Public's Health*, Springer-Verlag, New York, pages 38-72.

103. See reference 93.

104. See reference 18.

105. See reference 33.

106. See reference 36; also Editorial (1994), "Less equal than others", *The Lancet* Vol.343 (8901), pages 805-806.

tendency towards calling for tighter punishments for crime and improved "security" in cities rather than altruistic support or even an understanding which suggests the behaviour of the rich is a substantial influence on the frustration of the poor.[107]

Perhaps more unnervingly, the economic justifications for focusing on the urban poor as human or social capital[108] are also unhelpful as a means of arguing for urban equality. Suggesting that improving the lot of the poor will improve the productivity of a society does not necessarily encourage policies to alleviate inquality[109] - in simple terms, the equations do not add up. When the poor are many and their remuneration from work small, the calculated benefits of improving their lot is minimal in comparison to maintaining the lot of the rich (who, given their remuneration, are more worth keeping in health). The World Bank economist Lawrence Summers[110] notoriously suggested this when arguing that international toxic waste policy should focus on sending hazardous waste to poor countries where lives were cheap. This is, as Chambers suggests, the downside of using "enlightened self-interest", arguing for the human capital value of the poor as a policy mechanism for change.

107. N'Dow, W. (1994), *The Human Face of the Urban Environment* (unpublished).

108. See reference 3, Moser (1996); also World Bank (1993), *World Development Report 1993: Investing in Health*, Oxford University Press, Oxford.

109. See reference 2, Silver (1995); also reference 101, Rodgers (1995).

110. Reported in Pearce, F. (1992), "Why it's cheaper to poison the poor", *New Scientist* Vol.1, February, pages 137.

VII. CONCLUSIONS - WHERE ARE WE GOING?

TOWNSEND ARGUES THAT, "...if they lack....resources to obtain access to the conditions of life - diets, amenities, standards and services - **which allow them to play the roles expected of them by virtue of their membership of society**, they may be said to be in poverty."[111] The final point which any discussion of equity must address is the degree to which all poverty is now relative - and the upper levels of "relative" are the lifestyles of the international wealthy. As global society becomes increasingly urban and international, as processes of globalization and urbanization imply, the aspiration model of "society" is an internationally common one. As communication and urbanization bring us closer together we share increasingly similar aspirational models. In these circumstances, we must interpret all urban poverty as relative - and relative to the position of the most privileged. Boys in Kingston, London, Santiago, Lagos and Delhi begin to share the same wish-lists - Nike shoes are one example of current status symbols fought over internationally. This is an unexplored dimension of urban inequality. However, we must begin to recognize that frustrated aspirational models are credible means of explaining the escalating violence in cities and the patterns of convergence in double burdens of disease in cities. Urban violence is less criminality than the alienation of whole groups of society in the face of growing polarization between extreme affluence and frustrated aspiration. Put simply, internationally, those who are powerless in our increasingly urban societies are sold the signals of a global aspirational model and then told to suffice with basic needs. This is recognized at a philosophical level by people in very different societal positions. Moser, reporting on violence in Ja-

111. See reference 23, Townsend

maica talks of the anger and frustration of young men trapped into lifelong poverty.[112] This echoes the words of Pinheiro[113] speaking of Sao Paulo, and Hasan of Karachi.[114] A senior advisor at the World Bank speaks of social Darwinism and argues "...urban project colleagues say: it is as if you think that when you house and water people, they will not be poor.....it obviously does not make any sense." [115]

Perhaps the most eloquent and accurate understanding of inequality has always been expressed in popular culture by musicians, poets, writers and filmmakers. James Baldwin writing of life for US boys in the 1940s states:

> "These boys, now, were living as we had been living then,they were growing up with a rush and their heads bumped abruptedly against the low ceiling of their actual possibilities. They were filled with rage."[116]

Or Jarvis Cocker, a musician in the UK:

> "We don't look the same as you, we don't do the things you do but we live round here too... We want your homes, we want your lives, we want the things you won't allow us... That much money could drag you under...what's the point of being so rich when you can't think what to do with it? We learnt too much at school, now we can't help but see that the future you've got mapped out is nothing much to shout about."[117]

Such sentiments echo the words of Patrick Hunsley-Magebhula from South Africa:

> "How can I sleep when the little I have is at stake? When my future is in fat manicured hands, not even in reach of my blunted fingertips; when they try to fob me off with toilets and then tell me they are doing me a favour?"[118]

This paper argues finally, then, that the challenge of urban inequality is to look at our whole development trajectory - and, in particular, to look seriously at the lifestyles of those at the top of our globalized society. Whilst conceptual changes move theory forward slowly, macroeconomic policy drives international inequities forward rapidly. Extreme affluence is concentrating rapidly in the hands of a very few. It is difficult to see how the term "social exclusion" can move the debate forward when the excluded form over 90 per cent of the global population, increasingly living in cities and "excluded" from aspirational models of wealth and power which are concentrated in the hands of an international oligarchy. Evidence of the health and social implications of urban inequalities demands a sophisticated reappraisal of what equity really means today. This is demonstrated neatly by the health evidence. In 1989, Mooney[119] noted that WHO had a rather inconsistent attitude to "equity":

> **"The target on health inequalities presents a chal-**

(1993), page 36.

112. See reference 3, Moser (1996).

113. See reference 61, Pinheiro (1993).

114. See reference 61, Hasan (1993).

115. See reference 87.

116. Baldwin, J. (1996), *Sonny's Blues (1948)*, Penguin, London, 7th Ed.

117. Cocker, J. and Pulp, (1995), *Mis-shapes in Different Class*, Polymer Records, London.

118. Hunsley-Magebhula, P. (1995), "Sleep is for those free at heart - not for the homeless", *Environment and Urbanization* Vol.6, No.1.

119. Mooney, G. (1987), "What does equity in health mean?", *World Health Statistics Quarterly* Vol. 40, pages 296-303.

lenge to change the trend by improving the health opportunities of disadvantaged nations and groups so as to enable them to catch up with their privileged counterparts."

But this is not the crux of the challenge - it is now clear that the behaviour of the "privileged counterparts" is the crux of the problem. It is an unsustainable pattern for the planet and it is linked profoundly to the disadvantage of the poor. The behaviour of the "privileged counterparts" sets up an aspirational model which will doom us all. The challenge is to recognize that the patterns of consumption and behaviour at the affluent top end of our societies - internationally and locally - must change; that they are inextricably linked to the health disadvantage at the bottom end of our societies. This is a point which is still far from real agendas (international or local). As the urban rich build their artificially isolated island fortresses and the urban poor die, it is clear is that there is a problem. That, at least, is the first stage - we know what the problem is and we know what **should** be done. It is far less clear how to move from what **should** be done to what **will** be done.

Readers who are interested in the full report of the study of intra-urban differentials in Accra and Sao Paulo can contact Carolyn Stephens at the London School of Hygiene and Tropical Medicine. This report contains full results and methodological details of how to undertake a study of this kind. A summary of the study and its methods will be published in the next issue of *Environment and Urbanization.*