

# Discourses on im/migrants, ethnic minorities, and infectious disease: Fifty years of tuberculosis reporting in the United Kingdom

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## Abstract

Ethnicity and im/migrant classification systems and their constituent categories have a long history in the construction of public health knowledge on tuberculosis in the United Kingdom. This article critically examines the categories employed and the epidemiological discourses on TB, im/migrants, and ethnic minorities in health reporting between 1965 and 2015. We employ a Sociology of Knowledge Approach to Discourse Analysis to trace the continuities and changes in the categories used and in the discursive construction of im/migrants, ethnic minorities, and TB. These continuities and disjunctures are analysed within their socio-historical context to demonstrate the historical contingency of epidemiological knowledge production. We outline two historical phases in knowledge construction. The first coincides with the period of decolonisation, which witnessed a change in discursive identity ascriptions from 'immigrants' to 'ethnic groups' in health reporting as the 'other'. The second commenced after 1991, when the adoption of the census ethnicity categories as a standard in the collection of population statistics entrenched ethnicity categories in health reporting. We argue the health reporting discourse reveals that the 'new' public health exhibits continuities with the 'old' by targeting the immigrant 'other' through biosecuritisation practices. We contend that these categories originated within a

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postcolonial paradigm and that increasing immigration and new forms of mobility are creating the preconditions for new discourses on identity construction that have implications for the current collaborative TB strategy.

### **Keywords**

classification, discourse analysis, epidemiology, ethnic minorities, im/migrants

## **Introduction**

Ethnicity and im/migrant classification systems (classifications) and their constituent categories have been integral to the construction of public health knowledge on tuberculosis in the United Kingdom since the post-Second World War period (Welshman, 2000).<sup>1</sup> In the wake of declining TB rates, public health – as both a discourse and a set of practices – was central to managing a disease whose meaning has changed over time from a ‘social disease’ affecting large parts of the general population to an ‘immigrants’ disease’ (Kehr, 2012: 251). Epidemiology has had a defining biopolitical function in the production of public health knowledge by documenting patterns of the disease among the UK’s ethnically diverse population. Central to this epidemiological task are the identification and categorisation of groups, as well as surveillance, record taking, and reporting back to a system of government agencies (Lupton, 1995). These knowledge practices are materialised in health reports that constitute an epidemiological discourse on the ‘other’ and tuberculosis disease infection. In sociological terms, discourses can be viewed as constructing knowledge in different configurations, such as linguistic statements or classifications, that stabilise meaning in specific socio-historical contexts. These interpretive forms of knowledge are inextricably linked with power and mediate the social world through their power effects (Keller, 2013).

### *Discursive constructions of risk and classification in public health knowledge*

Many studies have examined the influence of structural disadvantage, racism, and ethnic identity on the health experiences of im/migrants and ethnic minorities (Ahmad and Bradby, 2007; Chattoo *et al.*, 2019; Karlsen and Nazroo, 2002). Some studies have investigated public health knowledge on TB, im/migrants, and ethnic minorities within a framework of the discursive construction of risk, the politics of nation building, and the connections between immigration control, infectious disease, and public health (Amon and Todrys, 2008; Coker, 2004; Craig, 2007; Reitmanova and Gustafson, 2012; Welshman and Bashford, 2006). The resurgence of TB, the HIV/AIDS pandemic, and the emergence of other infectious disease threats such as SARS have further galvanised the production of global public health knowledge within a paradigm of health securitisation. Subsequent efforts at controlling and improving population health are underpinned by a ‘risk-security nexus’ (Elbe, 2008: 178) and include biosecuritisation practices – ‘interventions aimed at safeguarding specific sites against pathogenic threats’ (Warren, 2013: 158) – that target the mobile im/migrant body, such as pre-entry screening. Together with changing understandings of sovereign borders (Warren, 2013), such practices have been legitimised by the construction of risk in new public health discourses as also

inherent in the environment – a term conceptualised as ‘going beyond national boundaries’ (Petersen and Lupton, 1996: 5).

The cultural/symbolic theoretical perspective on risk (Lupton, 2013), which draws on the scholarship of Mary Douglas (1966, 1985, 1992), provides insight into how risk is deployed in public health knowledge and the sociocultural functions it fulfils. Douglas (1990) contends that *risk* is not a neutral term in Western contemporary society but has come to mean ‘danger’ – a position forming the basis for claims that *risk* as a synonym for *danger* is pervasive in public health (Lupton, 1993). Douglas’ notions on risk are grounded in her conceptualisation of the meanings associated with purity, pollution, and ‘otherness’ (Douglas, 1966), and how risk serves as a cultural strategy employed by communities to make sense of danger and threats they perceive as emanating from the ‘other’. Risk, therefore, is a political concept, as it functions to maintain the social order, manage threats to the community, and protect symbolic boundaries.

Foucault’s scholarship on the role of risk in the management of disease further theorises on its political functions (Foucault, 2007). Foucault conceptualises biopolitics as strategies combining knowledge and power that are aimed at ‘man-as-species’ (Foucault, 2003: 242) – that is, at the population level – in order to regulate collective biological events, such as lowering morbidity and mortality. Integral to the exercise of biopolitics is the calculation of risk, which, Foucault (2007) argues, has allowed the healthy and sick within a population to be managed collectively. This in effect makes risk a ‘biopolitical rationality’, that is, ‘a conceptual apparatus used to analyse and manage a multitude of collective population dynamics at the level of population’ (Elbe, 2008: 191). Epidemiology is integral to the public health endeavour of ‘identifying, reducing exposure to, or eliminating risk’ (Petersen, 1997: 197), a practice that is reliant on classification systems that facilitate the enumeration of risk attributable to various social groups.

### *Classification systems and ethnicity categories in epidemiological reporting*

Social constructionist and sociology of knowledge perspectives, however, underscore the fact that the classification systems used to generate public health knowledge should be interrogated (Bowker and Star, 2000) and their origins, trajectories, and effects over time studied (Keller, 2011). Classification systems in medicine, such as the International Classification of Diseases and the *Diagnostic and Statistical Manual of Mental Disorders*, seek to standardise and stabilise meanings of terminology across time and location; they constitute sources of knowledge around which medical work is organised (Godderis, 2011; Timmermans and Epstein, 2010). Classifications in medicine and epidemiology that involve categorising groups and populations according to their ethno-racial background or migration status similarly construct standardised group identity labels, a practice that has received critical scholarly attention. Sociological critiques, for example, emphasise that such ethno-racial categories participate in the social formation of racialised groups by constructing knowledge about them according to physiological differences; the categories also contribute to perpetuating the notion that race and ethnicity are principally biological characteristics, thereby naturalising health disparities and shifting focus away from their social causation (Epstein, 2007; Omi and Winant, 1994; Shim,

2000, 2002). In public health research, specific areas of critical scrutiny include the validity of ethno-racial categories and the conceptual and methodological challenges of measuring 'race' and ethnicity (Aspinall, 2011; Bhopal, 2004; Ford and Harawa, 2010; Mays *et al.*, 2003).

Developing ethnicity and migrant classification systems for health reporting purposes is also embedded in social identification, an aspect of classification work that highlights partiality and power issues regarding the ascription of identities by state actors (Scott and von Unger, 2019). As Jenkins (1997, 2000) notes, social identification, which comprises the interdependent and continual processes of *internal group identification* and *external social categorisation*, is integral to classification. The former process refers to how groups identify themselves and the latter to how they are identified by others. These interdependent processes are predicated on the (re)negotiation of group and category boundaries and are at times rooted in identity politics. Significantly, these processes highlight the asymmetrical power relationship between *groups*, which exercise the privilege of self-determination, and the constituents of *categories*, which are treated as objects of definition. The processes inherent in social identification and the classifying principles governing classification systems (Bowker and Star, 2000; Pierik, 2004; Polzer, 2008) underscore their constructedness. This defining characteristic of classifications necessitates their interrogation in order to understand how classifications are developed and used to achieve the ends for which they are designed.

In this latter regard, Foucault's work opens up further avenues to explore the scholarly significance of classifications in epidemiological health reporting. In *The Order of Things*, Foucault (1970[1966]) takes issue with classifications as culturally and historically mediated forms of knowledge. His writings contribute to an understanding of classifications as discursive constructions, closely allied to power, that have performative as well as structuring effects. His study on epistemic continuity and discontinuity (Foucault, 1988[1961]) further shows how classifications are subject to historicised processes of continuity and disjuncture. Thus, from a Foucauldian perspective, classifications in TB health reporting do not only organise knowledge about groups and infectious disease into the constituent categories. These categories are discursive practices, the product of shifting and historically contingent configurations of power/knowledge that define the boundaries of what can be said about these groups. Importantly, these categories also generate power effects.

## Aims

This article critically examines the categories employed and the epidemiological discourses on TB, im/migrants, and ethnic minorities in UK health reporting. We use a Sociology of Knowledge Approach to Discourse Analysis (SKAD; Keller, 2013) to trace the development, 'career', and power effects of specific ethnicity categories used in classifications (von Unger, Scott, and Odukoya, 2018). This perspective brings into focus the biopolitical function of classification in public health and contributes to theoretical discussions on the sociality of scientific knowledge, that is, the sociocultural processes that are implicated in the construction of this knowledge. A central aim of the

analysis is to understand changes in the categories deployed within their wider socio-historical context. In this regard, two historical phases marking changes and continuities in the discursive construction of im/migrants, ethnic minority groups, and TB can be distinguished. The first, commencing in the 1960s and spanning the decades until the end of the 1980s, was marked by processes of national (re)identification in the wake of decolonisation and large-scale Commonwealth immigration. Implicit in the transformation of national identity were efforts at defining the identities of others, who traditionally were not regarded as members of the nation state. This process was articulated primarily through a discourse on 'race relations', and among its most controversial power effects was the creation of ethnicity categories. These categories entered health reporting discourses on im/migrants, ethnic minorities, and TB that constructed these groups mainly as 'a risk' to public health – a position reflecting an approach to public health practice, holding sway in the decades following the Second World War, that focused on the prevention and cure of disease in high-risk groups (Awofeso, 2004). The second phase, from the 1990s onwards, can be characterised as a period of standardisation as the institutionalisation of the census ethnicity categories in the collection of population statistics entrenched ethnicity categories in health reporting. Following the emergence of the new public health in the 1990s (*ibid.*), with its emphasis on the role of environmental and socio-economic determinants in redressing social inequities (Tulchinsky and Varavikova, 2010, 2014), the discursive regime on im/migrants, ethnic minorities, and TB shifted to include statements regarding these groups as being 'a risk' to public health as well as being 'at risk' of contracting TB. We argue that this dual construction of risk is an inherent feature of the contemporary epidemiological discourse on TB in the new public health. The power effects of this discourse, however, reveal that the 'new' public health, despite its claims to egalitarianism, exhibits continuities with the 'old' by targeting the immigrant 'other' through biosecritisation practices introduced with pre-entry screening for immigrants. We contend that the preconditions for new discourses and discursive constructions of identity, germane to health reporting, are emerging due to increasing migration and varying forms of population mobility.

## Methodological approach

This study is part of a larger project, 'Changing Categories', which investigated the origins and functions of ethnic minority and im/migrant categories as discursive practices in the production of public health knowledge on TB and HIV/AIDS in the United Kingdom and Germany. Categories are defined here as the units comprising larger classification systems that are organised and ordered according to varying principles (Bowker and Star, 2000). A specific focus is how these epidemiological categories were socially constructed, how they have changed over time and the power effects they have displayed. SKAD (Keller, 2011, 2013) was used to collect and analyse the data. As a research programme, SKAD does not constitute a linguistic approach to discourse analysis. It integrates discourse theory in the tradition of Michel Foucault (1970[1966], 1988[1961]) with sociological theories developed by Mary Douglas, Peter Berger, and Thomas Luckmann, and other proponents of the sociology of knowledge. Discourse theories have been criticised for their overemphasis on social structure at the expense

of individual and institutional actors. Given the influence of the sociology of knowledge tradition, however, SKAD goes beyond other types of discourse analysis in that it is better equipped to consider the role of institutions and other actors in the discourse.

In SKAD, discourses are understood as communicative events that stabilise, at least temporarily, meaning and interpretations that institutionalise an order of knowledge (Keller, 2013). As Keller (2012: 58) notes, discourses ‘become real’ through the knowledge claims they make, and the actions taken by social actors. Discourses, therefore, make visible the historically contingent connections between the categorisation of im/migrants and ethnic minorities in epidemiological health reporting and immigration politics.

Discourses are also stabilised by what Foucault (1980) termed *dispositifs*, and in SKAD *dispositifs* are similarly operative by encompassing the range of infrastructures and measures that serve to (re)produce a discourse and achieve power effects. The public health reports forming the data corpus for this paper are a constitutive element of the *dispositif* undergirding epidemiological discourses on infectious diseases, im/migrants, and ethnic minorities. The data corpus contains over 500 health reports, interviews, field notes, and other relevant documents concerning TB and HIV health reporting in Germany and the UK. The data for this paper comprise 55 TB health reports and includes reports for the period beginning in 1965, when epidemiological surveys first started recording TB rates among the growing post-war immigrant population. These reports, which analysed seven TB surveys conducted between 1965 and 1998, were published in a range of medical/epidemiological journals, including *Tubercle*, *Thorax*, the *British Medical Journal*, the *Journal of Epidemiology and Community Health*, and *Archives of Disease in Childhood*. The remaining health reports were published annually between 2003 and 2015 by the Health Protection Agency (HPA) and its successor, Public Health England (PHE). These published reports were the products of the main government agencies responsible for TB surveillance in the UK at the time. As such, they constitute historical records documenting epidemiological knowledge about the course of the disease as well as classification practices in the light of increasing immigration over a half-century. Apart from these empirical data sources, numerous articles appearing in peer-reviewed journals were consulted to provide background knowledge on the specialist scientific discourse on tuberculosis.

The qualitative interpretative analysis focused on the categories used to define ethnic minority and im/migrant population groups. Statistical tables and texts in the reports utilising these categories were analysed in order to infer the classification principles used and the internal logic of the tables (Bowker and Star, 2000). *Statements*, which in SKAD are abstract meaning units embedded in the actual *utterances* in the text, were identified within the texts of the reports that accompanied the statistical tables (Keller, 2013: 73–4). We searched for patterns in these statements that constituted interpretative frames in the discourse on im/migrants, ethnic minorities, and TB. Since SKAD is concerned with the origins of knowledge and meaning creation, the analysis aimed to reconstruct, firstly, the socio-historical processes and practices associated with the production of knowledge about TB, im/migrants, and ethnic minorities. A second aim was to relate this knowledge to the power effects of this discursive construction of minorities’ and im/migrants’ health status.

## The first historical phase (1960s–1980s)

### *Early epidemiological discourses*

The decade prior to the 1965 epidemiological survey was characterised by concerns about increasing TB rates among the UK's growing population of New Commonwealth arrivals. This occurred at a time when increased TB control and the advent of chemotherapy treatment were contributing to a fall in TB mortality, which subsequently led to declining medical interest in the disease (Hardy, 2003). Research studies began appearing in scientific journals from the mid 1950s onwards showing a relatively high TB incidence among Indian, Pakistani, and West Indian 'immigrants' to the UK (Springett *et al.*, 1958).<sup>2</sup> The discursive construction of migrants as a threat to public health through the 'importation' of TB became a dominant theme in the scientific literature and a key statement in existing public health discourses. Although there were studies arguing that socio-economic factors and deprivation were implicated, these ideas were subordinate to the position that it was being imported (Welshman, 2000). A discursive field emerged in which different actors – including borough councils, medical officers of health, medical bodies, and government ministries – often held competing positions on the 'problem' of tuberculosis among 'immigrants'. There were calls from the medical establishment for pre-departure or at port of entry X-ray examinations of 'immigrants' and the treatment or exclusion of 'immigrants' with tuberculosis ('The Tuberculosis Immigrant', 1961; 'Tuberculosis in Immigrants', 1964). The British Medical Association (BMA), an influential organisation representing doctors in the UK, was a strong advocate of such medical controls, a position that was at variance with the government's in the very early 1960s. Tensions consequently flared when the Ministry of Health outlined its objections to acting upon a BMA resolution that compulsory chest X-rays for 'Commonwealth immigrants' on arrival should be introduced. The BMA Council's acrimonious response to the Ministry's position revealed the prevailing strength of feeling and scientific conviction that the UK population needed to be protected from imported TB ('The Tuberculosis Immigrant', 1961: 1625).

As historiographies of this period show (Bivins, 2013, 2015; Welshman, 2000), immigration and the associated TB rates coalesced into a symbolic threat to national borders and the nation's health. Political concerns about rising immigration, in which public health discourses on the importation of TB were implicated, eventually prompted disciplinary action by the government. The 1962 Commonwealth Immigration Act, designed to limit immigration, laid the foundations for a policy of screening after arrival in 1965. The 1968 amendment to the Act introduced the principle of conditional entry: long-stay 'immigrants' would be allowed to enter the country as long as they reported to a medical officer of health. These measures effectively established a system of epidemiological surveillance at the local level, thus formalising both a knowledge archive about im/migrants' health status and the power to refuse them entry into the country if they did not comply with stated measures. Public health as a form of biopower had become aligned with the disciplinary function of immigration control, thereby constituting a power/knowledge complex.



### *The first TB surveys*

These developments formed the backdrop to the first national survey of TB notifications for England and Wales, which was undertaken by the British Tuberculosis Association (BTA) in 1965 and repeated in 1971. The BTA, which acted as a discussion forum on a range of clinical and non-clinical issues, started co-ordinating projects such as national surveys in 1947, when it established a Research Committee.<sup>3</sup>

TB had become a notifiable disease in 1913, but the information in statutory notification systems, the principal form of TB surveillance, was limited and did not include ethnic origin or country of birth. The stated aim of the first survey was, therefore, to find out the proportion of notifications due to TB in 'immigrants' and how widespread the disease was (British Tuberculosis Association, 1966). 'Immigrants' were sorted from the 'British-born population' by the variable 'place of birth', and for those 'born in countries other than Great Britain', the 'date of the first and most recent entry to England and Wales' was recorded. Place of birth was then grouped into a classification system comprising nine 'geographical areas' (ibid.: 148). The classification's organising principle appeared to be based on the numbers of reported TB cases: whereas 16 countries made up the geographic area 'Asia', which had a total number of 68 cases, 'India' and 'Pakistan' comprised separate geographic areas with a total of 189 and 176 TB cases, respectively.

This classification made visible 'who' and 'where' were of epidemiological interest at a time when the UK government was trying to control immigration flows from its former colonies. However, place of birth as a classifying principle subsumed all persons into one category without taking account of ethno-racial identities and social or occupational status. As a consequence, the category also included individuals born in Commonwealth countries whose ancestral origins and self-identification were rooted in Great Britain. As will be shown, the introduction of ethnicity categories enabled UK epidemiologists to differentiate this group further through the use of various labels depicting, among other identity markers, skin colour.

The second survey was scheduled intentionally to coincide with the 1971 census. The expectation was that the population data would in turn enable notification rates to be related to the size of the communities rather than to estimates, which had been the case in the 1965 survey. This second survey was conducted by the British Thoracic and Tuberculosis Association (BTTA), a successor to the BTA, which underwent a name change in 1968 due to the decline of tuberculosis in the UK and the inclusion in the Association of chest specialists with a broader range of interests. The primary aim of this second survey was to detect any change in the pattern of tuberculosis in 'immigrants' between 1965 and 1971 (British Thoracic and Tuberculosis Association, 1973). The survey schedule tried to achieve uniformity, where possible, with questions asked on the census questionnaire. This orientation of an epidemiological survey towards the population census was significant. It marked a step towards the standardisation of formats in the collection of population statistics and forged epistemic links between two biopolitical projects. Consistent with these attempts at standardisation, the survey collected information not only on the patient's country of birth but also on their parent's birthplace. This was intended to establish by inference the ethnic identity of persons with TB. However, the conflation of place of birth and ethnicity had several implications: first, phenotypically



white individuals whose parents were born in the Indian subcontinent would have been included; and second, many patients whose parents were born in East Africa were actually of South Asian descent (Sillitoe and White, 1992). The classification for place of birth also changed, and the categories were fewer in number to allow the census data to be utilised (British Thoracic and Tuberculosis Association, 1973: 252). The new classification included three main categories: the British Isles (England, Wales, Scotland, Northern Ireland, and Eire), the New Commonwealth (Africa, India, Pakistan, and the West Indies), and all others. This third category was described as including the Old Commonwealth and a diverse range of New Commonwealth countries. Using the Commonwealth, a political institution emerging in the wake of decolonisation, as an organising principle centred the UK's relationship to its former empire in the classification and embedded knowledge on place of birth in a postcolonialist understanding of people's historical origins.

The reports of the two surveys contained statements concerning the seriousness of the 'problem of tuberculosis' among 'immigrants'. The discourse centred particularly on the high notification rates among 'Asian immigrants', people born in India and Pakistan, compared to 'persons born in the British Isles' (British Thoracic and Tuberculosis Association, 1973; British Tuberculosis Association, 1966). The reports also described the geographical distribution of the disease, thereby drawing attention to the role of immigration in driving up notification rates:

The greatest excess of tuberculosis among the immigrants to England and Wales is confined to a few cities and towns in the Midlands of England and the London area. The majority of the county boroughs and counties of England and Wales rarely encounter tuberculosis in this way because their immigrant population is very small. (British Tuberculosis Association, 1966: 156)

Together, the identification of groups exhibiting the highest rates and where they were located was consistent with the preventative medicine era in public health and its emphasis on special populations (Awofeso, 2004). The issue of disease importation was also a focus of the surveys, representing a discursive continuity with earlier studies arguing that 'Asian immigrants' were bringing with them the high rates they would experience in their own countries (Springett, 1964). In this regard, there were statements in both reports that whether TB among 'Asian immigrants' was active on arrival, was acquired afterwards, or was a reactivated form of the disease could not be resolved by the data collected. Further examination of the survey data, however, confirmed 'the long-held suspicion' that rates were higher among recent arrivals from India and Pakistan than those who had lived in the UK for longer (British Thoracic and Tuberculosis Association, 1975: 699). A 1971 survey report (British Thoracic and Tuberculosis Association, 1973) concluded that attention must be paid towards TB control in 'Asian immigrants'. Consistent with other studies on TB among 'immigrants', however, there were no statements in the reports on public health prevention by improving living and working conditions as well as nutrition.

### *From 'immigrants' to 'ethnic groups'*

Whereas in these early epidemiological surveys the term *immigrants*, at times combined with country or region of origin (e.g. 'Asian immigrants'), served as the main identity

ascription, by the end of the 1970s and the beginning of the 1980s the term was becoming displaced by ethnicity categories. These categories first appeared in the third TB survey, conducted in 1978/9 in England and Wales by the Medical Research Council Tuberculosis and Chest Diseases Unit (MRC-TCDU). The Unit was originally set up in 1948 as the Tuberculosis Research Unit and ran randomised controlled drug trials for treating tuberculosis. In 1958, it widened its scope and became the MRC Tuberculosis and Chest Diseases Unit. Further surveys, conducted on a five-yearly basis, were carried out by the MRC-TCDU in 1983 and 1988, and by the Public Health Laboratory Service in collaboration with the British Thoracic Society and the Department of Health in 1993 and 1998.<sup>4</sup> The surveys' methodology was similar, with some notable differences in the 1998 survey (Rose *et al.*, 2001).<sup>5</sup> In all surveys, TB notification forms were supplemented with a patient form, completed by the notifying physician, that recorded demographic information including ethnicity.

The categories used in the 1978/9 survey were taken from a 1977/78 government housing survey, the National Dwelling and Household Survey (NDHS), in which individuals were classified by a member of their household into one of 11 ethnic group categories. This classification system had been developed in the mid 1970s for the ill-fated trials of a question on ethnicity for the 1981 census (Sillitoe and White, 1992). The abandoned question and categories were adopted in other smaller government surveys including the NDHS. In the TB survey, the clinician completing the patient form ascribed individuals to one of the following nine ethnicity categories: 'White', 'Indian', 'Pakistani and Bangladeshi', 'West Indian', 'African', 'Arab', 'Chinese', 'Other' (including patients of mixed origin), and 'Unknown' (Medical Research Council, 1980: 896).

A noteworthy feature of the categories in this classification system is the conflation of 'race', nationality, ethnicity, and geographic region as organising principles. Skin colour also appears to be an implicit classifying principle. The first category, 'White', is explicitly racial consisting as it does of a single, phenotypical identity marker. While the other categories do not include explicitly racial labels, they map onto regions of the world where the majority of the population exhibit distinctly different physical characteristics such as skin colour. Specific countries in these geographical areas – and some of the ethnonational groups reflected in the table – comprised Britain's colonial empire. This association with colonialism, which itself was based on self-justifying racial hierarchisation, imbued the table with strong racial connotations. Its subtext appeared rooted in a binary of 'white' and 'non-white' groups.

The categories' racial connotations raise questions about the social processes implicit in their formulation. Key to understanding the context of categorisation are political positions on immigration, identity politics, and the role of legislation. Immigration was politically contentious, and as Britain became increasingly multi-ethnic in the second half of the 20th century, racial discrimination and social exclusion were pervasive. In response, autonomous political organisations emerged that mobilised immigrants and ethnic minorities around their ethno-racial identities (Smith, 2008). Together with a growing voluntary sector of migrants' welfare and social justice NGOs, they became key actors in the burgeoning identity politics, in which skin colour became an important marker of social identity (Modood, 2005a).<sup>6</sup> Anti-discrimination Race Relations

Acts passed in 1965, 1968, and 1976 led to a focus on racial equality by the mid to late 1970s.<sup>7</sup> The passing of this legislation over a period when a series of laws restricted 'coloured immigration' was instrumental in the discursive construction of immigration as undesirable, on the one hand, while the integration of immigrants was important, on the other. Significantly, the anti-discrimination legislation formally established the salience of 'race' by specifying discriminatory practices associated with skin colour and attaching legal sanctions to forms of direct and indirect racial discrimination. Together, these immigration laws and anti-racist legislation were constitutive elements of the *dispositif* of a discourse on 'race relations' that structured political and social life in the 1970s and 1980s.

### *Discourses in the 1980s: Immigrants as 'a risk'*

Health reports on the three MRC-TCDU surveys recorded a consistent decline in TB notification rates per 100,000 population in England and Wales from 16.3 in 1978/9 to 12.0 and 8.4 in 1983 and 1988, respectively (Medical Research Council, 1985; 1992: 773). The reports centred on the considerable differences between the ethnic groups, with Indians, Pakistanis, and Bangladeshis – the 'Indian sub-continent' (ISC) category – still exhibiting the highest rates despite a decline in notifications among these groups and the lack of a decline among West Indians. Whereas the 1965 and 1971 surveys were concerned with identifying 'who' had TB according to place of birth and 'where' these cases were geographically located, the 1980s reports introduced the notion of these groups posing 'a risk' to the white majority. The following quotation from a health report on the 1978/9 TB survey illustrates this position: 'The very high rates in the Indian subcontinent ethnic group raise the question whether this results in an increased risk of infection of the White population living in the same area' (Medical Research Council, 1982: 86). This statement made explicit what had been implied by previous surveys and stated in early discourses in the 1950s and 1960s concerning the importation of tuberculosis by 'immigrants'. The potential infectious risk to the white population was the subject of several scientific studies employing the survey data to analyse TB rates among the 'white British population' (Nunn, Springett, and Sutherland, 1984; Springett *et al.*, 1988). The authors of these studies used the categories 'white ethnic group' and 'non-white ethnic group' to describe the patients concerned. This racialised differentiation was consistent with other statements in the discourse highlighting variations in the patterns of TB exhibited among infected individuals. Tuberculosis among 'immigrants' and ethnic minority groups, particularly 'Asians', was constructed as different in clinical manifestation and progress compared to the host population. Implied here was the notion that the 'white ethnic group' was the standard for assessing population health. Some studies elaborated on these differences, with one coining the term 'Asian immigrant tuberculosis' to describe an observed onset of TB among 'Asian immigrants' who visited 'Asia' after their first arrival in the UK (McCarthy, 1984). A similar pattern was evident around the same time in Germany, where the term *foreigner tuberculosis* (Ausländer-Tuberkulose) was used (von Unger, Odukoya, and Scott, 2016). In the UK, another study hypothesised that a 'culturally acquired immunodeficiency in immigrant Asians' was implicated in their risk of contracting TB (Finch, Millard, and Maxwell, 1991). Rather

than addressing the likely role of material factors in the onset of the disease, these studies implicated 'Asians' themselves in disease acquisition.

The general lack of attention to the material context of 'immigrants' in health reporting and other scientific studies was in part related to the prevailing weakened status of public health. In 1974, health service reorganisation led to the relocation of public health doctors from local government to the National Health Service (NHS) in a specialty named 'community medicine'. As a result of these changes, public health entered 'a period of demoralisation, and reduced power and influence' (Berridge, Christie, and Tansey, 2006: xxi). Critics argued that it was dominated by a biomedical paradigm on health and illness and was more oriented towards the secondary and hospital-based care culture of the NHS than prevention. Importantly, the community medicine specialists were seen as giving insufficient attention to local social and environmental determinants of health (Hunter, Marks, and Smith, 2010). However, there were other currents in public health whose influence were not yet visible in TB health reporting: activities termed 'public health around the edges' were taking place behind formal professional tasks and policymaking that later came to be called the 'new public health' (Berridge, Christie, and Tansey, 2006: xxiii).

Other statements in the discourse centred on rates among Indian, Pakistanis, and Bangladeshis – the 'Indian sub-continent group' – in relation to their immigration history (Medical Research Council, 1986, 1992). An analysis of TB rates among this group according to place of birth and length of time since first arrival showed the lowest rates for those born in the UK and the highest for those who had most recently arrived. The discussion of this intra-group variation represented a continuity with statements in the 1965 and 1971 surveys querying whether TB was active among 'immigrants' on arrival or not. The singling out of recent arrivals resonated with earlier discourses on disease importation and appeared to offer empirical evidence that increases in TB rates were inextricably linked with immigration.

An important element in the discourse related to epidemiologists' concerns about the limitations of the population statistics available and the impact of this on the methodological rigour of TB surveys. Population estimates for the 1983 survey, for example, were taken from the Labour Force Survey conducted in that year. The survey's design, particularly the random sampling frame and method of recording ethnicity, were criticised as compromising the methodology and consequently the data (Nunn *et al.*, 1986).<sup>8</sup> The survey data had also shown that over a third of persons categorised as being of 'Indian subcontinent ethnic origin' were actually born in the UK, which made place of birth an unreliable indicator of ethnicity. As the authors of a health report stated (*ibid.*: 362), there was a clear need for ethnicity data generated by the census:

In order to obtain the relevant population estimates it has become necessary to ascertain the ethnic origin of each individual directly. It was intended to collect this information in the 1981 census of England and Wales, but a question on ethnic origin was not included because of difficulties encountered in pilot surveys.

This position reflected a growing consensus in governmental and administrative structures that a census question on ethnicity was important to record Britain's growing ethnic diversity. In 1983, a report by the House of Commons Home Affairs Sub-committee on

Race Relations and Immigration argued data on ethnicity were necessary to 'identify the detailed needs of ethnic minorities and locate disadvantage and discrimination' (Booth, 1983: 84). It proposed that renewed trials should be conducted to develop an improved question on ethnicity and a corresponding classification for possible inclusion in the next census.

## **The second historical phase (1990s–2010s)**

### *The turning point in categorisation during the 1990s*

The resulting question and classification were employed in the 1991 census. Although the question was presented as eliciting 'ethnic group', the classification did employ colour and racial and national origin categories as well. Importantly, the population statistics generated by the census provided epidemiologists with the long sought-after methodological bases for improving the scientific rigour of TB surveys. Both projects shared the biopolitical aim of identifying, sorting, and categorising individuals and groups. The census had authorisation to do so based on legislation developed during the era of empire, the 1920 Census Act, which lists nationality, birthplace, race, and language as issues on which information could be gathered in Great Britain or any subsidiary part of it. As an 'institution of power' pivotal to the construction of the nation state (Anderson, 1991), therefore, the census was still anchored in a colonialist world view. The enactment of its mandate at a time of national-cultural transformation brought on by the processes of globalisation (Hall, 1997) represented an historical continuity with past knowledge practices. The epistemic links forged between health reporting and the census through the adoption of the ethnicity categories and use of population estimates not only facilitated the creation of knowledge archives about TB among im/immigrants and ethnic minorities. This knowledge was embedded in a postcolonialist framework that reproduced historically shaped power relations and practices of defining the 'other' that now played a powerful role in Britain's national (re)identification.

Subsequent to the 1991 census, several categories, such as 'Black-Caribbean' and 'Black African', were introduced into health reporting, replacing 'West Indian' and 'African', respectively. A new category, 'Black Other', was also used, making the descriptor *Black* a dominant label in the classification system. This represented one of the most notable changes in the classifications used in health reporting in the post-census period. Its use reflected, as Modood (2005b) argues, a nomenclature evident in public discourses on 'race' in the 1980s in which the term *black* occupied a central position. *Black* had emerged as a social category subsuming persons affected by disadvantage related to colour. The inclusion of racialised categories in the census was, therefore, one of the power effects of the race relations discourse in which a range of ethnic community and civil society actors had engaged in identity politics concerning forms of social identification and structural disadvantage.

### *Changes and continuities in the discourses during the 1990s*

The discourse in the 1990s centred on TB's changing epidemiology, which manifested itself in several ways. Firstly, the rise in TB cases worldwide, leading to the declaration

of a 'global emergency', was also evident in the UK. Notifications in England and Wales had reached their lowest in 1987 but rose by 13.6% between the survey periods in 1988 and 1993, and again by a further 11% in the 1998 survey (Kumar *et al.*, 1997; Rose *et al.*, 2001). Statements about probable reasons for the increase were important elements of the discourse. These included the likely contribution of TB/HIV co-infection cases and improved notification practices subsequent to the appointment of consultants in communicable disease control in 1988. Significantly, there were also statements acknowledging the probable role of poverty, but the reports did not investigate the influence of material factors associated with poverty on the noted increase:

Other factors linked with poverty, such as overcrowding, low income, malnutrition and homelessness, have been associated with increased levels of tuberculosis but this survey cannot throw any light on the contribution of these factors to the increase in tuberculosis in recent years. (Kumar *et al.*, 1997: 1067)

However, some reports referenced various empirical studies in the public health discourse showing that 'socio-economic deprivation is a substantial factor in the rates of tuberculosis in all ethnic groups' (Ormerod *et al.*, 1998: 181). These statements represented a change in the health reporting discourse, which up until that time had been embedded in a paradigm of descriptive statistics and advocacy of control measures. The recognition of materialist/structural causes of TB in the discourse was a sign of other far-reaching changes. Following concerns created by HIV/AIDS and food poisoning scandals, the 1988 Acheson report restated the WHO's definition of public health and called for greater action on the social determinants of health (Acheson, 1988).

But despite this change in the discourse there were other statements constituting the familiar interpretative frame of im/migrants and ethnic minorities being a potential risk to the white population. A particular focus of geographical concern was Greater London, where there was a 30% increase in notification rates between 1988 and 1993 with only a 2% increase in the population (Ormerod *et al.*, 1998: 179). The possibility of an association between overall rates in the white population and other ethnic groups in the London boroughs was examined empirically in the report, reflecting concerns about the risk of cross-infection. No association could be found between rates in the white population and the number of infectious tuberculosis cases in the 'ISC population' in 1983, 1988, and 1993 (*ibid.*). Given the rise in notifications among other ethnic groups, particularly black Africans, rates among the white population were also examined in relation to the 'non-white non-ISC group' (i.e. black Caribbean, black African, Arab, Chinese, and other – including mixed categories). This showed that while there was no association in 1988, 'the possibility of an association was apparent in 1993' (*ibid.*). The report did note that interpreting this in terms of establishing causality was difficult due to a range of confounding factors, such as immigration and poverty. What it did not make explicit, however, was firstly, why such statistical data were necessary, and secondly, if an association existed, what the potential relevance of this knowledge was to public health prevention and control.

A second important element of the discourse on TB's epidemiology concerned increasing rates among ethnic minorities as well as variations in the ethnic distribution

of the disease. Both patterns were attributed in the reports to changing immigration trends. Population data for that period showed consistent increases in immigration over emigration starting in 1994 (Hawkins, 2015). A growing proportion of im/migrants were refugees and asylum seekers arriving from Africa, the Middle East, and the former Yugoslavia (Office for National Statistics, 2013). They were singled out in the reports as more likely to have higher rates of tuberculosis than other immigrants. The changing demographics of TB cases were most starkly reflected in the increased rates for two specific categories. Rates for the 'Black Other' category nearly trebled over the five years between 1993 and 1998. Rates for the 'Other/mixed' category increased almost threefold in the decade between 1988 and 1998. It is unclear who was subsumed under this category, but a footnote in the report states, 'In 1988 this group included those described as "Arab"; this term did not exist in 1993 and 1998' (Rose *et al.*, 2001: 175), presumably due to classification changes brought by the census. What was becoming apparent, however, was that the ethnicity classification system presented in the reports was not reflecting the full ethnic diversity of persons with TB. The conflation evident in the 'Other/mixed' category meant, therefore, that certain ethnonational groups remained invisible.

In 1998, the last TB survey piloted the methodology for a new surveillance system, Enhanced Tuberculosis Surveillance (ETS), which was introduced a year later with the aim of providing more precise estimates of trends in tuberculosis incidence in population subgroups. In this survey, more than half of the persons with TB (56%) had been born abroad (Rose *et al.*, 2001). Consistent with a pattern observed among the 'ISC population' (Ormerod *et al.*, 1998), rates were highest among 'recent immigrants', in particular those from areas of the world with high TB prevalence (Balasegaram *et al.*, 2003; Rose *et al.*, 2001). One of the main recommendations in the health reports was the necessity of focusing tuberculosis control on 'new entrants to Britain from countries with a high prevalence of tuberculosis' (Rose *et al.*, 2001: 178). While the weakness of the port health system of screening was acknowledged, the practice of new entrant screening was one of the measures supported. Significantly, the advocacy of screening new arrivals in the light of increasing immigration represented a discursive continuity with positions on TB importation guiding tuberculosis control in the era of New Commonwealth immigration.

### *Discourses and power effects in the new millennium*

As the number of TB cases continued to rise in the new millennium, the power effects of the health reporting discourse on TB, immigration, and 'recent immigrants' became manifest. The Department of Health's 2004 action plan 'Stopping Tuberculosis in England' prioritised high-quality surveillance and identified screening new entrants from high-prevalence countries as part of disease control at the population level. In 2005, the Labour government made protecting borders an election pledge, and in collaboration with the International Organization for Migration, it started a programme requiring pre-entry TB screening for persons applying for visas longer than six months from specific countries with high rates. Political considerations, in particular strong anti-immigration sentiments, are likely to have been behind this measure (Warren, 2013).



Anxieties about immigration had resulted in efforts by successive governments to control increased population mobility in the wake of EU enlargement (especially from Central and Eastern Europe) and commercial and employment opportunities brought by economic globalisation. Labour passed six major pieces of legislation on immigration and asylum between 1997 and 2009, and the Conservatives placed annual limits on non-EU economic migration in 2011. In the following year, amid claims that population growth was ‘unsustainable’, Parliament voted to support a non-binding motion that immigration policies should be used to prevent the UK population from exceeding 70 million (Migration Observatory, 2012). In this context of changing policy approaches to immigration, the pre-entry TB screening programme, which required visa applicants to pay for the screening, was expanded from 15 to 101 ‘high-risk’ countries in 2012 (Warren, 2013). The ensuing biosecuritisation of the im/migrant body represented the realisation of discursive positions on pre-entry screening articulated during the period of ‘colonial immigration’ and resonated with views that only ‘a system of strict medical control of immigration’ would remove ‘the danger of the spread of tuberculosis . . . by infected persons’ (Skone, 1962: 143). Significantly, the new disciplinary practices around screening reproduced a power/knowledge complex in which archives of knowledge about im/migrants’ health status were tied to the state’s power to allow or deny them entry. In the technological world of the 21st century, however, these archives were repositories of both personal and biological data (Warren, 2013). Importantly, the production and utilisation of these data were dependent on sophisticated databases allowing the sharing of information between different institutional actors irrespective of spatial borders. This knowledge – and the knowledge practices producing it – had been enabled by advances in information technology driven by processes of globalisation that extended the possibilities of surveillance. The UK’s health reporting infrastructure was itself integrated into this surveillance system. By 2014, the TB discourse included statements conjoining the issues of immigration and screening in a new way. Data were presented, firstly, on trends in migration from high-TB-burden countries, and secondly, on the number and rate of TB cases detected through the pre-entry screening programme (Public Health England, 2014). Together, these data showed a drop in numbers of ‘long-term migrants’ from ‘very high’ and ‘high’ TB incidence countries and an increase in the number of cases of TB detected by pre-entry screening. These data reflected the historical contingency of knowledge production: they showed the possibilities of knowledge generation opened up by web-based technologies and electronic, digitised databases through the harvesting and configuring of data from different electronic sources.

### *Policy and institutional changes*

The introduction of pre-entry screening was part of wider developments influencing the health reporting discourse. A series of major health policy changes, which had started in the 1990s, were instrumental in giving new focus and direction to public health. The 1997 Labour government had committed itself to improving public health and tackling health inequalities. Both pledges were formalised in the 1998 Acheson report into inequalities in health and the 1999 public health white paper *Saving Lives: Our Healthier Nation*. This policy document called for a ‘new approach’ taking account of the wider

social, economic, and environmental determinants of health and announced policy measures to develop the multidisciplinary public health capacity. In 2003, the new Health Protection Agency (HPA) started operations that strengthened and expanded the public health function. The 2010 white paper *Healthy Lives, Healthy People* presented a long-term vision for public health in England that emphasised prevention in the health service and prioritised local communities in efforts to address public health challenges. The 2012 Health and Social Care Act facilitated the realisation of this policy aim by relocating public health to its pre-1974 position in local government. The move towards localism, which had the intention of allowing public health to work together with other local government departments, was expected to improve chances of addressing the social determinants of health. The 2012 Act was also instrumental in the setting up of Public Health England (PHE), an executive agency of the Department of Health that took on the role of the HPA and brought together public health specialists from diverse organisations into a single public health service. Both the PHE and its predecessor, the HPA, were important institutional actors in the discourse on TB through the co-ordination of epidemiological monitoring strategies and the production of health reports on the disease that provided the basis for public health action.

These developments were part of the context informing changes observable in the TB health reporting discourse. Various statements collectively constructed certain subpopulations as being at risk of tuberculosis by acknowledging that the increase in incidence occurred among ‘disadvantaged communities’ (Health Protection Agency, 2010: 3). This interpretive frame embedded TB more obviously in a social causation paradigm. Included in these ‘communities’ were individuals with social risk factors, such as a history of homelessness, imprisonment, and drug and alcohol misuse. Such information had become part of surveillance data collection subsequent to the conversion of ETS into a web-based surveillance system in 2008/9. The reports also drew explicit links between TB and its socio-economic determinants by presenting data on the concentration of cases in the most deprived areas and among the unemployed (Public Health England, 2013, 2014). Other groups subsumed into these disadvantaged communities were ‘new migrants’ and certain ‘ethnic minority groups’ (Public Health England, 2013: 4): individuals categorised as ‘Black African’, ‘Indian’, ‘Pakistani’, and ‘Black other’ were singled out as being ‘at increased risk’.

## Discussion and summary

By the new millennium, therefore, the epidemiological discourse was characterised by dual interpretive frames on im/migrants, ethnic minorities, and TB. Im/migrants and ethnic minorities were both ‘a risk’ to the health of the general population through the importation and spread of TB and ‘at increased risk’ of the disease – a construction that highlighted vulnerability and explicitly recognised the social and economic factors influencing disease onset and prevalence. While the interpretive frame of im/migrants and ethnic minorities as ‘a risk’ to health was associated with old public health and its focus on the prevention and cure of disease in high-risk groups, their construction as being ‘at increased risk’ reflected a paradigm shift from disease prevention to health promotion characterising the new public health. The mission of this integrative approach

to improving population and individual health involves, among other strategies, redressing societal inequities by paying attention to the role of the environment and socio-economic determinants, as well as focusing on the empowerment and participation of affected communities (Awofeso, 2004; Tulchinsky and Varavikova, 2010, 2014).

Despite this orientation in the new public health and 'its rhetoric of egalitarianism', it continued the 'routine of distinguishing between . . . "risky" places and people' (Petersen and Lupton, 1996: 174) by centring im/migrants and ethnic minorities in the epidemiological discourse on tuberculosis risk. As a result, risk remained an important cultural/symbolic construct that served to define threats and hazards to the nation's health. In epidemiological health reporting, the threat of TB contagion and the hazards of vulnerability to TB were attributed to people and social groups considered the 'other' (Douglas, 1966). Instrumental to their identification in TB health reporting were ethnicity categories that made visible, through the ascription of identities, those considered targets of public health surveillance and intervention – namely im/migrants and ethnic minorities. In this regard, the health reporting discourse reproduced social understandings of TB as a disease of im/migrants (Kehr, 2012) and 'im/migrants as vectors of disease' (Craig, 2007: 273). The imperatives associated with public health knowledge on disease and contagion were consequently implicated in biosecritisation practices enforced through pre-entry screening for im/migrants. Risk had a defining role in the introduction of these practices as it served as a biopolitical rationality facilitating the management of TB at the population level within, as well as beyond, the UK's borders.

The entrenchment of ethnicity categories in health reporting was, however, part of a larger phenomenon in which the census categories were achieving the appearance of being 'natural and self-evident ways' of capturing diversity (Starr, 1992: 176). This was one of the power effects of the race relations discourse that had resulted in the 2000 amendment to the Race Relations Act making ethnic monitoring compulsory for public bodies. In line with this legislation, the Department of Health issued guidelines requiring the 16 codes employed by the 2001 census to become the national standard for the collection of ethnicity data. Yet a discursive field in the public health literature had developed that constructively advanced the debate on the use of ethnicity categories and questioned their application in epidemiological and health research. Points of concern included the potential of such research to reify culturalist relationships between health and ethnic status and the pitfalls of using ethnicity as an epidemiological variable (Bhopal, 2004; Senior and Bhopal, 1994; Sheldon and Parker, 1992). The term *black* was subject to criticism on the grounds that colour labels, while acceptable to some constituencies, are offensive to others. The argument was subsequently made that it was perhaps time to abandon colour categories (Agyemang, Bhopal, and Bruijnzeels, 2005; Aspinall, 2007). The validity of the category 'Black African' has also been questioned, reflecting views in the sociological discourse that it conceals significant heterogeneity and excludes statistical outliers (Aspinall, 2011).

As immigration increased in the new millennium, half of all foreign-born residents in the 2011 census had arrived during the period 2001–11 (Simmons, 2014). A parallel academic discussion is taking place on how immigration is reconfiguring identity construction in the wake of new forms of mobility that are seen as destabilising and fragmenting identities. Examples are the use of hyphenated identities reconciling multiple

ethnonational identity categories (Verkuyten, 2005) and the emergence of 'new ethnicities' representing the fusion of different cultural identities (Harris, 2006). These phenomena are seen as underscoring the fluidity and varied inflections of ethnic identity in immigration societies. Importantly, the 'super-diversity' created by immigration has been cited as challenging the conventional focus on ethnicity in policymaking that developed during the era of Commonwealth immigration (Vertovec, 2007, 2019). A discursive field has subsequently opened up on the suitability of the census ethnicity classification system as a way of identifying people and consequently, their service needs. Actors in the domains of social policy and the development of information standards, data collections, and data extractions for health and social care services have pointed to the instability of ethnic group categories over the period of the three censuses, evidenced, for example, in the net growth of the 'Other' residual categories (May, 2014; Simpson, Jivraj, and Warren, 2016). This has been interpreted as reflecting increasing diversity and the difficulty new and existing populations have in assigning themselves to a specific category, a phenomenon that has consequences for policymaking (Simpson, Jivraj, and Warren, 2016). Within the health and social care sector, the case for more sophisticated categorisation has been made on the grounds that electronic data, as opposed to paper-based information collected in the past, facilitates cost-efficient data mining and the recording of more detail (May, 2014). A greater level of 'granularity' in ethnicity data would, therefore, more adequately inform service provision. In line with this, positions have been taken that using the census categories to identify ethnicity does not meet business requirements, in part because the categories do not carry sufficient data to identify disadvantaged minority and im/migrant populations in social care environments (*ibid.*). This resonates with other positions that question the rationale of the ethnic group question and argue for a shift in focus from 'discrimination based on skin colour to disadvantage associated with cultural background and social class' (Aspinall, 2011: 38). This discourse is germane to the aims of the collaborative TB strategy for England for 2015–20, which sees a crucial public health role for local government in identifying 'high-risk populations' and working towards redressing the social and economic determinants of tuberculosis.

An important aspect of the preceding analysis of epidemiological discourses on im/migrants, ethnic minorities, and TB is the critical stance it brings to understanding epidemiological knowledge production. The examination of im/migrant and ethnic minority categories and the interpretive frames in which they are embedded demystifies the supposed objectivity and neutrality of epidemiology and underscores the sociality of scientific knowledge. The power effects of im/migrant and ethnic minority categories have constructed these groups as both 'a risk' to population health, warranting exclusion, and 'at increased risk' of disease, meriting greater social inclusion. The tensions between these dual interpretive frames is a central feature of the 21st-century discourse on tuberculosis in the United Kingdom. Through the calculation and ascription of risk, the epidemiological discourse has, therefore, identified social groups deviating from, or susceptible to deviating from, standards of normality within the population. As a consequence, the notion of danger conveyed by the attribution of risk (Douglas, 1990) is encoded into the im/migrant and ethnicity minority categories used in health reporting. In this respect, the new public health still relies on knowledge practices defining social

groups that ‘have historically been designated in Western societies as the contaminating “other”’ (Petersen and Lupton, 1996: 174). The emergence of parallel discursive fields on the suitability and stability of ethnicity categories in the wake of ‘super-diversity’ (Vertovec, 2007) underscores the fluid and negotiated character of social identification in immigration societies. The shifting and contingent processes of identity (re)construction and the power relations in which they are embedded constitute the backdrop to the work of ethnicity classification. These processes may be rendered invisible in the production of epidemiological knowledge when immigrant and ethnicity categories are treated solely as an ‘independent variable’ (Omi, 1997: 21). Significantly, as the UK’s population diversifies in an era of mobility and identity (re)making, and the possibilities of sophisticated knowledge generation facilitated by technological advances increase, the preconditions for new discourses on categorisation practices in TB health reporting are emerging.

## Conclusion

As discursive practices, epidemiological categories in TB health reporting constitute a lens through which the socio-historical processes implicit in shaping the construction of knowledge about im/migrants, ethnic minorities, and TB can be examined. Inscribed onto these categories are processes of national (re)identification embedded in a post-colonial paradigm of race relations. In the half-century since the first epidemiological surveys, the discourse has changed from constructing im/migrants and ethnic minorities as a risk to public health to being also a group at increased risk requiring specific interventions, particularly with regard to the socio-economic determinants of health. This has reflected wider changes from ‘old’ to ‘new’ public health approaches in policy-making underscoring the historical contingency of knowledge. Despite this shift, risk remains a signifier of ‘otherness’ as well as being a biopolitical rationality enabling the management of disease at the population level. While substantial evidence existed that most ‘Commonwealth immigrants’ were healthy, and that migrant enclaves served to limit the spread of TB, thereby mitigating the risk from ‘imported disease’ (Bivins, 2015), an examination of the epidemiological discourse in the post-war period and over the ensuing half-century reveals the continual deployment of risk in interpretive frames attributing danger to specific categorised groups. Although this power effect of categorisation practices is not unique to TB, when compared to other communicable diseases such as HIV/AIDS, it is particularly evident in TB discourses that tend to involve more medical/scientific actors and fewer community-based actors despite the shift to ‘new’ public health approaches emphasising empowerment and community participation (Scott, von Unger, and Odukoya, 2017).

An important continuity in the TB discourse is its connection to a wider political discourse on immigration control resulting in the formation of a power/knowledge complex that combines migration policies with public health policies and knowledge production in very specific ways. The contemporary power effects of these overlapping discourses are manifest in pre-entry screening procedures that discursively construct TB as a disease of immigration and a disease of the ‘other’. These interventions located outside of Britain’s borders contrast sharply with ‘the highly interventionist practices’

(Bivins, 2015: 376; Hardy, 2003) within its borders that led to a reduction in TB incidence among the majority population in the post-war period. The subsequent introduction of categories utilising ethnonational and ethnoracial identity markers emerged as one public health response to reporting on the disease's epidemiology in an increasingly ethnically diverse population. The preceding analysis of the epidemiological discourse over the past 50 years brings into focus the biopolitical function of classification in public health, and the tensions surrounding the use of im/migrant and ethnicity minority categories in disease surveillance and control.


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### Notes

1. The term *im/migrant* is a composite of *immigrant* and *migrant*, and it reflects the varied forms of migration and migration-related statuses associated with the crossing of international borders.
2. 'Irish immigrants', who similarly exhibited high infection rates, were also a focus of these early studies. While 'Commonwealth immigrants' were presented as arriving with TB lesions, TB rates among the Irish-born were attributed to the immigration of a 'susceptible' rural population with low previous exposure to TB into urban areas with high infection rates; see Brett (1958); Hess and MacDonald (1954). For a discussion of ideas about 'race' and 'susceptibility', see Welshman (2003).
3. The British Tuberculosis Association (founded in 1944) was the successor organisation to the Tuberculosis Association, which was formed by the amalgamation in 1928 of the Tuberculosis Society (founded in 1910) and the Society of Superintendents of Tuberculosis Institutions (founded in 1920). See 'British Thoracic Society and Predecessors', Wellcome Library, London, SA/BRT, available at: <http://archives.wellcomelibrary.org/Dserve/dserve.exe?dsqIni=Dserve.ini&dsqApp=Archive&dsqCmd=Show.tcl&dsqDb=Catalog&dsqPos=1&dsqSearch=%28%28text%29%3D%27sa%2Fbrt%27%29>.
4. During the surveys, the survey team was provided with copies of notification forms received in 1978/9, 1983, and 1988 by medical officers of environmental health, and in 1993 by consultants in communicable disease control for the 403 local authorities in England and Wales. In the 1998 survey, each local health authority nominated a co-ordinator, who was responsible for collecting the completed survey forms and sending them to the survey team. For further details on the survey methodology, see Kumar *et al.* (1997); Medical Research Council (1980, 1985, 1992); Rose *et al.* (2001).

5. The Public Health Laboratory Service was set up as part of the National Health Service in 1946. The British Thoracic Society became the successor to the British Thoracic and Tuberculosis Association in 1977. The Department of Health was formally established in 1988 as the government department responsible for the nation's health. It changed its name to the Department for Health and Social Security in 2018.
6. For an overview and discussion of community-level organisational actors forming part of ethnic minority mobilisation in struggles for equality and greater representation, see Solomos (1993); Statham (1999).
7. The legislative focus on 'racial equality' in integration policies was undergirded by state institutional actors at the national level, specifically the Commission for Racial Equality, established in 1976 and superseded in 2007 by the Equality and Human Rights Commission, and locally by race equality councils, set up in the 1980s and 1990s (see Solomos, 1993).
8. The 1983 Labour Force Survey collected information on birthplace, parents' birthplaces, and head of household's ethnic group. Regarding the data on ethnicity, in each household sampled an adult member, usually the head of the household or their spouse, was asked to select from a list of ethnic identities that most accurately described each household member. The health report's authors note that although this may be a satisfactory way of arriving at population estimates of the 'white ethnic' group, 'there are serious disadvantages when it is used to estimate the size of other ethnic groups' (Nunn *et al.*, 1986: 362). The authors do not elaborate on the disadvantages.

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