

Capitalogenic disease: social determinants in focus

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To cite: Singh G, Hickel J. Capitalogenic disease: social determinants in focus. *BMJ Glob Health* 2023;**8**:e013661. doi:10.1136/bmjgh-2023-013661

Received 8 August 2023
Accepted 12 August 2023



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Scholarship on the social determinants of health and disease has become firmly established over the past several decades. This school of thought has created space for academics and health professionals to consider the structural factors that may produce ill health, generate health inequalities and prevent access to healthcare or other goods and services necessary for human welfare.¹ Research on social determinants has been developed through attention to 'structural violence',² 'commercial determinants'³ and the 'causes of the causes' of disease.⁴

These are useful analytical developments. But terms such as structures, commerce and so on are generic descriptors, and it may be useful to further specify the particular political and economic systems that are at stake. This includes paying attention to capitalism and dynamics of capital accumulation. Given that capitalism prevails in nearly every country, and organises the world economy, it seems necessary to develop analytical frameworks that can help us understand and assess its implications for health outcomes, which have been described in existing literature.⁵

It is important to clarify what we mean by capitalism. People often assume that capitalism is a generic system of businesses, markets and trade. But these existed for thousands of years before capitalism and have taken many forms. Capitalism, which arose during the long 16th century, is defined by several key features.^{6,7} (1) It is undemocratic, in that production (and the distribution of surplus) is determined predominantly by a wealthy elite, who control the majority of investable assets and elect the directors of firms. (2) Within this system, the purpose of production is not primarily to meet human needs or to improve social outcomes, but rather to maximise growth, profits and accumulation. (3) Given the focus on profits and accumulation, there is a constant pressure to 'cheapen' inputs—specifically labour and nature—by compressing wages and resource

prices while externalising social and ecological damages.⁸

Capitalism has always been organised as a world system, where accumulation in the 'core' (i.e., the affluent economies of Europe, the USA, Canada, Australia, New Zealand, Israel and Japan) is predicated on a large net appropriation of labour, energy and materials from the 'periphery' (developing economies in the global South), either directly as during the period of European colonialism, or indirectly through the patterns of unequal exchange in international trade and global commodity chains that predominate today.^{9,10} This arrangement drains the global South of resources that are necessary to meet human needs, and perpetuates patterns of poverty and underdevelopment.¹¹

We need an analytical framework that can assess the extent to which these arrangements may have adverse effects on health outcomes. We propose that the term capitalogenic disease may help towards this end. The historical geographer Jason Moore has used the term capitalogenic to specify that the ecological crisis we presently face is not simply a natural phenomenon or a problem caused by generic human activity, but is being produced by the capitalist system of production and by processes of capital accumulation.¹² The term has become indispensable to analysts across disciplines for identifying the causal dynamics of ecological crisis and envisioning pathways out of it. We propose that this term can and should be applied where appropriate to disease and health inequalities as well.

Here, we illustrate the concept of capitalogenic disease with eight concrete examples:

1) DISEASES RELATED TO CORPORATE PROMOTION OF HARMFUL PRODUCTS

It has long been understood that the tobacco industry—particularly prior to the 1990s—has sought to maximise growth and profits by resorting to aggressive marketing techniques, attempts to foster addictions to its

products, and lobbying against government regulations, to the point of increasing the prevalence of cancer and related diseases. Similar tactics are employed by firms that promote sugary or highly processed foods, which may exacerbate the prevalence of diabetes and other metabolic and cardiovascular health problems. Such dynamics have been described under the rubric of 'commercial determinants',¹³ but it is important to note that the commercial behaviour at stake here is organised specifically around the objectives of capital accumulation. These dynamics would not exist, or would look very different, under conditions where production was organised around human needs and well-being, and where firms were not compelled to pursue profits and growth as core objectives.

2) DISEASES EXACERBATED BY PATENT REGIMENS

The AIDS crisis that engulfed southern Africa during the 1990s triggered one of the most intense and prolonged mass mortality events in modern history. Antiretrovirals (ARVs) were approved in 1987, but patent laws designed to maximise the profits of US pharmaceutical firms prevented the production or import of affordable generic versions until 2003.¹⁴ These restrictions led to millions of deaths that could have been prevented at minimal cost, with simple policies to enable knowledge sharing and trade in generic medicines.¹⁵ Something similar occurred during the COVID-19 pandemic, when patents on the vaccines prevented rapid dissemination to lower-income countries, leaving billions of people vulnerable, creating extraordinary inequalities in vaccine access and again leading to deaths that could easily have been prevented.¹⁶

3) NEGLECTED TROPICAL DISEASES

Neglected tropical diseases are common across most of the global South, affect over one billion people, and cause around one million deaths per year.¹⁷ Little progress has been made towards developing drugs for these diseases because most of the affected patients are poor and it is not profitable to do so. The pharmaceutical industry, where production is organised primarily around what is most profitable rather than around what is most necessary for human welfare, directs its efforts elsewhere. These limitations could be overcome—and substantial reductions in tropical disease mortality could be achieved—with public policy to ensure investment in necessary research and development.

4) HUNGER AND MALNUTRITION

Access to nutritious food is among the most basic requirements for health. It does not require substantial resources to ensure universal access, and most countries have the capacity to deliver this with local land and labour. Under capitalism, however, land and food systems are commodified and organised around profit (with large

tracts of land given over to crops such as sugar or feed for industrial animal farming), and access to food is generally limited by people's wages relative to food prices. As of 2020, 2.4 billion people live in food insecurity,¹⁸ and 3.3 billion people cannot afford a healthy diet,¹⁹ leading to high rates of undernutrition and malnutrition. This is a crisis that can be ended with simple public provisioning systems. For instance, Cuba guarantees universal access to basic nutritional requirements, and as a result has one of the lowest death rates from malnutrition in the world—lower than in many wealthy countries, including the USA, Canada and France. If other countries adopted a similar right-to-food policy, millions of malnutrition-related deaths could be prevented.²⁰

5) POVERTY-RELATED MORTALITY

A long and healthy life expectancy requires access to essential goods and services such as housing, sanitation and healthcare.²¹ Yet today more than 2 billion people lack decent housing, 3.5 billion do not have safely managed sanitation, and up to 5 billion cannot access essential health services.²² In many countries, including in advanced economies such as the USA and Britain, the commodification of healthcare and housing prevents sufficient access for many working-class people. In the global South, structural adjustment programmes imposed by international creditors over the past several decades have constrained the development of public services, or privatised existing public services (often with direct negative impacts on health),²³ as part of efforts to divert production instead towards servicing global commodity chains. Among affected populations, health outcomes remain poor as a result.²⁴ These are artificial scarcities, and they could be ended by mobilising productive capacity to support high-quality public services for all.²⁵

6) DISEASES RELATED TO WORK

Many disorders, including cardiovascular disease, mental health problems and other stress-related diseases, are due to unemployment, precarious employment, overwork, and lack of autonomy and control in the workplace.^{26–29} These problems are often produced by the structure of the economic system. Capital accumulation tends towards a certain rate of structural unemployment, partly in order to keep downward pressure on wages. Precarious contracts have proliferated under regimens of neoliberal deregulation. And overwork is often driven by the profit and growth imperatives of firms, which seek to squeeze as much production out of workers as possible. All of these problems could be resolved with basic principles of economic democracy, whereby less-necessary forms of production could be scaled down, necessary labour could be shared more evenly and a public job guarantee could ensure universal access to socially useful jobs with democratic conditions and living wages.

7) HEALTH DISPARITIES IN RACE AND GENDER

Capital's drive to cheapen labour has long leveraged ideologies of racism to justify the superexploitation of vulnerable or minoritised factions of society, particularly in the 'peripheries' of the world system.⁸ This directly affects the health outcomes of these communities, and also results in extreme disparities in wages: e.g., input-output data reveals that workers in the global South are paid on average 87%–95% less than workers in the global North, for work of equal skill.³⁰ Racial health inequalities—both within countries and between them—can be attributed in large part to these dynamics.^{31 32} Capital also relies on unpaid reproductive or care work, mostly performed by women, and leverages patriarchal ideologies towards this end.^{33–35} This arrangement, together with the superexploitation of women in waged work, leads to large gender disparities in income, limits women's control over their own bodies, and limits their access to necessary health-care services.³⁶

8) HEALTH IMPACTS OF CLIMATE CHANGE

We finish by circling back to Moore's original use of the term capitalogenic, to describe how the climate crisis has been driven by key features of the capitalist world system: growth imperatives, profit orientation and pressures to cheapen nature and externalise ecological costs. Capital also poses obstacles to rapid energy transition: finance gravitates towards fossil fuel investments because they tend to be more profitable than renewable alternatives.³⁷ There is now a large literature that describes the health consequences of climate change.³⁸ And while the core states, and the rich, are overwhelmingly responsible for causing climate breakdown,³⁹ the environmental damages and negative health effects fall hardest on minoritised communities and on the global South.⁴⁰

NAMING THE DISEASE

This list is intended to be illustrative; it is neither exhaustive nor systematic. Crucially, we are not arguing that all social or structural determinants of disease are capitalogenic, or that improvements in health outcomes have not been achieved within capitalism, or that capitalism is the only cause of the diseases we have listed above. Other political-economic arrangements may also produce ill health and health inequalities. But in cases where diseases are perpetuated or exacerbated by specifically capitalist relations of production (profit/growth orientation, restrictive patent regimens, artificial scarcities of essential goods, labour-related abuses and insecurities, hierarchies of exploitation, etc) we must be able to identify and understand these dynamics and respond appropriately.

We have focused here on contemporary health crises, but the concept of capitalogenic disease also helps us understand long-term trends in health indicators. Researchers have shown that the expansion of the capitalist world-system from the 16th century was associated

with a prolonged deterioration in health indicators (welfare ratios, stature and mortality), on a scale unprecedented in human history, including through atrocities such as the European enclosures, the genocide of Indigenous Americans, the mass enslavement of Africans, policy-induced famines in India and so on.⁴¹ In some cases, social indicators have still not recovered. Where progress has been achieved, it began in the late 19th and early 20th centuries, with the rise of democratic, socialist and other progressive political movements that established public provisioning systems, redistributed incomes, regulated capital and organised production more around human needs and social outcomes.^{42–45} Understanding these dynamics of capital and resistance allows us to situate contemporary health challenges in broader historical perspective.

Medicine as a discipline prides itself on scientific objectivity. However, the science of medicine can only ever be as robust as its understanding of the social contexts in which disease occurs. Research on social determinants has usefully broadened the medical focus from 'proximal' factors to the more 'distal' structural causes. And yet consensus around the reality of social determinants has so far yielded little by way of substantive change. Why? It may be in part because the distal causes and mechanisms remain underspecified and depoliticised.

It is a basic principle of medical science that before diseases can be properly cured or otherwise addressed, they must be named and understood. Language plays a crucial role here. The concept of capitalogenic disease enables us to think about social determinants in more specific ways, with a more precise aetiology and pathogenesis. It helps us to understand how various health crises are created, and how they are connected, and empowers us to address them. Following others who have sought to link disease within bodies to injustices outside them, the concept concretises for researchers and health professionals how an apparently abstract economic system has real-world effects on bodies and lives.

What might remedies look like? We propose that human and planetary health would be better served by a postcapitalist economic system—one that is more democratic, more equitable and where production is focused on what is required for human needs and well-being rather than capital accumulation, with living wages, secure livelihoods and universal access to essential goods and services. Health systems in particular should be decommodified or otherwise universalised, necessary medical technologies should be shared, and funding for healthcare and health research should focus on areas of urgent concern to suffering communities.

United Nations (UN) projections indicate that, with existing trends, burdens of preventable mortality and large health inequalities will persist through the rest of the century.⁴⁶ This trajectory is unnecessary, unjust and unacceptable. By contrast, taking the steps defined above could radically reduce preventable mortality and close

the health gap. This is the future we should be planning to achieve. The framework of capitalogenic disease we present here is an invitation to further develop analysis through research and clinical practice, and to mobilise around transformative solutions. This will require an organised political struggle and should be supported by healthcare researchers and practitioners.

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Acknowledgements JH acknowledges support by the María de Maeztu Unit of Excellence grant from the Spanish Ministry of Science and Innovation (CEX2019-000940-M).

Contributors GS and JH conceptualised the paper. JH and GS developed the text, edited and agreed the final manuscript.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not applicable.

Provenance and peer review Not commissioned; internally peer reviewed.

Data availability statement Data sharing is not applicable to this article as no new data were created or analyzed in this study.

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