1 The social determinants of health approach

Overview

- What are health inequities according to a social determinants of health (SDOH) approach?
- What causes health inequities and how can they be abolished using this approach?
- What are the limitations of the SDOH approach in addressing and redressing health inequities?

Nigeria, around 1970

Jonathan Iwegbu counted himself extraordinarily lucky. 'Happy survival!' meant so much more to him than a current fashion of greeting old friends in the first hazy days of peace . . . He had come out of the war with five inestimable blessings – his head, his wife Maria's head and the heads of three out of their four children. As a bonus he also had his old bicycle – a miracle too but naturally not to be compared to the safety of five human heads . . .

. . . [Jonathan] made the journey to Enugu and found another miracle waiting for him. It was unbelievable . . . This newest miracle was his little house in Ogui Overside . . . Only two houses away a huge concrete edifice some wealthy contractor had put up just before the war was a mountain of rubble. And here was Jonathan's little zinc house of no regrets built with mud blocks quite intact! Of course the doors and windows were missing and five sheets off the roof. But what was that? And anyhow he had returned to Enugu early enough to pick up bits of old zinc and wood and soggy sheets of cardboard lying around the neighbourhood before thousands more came out of their forest holes looking for the same thing. He got a destitute carpenter with one old hammer, a blunt plane and a few bent and rusty nails in his tool bag to turn this assortment of wood, paper and metal into door and window shutters for five Nigerian shillings . . .

His children picked mangoes near the military cemetery and sold them to soldiers' wives for a few pennies . . . and his wife started making breakfast *akara* balls* for neighbours in a hurry to start life again. With his family earnings he took his bicycle to the villages around and bought fresh palm-wine which he mixed generously . . . with the water which had recently started running again in the public tap down the road, and opened up a bar for soldiers and other lucky people with good money. (Achebe, 1985: 29–30)

*Fried patties or cakes made with black beans, onions and sometimes chilli.

As the extract from a short story by Nigerian author Chinua Achebe suggests, this story starts in sub-Saharan Africa, on the western side of the continent. Evoking a popular stereotype of the region, Achebe's story recounts an experience of civil war and precarious survival; in this case one that occurred between 1967 and 1970 in Nigeria. The players have changed since then, as have the triggers of the conflicts, but violence and civil disruption persist, as does the struggle by Nigerians to feed, clothe and house themselves. These kinds of struggles are not peculiar to Nigerians. They characterise the lives of millions of people in sub-Saharan Africa, particularly those experiencing recent bloody warfare and/or civil upheaval in Liberia, Sierra Leone, Mali, the Democratic Republic of the Congo and other countries in the region (Straus 2013). Although there is much talk about diversification of exports, intensive development of trade and removal of trade barriers as the answers to the struggles of nations in sub-Saharan Africa (World Bank 2012), there is considerable doubt about how successful such approaches would be in enhancing the lives of most sub-Saharan Africans (Cornelissen, Cheru and Shaw 2012).

As a region, sub-Saharan Africa has been a major exporter of resources, especially gold and other minerals from the western region, at least since the ninth century (Wolf 1982). The exportation of people as slaves from both the eastern and western regions of the continent is estimated to have begun around the same time. Less commonly acknowledged is the departure of people from East Africa who were not slaves, significantly pre-dating this trade – around 60 000 years ago (Stringer 2012). These were the first 'modern humans', or *homo sapiens* – the ancestors of all the planet's present inhabitants, including, of course, contemporary Africans (Stringer 2012). Estimated to be fewer than 1000, they walked out of the continent over 60 000 years ago and initially dispersed across Asia (Stringer 2012). We – their descendants – now number close to 7 billion and, while we share pretty much the same genetic make-up, our diversity has proliferated. We not only differ in physical appearance and language, but also in our histories, use of the physical environment and the myriad practices and technologies that comprise what we call 'a way of life'.

This diversity now commands considerable scientific interest from an army of researchers including anthropologists, archaeologists, geneticists, geographers, historians, philologists, sociologists and so on. Each specialises in particular aspects of this diversity. Two of the most significant specialities – and the focus of this book – is human health and health care, and how these are linked to the circumstances of people's lives and the ways in which they live.

By studying human health and health care, we can know with great certainty that the Nigerian experience of struggling to survive, for example, is accompanied by shortened lifespan, chronic illness and disability, and a loss of life in childbirth and infancy that is among the worst in the world (UNICEF 2013). We also know that as we move from Nigeria towards more northern latitudes and easterly across the globe to the United Kingdom, Scandinavia, Japan and Canada, for example, peoples' health could hardly be more different. Despite variations in language, history, geography and so on, these countries share a health bounty that sees the great majority reaching old age (over 65 years) (WHO 2013c) and generally supported with high-quality hospital and medical services. Well-nourished – in fact, excessively so in the United Kingdom and Canada, according to their governments' figures on the weight of their respective populations (WHO 2013e) – most, if not all of these northerners' encounters with hunger and pervasive mortality are typically confined to their consumption of electronic media.

Yet, dipping south from this easterly trajectory to the countries of South Asia, including India, it is evident that widespread immiseration, disease and premature death are not virtual realities. Like large swathes of the people in sub-Saharan Africa, literally hundreds of millions of Indians experience lives that are 'nasty, brutish and short' – and without access even to basic health services and medications. For many northerners, this experience is a cliché – life in the 'third world'. For the central character in a novel created by one of India's most celebrated authors (Adiga 2008), such a life is no cliché. As the satirical account (see box) of his childhood village home suggests, and as he comments frequently with respect to life in India, 'it's a f…ing joke!'

India, the early 2000s

Laxmangarh is your typical Indian village paradise, adequately supplied with electricity, running water, and working telephones; and…the children…raised on a nutritious diet of meat, eggs, vegetables, and lentils, will be found, when examined with tape measure and scales, to match up to the minimum height and weight standards set by the United Nations and other organizations whose treaties our prime minister has signed and whose forums he so regularly and pompously attends.

Ha!
Electricity poles – defunct.
Water tap – broken.

Children – too lean and short for their age, and with over-sized heads from which vivid eyes shine, like the guilty conscience of the government of India.

> Yes, a typical Indian village paradise . . .
> Down the middle of the main road, families of pigs are sniffing through sewage . . . Past the hogs and roosters, you'll get to my house – if it still exists.
> At the doorway to my house, you'll see the most important member of my family.
>
> **The water buffalo**
> She was the fattest thing in our family; this was true in every house in the village. All day long, the women fed her . . . feeding her was the main thing in their lives . . . If she gave enough milk, the women could sell some of it, and there might be a little more money at the end of the day. (Adiga 2008: 19–20)

Travelling east from India, crossing the Equator and moving south, we reach Australia – the home of the oldest direct descendants of those who walked out of Africa all those years ago. Now called 'Indigenous or Aboriginal Australians', they cohabit with predominantly European people whose forbears first arrived from England in the late 18th century by boat. Entering the island continent from the city of Darwin in the Northern Territory (NT), we see that the signs of affluence evident in the countries of the northern latitudes mentioned previously are everywhere here as well. Well-maintained public amenities to support the health and well-being of its people, most of whom are expected to live well into their 70s and 80s (WHO 2013c), are one such feature. Especially popular among these is the iconic public swimming pool. A well-known Australian children's author, Libby Gleeson (1993), illustrates through the eyes of one of her teenaged protagonists the centrality of the public swimming pool in the lives of many Australians, especially young people, and the taken-for-granted physical and other, less tangible but pleasurable, health benefits they derive from it. Doing laps, for instance, not only serves as a vigorous form of physical activity but allows him time for self-reflection. As he comments, '[I get to] think about all sorts of stuff, arguments I've had, conversations and what I should've said. Other times it's like the water washes your brain out' (Gleeson 1993: 153). And when 'other kids are there . . . we always muck around and have a good time' (Gleeson 1993: 152).

Yet, a tour of Darwin's public pools and the city's sprawling precincts reveals that the reassuring public amenity and tropical opulence encountered upon arrival are not the complete picture, especially with respect to the oldest direct descendants of homo sapiens from Africa. Though they number around 10 per cent of the city's population (Australian Bureau of Statistics (ABS) 2011), there are barely any Indigenous Australians at the pools. And they are

not found taking a dip in Darwin's crocodile-infested beaches and streams, either. There are, however, large concentrations of Indigenous people living in makeshift camps and settlements in and around the city that evoke the poverty and squalor of Adiga's Indian villages. The health calculations of the Australian Institute of Health and Welfare (AIHW 2013c) suggest, in fact, that many Indigenous Australians across the country – especially those comprising about a third of the population in the NT (ABS 2006) – share similar sorts of health fortunes to those of the people encountered in Nigeria and India.

Health diversity: The WHO and the CSDH

Moving further east and north again to New York City, the most populous city in North America, we encounter the glass-and-steel headquarters of some of the world's largest international 'think tanks' and other organisations conducting research and providing information, advice, guidance and strategy on health and health care issues around the world. One of the most powerful of these is the United Nations (UN), and though it does not focus explicitly on health, the decisions and policies it produces have major effects on health internationally. The World Bank, not far from New York, in Washington DC, also plays a major role in producing policy and advice, and financing health interventions, discussed in more detail in Chapters 7 and 8. It is the World Health Organization (WHO), first established under the auspices of the UN in 1946, however, that exercises the greatest influence internationally in how the world's health issues are or should be understood, and how they should be addressed by national governments (Schofield 2007: 107–8). Further east and across the Atlantic Ocean to continental Europe, the WHO's headquarters are located in Geneva, Switzerland. Supported by regional offices throughout the world and a vast bureaucracy, the WHO has virtually no funds to finance the implementation of its proposals and no power to force governments to do so. It exercises influence largely because of its authority as a world leader in the scientific investigation and reporting of world health patterns and trends, and through taking the lead in coordinating and strategically planning 'global health' (Brown, Cueto and Fee 2006: 263).

So, what sense does the WHO make of the health diversity we have seen on our brief international tour? Communicating to the global public primarily through the worldwide web, the WHO's website showcases innumerable

reports and publications. Among these, the one that engages most explicitly and comprehensively with health diversity on a global basis is *Closing the Gap in a Generation* (Commission on the Social Determinants of Health (CSDH) 2008). Almost 250 pages long, with lots of tables, graphs and charts, the report makes clear that, by contrast with much of human diversity, health diversity is no cause for celebration. In fact, according to the experts who researched, wrote and produced the report for the WHO, health differences of the kind we have seen are 'health inequities' – or unfair and unjust health differences (CSDH 2008: 1) – that have to be eliminated because they 'are killing people on a grand scale' (CSDH 2008: 248).

The CSDH has an unambiguous story to tell about global health inequities and how they can and should be abolished. At its heart is the idea of the 'social determinants of health'. The following excerpt from the *Closing the Gap* report introduces us to this idea from the WHO's perspective:

> The Commission takes a holistic view of social determinants of health. The poor health of the poor, the social gradient in health within countries, and the marked health inequities between countries are caused by the unequal distribution of power, income, goods, and services, globally and nationally, the consequent unfairness in the immediate, visible circumstances of peoples' lives – their access to health care, schools, and education, their conditions of work and leisure, their homes, communities, towns, or cities – and their chances of leading a flourishing life. This unequal distribution of health-damaging experiences is not in any sense a 'natural' phenomenon but is the result of a toxic combination of poor social policies and programmes, unfair economic arrangements, and bad politics. Together, the structural determinants and conditions of daily life constitute the social determinants of health and are responsible for a major part of health inequities between and within countries . . .
>
> And of course climate change has profound implications for . . . how it affects the way of life and health of individuals and the planet. We need to bring the two agendas of health equity and climate change together. (CSDH 2008: 1)

Even a cursory reading suggests that the social determinants of health are complex. The phrase, 'the social gradient in health' and the sentence, 'structural determinants and conditions of daily life constitute the social determinants of health', for instance, are unlikely to feature regularly, if at all, in most people's reading material and communications. Clarifying what the CSDH means by 'health' is a good start because it is central to the whole story, but there is no explicit definition or statement of what health is in the *Closing the Gap* report.

Yet, it is possible to identify what the report means by 'health' by analysing how it writes about – or represents – the topic.

'Health' and the WHO

The WHO has an official definition of health that was formulated in 1946 and has remained unamended since 1948. It proclaims that 'health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (WHO 1948). A problem with this definition is that it represents health as a kind of transcendental experience, like heaven or nirvana. Not surprisingly, some have criticised it as unrealistic and utopian (Dubos 1960) – more like a definition of a spiritual state. It is certainly difficult to identify and measure. For the *Closing the Gap* report, by contrast, measurement is critical to how health is understood. The report presents itself first and foremost as a manifesto for action (CSDH 2008: 2) – global, national and local. In doing so, it stresses that the effectiveness or otherwise of its proposed actions need to be measured and assessed (CSDH 2008:2). Its actions, of course, are directed towards reducing and eliminating inequities in health, and the significance of measurement for the approach of the CSDH directly shapes its understanding of health. The measurement of health is a field of research developed by epidemiologists, who measure *health outcomes* or conditions related to death, illness, disease, injury, disability and expectation of years of life. The *Closing the Gap* (CSDH 2008: 182) report lists the following as health outcomes: 'mortality (all cause, cause specific, age specific); early childhood development; mental health; morbidity and disability; self-assessed physical and mental health; and cause-specific outcomes (mainly injuries).' Epidemiological terms for health outcomes are *technical*, as the following examples show.

Life expectancy is the average number of years an individual of a given age is expected to live if current mortality rates continue to apply on existing age-specific death rates (1).

Mortality rate is an estimate of the portion of a population that dies during a given time period (2).

All-cause mortality rate expresses the incidence of death from all causes in a population during a given time period (2).

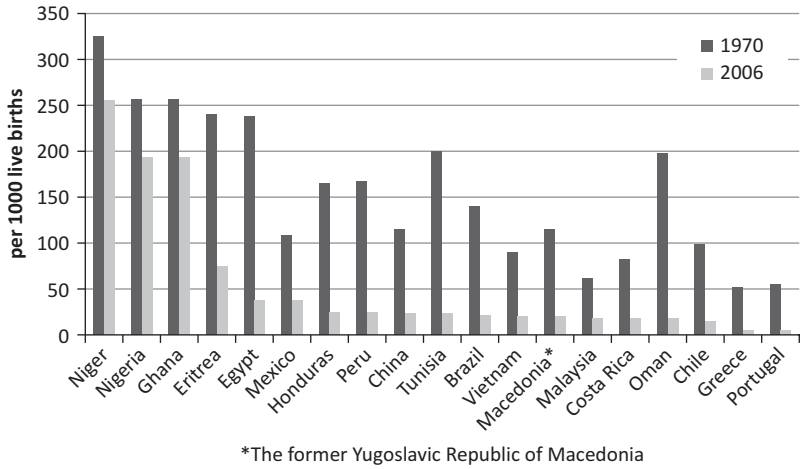
Cause-specific mortality rate expresses the incidence of death from a specific cause in a population during a given time period (2).

Age-specific mortality rate expresses the incidence of death for a specific age group in a population during a given time period (2).

Morbidity refers to any departure, subjective or objective, from a state of physiological or psychological well-being (2).

(1) Last 2001
(2) Hennekens and Buring 1987

In measuring such outcomes, epidemiologists use statistical methods to calculate prevalence (total number) and incidence (number per 1000) among *populations*. They talk about *rates* of health outcomes such as the rate of maternal mortality, infant mortality, deaths from specific causes such as cardiovascular disease (CVD), deaths of adults between the ages of 18 and 65 years, and so on. In calculating the maternal mortality rate, for example, epidemiologists measure the number of women who die in pregnancy and childbirth as a proportion of a specific population of women who are pregnant or participate in childbirth, usually in any given year. In relation to morbidity, epidemiologists focus mainly on measuring disease conditions, both acute and chronic. To determine the rate of specific disease conditions such as cancer, CVD and HIV/AIDS, for example, they may measure the proportion of a particular population diagnosed with these conditions. Measures demonstrating a high prevalence or incidence of, say, mortality, morbidity or disability, generally indicate poor health, while low rates



*The former Yugoslavic Republic of Macedonia

FIGURE 1.1 *Under-5 mortality rates per 1000 live births, selected countries, 1970 and 2006*
Source: Adapted from the original in CSDH 2008: 32.

indicate the opposite. Figure 1.1 is an example of the incidence of under-five year old deaths in a selection of 19 countries between 1970 and 2006 – an example of age-specific mortality.

The graph in Figure 1.1 shows the number of children under the age of five years who died as a proportion of 1000 live births by country in both 1970 and 2006. The countries shown are a selection only. The highest rate of under-five mortality among the 19 countries represented occurred in Niger, with more than 325 deaths per 1000 live births recorded in 1970 and a little over 250 recorded in 2006. The lowest rate, by contrast, occurred in Greece, with slightly more than 50 deaths recorded among under-five year old children for every 1000 live births in 1970 and approximately two for every 1000 live births in 2006. This graph permits comparisons, such as the rate of decline in the under-five mortality rate within and between selected countries for the period 1970–2006. Clearly, all countries disclosed a decline in the under-five death rate, but the greatest rate of decline was in Oman, judging by the height of the columns for 1970 and 2006. The country with the least or slowest rate of decline was Niger, but Nigeria and Ghana (all sub-Saharan African nations) also revealed rates of under-five mortality in 2006 that showed a markedly lower reduction since 1970 when compared with the other countries in the selection. On the basis of this one measure, it is evident that of the children under age five who are living in the selected 19 countries, those most likely to die are born in sub-Saharan Africa. Such a measure suggests that by comparison with their non sub-Saharan counterparts they are markedly less 'healthy'. This brings us to a further feature of the CSDH's understanding of health.

As the preceding has illustrated, epidemiologists are primarily concerned with the health of *populations* rather than *peoples*. A population is a statistical fabrication in the sense that the quantitative thinking and methods used to identify it actually create it or bring it into being (Schofield 2004, Rowse 2009). The first step in this process is to establish a boundary or marker of closure of the units to be included; the second step is to count the units. A fairly straightforward example is a national population. Here, the boundary is largely already drawn by agreement between and among nation states so that statisticians do not have to invent it. However, there are other factors that complicate the process, such as the residential and citizenship'status' of the units – or people – to be included. These operate as criteria that statisticians need to use in determining the boundaries of what they count in producing a population. A people, by contrast, is mainly but not exclusively used in regard to 'ethnic minorities' and

those who are Indigenous to a particular region or country, such as the Indigenous peoples of Australia, North America and so on – a subject discussed further in the following chapter. It is a qualitative 'construction' that also involves the establishment of boundaries or distinctions, but the process is not undertaken by scientists such as statisticians or epidemiologists. These boundaries are drawn subjectively by a specific group of people who identify themselves as distinct from others, usually on the basis of their shared histories, ways of life, values and interests (Rowse 2009). As a result, they and their health are much more difficult for statisticians to measure than populations and their health, an issue explored further in Chapter 6.

In measuring health outcomes of populations, epidemiologists are usually interested in identifying *patterns*. As for many in the social sciences, they require a combination of measures to confidently identify the presence of a trend or pattern in human health. As we have seen above, the rate of under-five mortality per 1000 live births in 19 selected countries, for example, suggests that children under five years of age in sub-Saharan African countries are significantly less healthy than their counterparts in other parts of the world. Determining whether this illustrates a broader trend of significantly worse health in this region than other parts of the world requires the combination of a number of health outcome measures of a variety of population 'strata', of which children under age five is only one.

Health inequality and inequity

What should be evident by now is that epidemiological understandings of health, as defined by the WHO, for instance, are quantitative but they are used to make value judgements about whether human health is better or worse within and between populations. These judgements are based on measurable disparities or inequalities in health outcomes. Yet, the WHO's *Closing the Gap* report and its plans for action are not only concerned with health disparities but also with health inequities and their elimination. Is there a difference between health inequality and inequity? According to the WHO and the international community that is concerned with global health in an official capacity – comprised predominantly of researchers, policy makers and practitioners with expertise in what is called 'public health' – there is. Health inequalities of the kind illustrated in Figure 1.1 do not simply reflect magnitudes of difference in numbers of deaths. From a public health perspective, they reveal inequities because