Chapter 2

Inequalities in human development: Interconnected and persistent
2. Inequalities in human development: Interconnected and persistent

"Inequality is not so much a cause of economic, political, and social processes as a consequence. […] Some of the processes that generate inequality are widely seen as fair. But others are deeply and obviously unfair, and have become a legitimate source of anger and disaffection."1

How do the patterns of inequalities in human development emerge? Where are the opportunities to redress them? Much of the debate on these questions has centred on the thesis that income inequality, in and of itself, has detrimental effects on human development. So reducing income inequality—primarily through redistribution using taxes and transfers—would also enhance capabilities and distribute them more equally.

Yet, this is far too reductionistic and mechanistic a formulation of the links between income inequality and capabilities. As in chapter 1, it is crucial to go beyond income and lay out the mechanisms through which inequalities in human development emerge—and often persist.

This chapter’s approach follows Amartya Sen’s argument in Development as Freedom that addressing deprivations in one dimension not only has benefits in and of itself but can also support the amelioration of others.2 For instance, deprivations in housing or nutrition may hinder health and education outcomes. While income is also a factor, deprivations are not necessarily tied to household ability to buy goods and services in markets. That is the motivation for the global Multidimensional Poverty Index, the nonmonetary measure of deprivation published in the Human Development Report since 2010.3 Being in poor health and having low education achievements, in turn, can hinder the ability to earn income or participate in social and political life. These deprivations can reinforce each other and accumulate over time—driving and even amplifying disparities in capabilities.

The difficulty with this approach, however, is similar to the one in chapter 1: where to start?

This chapter addresses the question by following a dual approach. The first takes a lifecycle perspective, similar to the one that inspired the analysis of capabilities linked to health and education in chapter 1 (with climate change and technology addressed at length in part III of the Report), and considers what happens to children from birth, and even before birth, and how families, labour markets and public policies shape children’s opportunities.4 Parents, through their actions and decisions, pass on to their children the qualities that the labour market values or devalues, explaining in part how family background determines personal income. Children’s education attainment depends on their parents’ socioeconomic status, which also determines children’s health, starting before birth, and cognitive ability, in part through early childhood stimuli. That status also determines the neighbourhood they grow up in, the schools they attend and the opportunities they have in the labour market, in part through their knowledge and networks.

While this lifecycle approach is helpful to illuminate mechanisms at the individual and household levels, the determinants of the distribution of capabilities cannot be fully accounted for by behaviour at these levels. Policies, institutions, and the rate of growth and change in the structure of the economy, among other factors, also matter a great deal. Thus, the chapter follows a second approach to consider how income inequality interacts with institutions and balances of power, the way societies function and even the nature of economic growth. Going beyond income does not imply excluding income inequality. Instead, it means that income inequality should, in the words of Angus Deaton, not be considered some sort of “pollution” that directly harms human development outcomes.5 It is crucial to spell out the mechanisms through which income inequality...
interacts with society, with politics and with the economy in ways that can both beget more inequalities and harm human development.

One example is how income inequality, institutions and balances of power co-evolve. When elite groups can shape policies that favour themselves and their children, that drives further accumulation of income and opportunity at the top. High income inequality is thus related to lower mobility—individuals’ ability to improve their socioeconomic status.

Intergenerational income mobility—the extent to which parents’ income accounts for their children’s income—is persistently low in some societies. When that happens, the skills and talent in an economy are not necessarily allocated in the most efficient way, reducing economic growth from a counterfactual that allocates resources to earn the greatest returns. The point to emphasize is less the precision of cross-country econometric estimates and more the identification of a plausible mechanism that runs from high inequality through opportunity (key for human development) to economic growth—and back.

The nature of inequalities also matters. For example, horizontal inequalities—which, as highlighted in chapter 1, refer to disparities among groups rather than among individuals—seem to matter for conflict. Once again, spelling out the mechanism is crucial: In this case, horizontal inequalities not only lead to shared grievances within a group but can also interact with political inequality to mobilize collective action for that group to take up arms.

How inequalities begin at birth—and can persist

In countries with high income inequality the association between parents’ income and their children’s income is stronger—that is, intergenerational income mobility is lower. This relation is known as the Great Gatsby Curve, often portrayed in a cross-plot of country data with income inequality on the horizontal axis and a measure of the correlation between parents’ income and their children’s income on the vertical axis. The Great Gatsby Curve also holds using a measure of inequality in human development instead of income inequality alone (figure 2.1):

The greater the inequality in human development, the greater the intergenerational income elasticity—that is, the lower the mobility. This relation does not imply direct causality in either direction and can be accounted for by a number of mechanisms running in both directions. This section explores how “the adult outcomes of children reflect a series of gradients between their attainments at specific points in their lives and the prevailing socioeconomic inequalities to which they are exposed.”

The underlying mechanisms of this relation can be understood, departing from inequality (because it is possible to account for the relationship also in the direction running from low mobility to high inequality), as follows: “Inequality lowers mobility because it shapes opportunity. It heightens the income consequences of innate differences between individuals; it also changes opportunities, incentives, and institutions that form, develop, and transmit characteristics and skills valued in the labour market; and it shifts the balance of power so that some groups are in a position...
to structure policies or otherwise support their children’s achievement independent of talent.” Opportunities are thus shaped by incentives and institutions that interact as drivers behind the Great Gatsby Curve. In more unequal countries it tends to be more difficult to move up because opportunities to do so are unequally distributed among the population. But what factors constitute inequality of opportunity? There are several, including—but not limited to—family background, gender, race, or place of birth—all crucial in explaining income inequality. The above hypothesis is supported by a negative association between a measure of inequality in opportunity and mobility in education, finding that the share of income inequality that is attributable to circumstances is higher in countries with lower education mobility. A similar relation was found between inequality in opportunity and mobility in income.

Inequality in opportunity is thus a link between inequality and intergenerational mobility: If higher inequality makes mobility more difficult, it is likely because opportunities for advancement are more unequally distributed among children. Conversely, the way lower mobility may contribute to the persistence of inequalities is by making opportunity sets very different among the children of the rich and the children of the poor. These opportunities not only affect the level of welfare that will be attained; they also determine the efforts that will have to be invested to achieve certain outcomes. A measure of inequality that assesses only outcomes will thus never be able to fully assess the fairness of a certain allocation of resources.

But relative mobility is not alone in being important for human development. Without absolute mobility, education and income would not increase from one generation to the next, which is important for progress, especially for low human development countries that need to catch up in capabilities (see chapter 1).

As introduced in chapter 1, a gradient describes how achievements along a dimension (say, health or education) increase with socioeconomic status. A vast literature describes how gradients emerge and persist. Angus Deaton described how health gradients were flat—with very little difference in health outcomes between the rich and the poor—until health innovations around the 18th century made it possible for the richest to start having access to health technologies: “Power and money are useless against the force of mortality without weapons to fight it.” In the second half of the 19th century health gradients were carefully documented in Britain and elsewhere, with their persistence remaining an enduring area of policy and academic debate.

How do health and education gradients evolve to opportunity? Some interactions can describe what happens over the lifecycle (figure 2.2).

A key channel for a potential vicious cycle of low mobility is an education loop. Education mobilizes individuals to improve their lot, but when low education is passed on from parents to children, those opportunities for improvement are not fully seized. To break the cycle requires understanding how these loops operate, pointing to opportunities for interventions, considered in the next section. Another significant loop relates to health status, starting at birth and evolving through life depending on family choices and health policies. The unequal distribution of health conditions can contribute to inequalities in other areas of life, such as education and the possibility to generate income. The relation also goes the other way, with health gradients in income suggesting that higher income “protects” health, which in turn enables people to be less prone to losing income as a result of being sick (with a vicious cycle in reverse potentially happening to those with lower income).

Inequalities in key areas of human development are thus interconnected and can be persistent from one generation to the next. Many aspects of children’s outcomes can be carried through to other stages of the lifecycle, where they affect adults’ ability to generate income. The resulting socioeconomic status shapes mating behaviours among adults. People with a certain income and education tend to marry (or cohabit with) partners with similar socioeconomic status (assortative mating). When these couples have children, the feedback loop can start from the top again, with parents’ socioeconomic status shaping their children’s health and early childhood development.
Countries with higher inequality in human development see higher intergenerational persistence of education

Similar to the Great Gatsby Curve and to figure 2.1, countries with higher inequality in human development see higher intergenerational persistence of education (a coefficient that estimates the impact of one additional year of parents’ schooling on respondents’ years of schooling). This means that education levels across generations are stickier (that is, there is less relative mobility) in more unequal countries (figure 2.3). The component with the strongest correlation coefficient is education, meaning that intergenerational persistence in education is higher the more unequally distributed the mean years of schooling in a given society are. As above, no direct causation should be inferred without looking at the mechanisms behind the correlation, which requires examination at the individual level rather than the country level. The questions are how parents’ socioeconomic status (most importantly their education levels) and health status (see the next section) are related to their children’s
Inequalities in education start during infancy, because parents are unequally able to exploit the opportunity to nurture. Parents provide stimuli for young children, and families can be nurturing. Parents’ education shapes the nurturing care provided to a child from conception to early childhood: a home environment that is responsive, emotionally supportive, conducive to children’s health and nutrition needs, and developmentally stimulating and appropriate, including opportunities for play, exploration and protection from adversity. But parents are unequally able to exploit the opportunity to nurture. For example, children in US professional families are exposed to more than three times as many words as children in families receiving welfare benefits. This has effects on early learning and later achievement test scores, leading to intergenerational persistence in education.

Institutions can play a crucial role in fostering mobility. For example, there is a 13.7 percent return on investment for comprehensive, high-quality, birth-to-age 5 early education, which is even higher than previously estimated. However, children from families with different socioeconomic status also have unequal access to these programmes, nationally and globally. Enrolment in preprimary programmes (age 3 to school entrance age) ranges from 21 percent in low human development countries to 31 percent in medium human development countries to 74 percent in high human development countries and to 80 percent in very high human development countries.

But even if children attend preprimary programmes, disparities in learning abilities are often already apparent for the reasons explained above. Consider the relation between average achievement test scores by a child’s age and levels of parents’ education in Germany (a proxy for socioeconomic status; figure 2.4). The differences in age-specific scores are substantial, and they increase enormously during the first five years of a child’s life and persist throughout childhood. This does not mean that children do not learn in school (as the tests

FIGURE 2.4

Skill gaps emerge in early childhood, given parents’ education

Note: Dashed vertical lines emphasize the temporal dynamics of achievement gaps from preschool through lower secondary school. The composite index (z) involves multiple measures at all measurement occasions except 7 months of age, which includes only one assessment (sensorimotor skills), and age 4, which also includes only one assessment (mathematical competence). Predictions are based on life stage–specific regression models. The vertical lines on each dot are 95 percent confidence intervals for predictions. K refers to kindergarten, and G refers to grade level in school. Long-dashed black lines connect data from the same National Educational Panel Study cohort. Source: Skopek and Passaretta 2018.
Interventions need to consider both how to finish closing the gap in basic education achievements and how to stem the persistent—or even the increasing—divergence in more advanced education achievements.
In today’s job markets, which are subject to constant technological advances and thus reskilling, substantial investments are needed at every stage of life.
Parents’ income and education have profound effects on their children’s health, which in turn affects the children’s education achievement (and health in adulthood) and thus future income, if not counteracted.

Health: How unequal outcomes both drive and reflect unequal capabilities

Parents’ income and education have profound effects on their children’s health, which in turn affects the children’s education achievement (and health in adulthood) and thus future income, if not counteracted.44 Hence, health gradients—disparities in health across socioeconomic groups—start at birth, or even before, and can accumulate over the lifecycle. Higher socioeconomic status families invest in health, consume more healthily and are mostly able to avoid physically and psychosocially demanding work conditions. This in turn increases the gap between low and high socioeconomic status individuals, even resulting in differences in life expectancy.45

Health conditions at birth, or even before, strongly influence health throughout the lifecycle.46 And when affected adults become parents themselves, the socioeconomic status health gradient can be carried on to future generations, because health inequality starts very early in life—indeed, with the foetus.47 For example, parents’ occupational status and home postal code indicate a baby’s health at birth for several reasons:48 the mother’s eating and other health behaviour (smoking), which are closely related to education; the mother’s exposure to pollution, which is related to parents’ socioeconomic status; and whether the mother received prenatal health care.49

And parents’ health behaviour also shapes children’s health after the child is born. For example, child obesity is a result of both nature and nurture, depending partly on genes and partly on family eating and living patterns.50 For adolescents the mechanism of the socioeconomic status health gradient works differently. Subjective social status is more important for self-reported health than is parent-reported household income and assets, even when parents’ education is controlled for. This is either because subjective social status and self-reported health feed into each other due to their bidirectional causal relation or because other factors that are more important at this stage of the lifecycle weigh strongly on the subjective social status evaluation (doing well in school, having friends).51 Even adults’ health outcomes can sometimes be affected by perceived socioeconomic status (box 2.2).

The debate around the relationship between income inequality and health outcomes has used mainly the proxies of life expectancy at birth and infant mortality.52 But the effects of the socioeconomic status health gradient may not always be fatal, and they may also not be immediate. A nuanced look at different types of health outcomes reveals how socioeconomic status affects some specific areas of health later in the lifecycle (figure 2.5). A summary calculation shows that in selected middle-income countries the probability...
of poor health outcomes in some aspects of health is two to almost four times higher for those in the lowest socioeconomic status group than for those in the highest socioeconomic status group—a pattern that is similar in the United Kingdom and the United States. The gradients in middle-income countries can be partially related to urbanization (the steepest gradients are in urban areas). They could also reflect deficiencies in the countries’ public health systems. But even in Sweden, a country well served through universal health coverage, gradients in health achievements persist and sometimes increase throughout the lifecycle. Most significantly, having medical experts in the family benefits family members’ health as reflected in longevity, low drug use and vaccination at all ages. Hence, it is not enough to raise people above a certain floor to ensure that gradients do not persist.

Socioeconomic status thus influences health, which in turn is pivotal for other opportunities in life. Policies that redistribute income cannot break this cycle without addressing the underlying mechanisms. Universal health coverage is needed so that people can use the preventive, curative, palliative and rehabilitative health services they need (see Sustainable Development Goal target 3.8). The available services need to be communicated and promoted to the public together with information on healthful lifestyles so that people can make educated choices. Still,

**FIGURE 2.5**

Socioeconomic status affects specific areas of health later in the lifecycle

<table>
<thead>
<tr>
<th>Socioeconomic status</th>
<th>Bogotá, Colombia</th>
<th>Mexico, urban</th>
<th>South Africa, urban</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor cognition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Function</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Depression</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Stroke</td>
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<td></td>
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<tr>
<td>Poor SRH</td>
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</tr>
<tr>
<td>Walking</td>
<td></td>
<td></td>
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<tr>
<td>Hypertension</td>
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<tr>
<td>Diabetes</td>
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<tr>
<td>Obesity</td>
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<td></td>
</tr>
<tr>
<td>Heart disease</td>
<td></td>
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</tr>
</tbody>
</table>

SRH is self-reported health.

Note: The chance of poor health outcome was calculated with the odds ratio (log scale). Data for Colombia are from the Survey on Health, Well-being and Aging; data for Mexico and South Africa are from the Study on Global Ageing and Adult Health and data for the United States are from the Health and Retirement Study. Values greater than 1 (the vertical line) indicate a greater chance of a particular health outcome compared with people with mid-socioeconomic status, and values less than 1 indicate a lower chance. For example, in Bogotá, Mexico and the United States the chance of poor cognition is nearly two times higher for people with low socioeconomic status than it is for people with mid-socioeconomic status but much lower for people with high socioeconomic status.

Source: Adapted from McEniry and others (2018).
tackling gradients in health cannot be achieved simply by gearing policies towards providing a minimum level of access to health services to all. Other social determinants are also relevant.

**How inequalities interact with other contextual determinants of human development**

This section moves beyond the individual-level, lifecycle analysis and considers how inequalities interact with other contextual determinants of human development. Not intended to be comprehensive, it considers four dimensions that are crucial for human development: the economy (how inequalities interact with patterns of economic growth), the society (how inequalities affect social cohesion), the political arena (how political participation and the exercise of political power are influenced by inequalities) and peace and security (how inequalities interact with violence, which is influenced by economic, social and political factors).

**Income and wealth inequalities, economic growth and structural change**

There are longstanding debates on the relation among structural change in an economy, economic growth, and income and wealth inequality. Sustained economic growth typically happens with structural shifts in the economy (with employment and value added moving from agriculture to both manufacturing and services). But the relation with income distribution is more ambiguous. Simon Kuznets was the first to take up the issue systematically, putting forward the hypothesis that with economic growth, as labour moved away from the agricultural and rural sector to nonagricultural and urban economic activities (with a higher mean wage than agriculture and a more widespread distribution of earnings), there would be two stages in the evolution of overall income distribution. During the initial stage economywide inequality would increase with economic growth as the relative weight of the nonagricultural sector expanded from very low levels. But as the share of labour in the agricultural sector shrunk, a tipping point would eventually be reached, and inequality would start to fall (given the very low weight of the agricultural and rural sector).

What came to be known as the Kuznets hypothesis thus predicted an inverse-U relation (or curve) between income levels and income inequality, with structural change as the main mechanism accounting for the relation. This became the most enduring legacy of Simon Kuznets’s 1955 article, but it was by no means the only contribution of that work.

Simon Kuznets analysed other mechanisms that he thought influenced the interplay among growth, structural change and inequality. These ranged from demographic changes (including the economic paths of immigrants into fast-growing modernizing economies) to the influence of political processes in determining the distribution of income: “In democratic societies the growing political power of the urban lower-income groups led to a variety of protective and supporting legislation, much of it aimed to counteract the worst effects of rapid industrialization and urbanization and to support the claims of the broad masses for more adequate shares of the growing income of the country.” The more nuanced and sophisticated analysis in Kuznets’s original article has been lost over time, replaced almost exclusively by a description of a mechanistic relation between growth and inequality. And perhaps the Kuznets hypothesis can be best understood as describing the evolution of income during major phases of structural change, in “Kuznets waves,” as opposed to a deterministic “once and for all” pathway for inequality as economies develop.

In addition, structural change, growth and inequality can interact through mechanisms other than the changes in sectoral composition highlighted by Simon Kuznets. The nature of technological change and how it interacts with labour markets is a particularly important channel. Jan Tinbergen posited that if technological change is skill-biased—that is, if it demands higher skilled workers—then a “race” between technology and skill supply would be expected. With technology forging ahead, if skill supply lags, then a wage premium would be expected for higher skills, increasing wages at the top of the skill/income distribution and thus inequality, as lower skilled workers fail to
With technology forging ahead, if skill supply lags, then a wage premium would be expected for higher skills, increasing wages at the top of the skill/income distribution and thus inequality, as lower skilled workers fail to keep up with the race. There is some evidence that is consistent with this hypothesis for some developed economies in the latter part of the 20th century, but Tinbergen’s “race” does not seem to account fully for more recent developments in labour markets this century.

Rather than a steep gradient, many labour markets in developed economies have polarized. This polarization is sometimes manifested with an increase in the labour shares both at the bottom and the top of the skill distribution and a hollowing out at the middle. Jan Tinbergen’s “race” model, therefore, needs to be adjusted to account for wage growth at the bottom—assuming that the same mechanism can explain either wage increases or gains in employment shares at the top. A large literature has emerged to account for job polarization, premised on the concept that not only technology but also other factors—including trade—determine the demand for skills.

The most influential approach in this field considers tasks and assesses the extent to which they can be easily replaced by either technology or globalization (with production moving to lower labour cost economies). With this framework, some tasks that are nonroutine (thus difficult to automate) and more immune to globalization (nontradable, in more technical terms, such as personal and social care, for instance) can be in high demand, even if they correspond to low skills. It is in the middle of the skill distribution, with several tasks in the manufacturing sector, that there is higher vulnerability to offshoring or technology replacement, which explains the hollowing out of the middle. These factors seem to be at play in some developing countries as well. Over the course of this century there has been a hollowing out of the middle, in this case measured by changes across the wage distribution in South Africa (figure 2.6). This can be accounted for in part by these mechanisms, along with the fact that labour market institutions such as the minimum wage do not protect those in the middle and that trade unions have been captured in part by those at the top. The relation between polarization and inequality is still contested, with the impact on aggregate inequality measures ambiguous.

The debate has ebbed and flowed on the empirical validity of the Kuznets hypothesis, its interpretation, alternative mechanisms, directions of causality and the relation between economic growth and income inequality. Assessing the weight of the empirical evidence

### FIGURE 2.6

The hollowing out of the middle in South Africa

![Annual average growth rate of real earnings, 2001–2015 (percent)](source: Bhorat and others 2019.)
What matters is to identify policies that can lead both to growth and to more inclusive sharing of the gains from expanding income.

is particularly challenging, given the range of income inequality measures in the literature as well as the difficulty of disentangling measurement error from plausible causal relations. Further compounding the analysis are factors that, at some point in history and in some contexts, have a greater bearing on inequality than either growth or structural change. This is at the heart of Thomas Piketty’s critique of the Kuznets hypothesis, which argues that inequality dynamics depend primarily on institutions and policies. And Walter Scheidel argues that violence and major epidemics have historically been the greatest downward drivers of inequality, not structural change or policies.

Beyond the more secular and longer term structural approach explored by Simon Kuznets and the subsequent debate is the related question of whether there are tradeoffs between growth and inequality over shorter time spans. Concerns with efficiency, or how much income is growing, have traditionally dominated concerns with equity, or how it is distributed. Arthur Okun has suggested a tradeoff between economic efficiency and equality, arguing that more equality could weaken economic growth by harming incentives to work, save and invest. And because income growth has such an overwhelming impact over the longer run in improving living standards, the impact of redistributing production would pale in comparison with the “apparently limitless potential of increasing production.” Yet recent empirical studies have found that higher income inequality can be associated with lower and less durable growth, including in developing countries. Both the data and techniques used in some of these econometric studies remain contested, casting a shadow of uncertainty over claims that inequality is either “bad” or “good” for economic growth.

Ultimately, it is less relevant to explore whether inequality is harmful to growth (in a mechanistic way) than to understand the impact of policies on income distribution and economic growth. And the evaluation of the impact of policies on distribution, in turn, depends on the weights that society and policy makers attribute to different segments of the population. Thus, blanket statements on the effect of inequality on growth are not helpful, in part because they do not enable insights into whether income is accruing to the middle class or to the bottom of the distribution. Moreover, since at least Simon Kuznets’s 1955 article, it has been well understood that growth processes can at times be unequalizing. What matters is to identify policies that can lead both to growth and to more inclusive sharing of the gains from expanding income.

Identifying these more inclusive growth patterns matters in particular for those at the bottom of the income distribution. In this case, the redistribution of productive capacity (leading to the accumulation of assets, access to markets and connection of returns to asset use at the bottom) can lead to both growth and income gains at the bottom, reducing inequality. More mechanically, interactions between growth and inequality affect how much income flows to poor people. As a matter of pure arithmetic decomposition, the impact of expanding mean income on poverty depends on the growth rate as well as on how much additional income flows to the bottom of the distribution. Redistribution to the bottom can create more than a one-off reduction in poverty and inequality—it can change the poverty elasticity of income, which would make growth more impactful on poverty reduction over time. A recent simulation exercise quantifies how reducing inequality could help reduce poverty using those direct relationships. The number of extremely poor people would remain above 550 million in 2030 if GDP per capita were to grow according to International Monetary Fund forecasts and inequality were held constant. But reducing the Gini index by 1 percent a year in each country would cut the global poverty rate to about 5 percent in 2030, which would bring 100 million more people out of extreme poverty.

In the spirit of understanding further possible mechanisms for the interaction between inequality and growth, one hypothesis is that if high inequality reduces mobility, that would lead to an inefficient allocation of resources (talent, skills and capital) that, compared with a counterfactual in which the resources are allocated efficiently, would hurt growth. If this mechanism holds, there would be a negative impact of income inequality on economic growth, with the channel running through inequalities...
in opportunity.\textsuperscript{82} Yet, once again, the empirical support for this channel is ambiguous.\textsuperscript{83}

Another hypothesis is that the relation works through efficiency: Productivity, and hence GDP, increase most when resources are efficiently used and the potential for technological learning is fully exploited.\textsuperscript{84} This has been shown historically by the East Asian growth model. Investments in education, among others, have contributed to economic growth through productivity increases.\textsuperscript{85} Productivity is lower in most countries with high income inequality than in countries with low income inequality.\textsuperscript{86} One reason could be that inequality reduces incentives for innovation and investment through various supply-side mechanisms.\textsuperscript{87}

The relation could also work in reverse: Slow economic growth could increase inequality under certain circumstances. For instance, when rates of return are higher than economic growth, especially for large wealth portfolios, wealth inequality tends to increase.\textsuperscript{88} Together with other mechanisms contributing to the rise of top-end bargaining power and high incomes (including top executive compensation), this dynamic could create a vicious circle of slow growth and high inequality.

**Trust and social interaction in unequal societies**

Income inequality can damage social cohesion in societies. Trust, solidarity and social interaction can be diminished by large income gaps, impairing the social contract (sets of rules and expectations of behaviour with which people voluntarily conform that underpin stable societies). But does income inequality simply damage social cohesion, or is the relation two-way—does low social cohesion block redistributive policies?

Important features of social cohesion include the strength of social relationships, shared values, feelings of identity and the sense of belonging to a certain community.\textsuperscript{89} One of the most common measures of social cohesion is the level of trust among society. Trusting people means accepting strangers as part of the community and sharing with them the underlying commonality of values. Trust is based on senses of optimism and control: Putting faith in strangers is not seen as risky.\textsuperscript{90} But higher inequality may cause the less wealthy to feel powerless and less trusting in a society generally perceived as unfair, while people at the top may not feel that they share the same fate as people at the bottom or that they should strive towards a common goal.\textsuperscript{91}

Empirical evidence shows that in developed countries the higher the income inequality, the lower the level of trust within society.\textsuperscript{92} And in European countries with higher income inequality, people are less willing to improve the living conditions of others, independent of household income, while there is probably less solidarity and people are less likely to support redistributive institutions.\textsuperscript{93} The interaction between inequalities and solidarity may thus go in both directions.

When horizontal inequalities are high, or perceived to be high, people may withdraw from certain social interactions (box 2.3), which can also diminish trust and social cohesion.\textsuperscript{94} In highly unequal countries people from different social strands are also less likely to mingle and interact.\textsuperscript{95} They probably live in different neighbourhoods, their children attend different schools, they read different newspapers and they are in different groups on social media (box 2.4). Their worldviews likely differ, and they know little about the fate of their fellow citizens. People who do not meet and interact do not directly see the concerns and needs of others (see box 1.9 in chapter 1),\textsuperscript{96} which may reduce support for equalizing policies.

A comparison between Canada and the United States at the subnational level shows the effect of segregation on intergenerational income mobility. On average, mobility is lower in the United States than in Canada, but at the subnational level the southern United States is least mobile, like northern Canada. One reason for low mobility in the southern United States is the history of exclusion of African Americans, many of whom have not been fully integrated into the economic mainstream.\textsuperscript{97} Some parts of northern Canada also have lower mobility than the rest of the country, due most likely to the remote geographic locations of some indigenous peoples, which make their integration into the economy challenging. However, their proportion of the population is much smaller.

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When horizontal inequalities are high, or perceived to be high, people may withdraw from certain social interactions, which can diminish trust and social cohesion.
South Africa is an interesting case study of social cohesion and inequalities, given its history of racial segregation and related vertical and horizontal inequalities. According to multidimensional living standards measures, inequality has declined significantly among individuals and among races since 2008. And yet interracial interactions—measured by actual interracial social interactions, the desire to interact and the desire to know about the customs of people of other races—have also declined since 2010. While interracial interaction is just one part of social cohesion, it is crucial in South Africa. These findings are thus counterintuitive and run contrary to the empirical findings of other countries.

One possible explanation is that perceived trends in inequality, which are substantially different from actual trends, are more important for predicting interracial socialization. The roughly 70 percent of South Africans who feel that inequality has not changed much or has even increased over time are less likely to participate in interracial socialization than those who perceive that inequality is declining. Across race groups, interracial socialization and the desire to interact increase as perceived inequality declines (see figure). The desire to interact is crucial here, as it varies from the actual interactions due to circumstances. The finding remains significant even after a multidimensional Living Standards Measure, race, education, trust and other measures are controlled for.

These findings are important because interracial interaction is crucial for social cohesion in South Africa. Social cohesion in turn increases the possibility of consensus on equalizing policies that reduce inequality. There is also weak evidence for reduced objective inequality improving social cohesion. This opens an opportunity to create a virtuous cycle of social cohesion and low inequalities.

**More interracial interaction with lower perceived inequalities**

![Diagram showing the relationship between perceived inequality and actual/intended interaction](Source: David and others 2018.)
The power of your neighbour

Human beings do not act in isolation—their behaviour depends partly on the behaviour of people in their cognitive neighbourhood. An example from agent-based models demonstrates the emergent nature of human inequalities. A model of neighbourhood segregation along ethnic lines—which can be thought of as a form of geographic inequality—shows that even when there are few individual prejudices, segregation can nonetheless arise merely from the interaction of individuals.

The segregation model has two types of agents—red and green—in equal numbers, each occupying one “patch” of the model’s environment (equivalent to a house). On average, each agent begins with an equal number of green and red neighbours. A key parameter is the average percentage of same-colour neighbouring agents wish to live near (such as 30 percent or 70 percent). If an agent does not have enough neighbours of its own colour (according to the preference parameter), they move to a spot nearby.

The results of the simulation are dramatic. Starting from a preference for perfect equality (having 50 percent of one’s neighbours the same colour), agents’ individual movements give rise to an aggregate segregation of around 86 percent (in other words, roughly 86 percent of one’s neighbours end up being the same colour despite each person wishing to have a 50 percent level of diversity). Reducing the preference to 40 percent results in the overall rate of segregation dropping to around 83 percent; reducing it to 30 percent brings segregation down to about 75 percent (see figure). Only lowering the preference to the single digits results in very low emergent segregation (for example, 9 percent leads to 52 percent). This means that people of similar ethnic characteristics automatically move closer together. These behavioural patterns can accelerate inequalities due to the power of the neighbourhood effect—an expression used to describe the impact of neighbourhood on the possibility of an individual moving up the social ladder, especially through the influence of peers and role models. In most developing countries neighbourhood effects are likely to be even stronger given the vast differences in the provision of public goods and services, especially between rural and urban areas.

However, public policy interventions can help shape human behaviour, providing counterincentives to mitigate the power of the neighbourhood effect. In the United States inequality in housing prices limits workers’ ability to move to a location with higher earning potential. Similarly, the quality of public services such as schools can differ across neighbourhoods, further heightening inequalities. Government subsidies for housing or equally good quality public schools could help offset this effect. The Moving to Opportunity experiment showed the effectiveness of these policies by offering randomly selected families housing vouchers to move into better off neighbourhoods. The move increased college attendance and earnings for people who moved during childhood.

### How segregation can arise from interaction

**Starting point with equal number of green and red neighbours**

**After interaction between agents**


Notes

1. Iversen, Krishna and Sen 2019. 2. Agent-based models have been used to predict human behaviour. Using a variety of software tools, agent-based models typically create a group of agents (people, firms, trees, animals, societies, countries and so on), design simple behavioural rules (either for all agents or for subgroups), place the agents in a given simulated environment (usually consisting of time and space dimensions) and then set the agents free to interact based on the behavioural rules. The point of the simulation is to see what emergent phenomena and aggregate properties arise from the interactions based on these basic settings, with no ex ante determination of equilibrium or any other goal. 3. Schelling 1978. 4. The exact numbers depend on the specific run of the simulation and on the density parameter (that is, the proportion of the neighbourhood that is occupied, in this case 95 percent). 5. Iversen, Krishna and Sen 2019. 6. Bayoumi and Barkema 2019. 7. Chetty, Hendren and Katz 2016.
than the African American population in the southern United States. When more incentives for interaction are directed towards diversity (including people from all ethnicities, religions and social strands) interaction, trust, networks and social cohesion can be built. Ethnicity quotas and subsidies for cultural activities, civic associations, schools and the like could be an effective way of facilitating interaction in the long run. Initially people may resist interaction, and there could be a temporary decline in trust, but in the long run intergroup interaction counter these initial negative effects, increasing trust and even improving the perceived quality of life.

The cycle of social cohesion and inequalities is strongly connected to the cycle of education and inequalities, which, again, is connected to the cycle of health gradients. Education can create strong social bonds among different groups in a society by teaching people about different cultures and bringing them into contact with people of different backgrounds. Likewise, it can teach norms and values and promote participatory and active citizenship. But schools can also act as a flattener for the health gradient, teaching children healthy habits and how to follow a balanced and nutritious diet. The convergence in primary and secondary education (see chapter 1) thus gives hope for creating virtuous cycles of equity in the future.

### How inequalities are transferred into political inequality—and back

Most of the literature has found that in high human development countries inequalities depress political participation, specifically the frequency of political discussion and participation in elections among all citizens but the richest. Economic elites (or sometimes even the upper middle class) and organized groups representing business interests thus shape policies substantially more than average citizens or mass-based interest groups do. Additionally, mechanisms through which this can happen include opinion making, lobbying and clientelism. Income and wealth inequalities are thus transferred into political inequality (box 2.5), with privileged groups moulding the system according to their needs and preferences, leading to even more inequalities. Government policy space to address inequalities becomes constrained because political decisions reflect the balance of power in society. This is often referred to as elite capture of institutions.

Power asymmetries can even lead to breakdowns in institutional functions, constraining the effectiveness of policies. When institutions are afflicted by clientelism and captured by elites, citizens may be less willing to cooperate on social contracts. When that translates into, for instance, lower compliance with paying taxes, the state’s ability to provide quality public services is diminished. This, in turn can lead to higher and more persistent inequalities—for instance, in health and education. As the overall system will be perceived as unfair, people tend to withdraw from political processes, which further strengthens the influence of elites.

In a world in which information becomes more and more accessible and important, media is a decisive channel through which the imbalances of power can be further amplified. Different stakeholders “create, tap, or steer information flows in ways that suit their goals and in ways that modify, enable, or disable the agency of others, across and between a range of older and newer media settings.” Even though information is easily accessible for many people, not everyone is equally well informed. In countries with high internet penetration, income inequality correlates positively with both information inequality (measured by the Gini coefficient estimated over the number of news sources individuals use) and information poverty (the probability of using zero or only one news source). In Australia, the United Kingdom and the United States, where income and information inequality are high, 1 individual in 10 uses zero or only one news source (information poverty). Less well informed voters become more susceptible to the above described political influence by the few media sources they consume. Depending on how these sources are financed, they may promote and protect the interests of a specific group. This form of biased reporting has been referred to as media power.

A combination of high information poverty and media power can weaken democratic processes because it can influence voters’ behaviour, which is especially delicate with fake news. Inequalities can also increase both the demand for and supply of populist and authoritarian
Economic inequality and human development

How does inequality matter for human development? It limits the prospects for development of the less advantaged. It undermines the ability of untargeted pro-growth policies to reduce poverty because most of the growth will be appropriated by the better-off. And it reduces social mobility by enabling advantaged groups to hoard opportunities and close ranks against those beneath them.

Beyond these concerns, political theorists have drawn attention to the relational aspects of inequality, beyond the bare facts of distributive inequality: Distributive inequalities reflect, reproduce and sometimes constitute oppressive social relations of domination, esteem and standing. It is not simply the material injury of wage theft or of being physically beaten by a domestic partner but the fact of living in subjection to others who wield the power to inflict harm with impunity and who feel free to sacrifice one’s vital interests to their own greed or vanity that not only deprives but also oppresses. It is not simply the bare fact of lacking adequate clothing but the stigma others attach to such deprivation that makes poverty sting. It is not simply the physical difficulty the disabled have of navigating public spaces but also the little account public architects and public policy have given to their interests that not only inconveniences but constitutes their diminished standing in the eyes of others.

Across the world, inequality tracks differences of social identity such as gender, race, ethnicity, religion, caste, class and sexual orientation—arbitrarily marking some social groups as superior to others in the opportunities they enjoy, the powers they command and the respect others owe them. Under such conditions members of subordinated groups lack effective means to vindicate their human rights, even in states that legally acknowledge these rights. Groups targeted for sexual harassment and assault cannot vindicate their rights if they do not know what their rights are or lack the ability to navigate the judicial and bureaucratic processes needed to secure them.

Distributive inequality for social relations undermines trust among members of society as well as trust in institutions. It depresses political, civic, social and cultural participation. It spurs communal violence and crime. It undermines democracy by enabling the rich to capture the state and thereby appropriate a disproportionate share of public goods, shift tax burdens in a regressive direction, enforce fiscal austerity and avoid accountability for predatory and criminal behaviour. Even the laws and regulations that constitute the basic economic infrastructure of markets, property and firms have been designed under the influence of powerful groups to rig purportedly neutral rules in their interests.

These effects occur in states at all levels of human development, even those with low poverty. They are exacerbated by extreme inequalities in the top 1 percent of income and wealth distributions as well as by a small or stagnant middle class.

The independent normative significance of inequality suggests that abolishing poverty and deprivation should not be the only aim; the concentration of income and wealth at the top should also be limited. In 2019 the richest 26 individuals in the world owned as much wealth as the bottom half of the world’s population. There is no normative justification for such extreme inequality. The wealth of the ultra-rich has not always been accumulated legally—given the vast scale of global corruption, organized crime, financial manipulation, money laundering and tax evasion. But even when it has, that would only call into question the justification of laws so heavily tilted towards the interests of the rich. It is absurd to credit such inequality to differences in merit, given the rising capital share of income, which rewards mere ownership, and the large impact of chance on outcomes. Nor can such extreme inequality be rationalized as necessary for poverty reduction or as socially advantageous in any other way. Extreme wealth does not even enhance the consumption possibilities of the ultra-rich, who cannot personally consume all of their wealth or even a significant fraction of it.

Indeed, most of what the ultra-rich do with their wealth is exercise power over others. If they own, direct or manage a firm, they deploy their wealth to control their workers and their working conditions. If they hold a monopoly or monopsony position, they may dominate consumers, suppliers and the communities where they operate. If they lobby or donate money to politicians, they capture the state. The ultra-rich also have disproportionate clout in global institutions, particularly regarding the rules of global finance, which have contributed to systemic financial risks and to the instability experienced by many countries around the world.

The current era is witnessing global democratic backsliding, following a surge of democratization in the 1990s and early 2000s. Freedom House reports that 22 of 41 democracies have become less free in the last five years. While the causal connections between distributive inequality (including extreme concentrations of wealth at the top and declining prospects for the global middle) and the decay of democratic norms and institutions have yet to be fully explored, what is already known should raise alarms. While the ultra-rich might escape the worst of unmitigated global climate change, what will happen to the billions left homeless, sick or stateless by rising sea levels, extreme floods, droughts, heat waves and attendant social conflict and civil war? The great inequalities defined by citizenship status threaten the freedom of environmental and wartime refugees, while politicians in receiving states attack democratic institutions in the name of closing their borders. Just at the point where meeting the challenges of climate change is demanding ever-greater international cooperation, states are retreating from global institutions. Greater attention to the case for equality, both within and between states and in the governance of global institutions, is needed to promote human development and coping with the greatest challenge humanity faces in the 21st century.

Notes

The way in which power asymmetries play out in the policy arena can exacerbate and entrench inequalities or pave the way to more equalizing and inclusive dynamics.
Violence and inequalities: The cruelest vicious cycle

This last section expounds on what can be considered the two cruelest vicious cycles: the relations between inequalities and homicides and violent conflict. There are more homicides in countries with higher income inequality across all categories of human development. For high and very high human development countries the association is strong: Income inequality explains almost a third of the overall variation in homicide rates, even after years of schooling, GDP per capita, democratization and ethnic fractionalization are accounted for. Education has a moderating effect on this relation, but only in high and very high human development countries: 1.8 more years of average schooling more than halves the association between income inequality and homicide rates. Findings from a study of Mexico’s drug war are in line with the hypothesis that income inequality is associated with more violence. A 1 point increase in the Gini coefficient between 2006 and 2010 translated into an increase of more than 10 drug-related homicides per 100,000 inhabitants.

The mechanism behind this relation is less clear. Some suggest that the feeling of shame and humiliation in unequal societies drives violence, predominantly by young men pressured to ensure status. Others suggest a psychosocial explanation: Income inequality intensifies social hierarchies, causing social anxiety and class conflict, damaging trust and social cohesion. This is empirically supported by data showing a negative correlation between trust and income inequality—at least in developed countries (see above). Societies with low trust and weak social cohesion have lower capacity to create safe communities, and this, together with high pressure for status, may increase violence.

On a macro level, evidence about the relation between inequalities and violent conflict is mixed. Some studies find that income inequality triggers instability that may lead to violence. Others find no relation between income inequality and violent conflict. More recently, Frances Stewart has argued that political disturbances—including violent conflict and civil war—are driven from horizontal inequalities between different groups, each distinguishing itself from the others by its history, religion, language, race, region, class or the like. Group differences appear in all societies, but they are only likely to lead to conflict and violence when social, economic and political inequalities are exacerbated by politically excluding certain groups.

A condition for horizontal inequalities to lead to conflict is that leaders or elites have an interest in mobilizing groups and initiating a conflict. That interest often arises from horizontal political inequalities among the elite. Added to this are more determinants of conflict: the nature of the state, the role of local institutions, the presence of natural resources and the struggle between some groups for access to power, resources, services and security.

While only 9 percent of armed conflict outbreaks between 1980 and 2010 coincided with disasters such as droughts or heatwaves, the proportion increases to 23 percent in ethnically fractionalized settings, where disruptive events seem to play out in a particularly tragic way. Droughts also significantly increase the likelihood of sustained violent conflict in low-income settings where ethnically or politically excluded groups depend on agriculture. This leads to a vicious cycle between violent conflict and environmental shocks, with the groups’ vulnerability to one increasing their vulnerability to the other.

Comparisons of civil and communal conflicts among 155 politically relevant ethnic groups in Africa show that both political and economic horizontal inequalities can lead to conflict. But the targets of violence differ. Political exclusion leads to violence that targets the central government. Horizontal income or wealth inequalities act more broadly as a determinant of organized political violence, increasing the risk of civil and communal conflicts. Communal conflicts appear to be driven...
Some forms of horizontal inequalities increase before, during and in the immediate years after the onset of conflict, mostly by politically included groups with less reason to fear government intervention.\textsuperscript{130} Afrobarometer perceptions data suggest that not only real horizontal inequalities but also perceived inequalities and exclusion matter for conflict (see box 2.3). The likelihood of social unrest increases when individuals perceive their group as disadvantaged. Support for violence is highest when included groups enjoying high political status perceive that the government treats them unfairly. But the effect of exclusion on support for violence can also

**BOX 2.6**

**Internal armed conflict and horizontal inequalities**

The impact of internal armed conflict on horizontal inequalities can play out in several ways. In some cases it can reduce horizontal inequalities,\textsuperscript{1} while in others it can exacerbate them. First, if the costs of internal conflict are greatest for those who are already poorest,\textsuperscript{2} horizontal inequalities may increase. Many countries and areas experiencing armed conflicts had high horizontal inequalities prior to the conflict, and such inequalities are exacerbated when the most disadvantaged groups are disproportionately affected by it. Second, internal armed conflict is often restricted to or focused largely in certain areas of a country. These areas, and the groups that reside in them, may be cut off from the rest of society and the economy. Some areas will also suffer disproportionately from the destruction of facilities, buildings and human lives.

In the postconflict phase these outcomes may wear off, as the economy picks up and the conflict no longer imposes direct costs (on some areas).\textsuperscript{3} Yet, postconflict redistributions of power and resources may depend on the outcome of the conflict. Patterns of inequality in the aftermath of conflict may be contingent on whether the outcome is a postconflict agreement securing the interests of both the losers and the winners.

In the years prior to armed conflict, regional inequality in infant mortality rates—used here as a proxy for one dimension of horizontal inequalities—increases (see figure). This increase continues in the immediate years (1–5) after the onset of conflict, which is consistent with the argument that horizontal inequality increases during conflict. But this acceleration wears off after 5–10 years. Hence, some evidence suggests that the postconflict phase is associated with a decrease in a measure of one dimension of horizontal inequalities.

| Regional inequality in infant mortality rates prior to and after conflict onset |

\[ 	ext{Regional inequality in infant mortality rates (deviation from country-mean)} \]

<table>
<thead>
<tr>
<th>Phases of war onset (years)</th>
<th>-4</th>
<th>-2</th>
<th>0</th>
<th>2</th>
<th>4</th>
<th>6</th>
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<th>10</th>
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<tr>
<td>Outbreak of war</td>
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<tr>
<td>Note: The x-axis is the number of years prior to and after the onset of conflict. Conflict is defined here as armed conflict with at least 1,000 battle deaths. The y-axis is the global average of countries’ deviation from their mean level of horizontal inequality. In other words, it captures whether countries have higher or lower horizontal inequality than usual. Regional inequality is measured using the ratio between best- and worst-performing region in infant mortality rates. Source: Dahlum and others forthcoming.</td>
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Notes
Income inequality increases during violent conflict and during the first five years of typical postwar reconstruction. But violent conflicts can also widen inequalities in other areas of human development, such as health and education.

**Inequalities can accumulate through life, reflecting deep power imbalances**

This chapter has taken a dual approach in revealing the mechanisms through which inequalities in key areas of human development emerge, reproduce and persist across generations. It has also shown how these areas of human development are connected and how they interact, transferring inequalities in one area of human development to another.

The first part took a lifecycle perspective, arguing that parents’ socioeconomic status strongly influences children’s health and early childhood development, both of which shape the way children benefit from universal primary and secondary education. Their education attainment in turn constitutes the stepping stone for a successful start in the labour market. But parents’ socioeconomic status is relevant at this stage of the lifecycle as well. Depending on parents’ knowledge and networks, adolescents may receive a jump start for better opportunities in the labour market. Assortative mating then closes the feedback loop by creating families in which both parents come from a similar socioeconomic status.

The second approach transcended individual outcomes and looked at the macro framework for these mechanisms. It considered how inequalities affect institutions and balances of power, how societies function and whether inequalities nurture economic growth. One key point was that the nature of inequality matters as well: Inequalities between groups can determine war or peace—a pivotal decision for any desired expansion of capabilities at the individual and societal levels.

be attenuated by subjective perceptions (on perceptions of inequalities, see spotlight 1.2 in chapter 1).\(^{131}\)

Horizontal inequalities can drive violent conflict, and in some cases they may increase even more before, during and in the immediate years after the onset of conflict (box 2.6). Even though major conflicts such as World War I and World War II can bring income inequality down (essentially by increasing the bargaining power of labour, when there is a need for mass mobilization),\(^ {132}\) empirical evidence from recent (internal) conflicts shows that income inequality increases during violent conflict and during the first five years of typical postwar reconstruction. The rise in income inequality associated with violent conflict is not permanent—but it takes 19–22 years for inequality to fall again, and it may take up to 40 years to return to prewar levels of income inequality if peace is sustained.\(^ {133}\)

Violent conflicts can also widen inequalities in other areas of human development, such as health and education. This is because violent conflicts disproportionately affect poor people: They increase undernourishment, infant mortality and the number of people deprived from access to potable water.\(^ {134}\) Given that social spending often declines as a consequence of rising military expenditure,\(^ {135}\) public service provision is also weakened—another potential source for increasing inequalities in human development.

Preventing violence at the early stage of conflict is without a doubt the best approach to avoid suffering, deaths and other costs of violent conflict. Violence is path dependent: Once it starts, incentives and systems work in a way that sustain it. Group grievances have to be recognized early so that patterns of exclusion and institutional weaknesses can be addressed.\(^ {136}\) When prevention is ineffective, postconflict settlements, which often involve political power sharing and could also include economic redistribution, offer opportunities to prevent recurrence.\(^ {137}\)