Communicable diseases

Urbanization and communicable diseases

United Nations projections are that more than three-fifths of the world’s population will live in urban areas by 2025. The apparently unstoppable urban growth has negatively impacted ecology, leading to the appearance, exacerbation and persistence of communicable diseases. These include diarrhoeal diseases, viral hepatitis, typhoid fever, HIV/AIDS, tuberculosis and vector-borne infectious diseases, especially dengue fever and chikungunya. Until recently, dengue has been primarily a disease of urban areas.

Factors influencing communicable diseases in urban settings

- Poverty in slums and unregulated areas
- Migration
- Overcrowding
- Rapidly depleting natural resources
- Poor water management
- Unhygienic living conditions and practices
  - poor drainage
  - inadequate sanitation
  - uncollected solid waste
- Increased unsafe sex
- Weak health system
- Inadequate access to health services
- Fragmented public health response
- Lack of knowledge/education in communities
- Lack of basic preventive measures

Between a quarter and a half of all urban residents in developing countries live in unhealthy and degraded dwellings. These slums are virtually a “no man’s land”, without services and without an adequate government presence. Hygiene practices in these slums are poor. Hand-washing at critical times is not always practiced owing to lack of water and the linkage of hand-washing to preventing diarrhoea and the transmission of infectious agents is poorly understood. Consequently, diarrhoea, dysentery and typhoid fever are common, and there are periodic outbreaks of cholera and viral hepatitis. An analysis of NFHS-2 data by economic group reveals that 25.9% of slum children suffered from diarrhoea during the two weeks preceding the survey, compared with 15.8% among more affluent urban populations.
HIV infection rates and risk behaviours are much higher in urban areas. A large household survey in six states of India found that HIV prevalence was 40% higher in urban compared with rural areas. Urbanization drives HIV infection in several ways. Sex work, which is a major driver of the epidemic in South-East Asia, is more prevalent in urban areas. The migration of single men to urban areas for work raises demand for sex work, whereas poverty and other structural determinants provide the supply side of sex work. Another major driver of the HIV epidemic, injecting drug use, is predominantly an urban phenomenon. HIV infection rates among injecting drug users in large cities of South-East Asia range from 20–50%, the highest in any population or geographical area. Access to health services for the most affected populations (sex workers, migrants and injecting drug users) remains low even in urban areas, as these populations are marginalized and unempowered.

Tuberculosis continues to be a complex problem in urban areas in the SEA Region. A major factor in the disease’s spread is overcrowding in slums and unhygienic conditions. Poor environmental conditions pose a threat of tuberculosis in adults.

Several vector-borne diseases, especially malaria, dengue fever and chikungunya, are connected to urban environment. Unplanned construction activities and changes in lifestyle (extensive use of water coolers as climate regulators) promote conditions that are conducive to the propagation of vectors. With the emergence of climate change as another challenge, water scarcity will further impact water management practices. Urban health systems cannot be geared up for continuous monitoring of water management practices at household levels.

**Issues to be addressed**

Urban settings pose unique challenges to the delivery of health services. Primary health care is almost nonexistent in most urban areas. Health delivery in urban areas is further impeded by the multiplicity of providers and lack of coordination among them.

The following are some steps to deal with the major issues related to urbanization and communicable disease:

- Scientific urban planning to ensure a healthy environment
- Healthy public policy
- Risk assessment
- Water management and judicious use, including proper recycling of waste water
- Strengthening of urban health systems, especially efficient surveillance and response mechanisms
- Expanding access to quality health services
- Promotion of behavioural change in communities