

URBAN SOCIETY HEALTH



Restructuring health care in Dakar, Senegal

In 1985, the city of Dakar had three major hospitals and a trauma centre but few local health centres. Over the years, the city put more emphasis on local care. Six smaller hospitals were built, along with 18 health units and four maternity centres, mostly in poor neighbourhoods. Each facility is managed by a health committee of elected representatives who work in collaboration with the chief doctor. The income generated by each centre is managed by the committee to provide for the needs of the facility, including the provision of affordable care and medication for the poor.

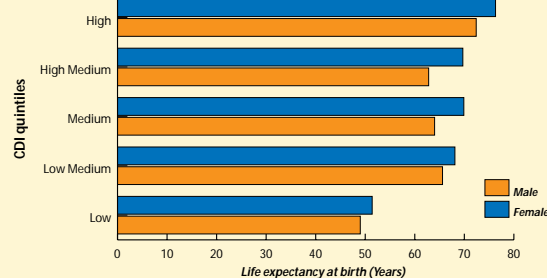
Worldwide, epidemiological and demographic information suggests that health, health services and survival rates are better in cities than in rural areas. The epidemiological transition (the shift from a predominance of communicable disease to a predominance of non-communicable disease) took place fastest in countries with high levels of urbanization, and the transition generally occurred first in urban areas. However, some old and new communicable diseases, such as HIV, predominate in urban areas, while research on intra-urban differentials indicates that low-income urban populations suffer the 'worst of both worlds' in terms of communicable and non-communicable diseases.

The Urban Disease Profile

Rural and urban health profiles relate to environmental, socio-economic and cultural changes. Low fertility rates, better immunization coverage, and better access to health services have contributed to decreases in communicable diseases and a concomitant urban child survival advantage over rural children. A growing body of evidence, however, suggests that non-communicable diseases, including diseases of affluence and those associated

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Life expectancy correlates with the level of city development



In this graph, the City Development Index (CDI) calculated for a sample of cities and arranged by quintiles, is used as a measure of development at the city level. Results show that life expectancy at birth in cities correlates with the level of city development. Similar results are reported at the national level, using the UNDP Human Development Index (HDI) which shows that life expectancy is respectively 77, 66.9 and 48.8 years in high, medium and low human development countries. See page 116 for an explanation of the CDI.

with social instability, have gained relative importance in urban areas, particularly among adults, with dramatic and growing impacts of mental ill-health, violence, accidents and chronic disease.

A major cause of injuries is violence. Latin America has the world's highest burden of homicides, at a rate of 7.7/1,000 individuals, compared with a world average of 3.5/1,000. Violent crime is particularly prevalent in the region's large cities, and within them, among men and adolescents living in low-income areas. Analysis of early 1990s data, from São Paulo, Brazil, indicates that males aged 15-24 years living in low-income areas are more than five times as likely to become victims of homicide than those in higher income areas.

Traffic is another major cause of death and injury in cities and towns. Higher densities of people, vehicles and roads suggest that urban populations are a greater risk than rural populations. A review of road traffic injuries in developing countries shows that casualties per 10,000 vary widely among countries, from 3 in Saudi Arabia to 302 in Haiti. Rates were twice as high for men than for women, with adolescents and young adults a particularly high-risk groups.

Mental ill-health is predicted to become the leading disease burden in developing countries, with 12 to 51 percent prevalence rates. Anxiety and depression typically scores higher among women than men, and among lower income communities, with variations reflecting differential exposure and vulnerability to

The Development Effects of HIV/AIDS

Twenty-six million Africans are infected with the HIV virus. New infections are occurring at a rate of about 4 million per year. HIV/AIDS prevails among people in the prime of their life, killing most of those infected before their 35th birthday. Because of AIDS, life expectancy in Africa is now declining. By 2005, AIDS treatment costs are expected to account for more than a third of all government health spending in Ethiopia, more than half in Kenya and nearly two-thirds in Zimbabwe. Expenditures on health in households with AIDS sufferers have quadrupled in Côte d'Ivoire and spending on education is cut in half. Food consumption drops by two-fifths. By the end of 2000 AIDS will orphan 10 million children under the age of 15 in Africa.

diverse risk factors, including control over resources, marriage patterns, cultural ideology, chronic stress, stressful life events, coping strategies, and availability of social support.

Another group of diseases that is predicted to cause high burdens on developing countries, particularly in the cities, are lifestyle diseases such as heart problems and cancers. Risk factors include toxic emissions and suspended particulate matter and lifestyle factors such as smoking, alcohol consumption, high fat/low fibre intake and too little exercise. In Latin America, there is an upward trend in mortality attributable to cancer of the lungs, gall-bladder and breasts. Circulatory diseases were found to be the second-most important cause

of death among adults in Accra, Ghana, and São Paulo, Brazil.

Emerging evidence of an urban penalty?

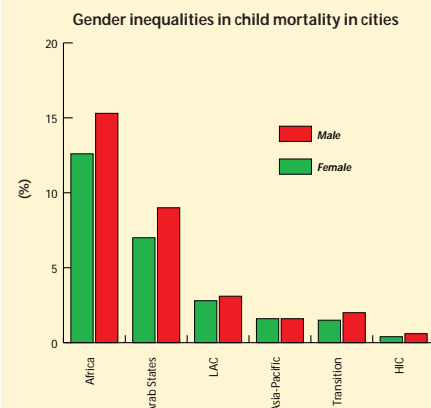
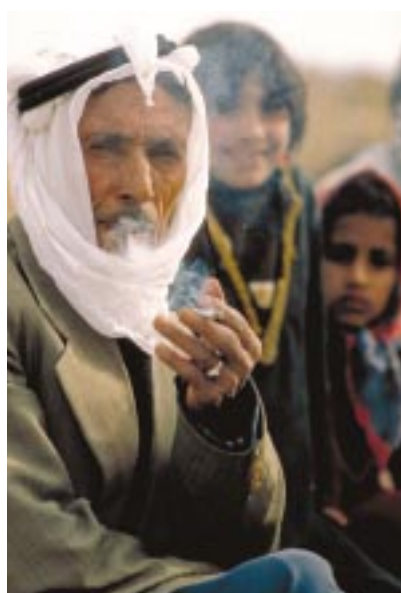
The term 'urban penalty' was prompted by an analysis of 19th century England, which revealed urban mortality rates, particularly from tuberculosis, much higher than rural rates. Public health measures and socio-economic change led to declines in urban infant mortality rates (IMR) and around 1905, rural and urban IMRs were similar. Later, the urban IMR curve decreased more sharply than the rural one. Recent analysis of urban data from 43 developing countries, however, suggests much slower declines in IMRs among city residents since the 1970s compared to smaller towns and villages. But in sub-Saharan Africa, IMRs had actually substantially risen in small and medium-size cities. In addition, the current global HIV/AIDS epidemic may be contributing to the sub-Saharan African urban penalty, with substantial evidence of higher HIV prevalence in larger cities. A recent study in Dar es Salaam, Tanzania, suggests that HIV/AIDS is the primary cause of death of urban males, while HIV/AIDS and maternal mortality are the primary killers of urban women.

Low income urban populations: the worst of both worlds?

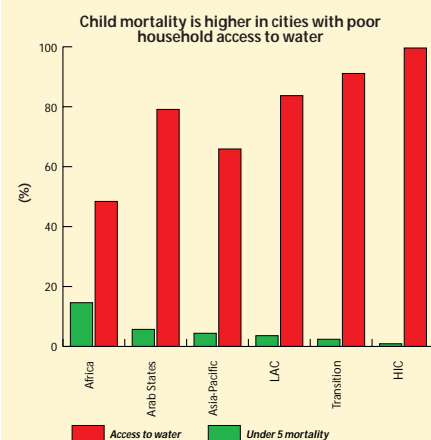
Many studies imply that the urban poor suffer the worst of both worlds: a double burden of both old and new epidemiological profiles. An analysis of Demographic and Health Survey (DHS) data demonstrates that the ratio of stunting prevalence of poorer versus wealthier quintiles was

greater within urban than rural areas, and that intra-urban differences between socio-economic groups were greater than the urban-rural differentials. Data on migrants in urban areas reveal that poor housing conditions in urban areas of the developing world are highly correlated with childhood diseases and injuries. Findings of DHS studies in Brazil, Egypt, Ghana and Thailand show that the health of urban children is influenced by the wider social and physical environment in which the household is located, and that it is not determined solely by disposable household income.

A comparative analysis of Accra, Jakarta and São Paulo revealed the significance of intra-urban differentials in disease and mortality. In Accra, up to 67 percent of deaths in adult population residents in the worst three areas might have been avoided had they lived in the best neighbourhoods. If São Paulo would have had a uniformly high socio-economic and environmental profile, 55 percent of the deaths in the most deprived zones would have been prevented. The work on intra-urban inequalities provides evidence of a 'double burden' of disease within cities: the urban poor die disproportionately of both infectious and chronic, degenerative diseases.



Under-five mortality is a powerful indicator of quality of life in cities. High child mortality is directly correlated to low environmental quality (wastewater treatment, sewerage and sanitation). Many deaths are the result of malnutrition, poor life conditions, i.e. poor shelter, polluted water and inadequate sanitation. Child mortality may be due to other factors and affects boys and girls differently. Reported mortality rates in cities show that girls are generally less likely to die before the age of five than boys. This confirms the trend reported at the national level by WHO, except for some Southeast Asian and Western Pacific countries.



Access to water has a proven impact on the incidence of water-borne diseases. The high child mortality rates in Africa, 12.6 percent for girls and 15.3 percent for boys, and low levels of access to water in African cities, where less than 50 percent of households are connected to water, clearly shows the correlation between access to water and health.