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EDITORIAL

Rethinking chronicity: public health and the problem of temporality

Introduction

Epidemics of chronic disease are widely recognized as deeply rooted in economic, social, and political structures and their histories. Yet strategies to address them continue to drift further downstream, to the 'modifiable risk factors' associated with conditions such as diabetes, cancer and hypertension (Glasgow & Schrecker 2016). In the context of this seemingly intractable gulf between evidence and policy, this Special Section highlights some of the tensions faced by contemporary public health in relation to chronic disease. Bringing together research exploring chronic conditions from Australia, the UK, Puerto Rico, and Senegal, the papers in this Section all address the multiple, and entangled, temporalities of illness at different scales. We argue that greater attention to these temporalities might open spaces for developing and implementing public health approaches that take seriously the

complex causation of chronic conditions, and which begin to disengage with an overly biomedical approach of individualizing behaviouralism.

Chronic illness and the failures of individualism

Several decades of scholarship in the sociology of health has documented the awkward fit of chronic illness within dominant biomedical paradigms. This arises in part from disconnects between lived experience and health care systems that are still largely organised around the normative assumptions of the Parsonian sick role: that patients will and can recover; and that professionals have expert knowledge and the power to legitimate illness through diagnosis. Chronic illness disrupts curative imperatives, and challenges nosological imaginaries in which patients' suffering can be mapped onto discrete disease categories. At the micro level, as Lewis et al (2022), in this Section, suggest, chronicity itself is therefore a challenge that has to be managed by both clinicians and patients. Processes of disease causation and management inevitably fold in past, present and future – not in a linear way, but through what Lewis et al call 'layered temporalities'. Past circumstances in a lifecourse (poverty, discrimination, environmental exposure) are not simply risk factors shaping probabilities for current ill health; they are ongoing temporalities inflecting possible futures and current potentials. Lewis and colleagues unpack how these multiple temporalities unsettle policy imperatives that focus on self-management: unresolved suffering in the past and present cannot be readily aligned with optimistic health futures.

The limits of policies emphasising self-management, and the misalignment between system and lifeworld, are echoed at the meso level, in Lynch et al's (2022) study of

‘multimorbidity’ within a local health economy. Reorienting health care towards ‘multimorbidity’ held an implied promise of redressing these tensions between biomedicine and chronicity, through recognising the lived experience of illness as multiple, rather than disease specific, and through recognising the syndemic nature of ill health in local places (Singer et al 2017), thus opening up possibilities for upstream action. However, Lynch and colleagues show the limits of this promise. Rather than better aligning suffering people with the system, reorganisations around multimorbidity simply increased system complexity, and further devolved responsibility for health management to the individual patient. The place-based trajectories of austerity and inequality that produce syndemics become relegated to ‘risk factors’ affecting individual bodies, rather than framed as relational properties of unhealthy systems.

The lingering assumption that chronic diseases arise from the problematic lifestyles of late modernity is a continuing constraint. Poleykett (2022), in this Section, maps ‘lifestyle drift’ in the advice given to those suffering from epidemics of diabetes and hypertension in Dakar, Senegal. Exploring the ways in which women managed the demands of modifying diets alongside their roles in maintaining the relational health of households, Poleykett notes the ways in which sophisticated understanding of the social determinants of health becomes reframed, in practice, as awkward behavioural advice: diet sheets recommending unavailable food stuffs, or advice to take exercise in polluted, unsafe urban settings. What is important here, though, is again the multiplicity of temporalities and scales at play. Women’s life histories traced the current epidemic of ‘new diseases’ as the latest in series of crises in food systems as

well as events on an individual lifecourse trajectory; and the household, rather than the individual, was the scale at which decision-making around diets made sense.

Eroding the border between infectious and non-communicable disease

As Poleykett notes, hypertension and diabetes are "almost ubiquitous" in Dakar. Worldwide, the sheer numbers of people living with chronic disease has generated discourses of 'epidemics', with diabetes appearing as having what Moran-Thomas (2019a) has termed 'paracommunicability'. If epidemic is used in part metaphorically, it does highlight the unproductive and increasingly fraying boundary between 'communicable' and 'non-communicable' diseases. The division of communicable and non-communicable remains deeply embedded in public health practice and specialisms: reflected in the domains of health protection and health improvement, respectively. Action in the former focuses on external threats to health (infectious disease, toxic environments), whereas for the latter, action continues to coalesce around addressing maladaptive lifestyles. This division has come increasingly unstuck over recent decades, as the borders between infectious and 'non-communicable' diseases have eroded. Mapping acute to infectious, and chronic to non-communicable, no longer quite fits – if it ever did.

First, there are no obvious distinctions between the timespans of infectious and non-infectious diseases that make the former acute and the latter chronic. The HIV epidemic and, more recently, COVID-19 have foregrounded the chronicity of many infectious diseases, which may neither kill nor be cured, but rather may be 'lived with' over the long term. As treatments evolve, chronic diseases are also marked by

'acute' periods of treatment and recovery. Kirby et al (2022), in this volume, take the example of cancer. Its temporalities are complex: the specificities of cells, tumours, diagnostic points, treatment modalities and successes mean that there is no straightforward trajectory ending in cure or death. The chronicity of many diseases reflects the failures of biomedicine yet, for cancer, technical advances have made it chronic, in extending lifespans. Experiencing chronicity thus entails living with iatrogenic effects, and perhaps cycles of treatment and recovery. Cancer is experienced as both perpetually acute and chronic simultaneously.

Second, the division of disease causation between external agents and 'modifiable' lifestyle factors has become increasingly unstable. A growing body of evidence suggests that the 'modifiable risk factor' framing may be the result of over-extrapolation from studies of high-income populations at a particular moment in metabolic history. A switch in focus to the majority global population undermines theories of the 'non-infectious' lifestyle origins of many chronic disorders, which in many of the world's populations are "more likely to result from infections and harmful environments" (Bukhman et al 2015). Growing awareness of intertwined aetiologies and epidemiologies of infectious and non-infectious diseases reveals the historical specificity of theories of 'epidemiological transitions', in which the burdens of disease shift towards non-communicable diseases as populations become more affluent (Adjaye-Gbewonyo & Vaughan 2019). In many low income countries, obesity and under-nutrition co-exist, with disease distributions likely arising from metabolic and epigenetic shifts over generations (Vaughn 2019; Landecker 2011). As Moran-Thomas notes, "the deeper puzzle" may be "how our terms for framing and

addressing public health conditions came to be so dualistic in the first place" (2019a p475)

Dividing infectious (acute) from non-communicable (chronic) disease also has dysfunctions at the level of policy. Calling disease 'non-communicable' suggests responses of slow duration, and reduces the rhetoric available for mobilizing large scale, urgent response (Adjaye-Gbewonyo and Vaughn 2019). As Herrick (2019) and others have argued, global public health action on 'non-communicable diseases', has been remarkably slow, with NCDs met with 'ennui' rather than being seen as having 'charisma' (Herrick 2019). In this Section, Padilla and colleagues (2022) document the devastating impact of Hurricane María on people with chronic conditions in Puerto Rico, who struggled to access medications and care. Yet, as they document, the temporalities of this impact are rooted in long histories of marginalization as second class citizens of the US and histories of privatization of the health service: in the 'slow violence' that has already left "chronic disease patients facing abandonment". Disaster bureaucracy, with its imaginaries of a Western, propertied subject, does not merely fail to mesh with local temporalities, it reproduces colonial relations and forestalls recovery. Whilst pointing to important community-organized efforts, Padilla and colleagues point to the failure of international emergency public health efforts to address "coloniality's racially uneven distribution of futurity".

Folding in temporality

There is no shortage of scholarship unpacking the complex mix of temporalities at work in making epidemics of chronic disease. Detailed ethnographies trace the complexities of histories of place and community, global economics and cultural

change that drive the growth of chronic conditions (see, e.g., Livingston (2012), Moran-Thomas (2019): Smith-Morris (2006); Vaughn (2019); Yates-Doerr (2015)). Livingston (2012), for instance, has detailed the looping effects of conditions and consequences of care across infectious and non-communicable disease, through careful documenting of HIV and what she terms an 'epidemic of cancer' in Botswana while Moran-Thomas's (2019b) devastating ethnography of diabetes in Belize uncovers complex interlocking temporalities of colonial displacement, ecological degradation, and unequal access to unstable health technologies. These insights from anthropology, particularly in the syndemic approach (Singer et al 2017), which addresses the clustering of ill health through a biosocial lens, are gaining traction more broadly within biomedicine and global health. It has been however, challenging to integrate these insights into epidemiology and intervention planning. Too often, the complexity of pathways of interaction are reduced to the biomedical ones, such as enhanced infectiousness, and the focus remains on individual bodies as the locus of action, rather than the co-constitution of social conditions and illness.

The centripetal force of individualization in biomedicine is strong. Cohort studies and large-scale modelling enabled by big data have expanded epidemiological understanding of of disease over time; but the object of analysis remains, largely, individuals and their biological bodies, not to the relations which produce those bodies. Models, metaphors and concepts that could hold a broader, relational map of disease causation – across chronic and infectious diseases – are missing. New methods are needed, which can incorporate insights from social science without co-opting those as relating to individuals or their reified 'cultures'. Using multiple temporalities to think with chronicity beyond the individual body might enable us to

identify better enduring patterns of disease and disadvantage at the population level, and to identify points of interruption. Together, the papers in this Section suggest how insights from the social sciences might help us to take different temporalities seriously. In conclusion, we pull out some implications of these for a public health of chronic illness.

Conclusions

First, a key implication is that there is much to be learnt from comparative studies - between geographies, between embodied experiences, and between health care settings – to unsettle enduring but no longer functional assumptions about our categories. These include the division of dysfunctions into risk factors, diseases and iatrogenic sequaelea; the categories of biomedical diseases as the primary way of sorting illness; and the categories of infectious and non-communicable as useful ways to think about domains of public health practice. Conceptually, this arena is one where the limitations of northern epistemologies and high income country case studies are becoming acutely apparent. If knowledge about chronicity is built disproportionately on studies of people in the global north, largely recruited as patients diagnosed with one disease, it is inevitably partial and situated. We need more comparative studies, and more that start with experiences of illness in place.

Second, for health care systems, remaining organised around curative and linear narratives will fail to manage chronic illness at the community level. Whether attention is directed at single or multiple 'conditions' makes little difference if the temporalities embedded in place and communities are not addressed. This is not merely a matter of going 'upstream', although this is important. Locally based health

promotion can take temporality and scale seriously through taking the relational production of health seriously. As Poleykett (2022) suggests, the metaphor of up and downstream may be constraining: instead, what might be needed is a more nuanced public health strategies in place, focused on "relational health promotion … rooted in two parallel and mutually supportive strategies that increase the latitude of social space in which people can exercise and experience agency".

Third, multiple temporalities need to be better accommodated in modes of funding public health interventions (Kavanagh et al 2022) and in our methods of evaluation and monitoring. Too often, initiatives are rooted in three or four year political cycles, and pegged to short term goals (behaviour changes, morbidity) with incentives folded in to focus on trajectories of disease, not trajectories of communities, places and socio-economic structures. As Kavanagh et al (2022) show, project and programme funding can be deeply counter-productive if energy is spent on performative 'innovation', or on those organisations already well organised enough to apply for funding, rather than investments in longer term community relationships and systems. Short term goals are easier to measure than longer term impact and transformative capacity. Yet we need to know not only how transferable across settings intervention are, and how successfully they can be rolled out, but also how enduring they are, and how responsive to changing circumstances. This is difficult to do, and certainly difficult to 'sell' to a funder, service provider or policy-maker. The continual forward-focus in biomedicine on the new and the cutting edge not is not only antithetical to a sustainable approach, but circumvents any ambition to understand the complications of endurance and change over time.

Inevitably, biomedicine - and social science - can attend to only some of the temporalities that are present in the sites in which we work. However, the papers in the volume suggest that to address recalcitrant challenges such as epidemic chronic disease, we could usefully focus our lens a little wider. Rather than exclusively following trajectories of illness progression through an individual lifecourse, the papers here fold in the many ways through which illness and suffering are embedded in generational cycles, and through long term ecological and political temporalities. Temporalities of communities and places that range across generations are key to understanding chronic disease. A critical public health could more properly address not only the chronicity of individual bodies, but also the chronicity of communities, systems, and places.

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