

URBANIZATION AND HEALTH IN NEPAL

Globally, over 55% of the population live in urban areas and this is set to rise to 68% by 2050 (WHO). Two thirds of the Nepalese population (67.2%) lives in urban area according to census 2021. Unplanned urbanization has contributed to air pollution, improper waste management, alterations in dietary habits, and increased risk of Non-Communicable Diseases (NCDs). This issue of INSIGHTS will provide synopsis of demographic characteristics, air pollution (PM 2.5), waste management, overweight, raised blood pressure, mental health and different causes of deaths in urban population of Nepal.

Demographic characteristics of urban population

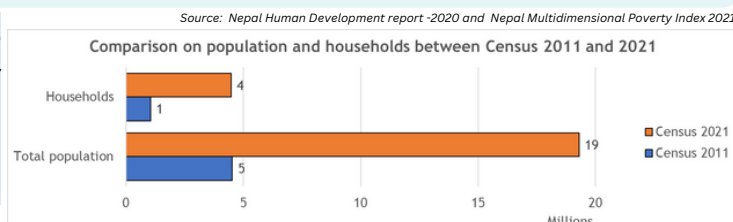
Overall urban area	Metropolitan cities	Sub-metropolitan cities	Urban municipalities
<ul style="list-style-type: none"> Total local level : 753 Total popn : 1,92,96,788 Males: 94,54,545 Females: 98,42,243 Sex ratio: 96.1 males per 100 females Area: ≈50844.52 sq.km Population density: 379.53/sq.km 	<ul style="list-style-type: none"> Total number: 6 Total popn : 2555579 * Males: 1275527 * Females: 1280052 * Sex ratio: 99.65 males per female Area: ≈1192.09 sq.km Population density: 2143.78/sq.km 	<ul style="list-style-type: none"> Total number: 11 Total popn : 1953289 * Males: 955785 * Females: 997504 * Sex ratio: 93.76 males per female Area: ≈2415.91 sq.km Population density: 808.51/sq.km 	<ul style="list-style-type: none"> Total number: 276 Total popn : 14577598 * Males: 7053941 * Females: 7523657 * Sex ratio: 95.82 males per female Area: ≈47236.52 sq.km Population density: 308.61/sq.km

* Excluding Institutional population

Source: National Statistics Office (2022). National population and Housing Census 2021: National Report. Kathmandu Nepal.

Human development index (urban): 0.647	Multi-dimensional poverty index (urban): 0.053	Multi-dimensional poverty (urban): 12.3%
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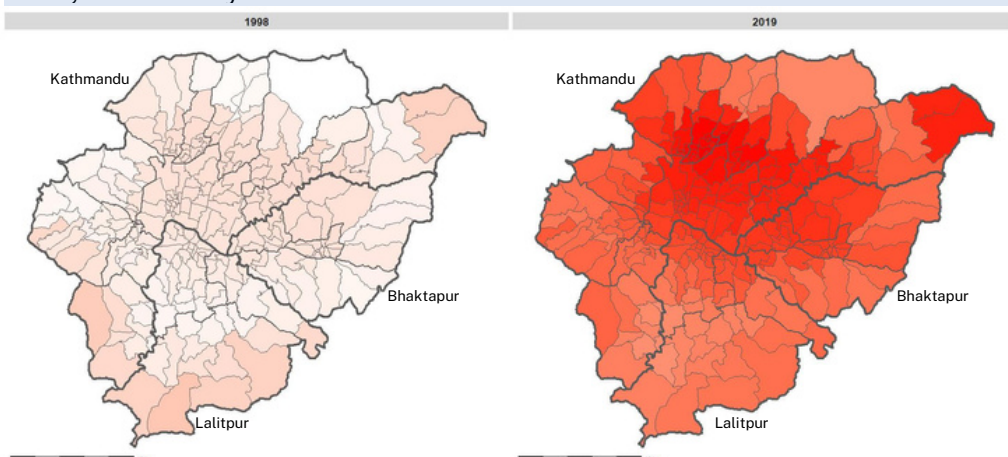
Between 2011 and 2021, Nepal's urban population and the number of urban households experienced a growth of over 300%, as reported by the Nepal Central Bureau of Statistics. This substantial increase highlights a significant urbanization trend with far-reaching implications.



Source: National Statistics Office (2022). National population and Housing Census 2021: National Report. Kathmandu Nepal.

Pollution

According to the State of Global Air, in 2019, fossil-fuel combustion contributed to 26% of outdoor PM2.5 in Nepal. In the same year, air pollution was a causative factor in 66% of COPD-related deaths, 47% of lower respiratory infection-related deaths, 34% of lung cancer-related deaths, and 22% of neonatal deaths. The 2020 State of Global Air report revealed that Nepal ranked among the top 10 countries in terms of the highest levels of outdoor PM2.5 pollution in 2019, second only to India.

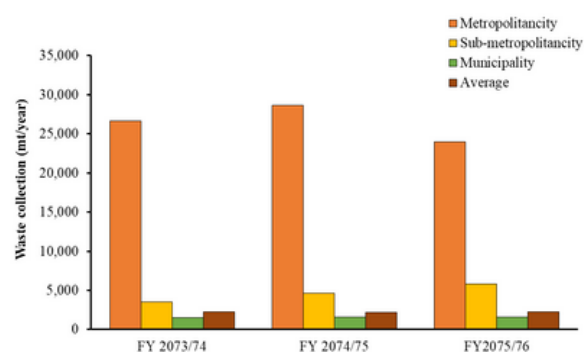


Source: Aaron van Donkelaar, et al. (2021). Monthly Global Estimates of Fine Particulate Matter and Their Uncertainty Environmental Science & Technology, 2021, doi:10.1021/acs.est.1c05309.

Over the past few decades, air pollution has become a prominent public health issue in city areas like Kathmandu Valley. Industrial growth, a rise in vehicular emissions, growth in housing constructions and the city's geographical layout, surrounded by hills that trap pollutants, have all contributed to the deterioration of air quality. Kathmandu has witnessed a drastic increase in outdoor PM2.5 between 1998 and 2019.

Waste collection

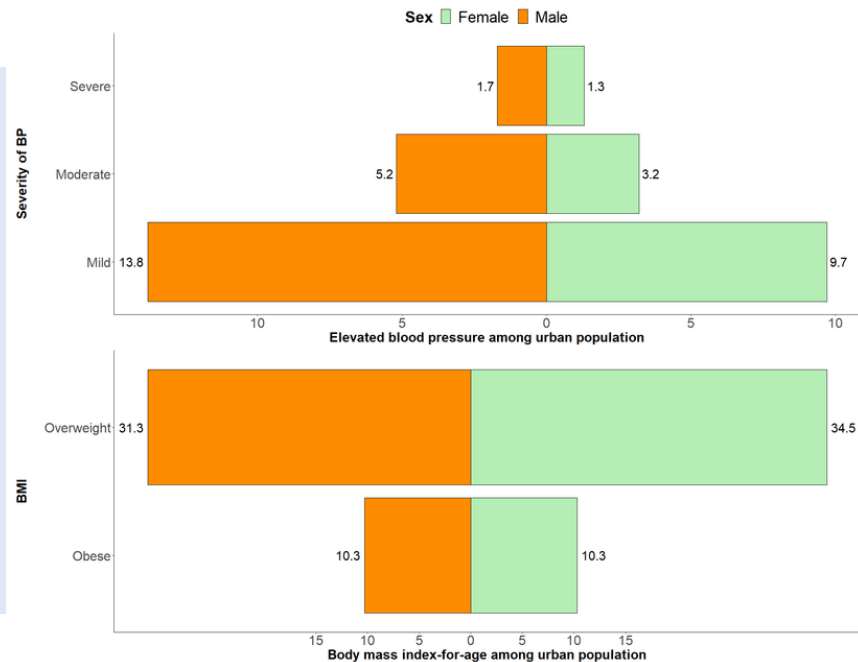
Waste collection in the urban area has historically been a challenging issue due to the unplanned urbanization and rapid population growth. The waste collection is primarily managed by municipal authorities but faces challenges such as inadequate infrastructure and improper waste disposal. Efforts to improve waste management and recycling awareness are ongoing, but the city continues to struggle with waste-related issues.



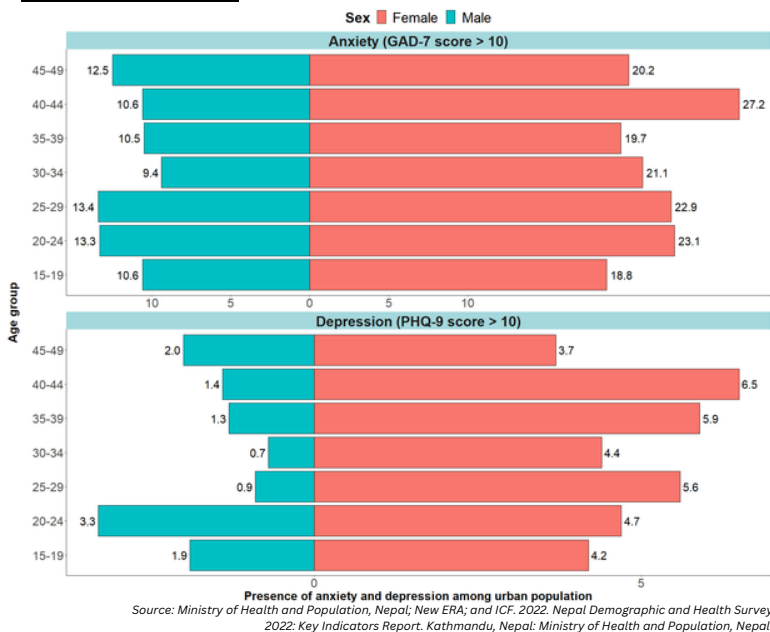
Source: Government of Nepal et al. Waste Management Baseline Survey of Nepal 2020

NCDs risks

- The prevalence of mild, moderate and severe raised blood pressure was higher among males compared to females
- The prevalence of severely raised blood pressure was 1.7% among males whereas 1.3% among females.
- The prevalence of overweight was higher among females compared to males whereas the prevalence of obesity was similar among both males and females.
- These figures emphasize the urgency for addressing weight-related health concerns across demographic categories, with a focus on promoting physical activity alongside dietary choices.

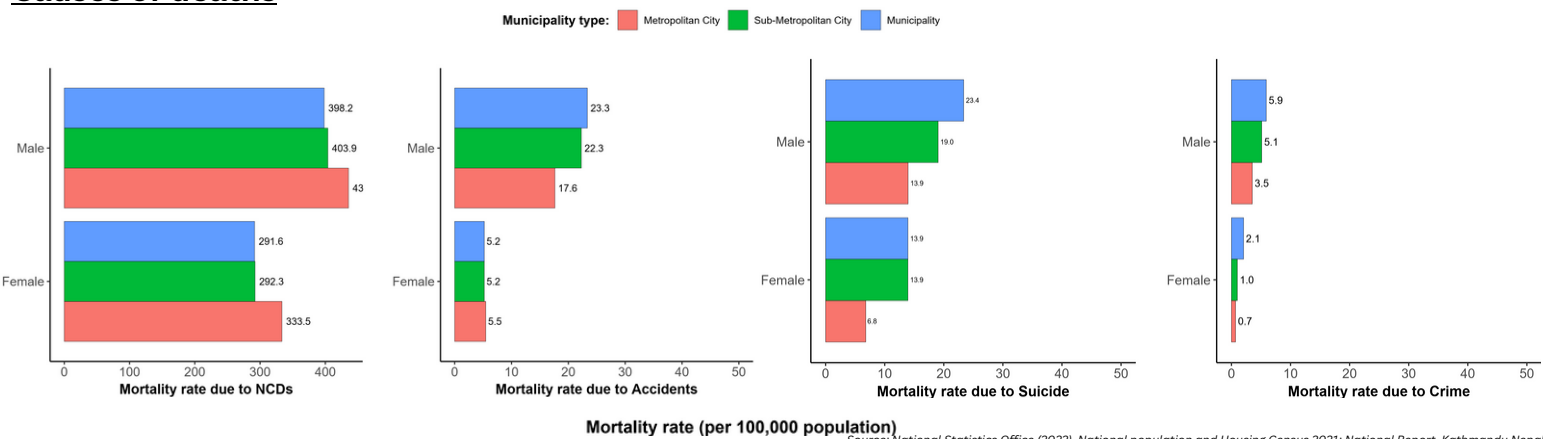


Mental health



- There were notable disparities in the prevalence of anxiety and depression across different age groups and genders in urban areas.
- The prevalence of anxiety ranged from 18.8% to 27.2% among different age groups among females with highest among 40-44 age group. The prevalence of anxiety among males ranged from 9.4% to 13.4% among different age group of Males with highest among 20-24 and 25-29 years age group.
- The prevalence of depression ranged from 3.7% to 6.5% among different age group of females with highest prevalence among 40-44 years whereas the prevalence ranged from 0.7 % to 3.3% among different age of males with highest among 20-24 years aged males.

Causes of deaths



According to the 2021 Census of Nepal, in urban areas, NCDs were the leading cause of mortality, exceeding the rates of death from accidents, suicides, and criminal incidents. Notably, NCD-related deaths are particularly pronounced in metropolitan areas, while deaths resulting from accidents, suicides, and crimes consistently remain lower in these areas.

In conclusion, Nepal's urbanization is increasing rapidly, with associated challenges such as severe air pollution, inadequate waste management, and health issues like raised blood pressure and mental health concerns. Non-communicable diseases are a significant cause of death in urban areas. To address these challenges, urban planning and public health initiatives are crucial ensuring the well-being of the growing urban population.