"We've all got the virus inside us now": Disaggregating public health relations and responsibilities for health protection in pandemic London

Ben Kasstan [a], Sandra Mounier-Jack [b], Katherine M. Gaskell [c], Rosalind M. Eggo [d], Michael Marks [c,d,e], Tracey Chantler [b,*]

[a] Centre for Health, Law & Society, University of Bristol, Bristol, BS8 1RJ, United Kingdom
[b] The Vaccine Centre, Department of Global Health and Development, London School of Hygiene & Tropical Medicine, 15-17 Tavistock Place, London, WC1H 9SH, United Kingdom
[c] Clinical Research Department, Faculty of Infectious and Tropical Diseases, London School of Hygiene & Tropical Medicine, Keppel Street, London, WC1E 7HT, United Kingdom
[d] Centre for Mathematical Modelling of Infectious Diseases, London School of Hygiene & Tropical Medicine, Keppel Street, London, WC1E 7HT, United Kingdom
[e] Hospital for Tropical Diseases, University College London Hospital NHS Foundation Trust, London, WC1E 6JB, United Kingdom

ARTICLE INFO

ABSTRACT

The COVID-19 pandemic has disproportionately impacted ethnic minorities in the global north, evidenced by higher rates of transmission, morbidity, and mortality relative to population sizes. Orthodox Jewish neighbourhoods in London had extremely high SARS-CoV-2 seroprevalence rates, reflecting patterns in Israel and the US. The aim of this paper is to examine how responsibilities over health protection are conveyed, and to what extent responsibility is sought by, and shared between, state services, and 'community' stakeholders or representative groups, and families in public health emergencies.

The study investigates how public health and statutory services stakeholders, Orthodox Jewish communal custodians and households sought to enact health protection in London during the first year of the pandemic (March 2020–March 2021). Twenty-eight semi-structured interviews were conducted across these cohorts. Findings demonstrate that institutional relations – both their formation and at times fragmentation – were directly shaped by issues surrounding COVID-19 control measures. Exchanges around protective interventions (whether control measures, contact tracing technologies, or vaccines) reveal diverse and diverging attributions of responsibility and authority.

The paper develops a framework of public health relations to understand negotiations between statutory services and minority groups over responsiveness and accountability in health protection. Disaggregating public health relations can help social scientists to critique who and what characterises institutional relationships with minority groups, and what ideas of responsibility and responsiveness are projected by differently-positioned stakeholders in health protection.

1. Introduction

The COVID-19 pandemic has disproportionately impacted ethnic and religious minorities in the global north, evidenced by higher rates of transmission, morbidity, and mortality relative to population size (Gaskell et al., 2021; Mathur et al., 2020; Tai et al., 2021). This burden has revealed, and compounded, existing structural health inequalities experienced by minority groups. Yet, these inequities have been attributed in public health (PH) discourse to genetics or Vitamin D deficiencies (Gumber and Gumber, 2020), and collective 'non-compliance,' highlighting how responsibility for mitigating the burden of COVID-19 is frequently placed on minorities. Rather than a new phenomenon, social scientists have long examined how infectious disease outbreaks (and outbreak responses) inspire narratives of causation – which often gain credence through the force of discursive authority (Briggs and Mantini-Briggs, 2004; Wald, 2008). Such blame is often attributed to minorities in historically-situated ways (Xun and Gilman, 2021), and minority responses to PH interventions that are not in the

desired manner of 'compliance' are embedded in historic relations and tensions with state governance (Kasstan, 2022).

Against the backdrop of minorities being 'disproportionately' affected by COVID-19, we ask how is responsibility over health protection sought by, and shared between, state services and 'community' stakeholders or representative groups? And what are the implications of a perceived dereliction of responsibility? Through our examination of these issues in Orthodox Jewish neighbourhoods in pandemic London, we demonstrate how *public health relations* constitutes a framework to understand negotiations between statutory services and minority groups over responsiveness and accountability in health protection. We take the approach of disaggregating relations to analyse the component parts and players of PH activities, including their authority in health protection, and how differently positioned actors related to one another and collaborated to respond to the pandemic events. Disaggregating PH relations can direct social science critique to how institutional relationships with minority groups are mediated, and how infectious disease outbreaks catalyse diverse expectations of responsibility and responsiveness on the part of providers, communal custodians, and beneficiaries. Analytical attention to PH relations foregrounds how discourse around health protection is projected in the public domain, especially through national and minority-specific media, in ways that shape representations of neglect, vulnerability, and failure to act. Juxtaposing the positions of services and stakeholders in public health relations raises theoretical and applied implications for how health protection is actualised, and how inequalities in health are addressed.

1.1. Epidemics and authority

The groundwork for our conceptual development of PH relations was laid by anthropologist Charles Briggs' critique of discursive and communicative authority in infectious disease outbreaks. Amidst the backdrop of cholera epidemics affecting *indígenas* (indigenenous communities) in Venezuela in the 1990s, state officials constructed a narrative of blame premised on the problem of 'culture' which *indígenas* struggled to contest publicly (Briggs and Mantini-Briggs, 2004). Briggs draws our attention to 'the political–economic parameters that shape how particular accounts get placed within—or excluded from—the circulation of public discourse' (Briggs, 2004. Communicability, Briggs (2005: 274) argues, involves 'the ability of messages and the ideologies in which they are embedded to find audiences and locate them socially and politically'. The discourse of 'disproportionate burdens' of COVID-19 transmission experienced by minority groups fits squarely within these contours of communicative authority in epidemic outbreaks, where not only disparity but also individual and collective blame and responsibility can be imposed on ethnic and religious minorities in ways that conceal or evade political economies of health.

During the first year of the COVID-19 pandemic, death rates among Black and Asian ethnic groups, and Jewish males, were higher, and admissions to intensive care were disproportionate to their population sizes (Office for National Statistics, 2021; Staetsky, 2021). Scholars noted how minorities were at disproportionate risk due to higher likelihood of pre-existing chronic health issues (itself an issue of inequalities), being employed in key-worker and public-facing roles, and living in conditions that make social distancing difficult to achieve (Meer et al., 2020). The UK government subsequently produced a series of four quarterly reports to investigate and address disparities experienced by ethnic minority groups (Race Disparity Unit, Cabinet Office, 2021). Focused on the UK COVID-19 vaccination programme, the fourth and final 'progress report' explicitly notes that:

'*The most significant measure to protect ethnic minorities from the risk of COVID-19 infection and to save lives has been the vaccination programme* […] The largest mass-vaccination programme in British history has been delivered through an unprecedented partnership approach between national and local government, health agencies, and the voluntary and community sector. This began with early measures ahead of deployment to *build trust with ethnic minority groups*, recognising that they were more likely to be reluctant to be vaccinated.' (Race Disparity Unit, Cabinet Office, 2021)

Hence, 'communicative authority' (Briggs, 2005) enables the UK government to foreground technological solutions as a premier strategy to protect minority groups, and how 'public health relations' (as we regard it) have been vital to cultivating trust in the project of health protection. Yet, the structural determinants of health and how they configure PH relations and responsiveness are elided entirely in this framing of government responsibility for minority citizens.

1.2. COVID-19 control in England

When the World Health Organization classed COVID-19 as a pandemic on March 11, 2020, a series of containment measures were implemented in England that included closing schools (18 March) and social venues and mass events as part of stay-at-home orders (20 March) (House of Commons Library, 2021 United Kingdom Government, 2020). The Health Protection (Coronavirus, Restrictions) (England) Regulations 2020 came into force on 26 March (United Kingdom Government Legislation, 2020), which made PH measures legally enforceable and thus any public breeches constituted a criminal offence. Central government communications, however, consistently blurred legally enforceable measures and recommended PH guidance during the COVID-19 pandemic (Hickman, 2020). Central government commissioned and launched 'NHS Test and Trace' (28 May), a contact tracing technology, to interrupt chains of transmission, which has been widely criticised for having a limited impact on controlling transmission due to issues in efficacy and public adherence (Smith et al., 2021). Plans to relieve public restrictions were announced on July 19, 2020, though a rise in cases prompted restrictions to be re-imposed on 31 October until 2 December, and again on January 6, 2021.

Amidst the challenges to population health protection posed by COVID-19, issues of non/compliance were presented in British media as an on-going topic of public debate. Socio-legal scholars have suggested that 'rule-bending' during the COVID-19 pandemic 'is not a proxy for rule cynicism,' as non-compliance with PH control measures is creatively rationalised and justified as falling within government guidance premised on using 'common sense' (Meers et al., 2021: 2). Hence, public non-compliance with restrictions was perceived 'as being entirely consistent with the norms underpinning regulations – not by rejecting or supplanting these norms' (Meers et al., 2021: 16). While such accounts focus on individual calculations of risk or 'rule-bending,' minority constituents were instead collectivised as 'non-compliant communities.' As in many countries, minorities were accused of undermining the immunity of the body politic through collective non-compliance with PH control measures and vaccine 'hesitancy' (Kasstan, 2022). Yet, in the UK, ethnic and religious minorities simultaneously became central to conversations of compliance and disproportionate risk, and priorities for protection against the backdrop of inequality (Meer et al., 2020; see Schmidt et al., 2020 for the US context).

1.3. Jewish orthodoxies and public health relations

Jewish orthodoxies consist of multiple groups with their own religious leaders and observances, who field multiple claims to 'authoritative correctness' (Fader and Avishai, 2022). Haredi Jews (Haredim) are constituents of Jewish orthodoxies, and practice stringent interpretations of Jewish law (*halachah*) and adopt a self-protective stance, which has implications for access to, and use of, healthcare services. PH studies have tended to frame Haredi Jews as a 'hard to reach' and 'non-compliant' minority – descriptors that are often linked to persistently suboptimal levels of childhood vaccination coverage leading to outbreaks of disease (Anis et al., 2009; Lernout et al., 2009).

The 'hard to reach' discourse signals how responsibility for the health protection is accepted by statutory services – while framing minorities such as Haredim as recalcitrant partners in PH relations. Yet, anthropologists consistently demonstrate how public healthcare is a space where Haredi Jews and the state encounter each other and negotiate positions on health protection, causing authoritative arbiters of knowledge, including rabbis and doulas (female birth supporters), to intervene in clinical care to protect the remit and application of religious law (Kasstan, 2019). While Haredi Jews form a 'global religious network' characterised by the circulation of information, authority and knowledge between constituencies in Israel, the US and Europe (Taragin-Zeller and Kasstan, 2020), PH relations with Haredim are situated in local and national structures of healthcare delivery, legislation and population dynamics.

Haredi neighbourhoods in the UK, Israel, US and Europe have experienced disproportionate rates of COVID-19 infection (Zyskind et al., 2021; Birenbaum-Carmeli and Chassida, 2020; Staetsky, 2021; Gaskell et al., 2021) and suboptimal COVID-19 vaccination coverage (Gorelik et al., 2021). Studies indicate that Haredi Jews in Israel made decisions on how to respond to PH guidance by consulting religious and scientific sources of information, though were less likely to approve of PH control measures affecting religious institutions (Taragin-Zeller et al., 2020). Yet, incidents of large-scale 'non-compliance' with PH control measures occurred in Jewish neighbourhoods across Israel, Europe, the US and Australia (e.g. Rutland, 2021). Mass numbers of people attending funerals and weddings, in particular, prompted elected representatives to reprimand Haredi collectives (Xun and Gilman, 2021).

Amidst the third 'lockdown' in England in January 2021, a Jewish (non-Haredi) media outlet widely reported that a wedding with an excess of 100 guests had taken place at a Haredi girls' school in London (Jacobs, 2021). This event contravened legislation limiting public gatherings at the time and resulted in a cascade of media scrutiny and public shaming of Haredi Jews for collective non-compliance. 'For months,' the investigation's headline ran, 'they've broken every rule in the book' (Jacobs, 2021), which we emphasise as an example of how social subjects are produced as non-compliant collectives through communicability (Briggs, 2005). Not confined to the discursive power of such media coverage, accusations that Haredi Jews were threatening the safety and immunity of the population gained discursive value through the joint response of statutory authorities. The local Mayor, Director of Public Health, and police authority issued an open letter to remind Haredi constituents of the COVID-related legislation and the shared responsibility for health protection, and which had been communicated to Haredi homes in the relevant area of London:

> 'We also would urge everyone in the community to stay away from such events if they should occur. Attending weddings, parties, or other events is a huge risk in a pandemic situation, both to you and the people you live with. *Our shared aim is to keep you safe.*' (Hackney London Borough Council, 2021 [emphasis added])

In what follows, we examine how the 'shared aim' of health protection is actually envisioned and navigated by stakeholders and what implications arise for understanding the role of PH relations in epidemic preparedness. Drawing on a twelve-month qualitative investigation into how the COVID-19 pandemic and control measures were navigated by a self-protective Haredi neighbourhood in London that had extremely high SARS-CoV-2 seroprevalence rates (Gaskell et al., 2021), the paper explores the competing attributions of responsibility and communicative authority that emerged as part of efforts to protect population health. The tendency to collectivise minority groups as 'communities' – which implies conformity and linear deference to representative bodies – obscures the diverse and shifting set of actors and influences which complicates the maintenance of PH relations. By knitting together critical inquiry in health research with practical implications for policy and practice (Panter-Brick and Eggerman, 2018), the paper offers social

scientists a template to understand how institutional relations affect health protection.

2. Methods

To investigate how a minority perceives itself as being 'disproportionately impacted' by COVID-19 and how responsibility over health protection is envisioned, this paper draws on a qualitative research study into pandemic responses among a Haredi neighbourhood in London. Methods consisted of semi-structured informal interviews. Twenty-eight participants were recruited from professional networks and via snowball sampling. Interviews lasted between 30 and 90 minutes and were recorded with participant consent.

Our interlocutors were representatives of statutory health organisations and Haredi constituents who, like in Israel and the USA, have been the subject of public (health) scrutiny due to epidemics of COVID-19 and measles (Kasstan, 2021; Stein-Zamir and Levine, 2021). The participants were grouped into three key research clusters; i. Eight professionals from statutory services, including local health protection teams, Clinical Commissioning Groups (CCGs), local authorities, the NHS and Public Health England; ii. Ten Jewish representatives from welfare and advocacy groups, and religious authorities; iii. and ten household members. Household members ranged in age, gender, educational and professional background, and the Haredi movement to which they affiliate. Women formed three of the ten participants from welfare and advocacy groups (women are not able to serve as religious authorities in Haredi Judaism, but do hold leadership roles in welfare groups), five of the ten household members, and six of the eight professionals from statutory services. Local authorities are responsible for the provision of PH services and addressing health inequalities. These responsibilities include ensuring that their population has access to immunisation programmes, which are commissioned by regional Screening and Immunisation Teams and delivered by community health trusts and primary care organisations affiliated with CCGs. There are also health protection teams, who are responsible for disease surveillance, outbreak responses and managing health protection incidents.

Topic guides were developed to tailor the interview questions to each of the three research clusters to draw out i) how statutory services engaged with Haredi welfare organisations and households during the pandemic; ii) how Haredi welfare and advocacy groups and religious authorities responded to the pandemic and control measures, and what roles were performed around communication of PH guidance; iii) how households accessed pandemic information, made decisions about transmission risk, experienced pandemic control measures, and engaged with NHS Test and Trace and the COVID-19 vaccination programme.

Interviews took place between February and May 2021 when pandemic control measures did not permit in-person research. Interviews were conducted using online video conference software, or by telephone for a minority of household members without home access to the Internet, and detailed notes were made. Hence, the paper delves into a specific point in the COVID-19 pandemic where the UK public was under "lockdown" and participating in the largest vaccination programme in British history. The interviews were conducted by the first and last author, at times together and individually. The rationale of our approach was to offer Haredi participants, whose daily lives are often governed by strict gender divisions, greater comfort by being interviewed by male and female researchers (and offering interlocutors the choice to speak to either a male or female researcher if they preferred). Moreover, hosting interviews together was intended to be a collaborative exercise, where the first and lead author could share research strengths with each other, including practical and contextual requirements such as translating Hebrew or Yiddish to English. BK is Jewish and is able to draw on knowledge of law and teachings, Hebrew literacy, and long-term ethnographic engagement with Haredi encounters with PH in Britain (Kasstan, 2019). TC has a background in nursing, and extensive research experience examining the accessibility of

immunisation programmes and the impact of infrastructural change on PH (Chantler et al., 2018). These positionalities helped to inform the study design and signal an understanding of the challenges faced by the three research clusters during interviews to build trust and rapport with interlocutors.

Field visits were undertaken in October 2021 when pandemic control measures had been amended. These visits enabled the research team to document how the area had been transformed by the COVID-19 pandemic. Official PH guidance, for example, had been translated in Yiddish and publicised in busy streets, which informed our data analysis concerning public understandings of the pandemic (see 3.1–3.2) and the actors involved in developing and maintaining PH relations. Analysis of the data was inductive and thematic, whereby theoretical insights emerge from prolonged engagement with the data rather than being pre-conceived (Nowell et al., 2017; Braun and Clarke, 2008). The conceptual work around PH relations emerged from the analysis and was not based on a pre-designed theory or deductive approach. The data was analysed by the first and lead authors. Participants names, their PH roles, and locations have been anonymised to protect their identities.

2.1. Project background and ethics

The qualitative research was conducted ancillary to a seroprevalence study that identified extremely high rates of SARS-CoV-2 seroprevalence among Haredi Jews in London, at a rate of approximately 75% among a sample of adults who underwent serological testing (Gaskell et al., 2021). The synergy produced theoretical and applied questions that are examined in this paper. This programme of research was initiated when a Haredi health advocacy group requested help to understand COVID-19 transmission patterns and hotspots, with a view to informing their future pandemic preparedness and to develop interventions that are conducive to Haredi social organisation and religious life. The health advocacy group provided input into the design of the seroprevalence study (such as participant recruitment and the coordination of sampling) but were not involved in the qualitative research. The health advocacy group also commissioned a public relations company to inform the dissemination of results arising from the seroprevalence and qualitative research, especially following heightened public interest in this minority and media allegations of widespread non-compliance with PH control measures. Neither the health advocacy group or public relations company held a veto over academic publishing. Their roles are outlined here to underscore how PH relations with minority groups encompass a diverse set of actors and advocates, which raises implications for understanding PH responsiveness and investments in health protection.

2.2. Jewish London

To provide methodological context, the research location is home to approximately 30,000 Haredi residents (Local Government Association, 2020) and is characterised by geographically dense residential patterns which allow alignment between residences, synagogues, and Jewish schools, shops and businesses (Ashery, 2020). Haredi Jews have among the highest total fertility rates in England (Staetsky and Boyd, 2015), about three times that of the general UK population (1.58 children born per woman, see (Office for National Statistics, 2020). The Haredi population is composed of diverse Hassidic dynasties. While London is celebrated for its broader ethnic diversity and conviviality, Haredi residents have tended to be represented in social science research as 'an outlier and a problem' (see Sheldon [2021] for a critique of such representations) – an issue compounded by public discourse surrounding COVID-19 compliance that we explored through the qualitative study.

Statutory authorities acknowledge that Haredi residents are distrustful of 'secular institutions,' with engagement compounded by the additional challenge of constituents having 'no access to TV, radio, mainstream media, and little digital access. This means that the statutory services have to convey public health messages to the community

without using digital communications' (Local Government Association, 2020). Rabbinic authorities in the US have attempted to ban or restrict use of the internet, which they view as 'more dangerous to Jewish continuity than the Holocaust' (Fader, 2020: 6). There is, however, increasing use of the internet at household level, evidenced by a Haredi press sector that has expanded from print to online production, which constitutes a form of creating digital enclaves and attempting to manage how information is accessed (Campbell and Golan, 2011).

3. Findings

Our analysis of results raises five key considerations for the study of PH relations and roles in health protection: i) understandings of the pandemic and related challenges, ii) responding to challenges related to awareness, iii) representations of non/compliant minorities, iv) the situated costs of non/compliance, and v) responsibilities in health protection.

3.1. Understandings of the pandemic

The Jewish festival of *Pourim* fell on 9–10 March 2020, when media coverage of COVID-19 was widespread but the UK government had not yet enforced stay-at-home directives. Hence, *Pourim* was viewed as a landmark event in the Haredi experience of COVID-19 in the study location, 'a lot of the ill, the severely ill [here] were all within a month after *Pourim*. So, most probably that's due to all the mixing and the little awareness at the time' (Household Member 7).

The issue of whether Haredi constituents were aware of the pandemic raised contested claims of information deficits. The self-protective stance of Haredi Judaism and avoidance of the Internet and social media was linked to ruptures in the flow of information concerning health protection by NHS healthcare professionals:

'Certainly, at the beginning there was a lack of awareness. The large numbers who don't actually have access to the news, and I think it took quite a long time for that to spread among the community. The knowledge and the understanding. There's certainly a delay with the Haredi community being informed and understanding was an even longer delay.' (Statutory Services 1)

This position was not shared by all NHS healthcare professionals, who viewed *acceptance* of the emerging information as the primary issue, 'I disagree about informing. I think the informing was fine, I think it's that understanding that was delayed, or the acceptance. I think the informing happened' (Statutory Services 2). Residents described how infections and mortalities in Jewish north London shifted how the pandemic was accepted as a new reality:

'My husband in the beginning, he thought it was just all blown up out of proportion, and he didn't quite believe it until, you know, you heard more and more people having it, and we heard lots of tragedies happening. People very ill. People passing away. So, that's when we realised this was reality' (Household Member 9).

Internet access was frequently raised as an opportunity and challenge in circulating information and accepting the pandemic. Residents relayed how rabbinic authorities regarded the Internet as a threat to the self-protective stance of Haredi Judaism: '… the rabbis here, they guide us that the Internet is not good for us and they guide all the kids at school like be careful, Internet can harm people, and there's also a lot of bad things on there' (Welfare/Advocacy/Religion 5). However, this is not to say that there was no home-use of the Internet. WhatsApp was described as a vital tool for circulating pandemic-related news within Haredi social networks in London and those further afield in Antwerp, New York and Israel, 'WhatsApp groups is today the fastest way of information travelling' (Welfare/Advocacy/Religion 5).

Word of mouth information circulated via channels and spaces used by women and men separately. As a rabbinic authority noted, 'they say

the news in the *miqvah* [bath for ritual immersion] where men go in the morning is weeks ahead of any news service. So, the community is very, very acute [aware] about news, about issues in the news that might be of interest or importance to the community' (Welfare/Advocacy/Religion 6). Attempts to cultivate awareness of pandemic control measures revealed that a diverse set of actors were involved in organic and organised responses aimed at protecting Haredi constituents' health.

3.2. Responding to pandemic challenges

The diverse, and fragmented, nature of Haredi neighbourhoods meant that a continuum of interventions were fielded to protect population health, including; a) Information: advertising space, helpline; b) care interventions; and c) neighbourhood safety. These interventions circulated information about control measures on the one hand, and creating an infrastructure of care for constituents on the other.

The issues of awareness about unfolding events (3.1) inspired productive collaborations between local authority (LA) workers, rabbinic authorities, and welfare services to provide support to Haredi constituents. In addition, a wide range of Haredi welfare groups and individuals ran their own COVID-related responses to support their neighbours. An example of collaborative activity was an advertising space in a Haredi circular (paid for by the LA), which has a wide readership, and was used to disseminate PH guidance during the pandemic. LA officers responsible for PH and community liaison created 'messages' with the support of rabbinic authorities to convey the importance of following restrictions. This afforded leeway to use direct styles of speech that would otherwise not have been sanctioned:

> 'One of my clearest memories is crafting the communication for *Pesach* [passover] with Rabbi Drayer [pseudonym], because I'd done the draft, saying what we needed people to do and not do at Passover. And he called me and he said "Look, it's fine, but you've got to kind of talk to people's emotions. You've got to say to people that "*Pesach*'s all about grandchildren. That's what it's really about. So, you have to say to people that if they want to be around to see their grandchildren next year, then they have to forgo seeing them this year." And I think that's the quite emotive language that as a local authority we probably wouldn't have felt that we had licence to use, but he kind of gave us licence to use that language, you know?' (Statutory Services 4)

Collaborations between statutory services and Haredi welfare groups were framed in positive terms, as a 'lot of symbiosis' (Welfare/Advocacy/Religion 8), especially when local authorities provided funding for Haredi welfare groups to run a community helpline.

Questions emerged as to whether limitations in understanding were due to language, which prompted Yiddish-speaking advocates to translate COVID-19 guidance in a way that would be amenable for people who speak English as a second language. 'And I also felt that it's not just a question of understanding the information, the information is published in Yiddish then it's clearly aimed at you whereas if it's published in English then it's sort of going, "it's not necessarily for us to attend to"' (Welfare/Advocacy/Religion 4). Such actors also sought to 'translate' the culture of Haredi Judaism and social organisation for statutory services, and to convey how general policies relate to context:

> 'And then we also fed back a lot of things to the police and to the health people about rules, how they affect the community, like, for instance, when they said that funerals can only be attended by a few close family members then we suggested that that should be further clarified because close family in a Hasidic community is, you know, anywhere between 100 and 200 people.' (Welfare/Advocacy/Religion 4)

Haredi civil society groups were, at times, reprimanded by constituents for disseminating PH guidance and cautioning against social interactions that were perceived to interfere with social and religious

autonomy. A Jewish neighbourhood watch service that dedicated resources to reinforcing PH messaging experienced push-back, 'they came under a lot of pressure from certain circles about proactive engagement […] there were threats to certain members' (Welfare/Advocacy/Religion 6).

Communal responses that were not delivered in collaboration with statutory services included care interventions aimed at supplementing stretched NHS services as hospital admissions soared. A 'community care' support service was initiated by a coalition of rabbinic authorities and welfare groups specifically for patients whose COVID-19 symptoms would not have led to hospitalisation. This service was facilitated by re-purposing a Haredi maternity and respite home for COVID monitoring, and to provide essential treatments (e.g. intravenous hydration) and diagnostics (e.g. blood tests). Orthodox Jewish medical professionals served as advisors and guided the implementation of these services that were delivered discreetly. However, PH professionals had some concerns about these 'community care' services: '[…]it was quite controversial because it was very odd that oxygen was just going out without what I thought very little knowledge, very little understanding about why that was just going out' (Statutory Services 1). Hence, responsiveness involved collaborations between local authority and communal stakeholders, but also minority-led interventions that were not always in line with PH opinion.

3.3. Representations of a non/compliant minority

Media and PR professionals were also direct participants in shaping PH relations. In January 2021, mainstream and Jewish communal media began reporting that Haredi constituents were hosting weddings, which were otherwise not legally permitted. Media coverage suggested that the weddings had defined protocols, which included £10,000 up-front payments in case the police found out and issued fines and look-outs employed to prevent inspections by law enforcement (Jacobs, 2021). These media representations resulted in collective and public shaming of Haredi neighbourhoods and raised tensions for PH relations with statutory services:

> 'I think a lot of the tensions come from how the community feel shamed publicly, they feel like the whole of the UK and the press have unfairly focussed on them, when everywhere you look, there was huge breaches in parks and bars and clubs and, all down the country.' (Statutory Services 8)

Haredi constituents were acutely aware of media representations of 'illegal weddings' and discourse of 'non-compliance,' and perceived themselves to be the focus of scrutiny as a visibly-identifiable minority:

> 'Let's not forget that newspapers are here for a scoop, to sell more papers and if you have an exotic group called Haredim making something which seems to be against the law, they will report it with all the juice it can have.' (Household Member 2)

Circulars and media outlets serving Jewish London sought to both promote PH messages but also to promote an image of compliance by redacting news of communal events that went against those messages.

> 'I don't know what you want to call it, but we have protected the community in some ways from – either protect it from itself, I don't know how you want to say it, we've tried to keep reinforcing the message and also not to show the community in a bad light because it hasn't always stuck 100% to the rules.' (Welfare/Advocacy/Religion 9)

Media clearly plays an important role in managing narratives of health protection, and constitutes a player in PH relations and in maintaining institutional relationships.

3.4. The situated costs of non/compliance

High profile media coverage of Haredi weddings performed in lockdown raised issues of conforming to different models of protection – that of 'public health control measures' and 'continuity of the religious lifecycle and social organisation.' PH professionals knew about the hosting of 'non-stop weddings', which suggested to them that 'the messaging is clearly not getting through well enough' (Statutory Services 1). Yet, Haredi stakeholders explained how the definitions of what was "essential" excluded the requirements of Haredi Jews – and raised questions of who held the authority to define 'essential' practice:

'But it's this kind of balance between what's really important to maintain religious life, how important that is to daily life, and then balancing that with guidance that was restricting that to a certain extent. And I think that is quite a difficult balance, isn't it? And I'll tell you what was difficult. When things were considered "essential," that "essentials" were allowed, and then having to understand that, accepting that religious practice was not considered essential. It felt like that must be coming from people who don't share those kind of values, which probably is true.' (Welfare/Advocacy/Religious 3)

Rabbinic authorities varied in the compromises to the religious life cycle that they felt were acceptable, highlighting the role they held in negotiating health protection measures:

'But weddings are a very serious problem because in the Haredi community there's no such thing as having intimacy before marriage and so people have come to me as their daughter or their son is engaged and it's a question mark. There's a relationship which has been unable to be consummated and it's really very difficult. I encouraged them to make their wedding abroad, and they were very grateful for that. To say that people can't get married indefinitely is a very serious issue and life is continuing. Life hasn't stopped.' (Welfare/Advocacy/Religious 2)

Rabbinic authorities had sought legal advice on the definitions of 'essential' exemptions, further illustrating how PH relations is a more fraught terrain than binary practices of non/compliance. Similarly, household 'non/compliance' to pandemic control measures were highly tessellated, and responses around masks, contact tracing and conducts varied. As one constituent noted, 'we've all known people who have died, I just don't understand why people are still not wearing masks' (Household Member 1).

Government directives required people to report on social contact to identify and arrest transmission links through 'NHS Test and Trace,' which was not perceived to be reliable or proportional to the consequences that could arise for social *contracts* between Haredi residents:

'One of the foundations of a community is that people don't want to split [report] on each other. So, if you think that Test and Trace works on me telling you how many people I met yesterday, I'm not going to tell you because I'm going to mess up all their lives, aren't I? So, you have to think of how that works in people's minds. Why would you go and destroy somebody's life now by making them go and isolate, and have a PCR test that might not work. *People have unfortunately been seen to have false positives and false negative results, which makes it very untrustworthy* [emphasis added]. And in a community which is built on trust, how are they going to trust a system that is full of holes?' (Household Member 5)

PH directives and related technologies were not perceived in binary terms of non/compliance, but were assessed through a process of calculations of the benefits and risks to individuals and relationships. Moreover, PCR tests were perceived as less relevant due to the extent of viral transmission, which was perceived to have cultivated a collective state of immunity, 'because we're mixing so much, we've all got the virus inside us now, therefore, we're immune' (Household Member 1).

3.5. Responsibility in public health relations

Understanding where the responsibility to protect the health of constituents is situated exposes how PH relations involves a negotiation of authority. While places of worship were required to close in the first 'lockdown' (until June 2020) as part of central government directives, concerns emerged that synagogues had remained open. Advocates who were not Haredi themselves manoeuvred on behalf of constituents to request that law enforcement services would close synagogues, but found that such enforcement was not considered a viable option:

'The *shuls* [Yiddish, synagogues] were supposed to be closed already, and they weren't closed. That was before Pesach. And I said to the police, "look, there are a lot of well-meaning people in the community who would be more than happy if you actually just went there and closed the synagogues." And then all the officers sort of laughed down the phone and said "you want the Metropolitan Police to go and close synagogues? No! We will have to do negotiations before that's going to happen." And then I finally understood how the power dynamics between these actors are.' (Welfare/Advocacy/Religious 4)

Negotiations over directives then exposed how the project of health protection is balanced against the protection of PH relations, which involve a negotiation of power dynamics between actors. Local authority staff, who were responsible for community cohesion, were concerned that the above frictions around COVID-19 control measures would undo the time and resources that had been invested in maintaining working relationships with Haredi constituents and representative bodies over recent years:

'I didn't want loads of my work to go, that if it had all been destroyed, would have set us back. And we did get to a point where relationships did completely fall apart earlier this year [2021]. But there was a balance between, you know, me trying to get them onboard and not falling out with everyone. It was a difficult challenge.' (Statutory Services 8)

Hence, statutory services staff felt caught in a bind between meeting the responsibilities to health protection that their job requires on the one hand, and maintaining PH relations with residents on the other. 'Faith' was put in the role of *Hatzolah,* as an interface between Haredi constituents and PH services, in order to convey the severity of the pandemic, and then the importance of the COVID-19 vaccination programme:

'I do remember a voice clip going around from a well-known *Hatzolah* member and he was saying, "Guys, what do you think you're doing? You need to isolate. You need to protect yourselves and other people. People are dying in the hospitals. Doctors are asking me why do the community do this – who usually fight for life and always take their sick relatives to the best doctors – why are they now doing something that is bringing the death rate so high? Why are they not taking this seriously?" And I heard this, and I was so happy he had done this.' (Household Member 6)

PH relations were then a shared field of operation, with responsibility to promote PH messaging divided between stakeholders in order to engage the Haredi neighbourhood in ways that local authorities perceived constituents to be most receptive to. The prominent role of *Hatzolah* in co-delivering the COVID-19 vaccination programme with PH services (Kasstan et al., 2022) helped to frame institutional relationships as positive against the powerful backdrop of the media coverage of non-compliance and rupturing of relations described above. As the lead of a Haredi welfare service conveyed, 'the Council has worked beautifully with the community, and I'm sure you're aware about the *Hatzolah* events' (Welfare/Advocacy/Religious 3).

Internal critiques, however, were directed at *Hatzolah* by household members, not specifically for its role in the pandemic response, but for

how the service mediates relations and shapes the authority and legitimacy through which statutory services are regarded:

'They work tremendous PR because they really did put themselves out during the pandemic, no question about it. They are part of the solution, they're a laudable organisation, but they are also part of the problem and they're also symptomatic of a mindset which "unless it's our own, then we can disregard it." Never mind that *Hatzolah* ultimately deliver you to the local hospital, which is not staffed by local Jews.' (Household Member 3)

Hence, the deference to *Hatzolah*, but not the NHS, raises questions of which services are viewed as authoritative and what the implications are for PH relations. Services that were positioned as being instituted by Haredim and hence were internal, or 'our own,' were more trusted, 'I think there is a certain reluctance to trust, I suppose, outside authorities' (Welfare/Advocacy/Religious 9). Authority was a recurring question to navigate – for PH professionals, community representatives, and household members alike. PH professionals working within the NHS and the Local Authority had collaborated with a prominent rabbi, who was considered to hold considerable representative authority, to deliver messaging and promote vaccination uptake during past outbreaks of measles. His untimely death, however, left a void in institutional relationships and an urgent need to build new collaborations with representative groups and services

'We were very reliant on, sort of, intermediary services of a rabbi, who very sadly died of COVID on the 4th of April last year. We realised that actually we'd all been rather over-dependent on him, in the sense that, this is somebody who for 30 years has formed this really effective bridge between a community and the public authorities. And over the years, we've built this incredibly strong communications and engagement partnership with the community, but 12 months ago we were still sort of scrabbling around a bit. And I think for me one of the things that will come out of this, you know, after COVID's finished and we're not in a pandemic situation anymore, that our relationship with that community has so much more strength and depth to it than it did before.' (Statutory Services 4)

There was, then, a future benefit to be reaped by cultivating relationships with a more diverse set of stakeholders in the Haredi neighbourhood to share responsibility over health protection. Yet, it was clear that PH services struggled to manoeuvre and distil PH messaging across the composite, if not fractured, nature of the Haredi constituency – which was otherwise framed by interlocutors as a 'community.' Influencing the structures of rabbinic authority was perceived by as crucial to cultivating PH relations with constituents, though navigating the diversity of rabbinic positions had proved challenging for PH professionals:

'I think the rabbinate have the hugest part to play, but they are not all of the same opinion and I think influencing the rabbinate would be quite key but I'm not sure we have done as much as we should have done on that.' (Statutory Services 1)

Household members projected internal critiques of religious authorities for not encouraging residents to follow health protection measures, 'there's been a complete lack of proper leadership here for the whole thing' (Household Member 1). Rabbis, however, directed responsibility back at LAs for not having acted to safeguard 'community' health. As a rabbi asserted, 'I think that the authorities need to feel a visible responsibility for the lives of the people in the Jewish community and a visible responsibility to prevent deaths, and illness, amongst the community. It's not box ticking' (Welfare/Advocacy/Religious 6).

4. Discussion

Findings demonstrate that organised, though at times organic,

collaborations between PH representatives and 'community' welfare groups were developed as part of local pandemic responses and relations in London. These collaborations were productive in terms of identifying information needs and addressing challenges around COVID-19 awareness-raising, but were not without their challenges, especially when understanding claims over responsibility (and its dereliction) in health protection. Such frictions were reflected in how welfare and representative groups collaborated with PH services, but also contested policies on the basis of how exceptions were defined in ways that excluded the essentials of religious life. Rather than 'non/compliance' being a binary act, a continuum of responses emerged among communal representatives and households when negotiating competing responsibilities.

COVID-19 policing in pandemic-transformed cityscapes reflected concerns around moral regulation as much as PH measures (Probst and Schnepf, 2022), though the view from London captures how minorities were collectivised as simultaneously being at disproportionate risk and risk-takers. Exploratory studies conducted among Jewish orthodoxies in Belgium noted that constituents refuted statistical claims of being at disproportionate risk and vulnerability to COVID-19, which they viewed as being overemphasised in media reports and as singling-out Jews as the cause of viral transmission (Vanhamel et al., 2021). Communicative authority and the production of information can evidently be contested (Briggs, 2004, 2005; Briggs and Mantini-Briggs, 2004), in ways that perhaps shape how responsibility in health protection is perceived.

These above events were situated in the first twelve months of the COVID-19 pandemic (2020–21). Not reflected in the data, however, is the evidence that has since emerged, detailing how Conservative Party and government officials hosted a catalogue of social events in 2020–21 that contravened PH restrictions in place at the time (Cabinet Office, 2022). Our critique of the disproportionate impact of COVID-19 on minority populations through the lens of PH relations raises an ethical issue of examining how differently positioned cohorts represent each other's roles. Our analysis juxtaposed how issues of compliance, protection and responsibility were projected – and often through the prism of a perceived failure to act. What we have sought to do is integrate these positions to raise questions of how PH services can most appropriately *serve* minorities in the future.

Communicative authority shapes outbreak narratives of blame (Briggs, 2005; Wald, 2008), but closely tied to this concept is how complex configurations of PH relations unfold amidst epidemics and reveal the contentions surrounding authority, responsibility, and failings. PH relations involve a set of differently-positioned actors who negotiate responsibilities over health protection alongside issues such as 'community' relations and minority self-protectionism. Institutional relations – and at times their fragmentation – were shaped by COVID-19 control measures. Relations and frictions had been produced amidst the public shaming of Haredi Jewish neighbourhoods for non-compliance and high-profile "lockdown weddings" in national and Jewish press. Such claims of non/compliance were compounded by media coverage of the 'disproportionate burden' of COVID-19 among Orthodox Jewish neighbourhoods in London that emerged in 2021 when extremely high SARS-CoV-2 seroprevalence rates were identified (Gaskell et al., 2021). Yet, the tendency to collectivise Haredi Judaism in media is at odds with the diverse roles and interventions around health protection that emerged in London over the course of the pandemic. As anthropologists have argued, health news performs a dual role in attesting the importance of medical and epidemiological issues as much as forming part of the 'the production of medical and scientific objects and subjects' (Briggs and Hallin, 2016: 5). We have demonstrated how media exposure of the pandemic performs a role in producing PH relations, and raising contests over responsibility in health protection.

Investigating the trope of 'disproportionate burdens' of COVID-19 among minorities – beyond crude numbers – conveys how the pursuit of health protection involves diverse stakeholders or custodians of 'community' health as much as the agency of individuals. Anthropologists Robert Hahn and Marcia Inhorn have argued how '*intervention,*

including public health action, is fundamentally a process of social and cultural exchange' (Hahn and Inhorn, 2009). Our attention to disaggregating PH relations foregrounds how exchanges over interventions (whether control measures, contact tracing technologies, or vaccines) are negotiated within a social ecology that is far from linear in representation. The tendency to position accountability at the 'community' level, as occurred in pandemic London (see 1.3), further exemplifies how communicative authority attributes and collectivizes blame in ways that obscure the diversity of responses to pandemics and intricate relations that emerge in health protection.

Responsiveness to the urgency of the pandemic produced a space for non-Haredi advocates to attempt to protect Haredi residents, often by improving flows of PH information. More broadly, linguists have argued that 'inconvenient rules can be better adhered to if the authorities provide clear and transparent guidance as to why they have been put in place' (Belk et al., 2022). Amidst the urgency and uncertainty of COVID-19, social scientists have argued that 'the pandemic demands that we revisit and sharpen our understandings of state power, public health and citizenship' (Wahlberg et al., 2021). The case of pandemic London, however, demonstrates that institutional relationships cause responsibility and stakes in health protection to be negotiated, in ways that challenge conceptions of statutory 'authority' and warrant investigation into its limits.

4.1. Implications and limitations

Emerging from this critical inquiry is how to offer practical recommendations for PH policy and statutory services, particularly with regards to creating the enabling conditions to share responsibility over health protection in the future. The potential for developing shared aims and collaborations will vary according to context and depend on health governance. We suggest that PH and pandemic preparedness can be bolstered by the mapping of stakeholders, and designing routine services (such as vaccination) with the support of 'partners in health' – to borrow the language of anthropologist Paul Farmer (2003). The mapping of PH relations and design of collaborations is an evolving project because social ecologies are not static, and collaborations should take account of the internal diversity of minority populations. Adequate resources should be allocated to maintaining collaborations that enable PH services to respond quickly to social and epidemiological incidents. Moreover, a collaborative approach to developing 'shared aims' in health protection may help to address the challenges of attaining 'sustainable involvement of communities and their leaders in decision-making spaces of local governance structures' (Vanhamel et al., 2021: 10). Shared aims should be agreed and clearly defined, and monitored and evaluated, especially when supported by funding from central or local government. PH services, however, cannot entirely defer responsibility to stakeholders, and the roles of statutory services cannot be replaced by stakeholders. As emerged in our data, relying on select stakeholders can have unforeseen consequences for pandemic responses. The act of sharing responsibility in health protection involves making concerted attempts to consult directly with households on matters that affect them, and considering constituents within the framework of PH relations.

A limitation of this paper is that research was conducted at the height of COVID-19 control measures, when the lives of participants had been upended and hence may have coloured perceptions of PH relations. Our findings are consistent with broader studies that note how the institutional landscape of Jewish orthodoxies helped to generate pandemic responses (Vanhamel et al., 2021). Social scientists should then investigate how PH relations are shaped among a range of minorities to develop this concept further, as each minority group will have a situated tie to the state and statutory services.

5. Conclusion

Health protection involves diverse stakeholders, and hence stakes – which are poorly understood through binary terms of 'non/compliance.' By considering the alignments in PH relations, social scientists can critique how health protection is negotiated and can disaggregate the roles invested in addressing inequalities disproportionately faced by minorities. Social scientists are well placed to reconcile public and political discourse of responsibility and responsiveness with the lived realities of minorities. Key issues that will have situated implications across contexts are how to fund and sustain PH collaborations, which can redress inequalities and benefit residents, and how to agree and achieve 'shared aims' and responsibility for health protection. We leave these points for social scientists to consider as they attempt to understand how COVID-19 has reconfigured PH operations in the places that people call home.

the 'Learning Lessons from COVID-19: Hearing Voices from Multilingual Cultural and Vulnerable Communities' workshop, hosted by the School of Oriental and African Studies (SOAS) on April 21, 2022. The paper was subsequently presented at the 'Afterlives of Epidemics' workshop, hosted by the University of Oslo on June 9, 2022. We thank Erica Charters and Emanuelle Roth, and participants at both workshops, for their helpful comments.

References

Anis, E., Grotto, I., Moerman, L., Warshavsky, B., Slater, P.E., Lev, B., Israeli, A., 2009. Measles in a highly vaccinated society: the 2007-08 outbreak in Israel. J. Infect. 59, 252–258.

Ashery, S.F., 2020. Spatial Behaviour in Haredi Jewish Communities in Great Britain. Springer, Cham.

Belk, Z., Kahn, O., Szendrői, K.E., Yampolskaya, S., 2022. Translating COVID-19 information into Yiddish for the UK hasidic community. Linguist. Vanguard. https://doi.org/10.1515/lingvan-2020-0149.

Birenbaum-Carmeli, D., Chassida, J., 2020. Covid-19 in Israel: socio-demographic characteristics of first wave morbidity in Jewish and Arab communities. Int. J. Equity Health 19 (153). https://doi.org/10.1186/s12939-020-01269-2.

Briggs, C, 2004. Theorizing Modernity Conspiratorially: Science, Scale, and the Political Economy of Public Discourse in Explanations of a Cholera Epidemic. Am. Ethnol. 31 (1), 164–187.

Briggs, C.L., 2005. Communicability, racial discourse, and disease. Annu. Rev. Anthropol. 34, 269–291.

Briggs, C.L., Hallin, D.C., 2016. Making Health Public: How News Coverage Is Remaking Media, Medicine, and Contemporary Life. Routledge, London.

Braun, V., Clarke, V., 2008. Using thematic analysis in psychology. Qual. Res. Psychol. 3 (2), 77–101. https://doi.org/10.1191/1478088706qp063oa.

Briggs, C.L., Mantini-Briggs, C., 2004. Stories in the Time of Cholera: Racial Profiling during a Medical Nightmare. University of California Press, Berkeley.

Cabinet Office, 2022. Investigation into Alleged Gatherings on Government Premises during COVID Restrictions - Update, 31 January. Accessed 2 February 2022. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1051374/Investigation_into_alleged_gatherings_on_government_premises_during_Covid_restrictions_-_Update.pdf.

Campbell, H.A., Golan, O., 2011. Creating digital enclaves: negotiation of the Internet among bounded religious communities. Media Cult. Soc. 33 (5), 709–724. https://doi.org/10.1177/016344371140446.

Chantler, T, Lwembe, S, Saliba, V, Raj, T, Mays, N, Ramsay, M, Mounier-Jack, S, 2018. "It's a complex mesh"- how large-scale health system reorganisation affected the delivery of the immunisation programme in England: a qualitative study. BMC Health Serv. Res. 16, 489. https://doi.org/10.1186/s12913-016-1711-0.

Fader, A., 2020. Hidden Heretics: Jewish Doubt in the Digital Age. Princeton University Press, Princeton.

Fader, A., Avishai, O., 2022. Introduction to the theme. AJS Rev. 46 (1), 1–11.

Farmer, P., 2003. Pathologies of Power: Health, Human Rights, and the New War on the Poor. University of California Press, Berkeley.

Gaskell, K.M., Johnson, M, Hunt, A, Stone, N.R.H., Waites, W, Kasstan, B, Chantler, T, Lal, S, Roberts, C.H., Goldblatt, D, Eggo, R.M., Marks, M., 2021. SARS-CoV-2 seroprevalence in a strictly-Orthodox Jewish community in the UK: A retrospective cohort study. Lancet Reg. Health - Europe 6, 100127. https://doi.org/10.1016/j.lanepe.2021.100127.

Gorelik, Y., Anis, E., Edelstein, M., 2021. Inequalities in initiation of COVID19 vaccination by age and population group in Israel – December 2020-July 2021. Lancet Regional Health – Europe 100234. https://doi.org/10.1016/j.lanepe.2021.100234.

Gumber, A., Gumber, L., 2020. Differential effects of COVID-19 by gender and ethnicity. BMJ 369 (m1548). https://doi.org/10.1136/bmj.m1548.

Hackney London Borough Council, 2021. Open Letter to Charedi Community: Stay Away from Large Events to Keep Safe, 28 January. Accessed 28 November 2021. https://drive.google.com/file/d/1abBSmE3d7irPuCKPgMItyO1Bs9xUCkw5/view.

Hahn, R.A., Inhorn, M.C., 2009. Anthropology and Public Health: Bridging Differences in Culture and Society, second ed. Oxford University Press, Oxford and New York.

Hickman, T., 2020. The use and misuse of guidance during the UK's coronavirus lockdown. Available at: SSRN: https://doi.org/10.2139/ssrn.3686857.

House of Commons Library, 2021. The coronavirus timeline: Measures taken by the House of Commons. UK Parliament. https://commonslibrary.parliament.uk/house-of-commons-coronavirus-timeline/. (Accessed 8 August 2022). Accessed.

Jacobs, E., 2021. JN Investigation: 'For Months They've Broken Every Rule in the Book. ' Jewish News. https://jewishnews.timesofisrael.com/jn-investigation-for-months-theyve-broken-every-rule-in-the-book/, 28 January 2021.

Kasstan, B, 2019. Making bodies kosher: the politics of reproduction among Haredi Jews in England. Berghahn Books, Oxford.

Kasstan, B, 2021. "If a rabbi did say 'you have to vaccinate,' we wouldn't": Unveiling the secular logics of religious exemption and opposition to vaccination. Soc. Sci. Med. 280, 114052. https://doi.org/10.1016/j.socscimed.2021.114052.

Kasstan, B, 2022. Viral entanglements: bodies, belonging, and truth-claims in health borderlands. Med. Anthropol. Q. https://doi.org/10.1111/maq.12677.

Kasstan, B, Mounier-Jack, S, Letley, L, Gaskell, K.M., Roberts, C.H., Stone, N.R.H., Lal, S, Eggo, R.M., Marks, M, Chantler, T, 2022. Localising vaccination services: Qualitative insights on public health and minority group collaborations to co-deliver

coronavirus vaccines. Vaccine 14 (4), 2226–2232. https://doi.org/10.1016/j.vaccine.2022.02.056.

Lernout, T., Kissling, E., Hutse, V., De Schrijver, K., Top, G., 2009. An outbreak of measles in orthodox Jewish communities in Antwerp, Belgium, 2007-2008: different reasons for accumulation of susceptibles. Euro Surveill. https://doi.org/10.2807/ese.14.02.19087-en.

Local Government Association, 2020. London Borough of Hackney: Charedi Orthodox Jewish Community Engagement, 23 December. Accessed 2 February 2022. https://www.local.gov.uk/case-studies/london-borough-hackney-charedi-orthodox-jewish-community-engagement.

Mathur, R., Bear, L., Khunti, K., Eggo, R.M., 2020. Urgent actions and policies needed to address COVID-19 among UK ethnic minorities. Lancet 396 (10266), 1866–1868.

Meer, N., Qureshi, K., Kasstan, B., Hill, S., 2020. The Social Determinants of COVID-19 and BAME Disproportionality, vol. 30. Discover Society. https://archive.discoversociety.org/2020/04/30/the-social-determinants-of-covid-19-and-bame-disproportionality/. April.

Meers, J., Halliday, S., Tomlinson, J., 2021. Creative non-compliance": complying with the "spirit of the law" not the "letter of the law" under the COVID-19 lockdown restrictions. Deviant Behav. https://doi.org/10.1080/01639625.2021.2014286.

Nowell, L.S., Norris, J.M., White, D.E., Moules, N.J., 2017. Thematic analysis: striving to meet the trustworthiness criteria. Int. J. Qual. Methods 16, 1–13. https://doi.org/10.1177/1609406917733847.

Office for National Statistics, 2020. Births in England and Wales, 28 November 2021Accessed 2020. https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths/bulletins/birthsummarytablesenglandandwales/2020.

Office for National Statistics, 2021. Updating ethnic contrasts in deaths involving the coronavirus (COVID-19), England: 24 January 2020 to 31 March 2021. https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/updatingethniccontrastsindeathsinvolvingthecoronaviruscovid19englandandwales/24january2020to31march2021. (Accessed 8 August 2022). Accessed.

Panter-Brick, C., Eggerman, M., 2018. The field of medical anthropology in Social Science & Medicine. Soc. Sci. Med. 196, 233–239.

Probst, U., Schnepf, M., 2022. Moral exposures, public appearances: contested presences of non-normative sex in pandemic Berlin. Eur. J. Wom. Stud. https://doi.org/10.1177/13505068221076386.

Race Disparity Unit, Cabinet Office, 2021. Final Report on Progress to Address COVID-19 Health Inequalities. United Kingdom Government. Accessed 22 March 2022. https://www.gov.uk/government/publications/final-report-on-progress-to-address-covid-19-health-inequalities.

Rutland, S.D., 2021. The impact of COVID-19: a comparative study of the Melbourne and Sydney Jewish communities. Contemp. Jew. 41, 247–272.

Schmidt, H., Gostin, L.O., Williams, M.A., 2020. Is it lawful and ethical to prioritize racial minorities for COVID-19 vaccines? JAMA 324 (20), 2023–2024. https://doi.org/10.1001/jama.2020.20571.

Sheldon, R., 2021. A new normal? The inordinate ordinary of COVID times. J. Psychosoc. Stud. 4 (3), 173–186.

Smith, L.E., Potts, H.W.W., Amlôt, R., Fear, N.T., Michie, S., Rubin, G.J., 2021. Adherence to the test, trace, and isolate system in the UK: results from 37 nationally representative surveys. BMJ 372, n608. https://doi.org/10.1136/bmj.n608.

Staetsky, L.D., Boyd, J., 2015. Strictly Orthodox Rising: what the Demography Tells Us about the Future of the Community. Institute for Jewish Policy Research. Accessed November 1, 2015. http://archive.jpr.org.uk/object-uk285.

Staetsky, L.D., 2021. Elevated Jewish mortality from coronavirus in England and Wales: an epidemiological and demographic detective story. Contemp. Jew. 41, 207–228.

Stein-Zamir, C., Levine, H., 2021. The measles outbreak in Israel in 2018-19: lessons for COVID-19 pandemic. Hum. Vaccines Immunother. https://doi.org/10.1080/21645515.2020.1866918.

Tai, D.B.G., Shah, A., Doubeni, C.A., Sia, I.G., Wieland, M.L., 2021. The disproportionate impact of COVID-19 on racial and ethnic minorities in the United States. Clin. Infect. Dis. 72 (4), 703–706.

Taragin-Zeller, L, Kasstan, B, 2020. 'I didn't know how to be with my husband': State-religion struggles over sex education in Israel and England. Anthropol. Educ. Q. 52 (1), 5–20. https://doi.org/10.1111/aeq.12358.

Taragin-Zeller, L., Rozenblum, Y., Baram-Tsabari, A., 2020. Public engagement with science among religious minorities: lessons from COVID-19. Sci. Commun. 2 (5), 643–679.

United Kingdom Government, 2020. Prime Minister's Statement on Coronavirus (COVID-19): 23 March. Accessed 29 November 2021. https://www.gov.uk/government/speeches/pm-address-to-the-nation-on-coronavirus-23-march-2020.

United Kingdom Government Legislation, 2020. The Health Protection (Coronavirus, Restrictions) (England) Regulations 2020. Accessed 5 December 2021. https://www.legislation.gov.uk/uksi/2020/350/pdfs/uksi_20200350_en.pdf.

Vanhamel, K., Meudec, M., Van Landeghem, E., Ronse, M., Gryseels, C., Reyniers, T., Rotsaert, A., Ddungu, C., Manirankunda, L., Katsuva, Deogratias, Grietens, K.P., Nöstlinger, C., 2021. Understanding how communities respond to COVID-19: experiences from the Orthodox Jewish communities of Antwerp city. Int. J. Equity Health 20, 78.

Wald, P., 2008. Contagious: Cultures, Carriers, and the Outbreak Narrative. Duke University Press, Durham.

Wahlberg, A., Burke, N.J., Manderson, L., 2021. Introduction: stratified liveability and pandemic effects. In: Manderson, L., Burke, Nancy J., Wahlberg, A. (Eds.), Viral

Loads: Anthropologies of Urgency in the Time of COVID-19. UCL Press, London, pp. 1–23.

Xun, Z., Gilman, S.L., 2021. 'I Know Who Caused Covid-19': Pandemic and Xenophobia. Reaktion Books, London.

Zyskind, I., Rosenberg, A.Z., Zimmerman, J., 2021. SARS-CoV-2 seroprevalence and symptom onset in culturally linked Orthodox Jewish communities across multiple regions in the United States. JAMA Netw. Open 4 (3), e212816. https://doi.org/10.1001/jamanetworkopen.2021.2816.