

ARTICLE OPEN ACCESS

Organising Inequality: Viral Contamination of Healthcare Policies During the COVID-19 Pandemic in Wales

Sergei Shubin¹  | Diana Beljaars² ¹Department of Geography, Swansea University, Swansea, Wales, UK | ²Medical School, Institute for Life Sciences 1, Swansea University, Swansea, Wales, UK**Correspondence:** Diana Beljaars (d.n.m.beljaars@swansea.ac.uk)**Received:** 5 March 2023 | **Revised:** 26 January 2026 | **Accepted:** 11 March 2026**Keywords:** COVID-19 | Deleuze | healthcare | inequality | virus | Wales

ABSTRACT

This article explores the role of the COVID-19 virus in changing healthcare policies in Wales and their effects on pandemic inequalities. It draws on the analysis of policy documents and key informant interviews with government and healthcare officials in Wales conducted during the cross-European study on the varying impacts of pandemic responses on vulnerable groups. Its contribution lies in the development of ‘viral thinking’ to reconsider both the biomedical approaches that overestimated rational pandemic responses and biopolitical interventions driven by the neoliberal logic of commodification of healthcare provision exacerbating patterns of exclusion. The analysis of viral contamination of Welsh healthcare is split into three parts and builds on post-structuralist conceptualisations of the virus and its interactions with the state in the form of coding, decoding and production of surplus value. The virus disturbed the linear logic of the healthcare system and attempts to make it visible by coding it in biological or economic terms, and exposed the discriminatory politics of viral coding naturalising death and justifying the orders of inclusion and exclusion. Our findings also illustrate viral decoding that blurred the boundaries between humans and non-humans, underscored the limitations of biopolitical management of life, indifference and naturalisation of inequalities in Welsh healthcare. The virus also produced collective and hybrid configurations of forces that undermined the key functions of healthcare as well as created new alliances, unusual forms of co-existence and expressive responses to illness and death. The paper concludes with reflections on the possibilities of viral thinking to resist fixed categories of inequality and embrace virality as a potentially transformative mode of political thought and organisation.

1 | Introduction

No more f***ing lockdowns – let the bodies pile high in their thousands.

– Former UK Prime Minister Boris Johnson

These ‘bodies’ were our loved ones. (...) Those who have lost loved ones already have to cope with the lack of dignity many of their loved ones faced as they passed.

– Covid-19 Bereaved Families for Justice

The first quotation was an angry remark made by former UK Prime Minister Boris Johnson in response to having been advised to instate an England-wide third lockdown in January 2021 after just having come out of the second lockdown in October 2020. He advocated for minimal interference with viral processes: let the virus *do its thing*. Contrasting with the near constant stream of warnings not to catch the virus for nearly a year at that point, Johnson’s remark sent shockwaves through the UK because of the implied indifference from the UK government towards its population and testifying to a further crumbling of the British welfare state under neoliberal

The information, practices and views in this article are those of the author(s) and do not necessarily reflect the opinion of the Royal Geographical Society (with IBG).

This is an open access article under the terms of the [Creative Commons Attribution](https://creativecommons.org/licenses/by/4.0/) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2026 The Author(s). *Transactions of the Institute of British Geographers* published by John Wiley & Sons Ltd on behalf of Royal Geographical Society (with The Institute of British Geographers).

pressures (Bambra et al. 2021). Moreover, the usage of ‘bodies’ rather than ‘people’ strips the dead of their humanity as it reduces them to an amorphous mass of their material remains and reflects their non-existent economic value (Zavattaro et al. 2021). Johnson’s remark can be read as belief that the UK’s existing healthcare governance structures could ward off the virus to a great extent, with any ‘slippage’ being seen as acceptable. This viewpoint also accepts an exacerbation of social inequality, as this slippage most strongly affected societal groups who were already disadvantaged. Johnson’s intent clashed particularly strongly with the political culture in Wales. As a devolved nation under the British crown and partially subordinate to the UK government with health as devolved policy area, Wales has been governed by the left-leaning Labour party since 1992, which prioritised the reduction of social inequality. Therefore, the presence of COVID-19 in Wales since February 2020 posed fundamental challenges to uphold this priority.

This paper explores the role of the COVID-19 virus in the changing healthcare policies in Wales until November 2023, particularly focusing on its effects on social equality. Drawing on post-structuralist thinking about governance and the virus (Agamben 2005, 2015, 2020; Deleuze 1988, 1994, 1997; Deleuze and Guattari 1987; Deleuze and Parnet 1987; Esposito 2008; Foucault 1976, 2008; Nancy 2021), we prioritise the virus and introduce *viral thinking* to challenge various rationalities that underpinned population management and biomedical pandemic responses in Wales under neoliberal governance. Whilst no single definition of neoliberalism can do justice to the analysis of pandemic responses, we understand neoliberalism as a form of Western political ideology and a system of policies centred around liberalisation, deregulation and privatisation as the most effective means to achieve economic growth and manage public welfare (Ward and England 2007). We analyse how the entanglements of ‘neoliberalism and the novel coronavirus have altered and amplified one another’ to create ‘COVID capitalism’, which exposed, reproduced and reinforced some of the existing social inequalities (Nail 2022, 1). The paper addresses in particular the integration of the virus and its spatiality into Welsh biopolitics, the conceptualisation of COVID-19 in healthcare governance and the viral revaluation of different bodies. It draws on the analysis of policy documents and interviews with key informants in Wales. The study was conducted under the auspices of cross-European project ‘COVINFORM’ (‘COronavirus Vulnerabilities and INFORMATION dynamic Research and Modelling’), which traced the socially differential outcomes of pandemic responses by European governments, healthcare institutions and community groups.

After providing the Welsh context for the nation’s pandemic responses (Section 2) and research methodology (Section 3), we explain viral thinking as a way of conceptualising social, biological and economic elements of COVID-19 as entanglement of changing pandemic vulnerabilities, mechanisms of ordering the virus and their effects on healthcare policies and interrelated inequalities (Section 4). Drawing on empirical examples, we illustrate viral coding in healthcare structures, which attempted to make COVID-19 visible to the detriment of marginalised people and communities (Section 5). We explore how the virus escaped

attempts to code and limit its spread whilst simultaneously prompting neoliberal healthcare practices to naturalise forms of discrimination and indifference towards existing inequalities (Section 6). We consider (Section 7) how the virus unhinged the existing rationalities of biopolitical governance and ‘contaminated’ healthcare policies with collective and hybrid configurations of forces, which were often hijacked by neoliberal approaches ‘actively promoting the fragmentation and disarticulation of a wide range of systems of provision’ (Saad-Filho 2020, 478). We conclude (Section 8) by explaining how inequalities were (re)created during the pandemic in Wales and explore possibilities to resist the fixed categories of inequality and embrace virality as a potentially transformative mode of political thought and organisation.

2 | Context: Pandemic Responses in Wales and the UK

Wales and other devolved nations were granted decision-making power to determine their own pandemic responses separate to the UK government on 18 March 2020 with the first Wales-wide lockdown initiated a week later. Until then overarching UK-wide decisions had been made during the COBR meetings (Cabinet Office Briefing Rooms) built on advice from the ‘Scientific Advisory Group for Emergencies’ (SAGE). Public health approaches that advocated prioritising the most vulnerable whilst ‘letting the virus run wild’ were dismissed based on ‘science-led’ calculations projecting ‘too many deaths’ (McCormack 2023, 39).

The Welsh government relied on scientific advice from its COVID-19 Technical Advisory Group (TAG) to develop its COVID policies. TAG comprised technical and (public) health, biomedical and physical scientists, with the notable absence of social scientists and (medical) humanities scholars. Its advice was underpinned exclusively by data science, and included modelling of hospital admissions and occupations, vaccine efficacy and COVID-related deaths (McKee 2021). Welsh government responses therefore did not target the virus *as such*, but tended to be based on calculative risk assessment often leading to exclusions of marginalised groups (Bory 2023).

By virtue of its non-devolved elements of governance, such as legal matters, national security and immigration, shared border with England and its shared underpinnings of the healthcare system through NHS Wales and Public Health Wales (PHW), the Welsh national pandemic responses remained in part tied to the UK-wide ones. Nonetheless, reflecting Wales’s historical sensitivity towards societal inequality, the Welsh Government prioritised poverty and inequality in contrast with its more right-wing, Conservative-led, English counterpart. In particular, in Wales the mask-wearing mandates and lockdowns were longer and stricter, for instance through the Wales-only ‘firebreak lockdown’ in Autumn 2020 and the ‘five-mile-rule’. The latter required people to stay within that radius from their home during the first lockdown. The border closures with England during the earlier stages of the pandemic were both ‘unexpected and effective’ in keeping numbers of hospitalisations and deaths in Wales proportionately low, particularly in comparison with similarly deprived

regions in England (Mangold 2023, 170). ‘Shielding’ clinically vulnerable people were also advised and provided with longer legal protection against job and income loss in Wales (BBC 2020). Absent in England, considerations for social inequality entailed that the Welsh government provided local councils with £50m to house all homeless people in Wales in temporary accommodation in the early stages of the pandemic (ITV 2020). The Welsh government was ‘working towards a new social articulation of difference... attempting to bridge the gap between solidarity and inequality’ and engaging with ‘new hybridities’ produced by COVID-19 through the policies which we describe in Section 4 as ‘viral contamination’ (Mangold 2023, 173). As Wales was largely dependent on the UK government for its additional pandemic-related costs, funding to tackle inequalities was hard fought over with the Welsh administration questioning the unity and principles of the centralised responses to COVID-19 (Bory 2024).

In an attempt to take away the power to set up health regulations from the Welsh government, the UK government tried to impose the primacy of the 2004 Civil Contingencies Act over the Welsh pandemic decisions. This would have made the response to an ‘emergency’—as determined in the 2004 Act—more vague as that legislation covered a broad range of catastrophic events, only partially attending to a virus-triggered pandemic (Paun 2020). The inability of the UK government to offer timely responses and adequate financial support to Wales-specific needs made the pandemic Health Minister Eluned Morgan state at the UK-wide COVID-19 inquiry that ‘people in [Wales] felt like we were second-class citizens in the context of the UK government’. (BBC 2024a). Yet, arguably, the more cautious approach by the Welsh government and less reliance on ‘half-baked’ market-driven solutions ‘increasingly based on selfishness and greed’ produced more responsive and fairer pandemic policies in Wales (Plaid Cymru 2021, 7). Unlike in England, where major health interventions such as the viral tracking system were outsourced to private contractors at a cost of £241 per capita, Wales refused the neoliberal market and ran its ‘Track, Trace, Protect’ system largely through local authorities at a cost of £38 per capita (Bory 2023). Welsh policy makers were well aware of the potential effects of neoliberal approaches to healthcare. With Wales being the first country in the UK to create and roll out its contact tracing of COVID-19, it was argued that less reliance on neoliberal competition helped Wales to create a ‘fairer’ testing system that ‘was less costly and more efficient than that taken by the UK government’ (BBC 2021a).

The Welsh Government’s pandemic policies focused on institutional reorganisation, attempting to address the fragmentation of the healthcare system split between three levels: national (Public Health Wales), regional (7 health boards), and local (22 local authorities) and tackling inequalities within the country that before the start of the pandemic were one of the poorest in the UK (Jones-Evans and Barry 2019). The threat of the virus prompted the Welsh government to develop unexpected, transversal links with ‘the Welsh NHS, local government, business and others, as *One Team Wales*, to help save lives and livelihoods’ (BBC 2021b). In this case, attempts to maintain the unitary nature of pandemic policies (One Team Wales) clashed with heterogeneous, hybrid ways of functioning prompted by

the virus (what we explain in Section 4 as mutating governance combining viral coding and decoding).

At the same time, whilst accepting the persistence of social inequalities (Equality and Human Rights Commission 2018), the Welsh government subjected marginalised groups, such as minority ethnic groups, to neoliberal economic strategies at local levels. Despite its official rejection of neoliberal politics and unofficial uptake of neoliberal strategies (Evans et al. 2023), the Welsh government has historically treated some groups as inherently vulnerable, where vulnerability referred to people ‘with protected characteristics’ or ‘lacking capacity’ (City and County of Swansea 2020). Self-governance through short-term project-based resourcing was chosen over the enforcement of systemically equalising designs of institutional processes. The strategies to distance certain groups from the political mainstream in the Welsh governmental policies and the individualising pandemic policies demonstrated a lack of focus on those at risk (McCormack 2023).

3 | Methodology

Welsh healthcare structures and pandemic responses informed the methodology for this paper, which draws on a combination of methods and sources. According to the ‘Welsh Index of Multiple Deprivation’ (Welsh Government 2019), local and sub-local areas in the Swansea and Neath Port Talbot region have some of Wales’ most affluent and deprived areas. As this region also saw some of Wales’ highest peaks in COVID-19 infection, hospitalisation and death rates (StatsWales 2022), this study offers a critical discourse analysis focused on inequality and vulnerability in the pandemic healthcare responses and pre-pandemic social policies at the national (Wales) and local (Swansea, Neath and Port Talbot) levels. These documents include evaluative reports, policy documents, governmental guidance webpages and pandemic advisory reports.

To shed light on the underpinning internal logic, concerns and values of these policies, the methodology also includes interviews with 23 key stakeholders conducted between February and August 2022. Following a targeted recruitment strategy, these ‘keyworkers’ at national and local governments and healthcare institutions (Senedd Research 2020; UK Government 2020) were involved fulltime in the design, development, scrutiny and implementation of various aspects and at multiple scales of the Welsh COVID-19 responses. As the study was a collaboration with the Swansea Bay University Health Board, we had direct access to many interviewees. Ethical approval for the interviews was obtained from the University and HRA ethics committees.¹

The semi-structured interviews covered themes such as vulnerability, normality, inequality, space, institutional collaboration, uncertainties, responsibility, public opinion and misinformation, everyday life and affective experiences of the different pandemic circumstances. The interviews were conducted over Zoom or Teams or in person. They lasted between 50 and 90 min, were audio-recorded and fully transcribed. The analysis took place in NVivo 12 and followed thematic coding, involving the themes ‘virus’, ‘vulnerability’, ‘space’, ‘biopolitics’,

'inequality', 'thresholds and difference', 'knowledge creation', 'pandemic affects' and 'time'. Quotations in the text are accompanied by the interview date to indicate the knowledge context of the time in which the comments were made. The next section explains how these themes are linked transversally in viral thinking that explains the effects of COVID-19 on healthcare policies.

4 | Conceptualising Viral Thinking

Viruses have a unique way of creating change in a set of relations. As Ansell-Pearson (1997, 188) suggests, 'viruses serve to challenge almost every dogmatic tenet in our thinking about the logic of life'. Viral thinking or 'thinking critically *with* the virus' (Brice and McNulty 2024, 2343) can help to analyse the effects of both biomedical approaches and biopolitical interventions driven by neoliberal logics of the commodification of healthcare provision. Neoliberal approaches to healthcare in the UK promoted self-reliance and self-efficacy at the individual level within a non-interventionist state. Coupled with containment of public spending and even dismantling of public health support, neoliberal policies have been shown to lead to poorer collective health and wellbeing (Card and Hepburn 2023). Viral thinking can help understand how casting the virus as a disruptive agent reconfigured which societal groups were counted as the collective worth saving in Welsh pandemic policies and how this further exacerbated existing patterns of exclusion.

Biopolitical states govern through population policies that interfere with biological processes to mediate oscillations between rigidity and chaos and achieve economic growth (Foucault 1976). Adapting to the incessant changes in circumstances that threaten the balance between these mediations, the state continually introduces new regulations through the process that Deleuze and Guattari (1987) define as 'coding', that is, grouping different manifestations of (viral) flows and organising them across a particular territory or jurisdiction (healthcare). Through coding, the state authorities support specific ways of being, living and relating, and suppressing others that are considered dangerous.

In Deleuzian terms, coding involves the inscription or recording of a (viral) flow—it recognises an economic or social flow only through the operation that codes it (Smith 2011). However, the 'code is inseparable from a process of decoding that is inherent in it' (Deleuze and Guattari 1987, 15), which reformulates the problem (the pandemic) and introduces variation and novelty—for instance, by turning viral flows into commodities, evidenced in the neoliberal takeover of the Test and Trace system during the pandemic (O'Dwyer and Pickard 2021). This interplay between the coding and decoding produced different variations of healthcare policy responses to COVID-19. First, the practices of coding involved *naming the virus* and *making it visible* through inscription, where COVID-19 was recorded (made known) as a 'disease' in the process of testing, tracing and targeting it through vaccinations. Inscription of COVID-19 aimed to limit a 'mutant flow', reduce the difference it produced and stressed its resemblance to familiar diseases (e.g., flu) within a 'stationary zone of representation' (Deleuze and Guattari 1987, 219).

Coding also introduced a 'logic of filiation' (ibid., 11) within a (healthcare) system, which assumed that a certain action produced another action of a similar kind and on a similar scale. Overcoding or the 'centering, unification, totalization, integration, hierarchization' of viral flows attempted to limit variations, the effects produced by COVID-19 as an 'outside influence' and determine its impacts in advance (ibid., 41). Through a series of punitive (legal) and restorative (healthcare) interventions, the state attempted to identify and codify undifferentiated 'subjects of the virus', easily manipulable on a biopolitical level (Bowen 2021, 167). In their focus on protecting people by identifying and neutralising the dangerous virus, the pandemic responses highlighted 'the relationship between pandemic vulnerabilities and immunological discourses which construct certain elements of the population as disposable' (Brice and McNulty 2024, 2357). Consequently, a health impact assessment of the Social Distancing Policy in Wales highlighted significant negative effects of pandemic measures on vulnerable low-income groups, particularly as the focus on self-governance familiar from pre-pandemic local social policies led to increased isolation and suffering from 'reduced access to food and other essential items for daily life' (Green et al. 2020, 28).

The focus on the biomedical coding of the virus at the expense of the overlooked social determinants of the pandemic was also seen as a key feature of the viral spread of neoliberalism, described as 'subordination of people's lives to dominance by market logic and thinking' (Holst 2023, 31). In this case, the virus as a liminal being (between life and non-life) not only transformed bodies and inflicted death but also 'infected' the government policies with the biomedical logic of selection and acceptance of sacrificing those most at risk, which is contrary to the core protective task of the healthcare system (Adkins 2023). Such viral interventions have interacted and aligned with market-based solutions in what Sparke and Williams (Sparke and Williams 2023) called 'co-pathogenesis', that is, the intersection of coding mechanisms with exclusionary practices that compound existing vulnerabilities.

Second, the coding of the virus also entailed a *constant decoding and change* through 'the play of blind combinations' (Deleuze and Guattari 1987, 328) or the imperceptible, molecular-level differences. Alongside the state's attempts to negate differences created by the virus in the service of 'analogy and resemblance' (i.e., equalling COVID-19 to flu), the pandemic witnessed the unfolding 'of free, wild or untamed differences' (differing, mutating flows) that escaped their assigned functions and redistributed bodies, forces and sensations in space (Deleuze 1994, 29). The increasing variety of viral manifestations, scales and the growing list of symptoms associated with COVID-19 problematised the coding of COVID-19 and produced a flurry of contradictory governmental responses in the form of school closures, county-level and national lockdowns and socialising rules (Burton 2021).

On the one hand, the continuously differing virus, which overthrew the very differentiation between life and non-life, led to the *normalisation of death and naturalisation of marginalisation* through mechanisms of abstraction (mortality curve), enumeration (calculus of probabilities) and determination of 'the point where certain individuals were allowed to perish' (Trabsky 2022,

547). Such overreliance on quantitative data around equalities and vulnerability assessment led to fragmented implementation of financial support measures, creating ‘adverse effects on vulnerable people’ (Smith 2021, 44). The further extension of economic rationality into ‘the domains [of life and death] which are not exclusively or primarily economic’ (Foucault 2008, 323) encouraged the continuing commodification of the UK healthcare (under devolved organisations and private providers of services) and the wilful ignorance of social difference under slogans such as ‘we are all in it together’ (Adkins 2023). The pandemic further exposed the spread of ‘viral neoliberalism’ (Holst 2023) that framed care as a quantifiable and measurable resource dealing with ‘well-ordered and readily exchangeable bodies’ (Agamben 2015, 34).

On the other hand, the virus as a pathogenic agent without ‘structure or centre and reproduc[ing] without intention or inherent stable logic’ (Ansell-Pearson 1997) was *indifferent* to the social make-up of societies where everyone was indeed vulnerable to infection, illness and death. Yet, the impacts of the virus reflected the naturalised dualistic order of inclusion and exclusion, health and illness based on biomedical rationality and ‘indifference to pre-existing unequal vulnerabilities of marginalised groups’ (Brice and McNulty 2024, 2344). The UK and Welsh governments acted on a premise of homogeneity of their ‘population of human bodies [being] largely equal in biomedical terms’ (Arif 2022). For example, pandemic provisions to streamline adult social care under Schedule 12 of the Coronavirus Act 2020 negatively affected disabled people in Wales due to limited understanding of their needs, ‘limited flexibility and rigid financial arrangements’ (Smith 2021, 43). As a result, despite equalising efforts in pre-pandemic policies, virally contaminated policies often overlooked the long-standing structural inequalities (Woodhead et al. 2022). The state created a ‘zone of indifference, where inside and outside do not exclude one another but rather blur with one another’ (Agamben 2005, 23). Such indifference towards ‘individuals who, because of their age, fall out of the field of capacity, of activity’ (Foucault 1976, 244) could be seen as a marker of neoliberal biopolitics exacerbating pandemic inequalities (Sparke and Anguelov 2020).

Third, the virus as an unbalanced, uneven flow changed the very process of coding and *prompted mutating, multiple, hybrid responses*. In its development at the intersection of different genetic lines, the virus produced a radical indeterminacy that Deleuze and Guattari (1987, 53) called the ‘surplus value of code’, which could not be anticipated as a simple accumulation of different elements. On a molecular level, COVID-19 as a ‘force of variation’ changed the function of the cell by making reproductive parts of its DNA recreate the virus (‘we are viruses’, stated Margulis 1998, 64). It synthesised seemingly impossible subjects—infected AND considered immune AND vaccinated individuals. The logic of the series AND... AND... or ‘geography of relations’ undermined the politics of coding and produced transversal combinations and non-linear reactions (Deleuze and Parnet 1987, 70). On a larger (molar) scale, COVID-19 changed relationships between different bodies, both by means of spreading the biological contamination (viral droplets) and by producing further differential affects (such as anxiety and fear). The virus ‘leaped’ or ‘drifted’, creating different mutations

of the chains of code far exceeding the original determinants (Colebrook 2020, 118), which produced disequilibrium and altered the functioning of the healthcare system.

Rather than the multiplication and repetition of similar healthcare practices, viral modifications involved the introduction of new behavioural changes and transversal connections. Attempting to follow the changeable virus, healthcare practices had ‘become exploratory self-modifying systems’ with transformable mechanisms (O’Toole 1997, 171). Excessive energies of the virus prompted the development of hybrid health policies traversing the human and non-human divide (Rivas 2023, 127) and creating viral assemblages of biopolitical responses. Such assemblages of bodies, technologies, sensations ‘took flight’, were brought together and then torn apart, questioning the logic of reason, scientific rationality and human-made thresholds and territories (Deleuze 1997, 109). The viral spread was accompanied by the neoliberal ‘mutations’ in pandemic governance including market-led ‘recalibrations, adjustments, alternative mobilizations, and occasional u-turns’ (Peck 2013, 144), such as the introduction of the ‘eat out to help out’ scheme in July 2021 to stimulate economic activity whilst putting vulnerable populations at increased health risks. We now turn to the examples that evidence how these viral disturbances emerged in Wales during the pandemic.

5 | Coding and Making the Virus Visible

Pandemic healthcare policies in Wales were based on the mechanisms of rationality and visibility described in the *Pan-Wales Response Plan* (2006) that involved creating standardised, science-based responses to different potentially disruptive occurrences (Welsh Government 2021). Whilst the Plan included broad non-pharmaceutical public health interventions (NPIs), these measures did not prioritise pandemics and were largely based on assumptions about ‘normal life’ as virus-free. Within such broad categorisations of normality inequalities were largely overlooked, unless they presented a challenge to the government’s capacity to respond to the pandemic (Bryce et al. 2020). Unsurprisingly, the UK COVID-19 inquiry criticised Wales’s pandemic preparedness strategies as ‘lacking adaptability’, claiming that ‘planning and policy of structures failed the citizens of Wales’ (BBC 2024b).

Driven by neoliberal economic logic, the pre-COVID plans in Wales were largely concerned with protecting healthcare institutions and economic growth. The virus itself only featured in these policies as a measurable entity, determined in terms of its potential spread. Similarly, people only appeared in these plans as critical healthcare staff, occupying hospital beds, being absent from work or as casualties. In 2016, the Welsh government organised the three-day simulation ‘Exercise Cygnus’ to reflect changing priorities for pandemic response, which largely focused on institutional reorganisation and overlooked marginalised groups. Therein, the external threat was framed as a distinct event to which a standardised set of responses could be applied, making these policies unable to address multiple threats and social differences (Green et al. 2021). A member of Public Health Wales explained the logic of similarity in responses to the virus:

Actually, just different pressures, the day-to-day stuff was very much the same, it was evidence-based engagement with the public to deliver matching improvements. So there was that cycle, it's very similar.

(15/02/2022)

Whilst acknowledging its novelty, 'the day-to-day stuff' of managing healthcare responses to COVID-19 was deemed 'very similar' to other diseases, overlooking the virus's changeable nature. Such approaches essentialised the virus as an inherently coherent entity rather than as a process emerging from viral relations. It was coded within a disease category that could be regularised like other communicable diseases, often by ignoring its unusual effects.

Welsh healthcare governance was aimed at making the virus visible from the start of the pandemic, prioritising biomedical approaches to justify the neoliberal logic of protecting the economy at the expense of 'countless dead' amid the 'deliberate effort to under-report the loss of life' (Saad-Filho 2020, 479). The government rationalised the selection and separation between the virus and vulnerable groups such as the elderly, who were identified in its preparedness plans as being more likely to suffer severe illness and die than other groups. Yet, they still died at disproportionately high rates (ONS 2022). Such healthcare policies asserted the importance 'to be able to show' a sense of certainty that the state had the virus under control within a market-oriented form of governance at the expense of reducing responsibility for the vulnerable (Fitzgerald 2023, 597). A Welsh government advisor admitted that attempts to make the invisible virus visible led to the exclusion of vulnerable groups:

We only see and adapt to what is visible, what is in front of us. We do little about what we cannot see. For example, the vaccination program did not consider rough sleepers, but then we suddenly realised that their needs also need to be addressed. It was assumed that they somehow would be covered by more generic measures.

(26/08/2022)

As Peck (2013, 147) notes, 'neoliberalism frames, brackets, and pre-emptively narrows the field of the politically visible'. Welsh pandemic policies along with market-driven vaccination programs categorised COVID-19 as an element of the 'pathocene' (Bambra et al. 2021, cf. Luisetti 2022), coding viral metamorphosis into familiar viral forms and promising potential normalisation of disruption (Bright et al. 2020). Following the conclusion of pandemic flu exercise Winter Willow, the Welsh government used the *Pandemic Influenza Guidance Planning* (2007) to provide detailed and practical guidance in case of a future pandemic presented in terms of influenza resemblance (Welsh Government 2021). Yet, as former Welsh First Minister Mark Drakeford admitted to the UK-wide COVID inquiry, 'Wales was not as well prepared as we needed to be... the enemy we faced was not the enemy we were expecting' (BBC 2024c). As a Welsh government healthcare policymaker stated, pre-pandemic policies produced a particular, stable coding of the virus:

We assumed a certain view of the virus, based on what we knew before [...] At the outset, the policy was written for the population level. In every policy-maker's head this was the way to manage a virus that was coming, that was highly transmissible, that we knew little about, that we thought had an airborne element to it, that was mainly contact and droplet-transmissible.

(12/11/2022)

As this quote illustrates, COVID-19 was conceived of and captured by the state through overcoding, which limited its variations to the known flu in order to determine its effects in advance. Consequently, a virus-triggered pandemic as thoroughly uncertain event was presented as manageable through detailed guidance, therein downplaying viral changeability and extreme disruptiveness.

Furthermore, the government's rational healthcare responses rendered the virus visible at the macro-level, attempting to limit COVID-19 casualties, loss of labour and reproductive force (Foucault 1976). The Welsh government (2020, n.p.) aimed to 'curb the spread of the COVID-19 virus' by following the logic of filiation, where practice 'b' was expected to follow practice 'a' despite its challenging effects. Thus, follow-up procedures based on flu prompted individuals to confirm COVID-19 coding through a test at a dedicated centre and then reduce their interactions. As a Welsh government official explained:

We were finding that there was quite a lot of cross contamination of COVID in the hospitals, which was materially adding to the burden of the disease death rate [...] we had to make a decision quite early to stop hospital visiting [...] So you had people dying without their relatives, you had babies that were coming into the world alone.

(13/7/2022)

Prioritisation of the visible manifestations of the COVID-19 (infection control) over its less visible viral effects on patients (stress) magnified social inequalities and worsened mental health of disadvantaged people in Wales (Willatt et al. 2021). Constant changes in the virus undermined the logic of filiation and exposed discriminatory effects of the politics of viral inscription (Richards 2022). The dynamic and changeable nature of the virus unsettled the healthcare responses to COVID and produced decoding, which we now turn to.

6 | Viral Decoding and Changing Responses

With the growing acknowledgement of the multiplicity of viral presences, including asymptomatic infection, the coding of the virus shifted from bodily symptoms (cough, high temperature) to the manifestation of its presence through testing technologies, such as the Polymerase Chain Reaction and Lateral Flow Tests. As a PHW official noted, the coding of the virus produced differentiating effects on populations:

Categorisation of people, registering and recording them on a system is something which basically can dramatically change their circumstances [...] If they can be part of the system, then they can get vaccinated and so on. If they're not, then it's a very different pathway.

(20/4/2022)

Despite the proliferation of these technologies, manifestations of the virus continually changed and became reassigned to different registers in healthcare practices, such as requiring registration of infection on the NHS COVID App and engagement with the 'Track, Trace, Protect' programme. The availability of self-tests and the accessibility of dedicated test centres put some minority and ethnic groups at a disadvantage, whilst the consequences of a positive result produced inequal effects (in terms of imposed immobility, restricted healthcare access) on 'vulnerable' groups, such as Pakistani and Bangladeshi people in the UK (SAGE 2021).

The virus incessantly defied its coding as COVID-19, oscillating in appearance in healthcare records either as common cold (i.e., lung disease) or flu (i.e., spread through droplets rather than being airborne in smaller particles). The COVID-19 virus decoded itself in the form of different COVID-19 variants, for example, 'Alpha', 'Kent', 'Omicron'. Tracking the virus therefore required the healthcare system's constant concerted and challenging effort to recode it as COVID-19. The virus produced new symptoms, expanding the earlier codings of COVID-19, with new definitions having to account for 'how easily it spreads, the associated disease severity, or the performance of vaccines, therapeutic medicines, diagnostic tools, or other public health and social measures' (WHO 2021, n.p.). A Swansea MP expressed their frustration with the government's inability to render the virus visible:

COVID-19 goes like flu, the variants are changing [...] [Misapprehension] allow[s] that virus to grow and come back all the time, and keep the NHS at a nearly breaking point, always catching up [...] awaiting the arrival of a vaccine that you want them to get, obviously disadvantaging the vulnerable people.

(26/11/2021)

As this example illustrates, the inescapable discrepancies and continual 'game of catch up' put the Welsh healthcare system 'at a breaking point', awaiting the vaccine and putting disadvantaged people at risk (Hayward 2020, 201).

This continuous play of differences and catch up entailed conflicting healthcare responses. On the one hand, the changing virus prompted the Welsh and UK governments to normalise mortality and selectively cultivate 'economies of death' during the pandemic, using the market-driven logic to frame illness and vulnerability in economic terms (Darian-Smith 2021). In line with the governments' neoliberal ethics, 'routinely, people declared "redundant" [we]re talked about as mainly a financial problem' (Bauman 2003, 12). Such 'population triage' (Sabbagh 2020) has already emerged as the outcome of Exercise

Cygnus, naturalising specific vectors of marginalisation in the form of race, poverty and disability (Bambra et al. 2021). The pandemic furthered the quantifiable coding of human life by establishing treatment priorities for different 'at risk' categories, with some policies increasing the likelihood of aggravating existing health inequalities (SAGE 2021). As such, the prioritisation of COVID-19 responses in terms of infection risk led to overlooking social vulnerabilities and the non-clinical effects of the virus.

Pre-existing inequalities were further aggravated by neoliberal approaches, when the state undermined healthcare provision through privatisation and austerity (Holst 2023). Equality became obscured in the Welsh system that rendered care as quantifiable and measurable resource (Vandenberghe and Véran 2021). As a PHW official explained, data-driven calculations limited complex vulnerability to risk-related factors:

It wouldn't be a word that we've used, 'vulnerability', but it's all about the data and where the cases are. There might be certain areas at times that would have been more at risk.

(...) it was more about risk and high-risk settings and how to kind of mitigate that.

(26/01/2022)

This reconceptualisation allowed re-coding patients into a singular attribute (disability), characteristic (vulnerable) or an identity (ethnic minority), the sum of which did not add up to a whole person, but allowed for attaching differential risk ratings (Tyner 2018). Yet, the unpredictable viral spread undermined the efforts to code it in terms of probabilities of risks that it caused and blurred clear divisions between healthy and unhealthy, prompting the creation of new vulnerable categories such as migrants, atypical (non-standard) patients, essential workers (Shubin et al. 2023).

On the other hand, the viral contamination contributed to the institutional routinisation of death and indifference to certain victims based on potential costs of pursuing particular public health responses (Trabsky 2023). By withholding the early launch of sufficient protective measures, the UK and Welsh governments effectively *let* older populations *die* (Williams 2022). A PHW employee testified:

In terms of the care homes and residential settings, protecting those [...] *to prevent death as much as possible*. That was always the advice we provided, the guidance we gave was always 'prevent the spread', *which will delay any ill health - not for everybody*, but [the elderly] *hopefully* won't end up in hospital and they *hopefully* won't die from the virus.

(26/01/2022, emphasis added)

With the emphasis on delaying illness and death, the Welsh government's position mirrored the acceptance of casualties in its preparedness plans. The aspiration that people 'hopefully won't die' captures the indifference towards the survival of these groups of vulnerable people. Therefore, what was framed as an

emergency in the pandemic response entailed indifference to the loss of life of vulnerable populations through built-in indifference to *these* lives—they were always already lost. The indifferent virus highlighted the ignorance of the Welsh pandemic policies to the inequalities on the ground and produced a play of difference that changed the functioning of the Welsh healthcare system (Bory 2024). In the next section, we consider how COVID-19 triggered mutating pandemic responses and further compounded the differential vulnerabilities of already marginalised populations.

7 | Multiple Viral Healthcare Responses

The virus altered the functioning of the Welsh healthcare system by creating new forms of action, relinquishing some of its functions and making it open for variation. At the start of the pandemic, as a Welsh government advisor admitted, the virus was recognised as changing and flowing through the healthcare system, modifying its organisation:

We are getting different variations of the virus. As long as it keeps changing, and viruses do, as long as it still has this rate of efficacy and impact on people, populations, we have to make modifications. This does not mean social distancing or quarantine because those are the extremes of modifications, but small behavioural modifications are OK for the population.

(22/08/2022)

Initially, rather than multiplication and repetition of similar healthcare practices, viral modifications involved small behavioural changes. However, as the changeable virus continued to unsettle healthcare policies aimed at reducing the spread by means of decoding and transfer of new materials, forms and expressions (viral variants, protective equipment), it produced a flurry of responses so that the Welsh healthcare policy became ‘confused, inoperable, leaving only a contiguity of affects’ (O’Toole 1997, 175). As a PHW official admitted, the difference produced by the virus prompted excessive or surplus actions destabilising the very logic of the healthcare system:

We were chucking out policies and changing policies day after day, to the point that it was really confusing to expect. So that so the policies have changed and were amended. We got to the point where it actually was too much change.

(12/7/2022)

As this quote suggests, during the early stages of the pandemic, healthcare professionals directed the virus away from the logic of submission into an unencodable, chaotic combination of actions. The heterogeneity of COVID-19 offered the biomedical state an opportunity to turn it into a ‘neoliberal virus’, exposing marginalised communities to the logic of competition and selection (Luisetti 2022). COVID-19 worked as a set of ‘self-organizing

forces, which created spontaneous orders’ within the neoliberal assemblage of devolved healthcare organisations in Wales (Hayek 1988, 54). The virus transformed the healthcare system into ‘a network of feedback loops, thresholds and recursions to avoid as much as possible the unpredictable outcome of human fallibility’ (Rivas 2023, 122).

The recognition of the multiplicitous character of viral contamination, which conjoined different objects, feelings, emotions, deflected healthcare responses from a common path of separation and recognition displayed early in the pandemic. The multiple emergences of the virus scrambled the linear structures of the healthcare system and defied binaries established within it, such as not/vulnerable and not/poor. Viral entanglements challenged the attempts to essentialise life along the lines of identity and unsettled the presupposed unity of healthcare responses (‘One Team Wales’ approach). Following the logic of the series (AND... AND...) the virus also created new bodily assemblages and unusual forms of viral co-existence, such as mild COVID, long COVID and post-COVID existence that problematised explanatory models of disease sequences and disabilities. Whilst in anticipation of the virus and attempting to position itself outside and in opposition to COVID-19, healthcare had already been transformed, already contaminated through the imminent presence of the virus. A senior nursing policymaker highlighted the resultant transformation of healthcare policies:

In the pandemic, we started to stratify people for vulnerability – what were their social vulnerabilities, what were their mental health vulnerabilities, what were their physical vulnerabilities. And a policy started to be developed in that manner, which is the first time I’ve seen that kind of emergence of thinking.

(12/11/2022)

This quote reflects a broader change in understanding the disease as ‘exogenous’, caused by an external force, to ‘endogenous’ and produced by modern ways of living (Nancy 2021, 17). In that respect, Žižek (2020, 78) spoke about coronavirus not as ‘a disturbing intrusion’, but as an ‘assemblage [...] in which natural, economic and cultural processes are inextricably bound together’. Apart from bodies, such assemblages included a whole array of emotions, with fear ‘becom[ing] a new organizing principle of society’ (Horton 2021, 125). As the introductory quote suggests, bereaved families expressed the effects of the virus in terms of lack, love and dignity, which were suppressed in early government responses. The virus created possibilities for changeability, which went beyond the individual and could be described as affects (Thrift 2004). During the pandemic, such ‘intensive states of an anonymous force’ produced gaps in rational reasonings that were used in healthcare policies (Deleuze 1988, 127). Such affects enabled broader connections and created multiple emotional, intangible reactions that did not fit within a mere ‘biological’ governance apparatus. The virus generated new combinations in healthcare systems, challenging divisions and producing new alliances, such as intersectoral responses of health and community service workers. As an NHS Wales official explains, responses to the pandemic created new affective encounters:

Collaboration was the biggest change [during the pandemic]. Where people in Public Health did not speak to the NHS before, and all kind of perceived barriers were in the way. Suddenly, we have collaboration across systems, bodies. [...] People came together across systems and really wanted to do the right thing, whether from policy perspective or implementation [...] where it would have normally taken years and years to do.

(26/08/2022)

In this case, engagement with the 'live and dynamic nature' of the virus and its assembled, multiple character produced communal, collaborative responses in Wales, with a heightened sense of 'collective responsibility towards exposed or vulnerable populations' (Braidotti 2020, 468). With COVID-19 being both a virus and a human/non-human assemblage, the pandemic created new networks of care going beyond the social to include different bodies, objects, emotions and affects. Such metamorphic arrangements of humans, organisations and the virus engendered different healthcare practices of mutation, experimentation and contagion, which challenged previous understanding of rationality and 'normality' in healthcare governance.

8 | Conclusions

The Welsh government's *Together for a safer future* plan (2022, n.p.) that 'mark[s] the start of Wales' transition beyond the emergency response to the pandemic' envisions a future 'in which we have a different relationship with the virus'. It comes as both the admission that the virus cannot be 'managed' and the call for different thinking about pandemic responses and living with the virus in Wales. In resonance with this government document, this paper examined state healthcare responses to the COVID-19 pandemic in Wales and used viral thinking to understand virus-led transformations of the Welsh healthcare governance. Our contribution focuses on the re-evaluation of three elements of healthcare governance that coded the virus as an external entity and attempted to make it present, whilst overlooking non-human life and multiple pandemic affects and using vulnerability characteristics to produce different categories of exchangeable bodies.

First, the paper introduced *viral thinking*, which *disturbs the linear logic and unsettles the mechanisms of resemblance coding the virus as a coherent, external entity* with identifiable, largely biological properties. Whilst the pre-pandemic plans aimed to protect bodies from seemingly external yet familiar vectors of contagion such as influenza, they also coded potential viralities in neoliberal terms expressed through the mechanisms of value-seeking and competitive positioning. The attempts to capture COVID-19 through overcoding, predictive guidance and the logic of filiation ignored its changeable nature and exacerbated inequalities through calculations of risk that 'differentially value and govern lives in terms of their ability to foster the macroeconomy' (Murphy 2017, 6). The focus on visibility and resemblance in coding the virus in healthcare interventions, aligned with market-oriented attempts to prioritise economy over people,

downplayed viral disruptiveness, routinised mortality and magnified social inequalities.

The viral contamination of healthcare governance *disrupted the assumptions about the normalcy of both viral spread* in the form of linear progression through different variants, *and the normalcy of standardised, familiar responses* unable to address social differences. COVID-19 as a cross-boundary being between life and death—'a kind of living dead' (Žižek 2020, 78)—exposed the discriminatory politics of viral coding that justified dualistic orders of exclusion and inclusion, health and ill health and exacerbated vulnerabilities. By analysing the processual nature of the virus and viral effects beyond the biological realm, the paper adds to the debates on the inability of governing and controlling life-as-a-whole and integrating the virus into biopolitical regimes (Hinchliffe and Bingham 2008; Greenhough 2010). In questioning both the interdependent biomedical coding of the unstable virus, and risk/benefit-based classifications of viral lives and deaths in healthcare policy responses, the paper further highlights the similarities between the COVID-19 pandemic and the spread of 'viral neoliberalism', which added burden to already marginalised populations (Holst 2023).

Second, the paper explored the *viral decoding*, which produced a flurry of healthcare responses and led to *indifference and naturalisation of inequalities*. We advocate viral thinking as a way to challenge the mechanisms of totalisation in healthcare governance and argue that viral developments highlight limitations of the biopolitical management of life and death and routinisation of mortality. Pre-pandemic planning inspired pandemic-time healthcare policies that placed responsibility on disadvantaged groups to stay at a distance (self-isolation) and protect themselves (mask-wearing). However, the virus blurred the divisions between healthy and unhealthy, and defied the predictable logic of exception that underpinned social differentiation (Beljaars and Shubin 2022). Indeed, whilst the viral decoding exposed undifferentiated and universal vulnerability to contagion, its simultaneous re-coding within market-driven healthcare policies 'amplif[ied] pre-existing, unequal vulnerabilities for marginalised groups' and created new vulnerable categories such as essential workers (Brice and McNulty 2024, 2343).

The always developing world of COVID-19 escaped the capture of science, the state and undermined pandemic preparedness strategies. This inability to govern COVID-19 stems from the fact that viral contamination and decoding 'always exceed our capacities to describe, analyse or otherwise engage with' the virus (Greenhough 2010, 49). Whilst escaping its coding and the efforts to restrict its movement, the virus has not only been remaking itself but has also been redefining the boundaries between different lives. Furthermore, the outcome of such viral contamination of healthcare policies was that four years after the start of the pandemic the virus was permitted to have unmitigated presence in Welsh society. The pandemic highlighted the ignorance of social difference in calculations that attempted to normalise death across populations at the expense of marginalised groups.

Third, the need to attend to viral processes rather than pre-defined qualities of the virus prompted *mutating, multiple, hybrid healthcare responses* in Wales, which were constantly

adjusted to the new, developing entanglements between different forms of life. Excessive energies of COVID-19 produced new assemblages of bodies, technologies, materials, expressions, which destabilised the very logic of the Welsh healthcare system by making it inoperable, open to variation and prompting partial relinquishment of one of its key functions of protecting the vulnerable. As the opening quote from Boris Johnson—‘Let the bodies pile high’—suggests, the virus also altered social norms, spatial boundaries and moral codes of conduct towards different populations. In this context, the paper analysed the new entanglements of social and biological entities during the pandemic, which by means of surplus and excess disassembled stable forms (disease sequences) and codings (exogenous/endogenous) leading to the *deterritorialisation of healthcare*, that is, *displacing its activities from the neoliberally framed territory of health and care*. Reflecting our earlier concerns about the danger of overcoding the virus, we warn against singularly *science-led* attempts to domesticate COVID-19 and challenge the inevitability of socially inequitable repercussions of the pandemic.

Our findings highlight differential effects, modified behaviours and unusual forms of co-existence with the virus that escape existing political limitations, and call for further analysis of the influence of the changeable natural, economic and cultural elements of the pandemic on social inequalities (Bambra et al. 2021; Hinchliffe et al. 2017). We argued that viral disruption offered a possibility to understand the pandemic beyond its devastating disease effects and used viral thinking to explore it transversally to resist fixed categories of vulnerability and work across biological, political and social fields. Living with COVID-19 requires orienting healthcare policies to the creativity and transversality of the virus, and relating to the virus and virality as a potentially transformative mode of political thought and organisation. Such a viral approach resonates with what Esposito (2008, 124) calls an ‘affirmative biopolitics’ offering an experimental, ‘playful’ embrace of ‘the community in a contagion caused by the breakdown of individual borders and the mutual infection’. Beyond the acceptable body-virus orderings and measurable geometry of disease outbreaks, such affirmative stance emphasises an expressive politics of life (death and in-between) rather than a punitive or restorative politics over life grounded in bioeconomies of accumulation. In this case, taking the virus seriously can unsettle the historic selectivity of support policies for marginalised groups and counter processes of dehumanisation that structurally render both the virus and particular people ‘less-than-human’ (Braidotti 2020, 466). Critically, our development of ‘viral thinking’ demands an ongoing questioning of the accuracy of preconceived social, biological and political categories when brought into relation to determine emerging inequality and the necessity to remake such categories in ongoing dynamic sense: both in politics and analysis.

Acknowledgements

We are deeply grateful to all the interviewees who generously offered their time and energy whilst navigating the pandemic crisis that affected both their professional duties and personal lives. Many thanks also to our close collaborator Louise Condon, who helped to organise the interviews. We

also thank Matt Sparke, the current editors and the reviewers for helping us improve the paper. This work received funding from the Horizon 2020 Framework Programme (No. 101016247) at covinform.eu.

Funding

This work was supported by Horizon 2020 Framework Programme (101016247).

Data Availability Statement

The data that support the findings of this study are available on request from the corresponding author, DB. The data are not publicly available due to their containing information that could compromise the privacy of research participants.

Endnotes

¹[Swansea] University Ethics Committee in June 2021 (Approval No: [SU-Ethics-Staff-230621/346]).

References

- Adkins, B. 2023. “Obscura Sacrificia: Covid and Neoliberalism.” In *Deleuze, Guattari and the Schizoanalysis of the Global Pandemic: Revolutionary Praxis and Neoliberal Crisis*, edited by S. Das and A. Pratihari, 41–52. Bloomsbury.
- Agamben, G. 2005. *State of Exception*. Chicago University Press.
- Agamben, G. 2015. “From the State of Control to a Praxis of Destituent Power.” In *Resisting Biopolitics*, edited by S. Wilmer and A. Žukauskaitė, 33–41. Routledge.
- Agamben, G. 2020. *L’invenzione di un’epidemia [Invention of an Epidemic]*, Quodlibet. <https://www.quodlibet.it/giorgio-agamben-l-invenzione-di-un-epidemia>. Eng. <https://www.journal-psychoanalysis.eu/articles/coronavirus-and-philosophers/>.
- Ansell-Pearson, K. 1997. *Deleuze and Philosophy: The Difference Engineer*. Routledge.
- Arif, Y. 2022. “Visceral Publics and Social Power: Crowd Politics in the Time of a Pandemic.” In *The Viral Politics of Covid-19: Nature, Home, and Planetary Health*, edited by V. Lemm and M. Vatter, 129–144. Springer Nature.
- Bambra, C., J. Lynch, and K. E. Smith. 2021. *The Unequal Pandemic: COVID-19 and Health Inequalities*. Policy Press.
- Bauman, Z. 2003. *Wasted Lives: Modernity and Its Outcasts*. Polity.
- BBC. 2020. “Coronavirus: Shielding Advice in Wales ‘Has Not Changed.’” Accessed February 9, 2023. <https://www.bbc.co.uk/news/uk-wales-politics-53142202>.
- BBC. 2021a. “COVID in Wales: Sorry for Early Mistakes, Says Health Minister.” Accessed February 10, 2024. <https://www.bbc.com/news/uk-wales-politics-58883469>.
- BBC. 2021b. “Handling of COVID Pandemic Quizzed in Poll for BBC Wales.” Accessed December 10, 2024. <https://www.bbc.com/news/uk-wales-politics-56194879>.
- BBC. 2024a. “Eluned Morgan in the UK COVID Inquiry: ‘Wales Felt Like Second-Class Citizens in the Pandemic.’” Accessed February 10, 2024. <https://www.bbc.com/news/uk-wales-68548321>.
- BBC. 2024b. “‘Too Complex’ Wales Covid Plan Damned by Inquiry.” <https://www.bbc.co.uk/news/articles/c880xjj4j2zo>. Accessed December 12, 2024.
- BBC. 2024c. “Covid Inquiry: Drakeford Likens Johnson to Absent Football Manager.” Accessed October 07, 2024. <https://www.bbc.co.uk/news/uk-wales-politics-68546344>.

- Beljaars, D., and S. Shubin. 2022. "Pandemic Experiences of Minority Ethnic Groups in Swansea, Neath, and Port Talbot." Survey report for the Swansea Bay University Health Board. COVINFORM H2020 Project No. 101016247. Accessed December 9, 2025. <https://www.covinform.eu/wp-content/uploads/sites/39/2022/11/COVINFORM-Brochure-A4-Pandemic-Experiences-of-Minority-Ethnic-Groups-in-Swansea-Neath-and-Port-Talbot-1.0.pdf>.
- Bory, S. 2023. "'I am Sure Aneurin Bevan Would be Turning in His Grave'. Covid-19 in Wales: Highlighting a Dysfunctional System." *Revue Française de Civilisation Britannique* 28, no. XXVIII-2: 1–18. <https://doi.org/10.4000/rfcb.11036>.
- Bory, S. 2024. "COVID-19 in Wales: 'One Team Wales' and/Versus 'Team UK'?" *Revue Française de Civilisation Britannique* XXIX-4: 1–21. <https://doi.org/10.4000/12vm0>.
- Bowen, C. 2021. "Discipline and Control and Covid-19." *La Deleuziana* 13: 164–175. <http://www.ladeleuziana.org/wp-content/uploads/2022/09/Bowen.pdf>.
- Braidotti, R. 2020. "'We' Are in This Together, but we Are Not One and the Same." *Bioethical Inquiry* 17: 465–469. <https://doi.org/10.1007/s11673-020-10017-8>.
- Brice, S., and F. McNulty. 2024. "Viral Ecologies: Resurgent Nature, COVID-19 and the Discourse of Transgender Contagion." *Environment and Planning E: Nature and Space* 7, no. 6: 2343–2364. <https://doi.org/10.1177/25148486241284176>.
- Bright, D., G. Brown, R. J. Roberts, et al. 2020. "COVID-19 Contact Tracing: The Welsh Experience." *Public Health in Practice* 1: 100035. <https://doi.org/10.1016/j.puhip.2020.100035>.
- Bryce, C., P. Ring, S. Ashby, and J. K. Wardman. 2020. "Resilience in the Face of Uncertainty: Early Lessons From the COVID-19 Pandemic." *Journal of Risk Research* 23, no. 7–8: 880–887. <https://doi.org/10.1080/13669877.2020.1756379>.
- Burton, A. 2021. "Journaling the COVID-19 Pandemic: Locality, Scale, and Spatialised Bodies." *Geographical Research* 59, no. 2: 217–227. <https://doi.org/10.1111/1745-5871.12459>.
- Card, K., and K. Hepburn. 2023. "Is Neoliberalism Killing Us? A Cross Sectional Study of the Impact of Neoliberal Beliefs on Health and Social Wellbeing in the Midst of the COVID-19 Pandemic." *International Journal of Social Determinants of Health and Health Services* 53, no. 3: 363–373. <https://doi.org/10.1177/00207314221134040>.
- City and County of Swansea. 2020. "City and County of Swansea Strategic Equality Plan 2020–2024." Accessed June 21, 2022. <https://democracy.swansea.gov.uk/documents/s65107/09%202020of%205%20Strategic%20Equality%20Plan%20-%20Appendix%20A.pdf?LLL=1>.
- Colebrook, C. 2020. *Understanding Deleuze*. Routledge.
- Darian-Smith, E. 2021. "Dying for the Economy: Disposable People and Economies of Death in the Global North." *State Crime Journal* 10, no. 1: 61–79. <https://doi.org/10.13169/statecrime.10.1.0061>.
- Deleuze, G. 1988. *Spinoza*. (R. Hurley, Trans. City Lights Books.
- Deleuze, G. 1994. *Difference and Repetition*. (P. Patton, Trans.). Columbia UP.
- Deleuze, G. 1997. *Essays Critical and Clinical*. (D. Smith, M. Greco, Trans.). University of Minneapolis Press.
- Deleuze, G., and F. Guattari. 1987. *A Thousand Plateaus: Capitalism and Schizophrenia*. University of Minnesota Press.
- Deleuze, G., and C. Parnet. 1987. *Dialogues* (H. Tomlinson, Trans.). Athlone Press.
- Equality and Human Rights Commission. 2018. "Is Wales Fairer? The State of Equality and Human Rights 2018." Accessed June 21, 2022. <https://www.equalityhumanrights.com/en/publication-download/wales-fairer-2018>.
- Esposito, R. 2008. *Communitas: The Origin and Destiny of Community*. (T. Campbell, Trans.). Stanford UP.
- Evans, D., K. Smith, and H. Williams. 2023. *The Welsh Way: Essays on Neoliberalism and Devolution*. Parthian.
- Fitzgerald, D. 2023. "Normal Island: COVID-19, Border Control, and Viral Nationalism in UK Public Health Discourse." *Sociological Research Online* 28, no. 2: 596–606.
- Foucault, M. 1976. *Society Must Be Defended: Lectures at the Collège de France, 1975–1976*. (H. Macey, Trans.). Picador.
- Foucault, M. 2008. *The Birth of Biopolitics: Lectures at the Collège de France 1978–1979* (G. Burchell, Trans.). Picador.
- Green, L., K. Ashton, M. Fletcher, A. T. Jones, and L. Evans. 2021. *Rising to the Triple Challenge of Brexit, COVID-19 and Climate Change in Wales*. Public Health Wales Accessed December 13, 2024. https://phwwhocc.co.uk/wp-content/uploads/2021/10/PHW_PHW_Food_Security_Paper-FINAL.pdf19.10.2021.
- Green, L., L. Morgan, S. Azam, et al. 2020. *A Health Impact Assessment of the 'Staying at Home and Social Distancing Policy' in Wales in Response to the COVID-19 Pandemic*. Public Health Wales Accessed July 10, 2025. https://phwwhocc.co.uk/wp-content/uploads/2020/07/HIA-Rapid-Review-of-SAH-Policy-Main-Web_Final.pdf.
- Greenhough, B. 2010. "Vitalist Geographies Life and the More-Than-Human." In *Taking-Place Non Representational Theories*, edited by B. Anderson and P. Harrison, 37–54. Ashgate.
- Hayek, F. 1988. *The Fatal Conceit: The Errors of Socialism*. UCP.
- Hayward, W. 2020. *Lockdown Wales: How Covid-19 Tested Wales*. Seren.
- Hinchliffe, S., and N. Bingham. 2008. "Securing Life: The Emerging Practices of Biosecurity." *Environment and Planning A* 40, no. 7: 1534–1551. <https://doi.org/10.1068/a4054>.
- Hinchliffe, S., N. Bingham, J. Allen, and S. Carter. 2017. *Pathological Lives: Disease, Space, and Biopolitics*. Wiley-Blackwell.
- Holst, J. 2023. "Viral Neoliberalism: The Road to Herd Immunity Still a Rocky One." *International Journal of Social Determinants of Health and Health Services* 53, no. 1: 30–38. <https://doi.org/10.1177/00207314221131214>.
- Horton, R. 2021. *The COVID-19 Catastrophe: What's Gone Wrong and How to Stop It Happening Again*. Wiley.
- ITV. 2020. "Welsh Government Announces up to £50m to 'End Homelessness.'" Accessed February 9, 2023. <https://www.itv.com/news/wales/2020-08-11/welsh-government-announces-up-to-50m-to-end-homelessness>.
- Jones-Evans, D., and S. Barry. 2019. "Wales is No Longer the Poorest Part of the UK." Accessed December 12, 2024. <https://www.business-live.co.uk/opinion-analysis/wales-no-longer-poorestpart-17465667>.
- Luisetti, F. 2022. "The Neoliberal Virus." In *The Viral Politics of Covid-19*, edited by V. Lemm and M. Vatter, 181–200. Springer Nature.
- Mangold, A. 2023. "Austerity, Brexit, Covid: Short Circuits and a New Identity for Wales." In *Global Manifestos for the Twenty-First Century*, edited by N. Barria-Asenjo, B. Willems, and S. Žižek, 164–177. Routledge.
- Margulis, L. 1998. *Symbiotic Planet*. Basic Books.
- McCormack, T. 2023. "Risk, Responsibilisation and the Political Economy of the Pandemic in the UK." In *The Political Economy of Global Responses to COVID-19*, edited by A. Cafruny and L. Talani, 35–56. Palgrave Macmillan.
- McKee, M. 2021. "'Following the Science', But was it the Right Science? A Parliamentary Report Raises Serious Questions About the UK's COVID-19 Response." Accessed December 12, 2024. <https://blogs.bmj.com/bmj/2021/10/12/following-the-science-but-was-it-the-right-science-a-parliamentary-report-raises-serious-questions-about-the-uks-covid-19-response/>.

- Murphy, M. 2017. *The Economization of Life*. Duke UP.
- Nail, T. 2022. "What Is COVID Capitalism?" *Distinktion: Journal of Social Theory* 23: 327–341.
- Nancy, J. L. 2021. "A Much Too Human Virus." In *Coronavirus, Psychoanalysis, and Philosophy*, 63–65. Routledge.
- O'Dwyer, M., and J. Pickard. 2021. "Test and Trace Could run Until 2025," 12 December. Accessed December 13, 2024. <https://www.ft.com/content/9ec73785-a714-4a2a-b47c-f024adfea71b>.
- Office of National Statistics (ONS). 2022. "Deaths Involving COVID-19 in the Care Sector." Accessed February 24, 2023. <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/deathsinvolvingcovid19inthecaresectorenglandandwales/deathsregisteredbetweenweekending20march2020andweekending21january2022>.
- O'Toole, R. 1997. "Contagium Vivum Philosophia." In *Deleuze and Philosophy*, edited by K. Ansell-Pearson, 163–179. Routledge.
- Paun, A. 2020. *Five Key Questions About Coronavirus and Devolution*. UCL Accessed December 13, 2024. <https://constitution-unit.com/2020/05/31/five-key-questions-about-coronavirusand-devolution/>.
- Peck, J. 2013. "Explaining (With) Neoliberalism." *Territory, Politics, Governance* 1, no. 2: 132–157. <https://doi.org/10.1080/21622671.2013.785365>.
- Plaid Cymru. 2021. *Let us Face the Future Together*. Plaid Cymru. Accessed April 04, 2026. <https://manifesto.deryn.co.uk/plaid-cymru-let-us-face-the-future-together/>.
- Richards, I. 2022. "Neoliberalism, COVID-19 and Conspiracy: Pandemic Management Strategies and the Far-Right Social Turn." *Justice, Power and Resistance* 5, no. 1–2: 109–126. <https://doi.org/10.1332/YBGU3291>.
- Rivas, V. A. 2023. "Deleuze (And Guattari) and the Concept of Contaminated People." In *Deleuze, Guattari and the Schizoanalysis of the Global Pandemic: Revolutionary Praxis and Neoliberal Crisis*, edited by S. Das and A. Pratihari, 121–138. Bloomsbury.
- Saad-Filho, A. 2020. "From COVID-19 to the End of Neoliberalism." *Critical Sociology* 46, no. 4–5: 477–485. <https://doi.org/10.1177/0896920520929966>.
- Sabbagh, D. 2020. "Matt Hancock Urged to Publish Secret Review of Pandemic Plans." *The Guardian*, 28 April. Accessed June 15, 2022. <https://www.theguardian.com/politics/2020/apr/28/matt-hancock-urged-to-publish-secret-review-of-pandemic-plans>.
- SAGE. 2021. "Interpreting Differential Health Outcomes Among Minority Ethnic Groups in Wave 1 and 2." 24 March 2021. Accessed February 28, 2023. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/976030/S1168_Ethnicity_Subgroup_Wave_1_and_2_qual_comparison.pdf.
- Senedd Research. 2020. "Coronavirus: Characteristics of Key Workers" Accessed February 22, 2023. <https://research.senedd.wales/research-articles/coronavirus-characteristics-of-key-workers/>.
- Shubin, S., W. Andrews, and T. Sowgat. 2023. "Rhizomatic Poverty in Aquaculture Communities of Rural India & Bangladesh." *Social & Cultural Geography* 24, no. 8: 1285–1304. <https://doi.org/10.1080/14649365.2022.2055776>.
- Smith, D. 2011. "Flow, Code and Stock: A Note on Deleuze's Political Philosophy." *Deleuze Studies* 5: 36–55.
- Smith, F. 2021. *The Welsh Government's Use of Policy Tools for Mainstreaming Equalities*. Wales Centre for Public Policy.
- Sparke, M., and D. Anguelov. 2020. "Contextualising Coronavirus Geographically." *Transactions of the Institute of British Geographers* 45: 498–508. <https://doi.org/10.1111/tran.12389>.
- Sparke, M., and O. Williams. 2023. "Pandemic Co-Pathogenesis: From the Vectors to the Variants of Neoliberal Disease." In *The Political Economy of Global Responses to COVID-19*, edited by A. Cafruny and L. Talani, 293–318. Springer.
- StatsWales. 2022. "Coronavirus (COVID-19)." Accessed February 22, 2023. <https://statswales.gov.wales/Catalogue/Health-and-Social-Care/coronavirus-covid-19>.
- Thrift, N. 2004. "Intensities of Feeling: Towards a Spatial Politics of Affect." *Geografiska Annaler Series B* 86, no. 1: 57–78.
- Trabsky, M. 2022. "Normalising Death in the Time of a Pandemic." *Oñati Socio-Legal Series* 12, no. 3: 540–555.
- Trabsky, M. 2023. "Counting the Dead During a Pandemic." In *Law, Humanities and the COVID Crisis*, edited by C. Stychin, 57–74. University of London Press.
- Tyner, J. 2018. *Violence in Capitalism*. University of Nebraska Press.
- UK Government. 2020. "Critical Workers and Vulnerable Children Who can Access Schools or Educational Settings." <https://webarchive.nationalarchives.gov.uk/ukgwa/20210104165629/>. <https://www.gov.uk/government/publications/coronavirus-covid-19-maintaining-educational-provision/guidance-for-schools-colleges-and-local-authorities-on-maintaining-educational-provision>. Accessed on 4 April, 2026.
- Vandenbergh, F., and J. F. Véran. 2021. "The Pandemic as a Global Social Total Fact." In *Pandemics, Politics, and Society: Critical Perspectives on the Covid-19 Crisis*, edited by G. Delanty, 171–188. De Gruyter.
- Ward, K., and K. England. 2007. *Neoliberalization*. Blackwell.
- Welsh Government. 2019. "Welsh Index of Multiple Deprivation" Accessed February 22, 2023. <https://wimd.gov.wales/?lang=en>.
- Welsh Government. 2020. "Guidance for People with Symptoms of a Respiratory Infection, Including COVID-19." <https://www.gov.wales/guidance-people-symptoms-respiratory-infection-including-covid-19>. Accessed April 04, 2026.
- Welsh Government. 2021. "Pandemic Planning" Accessed June 10, 2022. <https://docslib.org/doc/1033960/pandemic-planning-file-type-pdf-file-size>.
- Welsh Government. 2022. "Together for a Safer Future: Wales' Long-Term COVID-19 Transition From Pandemic to Endemic." Accessed June 23, 2022. <https://media.service.gov.wales/news/long-term-plan-to-live-with-coronavirus-safely>.
- Willatt, A., D. Jones, R. Kyle, and A. Davies. 2021. *Emerging Drivers of Vulnerability to Health Inequity in the Context of COVID-19*. PHW.
- Williams, C. 2022. "Finally, This Reckless Government Faces a Reckoning for Covid Deaths in Care Homes." *The Guardian*, 28 April Accessed February 24, 2023. <https://www.theguardian.com/commentisfree/2022/apr/28/government-covid-father-care-home-broke-law-england>.
- Woodhead, C., J. Onwumere, R. Rhead, et al. 2022. "Race, Ethnicity and COVID-19 Vaccination: A Qualitative Study of UK Healthcare Staff." *Ethnicity & Health* 27, no. 7: 1555–1574. <https://doi.org/10.1080/13557858.2021.1936464>.
- World Health Organization (WHO). 2021. "Tracking SARS-CoV-2 Variants." Accessed 22 June, 2022. <https://www.who.int/en/activities/tracking-SARS-CoV-2-variants/>.
- Zavattaro, S., R. Entress, J. Tyler, and A. Sadiq. 2021. "When Deaths Are Dehumanized: Deathcare During COVID-19 as a Public Value Failure." *Administration and Society* 53, no. 9: 1443–1462. <https://doi.org/10.1177/00953997211023185>.
- Žižek, S. 2020. *Pandemic! COVID-19 Shakes the World*. OR Books.