Equity is at the heart of the SDGs, which are founded on the concept of “leaving no one behind”. SDG 3 calls for healthy lives for all at all ages, positioning equity as a core cross-cutting theme, while SDG 10 calls for the reduction of inequality within and between countries. Equity is also a key consideration with regard to UHC, which as noted earlier is both central to the health goal and founded on the principle of equal access to health services without risk of financial hardship.

A movement towards equity in health depends, at least in part, on strong health information systems that collect, analyse and report disaggregated data covering all health areas. This is recognized in SDG Target 17.18, which calls for efforts to build capacity to enable data disaggregation by a number of stratifying factors, including income, sex, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts. The proposed indicator for tracking progress towards this target is the proportion of sustainable development indicators with full disaggregation produced at the national level, where this is relevant to the target.

Disaggregated data enable policy-makers to identify vulnerable populations in the context of reforms towards UHC and to direct resources accordingly. This has relevance for all of the health-related SDG targets, which require equity-oriented approaches that support accelerated progress among the disadvantaged to reduce health inequalities. While important at the global and regional level – where they can be used to measure progress towards the goal of reaching all, and to provide countries with comparative data on their relative position in terms of health inequalities – equity data are most relevant within countries as they not only support targeted policy initiatives but can be used by civil society and other stakeholders to hold governments to account.

Health inequalities within countries are associated with a variety of factors, several of which are encountered uniformly across all countries. Examples include sex, age, economic status, education and place of residence. Other factors may be more specific to a regional or country situation, such as migrant status, race, ethnicity, caste, religion or other characteristic that can differentiate minority subgroups.1

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5.1 Sex – major differences between men and women for many indicators

The sex of an individual has a range of biological, behavioural, social and economic consequences for health. Sex-disaggregated statistics are needed for many of the health and health-related SDG indicators. Major differences between males and females may exist in mortality and causes of death, morbidity, coverage of interventions, risk factors and determinants. For example, in section 3, Fig. 3.3 and Fig. 3.5 present differences in life expectancy and HLE showing that on average women live longer than men. In most cases, the gaps between males and females differ between regions and between countries. Sex differences also vary by indicator, and are often linked to gender norms, roles and relations. For example, tobacco smoking is generally much more prevalent among men aged 15 years and older than women. However, there is also considerable variation between regions in this respect, with male-female gaps being smaller in the WHO American Region and WHO European Region (Fig. 5.1a). In relation to HIV incidence, African women have a considerably higher incidence than men (Fig. 5.1b). For deaths due to road traffic injuries, rates are much higher among males than females in all regions (Fig. 5.1c).

The health-related SDGs also include a number of targets and indicators that are focused on gender issues. Examples are SDG targets 5.2 and 5.3 which in The Global Strategy for Women’s, Children’s and Adolescents’ Health, 2016–2030 are combined into “Eliminate all harmful practices and all discrimination and violence against women and girls”.

This is monitored by SDG indicator 5.2.1: “Proportion of ever-partnered women and girls aged 15 years and older subjected to physical, sexual or psychological violence by a partner”.

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**Figure 5.1a**
Prevalence of tobacco smoking among adults >15 years of age, by sex and by WHO region, 2015

<table>
<thead>
<tr>
<th>Region</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFR</td>
<td>12%</td>
<td>15%</td>
</tr>
<tr>
<td>AMR</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>SEAR</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td>EUR</td>
<td>8%</td>
<td>12%</td>
</tr>
<tr>
<td>EMR</td>
<td>4%</td>
<td>6%</td>
</tr>
<tr>
<td>WPR</td>
<td>3%</td>
<td>5%</td>
</tr>
</tbody>
</table>

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**Figure 5.1b**
Percentage of adult population aged 15–49 years newly infected with HIV in Africa, by sex, 2014

<table>
<thead>
<tr>
<th>Sex</th>
<th>Incidence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>0.13</td>
</tr>
<tr>
<td>Male</td>
<td>0.09</td>
</tr>
</tbody>
</table>

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Figure 5.1c

Mortality rate due to road traffic injuries, by sex and WHO region, 2013.

<table>
<thead>
<tr>
<th>Region</th>
<th>Female</th>
<th>Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFR</td>
<td>16</td>
<td>38</td>
</tr>
<tr>
<td>AMR</td>
<td>7</td>
<td>24</td>
</tr>
<tr>
<td>SEAR</td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td>EUR</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>EMR</td>
<td>9</td>
<td>32</td>
</tr>
<tr>
<td>WPR</td>
<td>6</td>
<td>16</td>
</tr>
</tbody>
</table>

a Based on WHO provisional estimates. Each circle represents a country value; numbers and horizontal lines indicate the median value (middle point) for each subgroup; light grey bands indicate the interquartile range (middle 50%) for each subgroup.

SDG 3 aims for health and well-being for all at all ages. It is thus vital to monitor health developments using age-disaggregated data. In some areas, such monitoring is already improving. For example, newborn care became a health priority when evidence emerged that rates of child mortality during the neonatal period were declining much more slowly than those during subsequent periods. Adolescent health is also receiving more attention because of alarming data regarding risk factors such as tobacco use, harmful use of alcohol, HIV incidence and obesity prevalence. Older people do not figure prominently in the 2030 Agenda for Sustainable Development, but their numbers are rapidly increasing and evidence is emerging that much more can be done to promote their well-being. Improving the monitoring of health indicators of older populations should thus be prioritized.

5.3 Socioeconomic inequalities – major disadvantages for the poorest and the least educated

Socioeconomic inequalities exist in all countries and have important impacts on health. Data from high-income countries show that in almost all countries, higher death rates and poorer self-assessments of health are observed in groups of lower socioeconomic status compared with those who are better off. In half of the 66 national surveys conducted in LMIC, stunting prevalence in children aged less than 5 years was at least 15% higher in the children of mothers with no education compared with those children whose mothers had attended secondary school or higher. Socioeconomic inequalities also have implications for health behaviours. For example, smoking among men is reported to decrease across education subgroups moving from least-educated to most-educated across the

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The world is rapidly urbanizing and this has profound implications for population health. Between 2000 and 2014 more than 1 billion people were added to urban areas and by 2015 more than half of the world’s population was living in cities. The proportion of the world’s population living in urban areas is projected to increase from 54% in 2015 to 60% in 2030. Almost all projected urban growth will occur in developing countries.

Within cities, poor social and living conditions, such as those encountered in ghettos and slums, lead to greater health problems among the poorest compared with better-off city dwellers. The poorest run higher risks of diseases and injuries, and have less access to health services. To unmask the full extent of urban health inequities, it is important to disaggregate health and health-determinant data within cities.

Health systems tend to be weaker in rural and remote areas. Rural populations also carry a disproportionate burden of disease and death, and are generally the most disadvantaged within LMIC. For example, a recent study of 73 countries found that children living in urban areas (including those living in slums) have better health outcomes than children living in rural areas. Under-five mortality rates are higher in rural areas than in urban areas in most countries (median values of 54 LMIC: 84 deaths per 1000 live births in rural areas versus 61 deaths per 1000 live births in urban areas) with the magnitude of this difference varying by country (Fig. 5.2). Another study found that rural children were more likely to be stunted than urban children, and that overall improvements in child nutrition usually did not decrease the rural/urban disparities.

There are also major differences in intervention coverage rates. For example, need for family planning satisfied and births attended by skilled health personnel, are all lower in rural areas than in urban areas (Fig. 5.3). Addressing regional or district inequalities is critically important for effective health planning and resource allocation. From a monitoring perspective, regions and districts can also be used as a proxy for populations that share similar conditions or characteristics, such as high exposure to vector-borne diseases, environmental conditions and ethnicity. Thus, monitoring health inequalities between regions can generate important evidence and support for the targeting of health programmes and policies, especially when disparities are substantial.

5.4 Place of residence – focus on geographical differences within countries

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There are also major differences in intervention coverage rates. For example, need for family planning satisfied and births attended by skilled health personnel, as well as access to improved water and sanitation, are all lower in rural areas than in urban areas (Fig. 5.3).

5.5 Migrants and minorities – requiring special efforts

In almost every country in the world, minorities and indigenous peoples are among the poorest and most vulnerable of groups, suffer greater ill health and receive poorer quality health care than other segments of the population. More often than not, this ill health and poorer health care are the result of poverty and discrimination. The SDGs, with their broad commitment to leaving no one behind, offer hope that development efforts will be focused on minority groups in the coming years, with SDG 10 – which aims to: “Reduce inequality within and among countries” – making specific reference to indigenous peoples, pastoralists and other marginalized groups. Tracking progress in this area will depend upon ensuring the collection of standardized and comparable data, disaggregated by context-specific inequality dimensions.

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The situation faced by migrants is another major concern. It is estimated that around 244 million people are living outside their countries of origin, having left their homes for a variety of reasons, including conflict; natural disasters or environmental degradation; political persecution; poverty; discrimination; and lack of access to basic services – and in search of new opportunities, particularly in terms of work or education. Within this group, refugees and asylum seekers (defined as those who did not make a voluntary choice to leave their country of origin and cannot safely return home) require particular attention. The recent increase in the displacement of populations around the world is unprecedented. Over the past 4 years, countries in the Middle East have become host to more than 4.2 million new refugees. About 2.5 million refugees have arrived in Turkey since 2012, and more than 700,000 new migrants and refugees have arrived in Europe since June 2015. Many of these people have higher risks of health problems and lack access to health services and financial protection for health.

The topic of migration is included in the SDGs, which have a number of goals and targets related to migration issues, including SDG Target 10.7 on planned and well-managed migration policies. As with minorities, the effective monitoring of migrant health will be crucial to making progress, and was identified as one of four priority areas for action at the Global Consultation on Migrant Health held in Madrid in March 2010, at which stakeholders

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called for health information systems to be strengthened to ensure the standardization and comparability of data on migrant health, and for the appropriate disaggregation and assembling of migrant health information.\(^1\)

### 5.6 Data gaps – disaggregation is a crucial data challenge

The emphasis on disaggregated data called for in the SDGs will be a major challenge for countries and at the global level. Household surveys are the best instrument for obtaining data by socioeconomic and demographic characteristics. They are less suitable for obtaining local data and for use in populations that are small or more difficult to include in household survey samples (as this requires very large survey sample sizes). Nevertheless, surveys will remain the mainstay of disaggregated data collection for many indicators. A good example is the extent to which DHS and later MICS have provided standardized disaggregated data for reproductive, maternal and child health indicators.

For many indicators, however, overall data availability remains poor. Investments are thus needed in regular household surveys and electronic facility reporting systems (either in aggregated format or individual level data). Whenever possible, data collection should include small-area markers (such as postal codes) or individual identifiers (such as personal identification numbers) that permit cross-linkages between different data sources. Countries should move towards implementing standardized electronic record-keeping systems, while ensuring that personal data are protected and used appropriately. In addition, inequality, by its very nature, is a complex concept and can be calculated using different measurements. Countries should therefore also focus on developing the technical expertise needed to conduct health inequality analyses.

Disaggregation also implies a major challenge for the users of data. For example, the volume of data will increase and become more difficult to interpret. For this reason, it is essential that the needs and technical expertise of the target audience are taken into account when communicating health inequality analysis results. Presentation of such results should include, for example, interactive data visualizations, which can facilitate the interpretation of large or complex datasets.\(^2\)

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