Racism, xenophobia, discrimination and the determination of health

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Abstract

This series shows how racism, xenophobia and discrimination and the structures that support them are detrimental to health. In the first paper, we describe the conceptual model used

throughout the series and the underlying principles and definitions. We explore concepts of epistemic injustice, biological experimentation and misconceptions about race, using a historical lens. Finally, we focus on the core structural factors of separation and hierarchical power that permeate throughout society to result in the negative health consequences we see. We are at a crucial moment in history, as populist leaders pushing the politics of hate have become more powerful in several countries. They exploit racism, xenophobia and other forms of discrimination to divide and control populations, with consequences for both immediate and longer-term individual and population health. At the same time, the COVID-19 pandemic and transnational racial justice movements have brought renewed attention to persisting structural racial injustice.

Key messages

- Racism, xenophobia and discrimination are fundamental determinants of health and must be considered as such when considering approaches to public health.
- The health consequences of racism, xenophobia and discrimination occur in every context that has been studied and can be similar for the related categories of caste, ethnicity, Indigeneity, migratory status, race, religion and skin colour.
- History and current practice prove that discriminatory ideology has shaped science, research, and also its 'evidence base' and how it is interpreted.
- The precursors to discrimination are the two core structural processes of separation, where individuals see themselves as different from others, and hierarchical power.
- Ill-health and health inequities are impacted by racism, xenophobia and discrimination through a host of structural factors and that have their historical and political roots. Interpersonal discrimination cannot be tackled without addressing these complex processes.

- Populist leaders and policies can exploit populations using racist, xenophobic and discriminatory ideologies that minoritise people and lead to poor health.

Introduction

Racism, xenophobia and discrimination exist in every society, causing avoidable disease and premature death among groups that are already disadvantaged.[1] They underpin assaults on those seen as “others”, whether through institutionalised discriminatory policies; in communities where inequalities are entrenched; or through individuals playing a role in systemic oppressions and interpersonal aggressions. While these take different forms across time and space, the root causes are designed to maintain historic power structures. Understanding and challenging discrimination, and its underlying ideologies, is central to public health and the promotion of social equity. Equally, by ignoring these realities, health professionals are complicit in the structural violence that leads to ill health.[2,3]

Racism, xenophobia and discrimination, can present in many forms, from microaggressions to interpersonal and state violence. As described in detail in the second paper in the series, health outcomes are usually worse amongst minoritised groups, with strong evidence that racism plays a role.[4] We know, for example, when managing a child with asthma, it is important to consider the environment that they live in and their ability to access good quality healthcare. But the importance of structural racism as a determinant of health remains under-considered. The tragic death of Ella Kissi-Debrah in the UK, for whom air pollution was included on her death certificate, is a recent example of environmental racism, whereby minoritised communities are more likely to be exposed to environmental hazards as a result of where they end up having to live.[56] A systematic review of the literature found that racism was associated with worse mental health (mean weighted effect size r=-0.23, 95% CI -0.24, -0.21) and physical health (r=-0.09, 95% CI -0.12, -0.06).[7] The situation worsened during the COVID-19 pandemic,[8] which saw

minoritised ethnic groups more severely impacted by the disease and the consequences of the responses. For example, in the second wave of the pandemic in the UK (12 September 2020 onwards), Bangladeshi women were 4.11 (hazard ratio adjusted for age, 95% CI 3.62, 4.66) times and men 4.96 (95% CI 4.49, 5.48) times more likely to die from COVID-19 compared to the White British population. Higher mortality rates were also seen amongst the Black African, Black Caribbean, Pakistani and Indian ethnic groups.[9] Global inequity in vaccine access along racial lines has highlighted persistent racism in global power dynamics, rooted in legacies of colonialism and exploitation.[10] Migrant groups and others, such as the 'scheduled castes' in India, are often particularly disadvantaged by barriers to care imposed by governments.[11,12] Similarly Indigenous populations across the world have suffered from poorer health outcomes including lower life expectancy, higher infant and maternal mortality and malnutrition.[13] These health consequences are not purely something that affect minoritised people. As with social inequality, a society marked by widespread discrimination threatens the health of everyone.[14,15] While the importance of the social and political determinants of health are widely accepted,[16,17] racism and xenophobia are relatively under-developed and under-recognised concepts in medicine and health, with the possible exception of the United States. In this series we provide a global overview of the nature of racism, xenophobia and other discriminatory ideologies and summarise potential interventions to tackle their impact on health and wellbeing. In doing so, we attempt to provide theories, data and examples from across the world, and at times have chosen not to cite the most commonly known ones. We also cannot be comprehensive and cover all minoritised or persecuted groups. We not wish to diminish the suffering or importance of groups not included but we are limited in what we can include and believe the concepts and health mechanisms are transferable.

This first paper introduces our conceptual framework that underpins the series. We propose contemporary definitions that we use throughout (Panel 1), then describe the theoretical basis for our model, before examining the layers of the model and the underlying reasons why discrimination exists. Finally, we focus on what happens at a structural level and include discussions of power, populism and racialised capitalism and how they contribute to health in relation to this subject. Throughout, we look back to history, including the role of colonisation. The health of minoritised populations is affected by the history that has led to their experiences of discrimination and their status in the social hierarchies of the states in which they live. A historically rooted approach shows the durability of racist beliefs and structures, and demonstrates the ways in which racial logics continue to undergird social organisation and, by extension, affect health. We confront the legacy of science that has preserved the power hierarchies among different groups and we highlight the extent to which colonial history has relied on racist ideologies, whereby an "other" or separate group was seen as uncivilised or inferior. The consequences play out over generations, through the phenomenon of 'intergenerational drag',[18] requiring contemporary public health policies to confront the legacy of past policies that result in persisting disadvantage based on group identity.

Definitions

Different ways of categorising people are used, each responding to the population and history of that location and none encompassing all groups adequately.[19] The terms we use can never capture the complexity of an individual. We acknowledge the extensive discourse surrounding definitions relevant to the topics we cover and that consensus may never be reached, but for this Series, we identify our key definitions in Panel 1, with more detailed and further definitions available in the Glossary (Appendix). When we say discrimination, we mean discrimination based on caste, ethnicity, Indigeneity, migratory status, race, religion and skin colour, unless

otherwise specified. Importantly we recognise that categories assigned to people, which form the basis of discrimination, are socially constructed, with the purpose to separate and/or subjugate.

Panel 1: Definitions

Caste
Caste systems, most commonly found in the Indian subcontinent, are categorisations whereby people are stratified according to hereditary groups linked to occupations. These hierarchies determine access to resources and opportunities, based on the 'innate superiority' of higher castes.[20]

Discrimination
Discrimination is differential treatments or outcomes that are unfavourable towards a group or an individual based on some aspect of their actual or perceived identity, such as race, religion, nationality, physical ability, gender, sexual orientation, class or social status.

Epistemic injustice
In this paper epistemic injustice refers to how knowledge and the production of knowledge are weighted, with credibility given to those at the top of an established racial or power hierarchy.[55]

Ethnicity
Ethnicity is a social construct based on characteristics like language spoken, values, cultural factors, behaviours, ancestral geography locations.[21] There is overlap between racial and ethnic categories, given how groups of people who share social characteristics are also likely to share physical phenotypes.

Hierarchical power
A system where stratification of society occurs according to categories, such as race, and those at the top are actively afforded privilege, capabilities, and capital.

Indigeneity
"Indigenous populations are composed of the existing descendants of the peoples who inhabited the present territory of a country wholly or partially at the time when persons of a different culture or ethnic origin arrived there from other parts of the world, overcame them, by conquest, settlement or other means and reduced them to a non-dominant or colonial condition; who today live more in conformity with their particular social, economic and cultural customs and traditions than with the institutions of the country of which they now form part, under a state structure which incorporates mainly national, social and cultural characteristics of other segments of the population which are predominant."(UN Working Group of Indigenous People)[22]

Intergenerational drag
This describes how current differences and disadvantages in the health and social status of a group can be based on historical events that accumulate and persist over generations.

Intersectionality
Intersectionality refers to the ways in which the categorisations of people, such as race, gender or class, as well as associated systems of oppression such as white supremacy, patriarchy, and ableism, overlap and interact to create 'unique dynamics and effects'. https://www.intersectionaljustice.org/what-is-intersectionality

Minoritised
Minoritised is defined as 'individuals and populations, including numerical majorities, whose collective cultural, economic, political and social power has been eroded through the targeting of identity'.[19]

Racial capitalism
An exploitative process, where economic and social value is extracted from someone with a different racial identity.

Race
Race is a socially constructed classification that relies on someone's actual or perceived physical appearance and ancestry.[24] The meaning and categories of race can change over time, location and context.[27,21] Race has been used as a mechanism for assigning superiority and inferiority, and determining access to resources and human rights,[25,26] despite racial hierarchies being biologically baseless.

Racism
An organised system that affords power and privilege according to an established hierarchy.[28,29] based on racial categories.[30,31,31,32] Racism operates to protect the rights, power and livelihoods of those at the top of the hierarchy.[30]
Based on the model of Nazroo et al, we subcategorise racism into: interpersonal, institutional and structural.[33] Interpersonal racism occurs between individuals. Institutional racism occurs where institutional policies and practices result in discrimination based on race. Structural racism is at the core of other forms of racism,[34] describing the macro level processes and systems which maintain and perpetuate racial inequity.[29,18,35]

Separation
The process by which some humans see themselves as being different from others (and also from animals and nature).

Xenophobia
Xenophobia is the fear or hatred of, or discrimination against, those who are considered to be foreigners.

Further and more detailed definitions and explanations can be found in our Glossary.

Conceptual model

The series is structured according to our conceptual model, which uses the lens of racism, xenophobia and discrimination to consider how health is determined (Figure 1). This model

describes the pathways by which racism, xenophobia and discrimination affect health, laying the foundation for identifying areas for action. The model is informed by the following principles:

1) Health and health inequalities are determined by active processes, not static risk factors and behaviours.[36] As explored by Krieger's work on ecosocial theory,[37,38] these processes occur across complex ecosystems that exist within power structures. They affect different levels of societies and consequently biology across the lifecourse. We represent these strata of society, from a structural to individual level, visually as layers of our planet in Figure 1. The interactions between the layers of society and complex processes involved in determining health are active and constantly evolving.

2) Racism, xenophobia and discrimination are ubiquitous. We draw upon critical race theory (CRT), which arose from Black scholars and activists who highlighted the inequities in US society and its structural causes. We believe CRT can also be helpful in understanding how discrimination based on caste, ethnicity, Indigeneity, migratory status, race, religion and skin colour affects health. These forms of discrimination operate in similar ways, particularly in relation to how the structural processes of separation and hierarchical power unfold, leading to significant overlap in their impact on health. CRT is described in more detail, including how it applies to our work, in the appendix.

3) Racism, xenophobia and discrimination are structural, going beyond 'quirks of the mind'.[39] Individual beliefs or ideology represent only the 'tip of the iceberg'.[40] This is supported by many schools of thought including anti-caste, decolonial[41,42] and CRT.[31,32] The structural processes determining racism, xenophobia and discrimination are represented at the core of our visualisation, permeating through strata of society, leading ultimately to minoritisation,[19,43] ill-health and health inequalities. All other forms of discrimination stem from this structural level.

4) At the core of racism, xenophobia and discrimination are the two concepts of separation and hierarchical power. Separation refers to humans seeing themselves as different entities from nature, animals and other humans and is a prerequisite for human categorisation and how 'othering' occurs.[41] This concept of separation is informed by the work of the Musqueam community in Canada through the 'gesturing toward decolonial futures' collective. Hierarchical power is a system whereby there is a stratification of society according to categories, in which those at the top are actively afforded privilege, capabilities, and capital across all domains of life, while others are actively disadvantaged. Hierarchical power structures are created and maintained with intention. Power structures invariably involve dominance and control and understanding how power is distributed is crucial for tackling health inequities. This combination of separation and thus categorisation, and maintenance of power structures is both what leads to and is caused by discrimination. At every level and type of discrimination, these two concepts of separation and hierarchical power remain the common denominator.

5) We do not live 'single issue lives'.[44] Whilst this series focuses on discrimination based on, caste, ethnicity, Indigeneity, migratory status, race, religion and skin colour, our identities and the numerous systems of oppression are vast. Intersectionality, explored further in Paper 3, is a framework that refers to the interplay between social categorisations often thought of in silos, such as race, gender or class, that overlap and deepen oppression and disadvantage.[45] Visually this is represented in our model as an arrow cutting across various strata of society, representing how minoritisation and discrimination are the result of multiple systems of power operating within their own historical and structural contexts.[46,47]

6) Discrimination differentially impacts a person depending on their stage of life and circumstances of past generations affect the wellbeing of individuals today.[48] Sensitive periods, such as early childhood or adolescence, are especially important for health. Health

outcomes may appear much later, after a long latent period, making attribution methodologically difficult.[49] Intergenerational consequences also emphasise the importance of historical context and historical trauma in shaping current health and health inequalities.[48] The cyclical and temporal aspect of the lifecourse is represented visually as encircling the physical and spatial aspects of the societal layers of our framework.

The following sections are structured according to the layers in Figure 1. We explain our conceptualisation of how racism, xenophobia and discrimination affects health by beginning at the most visible and superficial level, with the individual, working inwards to the core of structural determination of health.

Individuals

The level of the individual is where most can easily comprehend impacts of racism, xenophobia and discrimination. Most people can think of a time they have experienced or witnessed racism, but to only focus at this level, would be to preserve the structural factors that have given rise to these individual manifestations. The murder of George Floyd, for example, cannot be explained by one 'bad' police officer but instead is due to the structural racism and discrimination that produce and enable the actions of policing institutions and individuals.

Paper 2 describes the health outcomes related to racism, xenophobia and discrimination and goes further to examines the ways that we internalise[43] and embody[50] our external environments in our physiology and health and explores the pathways of discrimination. We describe how discrimination unfolds from the core structural level to affect individuals as: 1. behavioural (including physical activity, sleep, nutrition, mal-adaptive or health-seeking behaviours); 2. psychological (e.g. mental health and internalisation); 3. physiological (stress, hormonal changes, and epigenetic changes).

A person's experience of the world is affected by the complexity of their identities. This is changeable, and can both be self-defined and defined by others. Categorisations can however shape identities in terms of how we see ourselves and accept racial hierarchies through a process of internalisation (Appendix), how others see us, and importantly how we are treated within intersecting systems and structures.[43] Our identities can however also be a base for resistance to racial subordination. As well as our experiences being affected by our perceived and self-defined identities, certain categories are used as proxy for discrimination, for example since the rise of Islamophobia post the Al-Qaeda attacks of 2001 in the USA, one can be discriminated against for being ''Muslim-looking,' rather than one's actual religious beliefs.[51] Migration provides additional complexity, as a person moves from one classification system to another, taking with and adopting new identities and having other national and migration-related identities imposed on them, for example economic migrant, asylum seeker, or 'illegal' migrant.

Communities

Communities come in various forms - physical or virtual, homogeneous or diverse - and are defined by common identities, traditions, knowledge, and/or organising worldviews.[52] A community's shared conditions and constraints shapes collective access to power, both material and symbolic.[52] These can be defined by natural barriers, or be human made, such as segregation laws. Discrimination can contribute to the formation of the communities based on the commonality of their experiences. This can be related to identity, where they live and how they experience the world. Communities can also buffer the impacts of discrimination,[53,54] by building resilience. Whilst communities may be united through their commonality of discrimination, there is still heterogeneity within that community.

Spatial

Spatial determination encompasses the environmental, ecological and geographical factors affecting health. In the context of discrimination, it can place minoritised people in unhealthy environments. This works in two main ways. First, discrimination situates minoritised populations closer to unhealthy and harmful environmental exposures, including through residential and racial segregation, access to green spaces, air quality, availability of fresh food, leading to health inequities. Second, the ways in which the upstream processes of discrimination interact with a range of systems, such as housing policing or legal frameworks are influenced by location. It can involve the use of national and regional borders and bureaucracy to assign rights to some categories of people, and separate them from others who are deemed less worthy.

Institutions and Systems

Racism and discrimination affect every institution and system that governs society, many upholding established power imbalances. This includes but is not limited to healthcare, housing, education and the prison-industrial complex. The concept of racism affecting health through its impact on social determinants of health as well as an independent factor, has been explored before[1,4] but we expand upon this to apply to the relationship between health and discrimination based on caste, ethnicity, Indigeneity, migratory status, race, religion and skin colour. We have identified healthcare as an example of a system within this layer, but also emphasise that much of health is determined prior to people interacting with the health system. Paper 2 further explores how discrimination affects healthcare systems globally. Within this section we explore how discrimination is woven into institutions responsible for knowledge creation demonstrating how it impacts health.

Epistemic Injustice

It is important to recognise that the systems in which this series are situated -academia, science, healthcare- are not free from racism and discrimination. Here we acknowledge a limitation being in a UK-based journal, written in English, with many authors from institutions associated with academic credibility. Epistemic injustice[55] refers to how knowledge and knowledge production are shaped by racism and discrimination, where there is weight and credibility afforded to those at the top of an established power hierarchy, and gaps in knowledge or resources mean minoritised populations can struggle to articulate their existence and experiences. Racist and xenophobic ideologies can be used to control populations and disadvantage certain groups, thereby maintaining power hierarchies.[56] Recent political efforts to ban the teaching of CRT are testament to the role of political and educational systems in reinforcing epistemic injustice and upholding existing power hierarchies.[57]

The scientific fallacy

Historically, scientists have played a role in justifying the separation and categorisation of humans that have led to modern day social hierarchies.[58,59] Biological science has shown that we are one of the most homogeneous species on Earth, more genetically similar than any other primate. We cannot be divided into sub-species or breeds. It has become clearer over time that human genetic and physiological variation maps poorly onto the construct of racial categories.[27] History explains why these categories make so little sense. They were devised by naturalists and philosophers in Enlightenment Europe in a fairly arbitrary way, attempting to mimic classifications applied to flora and fauna. Swedish botanist Carolus Linnaeus had so little understanding of how humans actually differed that in his human taxonomy he even included monster-like and feral humans, types of person documented in literature but –of course– not

real.[60] Linneaus went one step further to ascribe behaviours and even systems of societal order to phenotypic descriptions. ‘Europaenus’ were ‘governed by laws’, whereas ‘Africanus’ by ‘caprice’. The crude colour-coded system of dividing the world into white, black, copper-red, yellow and brown devised by Johann Friedrich Blumenbach survives to this day, and served a parallel belief in a racial hierarchy from the most ‘civilised’ people to the most ‘primitive’. Of course, European scientists placed themselves at the top of their human ladder of progress. Panel 2 describes how these ideas played a role in the eugenics movement and the science of heredity into the twentieth century and Panel 3 shows the similar phenomenon of Japanese exceptionalism.

By the nineteenth century, fallacious beliefs in the existence of a racial hierarchy were part of the fabric of European and North American science. In medical research, certain lives were seen to have less value than others, as evidenced by the Tuskegee syphilis experiments beginning in 1932 and ending only in 1972, which saw Black American men deliberately denied treatment for syphilis in order to understand disease progression in what was believed to be a biologically exceptional population (Panel 4).[61,62] To this day, medical research carries the legacy of the outdated, politically-motivated myth that races are biologically distinct.[63]

Structural Discrimination: Separation and Hierarchical Power

Having introduced separation and hierarchical power as foundational principles of the conceptual model and at the core level of structural discrimination, we explore how these two concepts play out in processes of structural discrimination from governance, colonialism and racial capitalism, to political dynamics and exclusionary populism.

Laws and structures of governance

The laws and structures which govern national and international interactions have historically included racist and xenophobic ideologies, used to separate, categorise and embed hierarchical power. The embedding of socially created categories of humans into policy to confer rights is longstanding. An overt example of the social division of people are the caste systems that developed in the Indian subcontinent over 3000 years ago that historically governed the social, economic, and political life of people in India.[64] In the traditional scheme of the caste system, scheduled castes suffered the most due to the notion of ‘untouchability’. Similar examples exist in Europe. In 13th century France, being Jewish denoted different and limited legal status which prevented employment in certain professions and requirements for Jews to wear badges or dress to connote their Jewish identity in order to prevent intermarriage.[65] Later during the period of the black death and as a result of the persecution of lepers, Jews across Europe could be banished from cities and societies or killed.[65,66] Further, expulsion of Jewish people from England in the 13th century as well as the Spanish Inquisition demonstrate an important emergent trait central to racism- the conferring of certain rights or exclusion from social protections based on membership of a particular group.

In the United States after the American Civil War and abolition of slavery, the state used racial categories to determine citizenship rights, maintain segregation, deny access to services, and land purchase and equal protection under the law. Racial policies not only deprived Black Americans of life and economic and political opportunity but race also lay at the heart of discriminatory immigration policies, such the Chinese Exclusion Act 1882.[67] Racial classifications, based on skin colour, hair texture or heredity have formed the basis for conferring differential rights and access to services across the world, for example in South Africa under Apartheid. In South Africa, laws dividing access to education, land and limiting

employment and labour opportunities, while also suppressing non-White populations. This began in the colonial period of the 18th and 19th centuries and expanded into the complex system of Apartheid with the rise of the National Party in 1948 (Appendix).

Even the modern system of international law was founded on doctrines that denied sovereignty to non-Europeans and justified their enslavement and colonial domination on racially discriminatory bases.[68] Present-day international legal frameworks continue to perpetuate racial discrimination within and across nations, as recent critiques of the global public health response to COVID-19 have highlighted.[69] The leading United Nations international human rights body on racial discrimination warned in April 2022 “that the pattern of unequal distribution of lifesaving vaccines and COVID-19 technologies between and within countries manifests as a global system privileging those former colonial powers to the detriment of formerly colonised states and descendants of enslaved groups”.[70]

Colonisation and Racial Capitalism

The ideologies of racism have been central to the formation of nation-states[71] and concepts of citizenship.[72] In North and South America, for example, the genocidal violence of settler colonialism and the expansion of territory killed Indigenous people and stole land. Fundamental to the process of colonisation is the concept of racial capitalism. Racial capitalism is an exploitative process, where economic and social value is extracted based on the racial identity of a person.[73,74] Where a capitalist society was created, with winners and losers, it “pursued essentially racial directions, so too did social ideology”.[73] When we look at the historical context of slavery and colonialism for example, the presence of racial capitalism is clear. The European colonisation of the Americas and slave trade placed racism at the centre of the global economy. As Spanish conquerors decimated the Indigenous populations they encountered, they created a labour shortage. The Spanish enslaved Africans to make up the labour shortfall wrought by

colonial murder.[75] A key justification for the trafficking of Africans was the widely held perception in the 16th century but even more prominently in the 18th and early 19th century that African peoples were more resistant to the diseases of the Americas and more tolerant of harsh labour.[76–78] African labour enabled the massive expansion of economic production and wealth accumulation from goods such as sugar throughout the late 18th and early 19th centuries, and they themselves were the most valuable commodity in the American Colonies. In European colonial sites in the 19th century the perceived threat of disease emerging from colonised populations justified forms of racial quarantining, segregation, and control.[79–82] Slavery, colonialism and genocide were also rationalised by a science of human difference built on conflicting political beliefs that certain groups were inferior, naturally subservient, but also more resistant to the diseases of the Americas. In 1852 Louisiana physician Samuel Cartwright documented his discovery of two new diseases in *The New Orleans Medical and Surgical Journal*: 'Drapetomania' to describe the condition of runaway slaves, and '*Dysaethesia Aethiopica*' to describe disobedience and refusal to work among slaves.[60,83]

The colonial era has been followed by neo-colonialism, whereby people in poorer countries continue to be exploited by the macroeconomic and international governance systems.[84] In many settings today, power still lies more with private entities with significant economic influence.[85] Corporations have long exploited racial divisions. For example, the tobacco industry engaged in a campaign of "masterful manipulation" targeting menthol cigarettes to African-Americans.[86] By 2008, 85% of African-American smokers smoked them, compared to 27% of White smokers.[87] Research on environmental damage, such as chemical accidents, disproportionately affect African-American and Hispanic communities in the United States.[88] Corporations may also show a lack of sensitivity to beliefs of minoritised groups, exemplified by the destruction of culturally significant Aboriginal sites in Australia by mining companies.[89]

Political dynamics and exclusionary populism

When seeking to understand why ideas that seem dysfunctional and abhorrent persist, it is important to ask who benefits? Throughout history, individuals and groups have exploited ethnic and religious divisions within societies to achieve and retain power, for example the rise of the Nazi party under Adolf Hitler. In a country that had suffered enormously, through the loss of life in the First World War, and in the imposed reparations and the Great Depression, Hitler's racially defined narrative found a receptive audience[90] and appealed to a deeply ingrained antisemitism that had existed for centuries. Early models of state-based racial oppression, violence, and exclusion were seen as models for the Nazi vision of racial purity, European conquest and the Holocaust.[91][92] At the same time, the Belgian authorities in Rwanda were exploiting societal divisions. In 1935, they issued identity cards differentiating the 15% of the population who were Tutsi, and who had held privileged positions in society, from the Hutu majority. Several decades later, these divisions led to genocide, with Rwandan political leaders from the Hutu community advancing an explicitly racist agenda against Tutsis.[93] While these are some of the most extreme examples in recent history, there are many others where political leaders have encouraged divisions for their own purposes.

Populism can take many forms but, in general, it takes the form of an ideology that creates separation between "the people" and "the elite". Both can be defined in different ways, but often in terms of class or ethnicity. In the latter case it may draw on ethnonationalist arguments, whereby "the people" are portrayed as sharing certain racial, ethnic or religious characteristics. Those promoting this particular ideology seek to "pit a virtuous and homogeneous people against a set of elites and dangerous 'others' who are together depriving the sovereign people of their rights, values, prosperity, identity, and voice".[94] This 'insider-outsider' narrative secures the support of those who feel they have been left-behind and can be used to create divisions

and bestow power on a group and its leaders.[95,96] Populist leaders often exploit disaffection, developing a narrative in which their misfortunes are due to the actions of others.[97] In some cases, supporters of this approach may seek to divide the poor among themselves, thereby increasing opposition to universal policies, such as healthcare, which can be presented as a benefit only to the "other", an argument that is facilitated when the "others" can be distinguished by, for example, the skin colour or how they dress. This may require a return to an imagined better past. This could take the form of resurrecting the symbols and relationships associated with empire, as in the post-Brexit United Kingdom, or encouraging religious revival, as in Turkey, where Recep Tayyip Erdoğan has moved away from the secularism on which Ataturk based the modern Turkish state. Populist policies are signaled by slogans from world leaders such as Donald Trump's incitement to violence against Black protestors, "when the looting starts, the shooting starts". Some politicians may exploit crises, as when Hindu nationalist politicians blamed Muslims for spreading COVID-19. This rhetoric is amplified by social media campaigns that marginalise, and the algorithms that lie behind them, which amplify collective insecurities and fears. Views can readily be manipulated through the mass-curation of echo-chambers where 'alternative facts' and 'fake news' propagate and deepen our confirmation biases.[98] Platforms such as Facebook make it easy to direct messages to those with certain characteristics.[99] For example, the civil society group, ProPublica, showed it was possible to advertise an apartment in a way that excluded African Americans, Hispanics, and those who had searched for disability aids.[100101] The media machinery can both be captured by political interests -as is the case with politically-driven media censorship in countries such as Eritrea or North Korea- and be a critical shaper of political discourse, such as the domination of Murdoch-owned press in the West. As Hannah Arendt described, the ideal foundation for totalitarian rule is where people who can no longer tell the difference between fact and fiction.[102]

Conclusions

In this first paper of the series we describe some of the underlying features of racism and xenophobia, and discrimination, and the ideologies and histories that lead to health inequities. Categories such as race and caste are biologically arbitrary, but the discrimination minoritised groups face is very real. While health outcomes are not deterministic, some groups have the cards stacked in their favour and some do not. We bring together different forms of discrimination based on caste, ethnicity, race, Indigeneity, migratory status, religion and skin colour. These are all distinct but overlapping entities that result in poorer health. And underlying them are similar systems of categorisation, minoritisation and oppression. The history of many societies serve as a reminder of the dangers involved. It is not a new phenomenon for leaders to scapegoat others for political advantage but the current moment presents many such examples of this. By framing the role of racism, xenophobia and discrimination within the context of overall determination of health, we lay the foundation to imagine a world which at its core, instead of hierarchical power and separation, centres antiracism, decoloniality and equity. Hatred and intolerance have real and deadly consequences. Racism, xenophobia and discrimination are important determinants of health and public health has a responsibility to challenge and address these phenomena.

Panel 2: Eugenics and the science of heredity

The medical profession should consider its racialised past in order to understand its racialised present and how easily biological myths become attached to social groups.

This series originated in UCL, the historic seat of the scientific eugenics movement. The early twentieth century field of eugenics developed in London and spread to the rest of the world, claiming that heredity could explain the social circumstances and health outcomes of particular populations. In its early days, the focus was on the poor, reflecting British society's deep class divisions.[103] Eugenicists argued that outcomes were decided by qualities such as mental ability, moral tendency and criminal inclination, which were decided on the day individuals were born. At UCL, racist pioneers of this school of thought, Francis Galton and Karl Pearson, documented human difference in search of particular 'types'. It took little time

for eugenic ideology to target racial groups. One area for research efforts was the relatively poor Jewish immigrant communities of London's East End. In the United States by 1927 a law was passed upholding the right of the state to forcibly sterilise those believed to be unfit to have children, resulting in tens of thousands of sterilisations, mainly of those deemed 'mentally feeble', disabled, criminals and the poor, but it was also used as a vehicle to target racial minorities. Black and Native American women were particularly targeted by sterilisation programmes. The 'Mississippi appendectomy' was a euphemism given to the common practice of sterilising Black women or performing unwanted hysterectomies even into the second half of the twentieth century.[104]

Eugenic thinking lives on in genetic determinism. When researchers turn to the UK Biobank when trying to understand the roots of social inequality[105] they are –wittingly or not– falling into a trap that inequality is not the product of social, political, environmental and historical factors, but that it stems from deep innate differences between entire groups of people.

Panel 3. Scientific racism and Japanese colonial rule of Korea

During the Age of Imperialism, the Western powers utilised science to create and hierarchise racial categories, and to justify the occupation of their colonies. They employed techniques such as craniometry to classify the human population based on physical attributes, which provided pseudoscientific yet powerful evidence about the racial superiority of White colonisers.

However, Japan needed a different approach for racial hierarchy when trying to colonise Asian countries, as there were physical similarities including skin colour between the Japanese and other Asians. A considerable number of medical research projects were conducted to support the Japanese racial superiority ideology in East Asia.

One example was to use the biochemical race index, a ratio of 'number of people with A or AB blood type' to 'number of people with B or AB blood type'. Ludwik and Hanka Hirschfeld first devised the index by analysing over 8,000 blood samples from 16 nations, the results of which were published in the Lancet (1919).[106] The index implied a hierarchy among the races, where the three racial types were categorized from the highest to the lowest score groups: 'European,' 'Intermediate,' and 'Asio-African.'

Japanese scientists carried out a number of serologic studies to assess biochemical race indices in East Asian countries.[107,108] Studies repeatedly reported that the Japanese had higher index scores compared to other Asians in their colonies, suggesting the biological superiority of the Japanese race.[109] These research findings played a role for justifying Japan's occupation over East Asian countries.

Panel 4. Racism and Medical Experimentation

The belief in the inferiority and biological difference on the basis of race has often been employed to justify medical experimentation upon minoritised people, with key aspects of scientific and medical knowledge having been gained at the expense of minoritised people, particularly Black people. While the '*Tuskegee Syphilis experiments on the Negro Male'* and Nazi experiments in concentration camps in the mid-20th century may be the archetypal cases of racist experimentation, the history of experimentation is far more widespread.

James Marion Sims, often denoted as the father of American gynaecology, developed his techniques for treating vesicovaginal fistula by experimenting on enslaved women, often without the use of anaesthesia, even when available.[110] Many of the same experimental practices were subsequently subjected upon recently immigrated and destitute Irish women in New York as, at the time they were also considered to be inferior to the American-born White population.[110] Much of the justification for the experimental utility of enslaved and Irish women lay in a belief that Black and Irish women had higher pain tolerances than more delicate races and thus could be experimented on with greater impunity.

In the early 19th century, Non-European people were regularly put on display in Europe as well as in Imperial Japan[111] for the morbid fascination of the public and observation of the scientific community. While the practice of creating human zoos to showcase the innate differences of races around the world would persist into the 20th century[112] the observation of bodies for the purpose of ascribing racial difference also led to experimentation, as was the case for Saartje Baartman. Baartman was a KhoiKhoi woman from the Eastern Cape in modern day South Africa.[113] In 1810 she was brought to London to serve as a public spectacle and was forced to display herself nude to the public as well as at dinner parties and prestigious gatherings where her physiology, and especially her genitals could be observed as a marker of racial difference and inferiority. After her death in 1815 her body was retained for autopsy and experimentation and was also put on display.[114]

Search strategy for the series

We conducted a scoping review with no date or language restrictions that combined four umbrella search terms: (1) health outcomes - subcategorised into (1a) mental health, (1b) non-communicable disease, (1c) maternal and perinatal health, (1d) infectious disease, (1e) mortality; (2) quality of care - subcategorised into (2b) healthcare centred and (2c) patient-centred; (3) mechanisms of action including socioeconomic determinants of health; (4) interventions that tackle health inequities from discrimination, with search terms relating to the discrimination based on caste, ethnicity, Indigeneity, migratory status, race, religion, skin colour. We only looked at reviews for evidence related to racism and discrimination based on migration, due to the volume of literature on racism and also due to the 2018 Lancet Series on Migration,[115] which included a literature review on this topic. For other forms of discrimination and for interventions, individual studies were included.

There were 27 combined searches with more than 11,000 results. Articles were selected to demonstrate discrimination based on the different forms of categorisation examined in this series and across populations. Where possible, in the main text we tried to avoid replicating the concentration of relevant literature in areas like the UK and the USA, which are a product of current power structures, epistemic injustice (glossary) and dominance of the Global North in public health research. In the second paper we extracted data from 287 articles on health outcomes and coded them according to the outcome, basis of discrimination, global region, and lifecourse stage. In the fourth paper, 411 publications on interventions were found, which was reduced to a final 89 following full-text screening. Our full search strategy and fully

referenced summary results table can be found in the appendix of the second and fourth papers.

Figure 1. Conceptual model

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Author contributions
DD and IA conceived the series. SS conceived, designed and developed the conceptual framework underpinning the series, with contributions from DD and GS. ETA, DD, SSK, MM, AS, GS, NS, SS, and AW wrote sections of the draft. The definitions and glossary were written by SS with input from ETA, DD and AW. All authors edited and critically revised the draft.

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