Gathering accessible, accurate and disaggregated data is an essential step in the process of recognizing and improving the situation of children in urban areas. Innovative visual representations of information can help identify gaps, prompting action from local decision-makers.

The concept of mapping poverty originated in London over a century ago as a way to highlight differences in living standards according to social class. Today’s computer technology makes it possible to compile simple interactive maps and correlations to show complex information traditionally displayed in columns and tables.

Where detailed data for a province, district or municipality may not be available, the ‘small area estimation’ approach creates subnational estimates based on national census and household survey information. Integrating the estimates with Geographic Information Systems (GIS) produces maps that can showcase differences between urban and rural areas and within urban zones.

The Columbia University Center for International Earth Science Information Network used this method to highlight disparities in urban income in Malawi (see Figure 2.6). The map displays gradients of poverty, making possible a simple and intuitive urban-rural analysis as well as a comparison of the country’s two major cities: Lilongwe, the capital, and Blantyre, a city of comparable size. In this example, where darker shades denote greater poverty, Lilongwe appears to have lower levels of poverty than Blantyre. Yet patterns of deprivation differ. While Blantyre exhibits greater levels of poverty than adjacent areas, Lilongwe is a relatively well-off urban centre surrounded by poorer regions, but also showing pockets of poverty (isolated darker areas) within its limits. This case study demonstrates the variability of urban patterns.

Another example comes from the English Public Health Observatories. Practitioners, policymakers and the general public can use this interactive online tool to illustrate and analyse 32 health profile indicators at the district and local authority level. Examples of

Figure 2.6. Mapping poverty in Lilongwe and Blantyre, Malawi

The shading on the map indicates levels of poverty, with darker shades denoting greater poverty. (Poverty is measured here by the average shortfall between actual household welfare level and the poverty line.) The black line indicates the greater urban area.

indicators that specifically focus on children and young people include childhood obesity and physical activity, teenage pregnancy, breastfeeding, tooth decay, child poverty, homelessness, educational achievement, crime and drug use (see Figure 2.7).

Larger cities often encompass multiple local government districts, which permits a side-by-side comparison of separate administrative districts within the metropolitan area. Greater London is divided into 32 boroughs. Urban disparities are stark and clear: 57 per cent of children in the inner London borough of Tower Hamlets live in poverty – a greater proportion than in any other borough in England. The City of Westminster has the nation’s highest level of childhood obesity, while Southwark has one of the highest rates of teenage pregnancy nationwide. In contrast, the outer London borough of Richmond upon Thames shows good levels of child health and well-being, and London children overall seem to have above-average dental health.

The tool also allows users to correlate variables, such as urban deprivation, with various child health outcomes. Local governments and health services can use this information to work towards reducing health inequalities by focusing on causes as well as results. Mapping urban indicators of child health and well-being reveals that a keen focus on disparities should not be limited to developing countries, as children’s rights and development prospects are uneven in some of the world’s most prosperous cities.

Figure 2.7. Tracking health outcomes in London, United Kingdom

The map on the left is shaded according to levels of deprivation. Boroughs selected for comparison appear in orange. Traffic-light colours in the table on the right indicate comparative performance in each area.

The tool can be used to show correlation between indicators. Below, the scatter plot displays the relationship between the proportion of children living in poverty and educational achievement across London. On the top map, darker shades denote a greater proportion of children living in poverty; on the bottom, darker areas show better educational scores.