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Covid-19: Transferring learning from the pandemic response to non-communicable disease control

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Throughout the pandemic, governments across the world have had to revise their policy positions frequently. In part this is due to the emergence of new threats, information and the growing evidence base[1]. The speed with which the situation has changed highlights the need for rapid learning cycles[2] to ensure that learning and new evidence can be incorporated into the pandemic response. The challenge now is to transfer learning to tackle the impacts on non-communicable disease (NCD) outcomes.

"Transfer learning"[3] is the "storing [of] knowledge gained while solving one problem and applying it to a different … problem". There is resonance and immediate applicability of the learning from the strategic response to the pandemic (specifically in relation to the structures, systems and processes that have been put in place) that could be applied elsewhere, such as public health management of non-communicable diseases (NCD). There is an urgent need for action in this area as the non-COVID-19 health burdens[4], particularly due to cancer[5] and mental ill-health[6], have been grossly exacerbated. In part this has resulted from the need to pivot resources to COVID-19 response efforts which, in the UK, caused a hiatus in elective care[7] and a temporary suspension of usual screening programmes which was coupled with sudden and dramatic changes in health seeking behaviours[8]. Concerns are surfacing of 'domino effect' "pandemics"[9], and all-cause and excess mortality data[10] already shows the broader, indirect impact of COVID-19.

We believe there are three interdependent "transfer learning opportunities" which, when considered alongside structural system reforms, could be rapidly adopted into practice both in the UK and similar contexts internationally.

Firstly, countries with developed health systems have set up robust surveillance systems to collect COVID-19 case, hospitalisation and death data in near real-time. Data is collated and then combined with rapid and robust specialist interpretation to provide comprehensive situational awareness reports which directly inform strategic actions. The approach has become so intrinsic that the UK government's "Roadmap out of lockdown" stated that the "plan we will be guided by data, not dates"[11] and in Australia the "epidemiological situation" is the cornerstone of the Pandemic Health Intelligence Plan[12]. This demonstrates that crude outcome measures (case rates, hospitalisations, mortality) have fundamentally driven evidence-informed control measures.

In NCD outcome control and management this kind of systematic surveillance and standardised approach in near-real time is missing. More could be done in the form of data collection, collation and interpretation to support health communities to track changes as they begin to occur. A shift from traditional disease surveillance that is retrospective and periodic, to widespread real time NCD incidence (e.g. cancer stage at presentation) and outcome reporting will be the hallmark of achieving this[4].

Unless NCD surveillance data is combined and translated into meaningful local actions and used to inform decision making, it risks becoming a descriptive historical exercise rather than information to guide action. This is particularly important in the post-pandemic recovery stage where needs and issues are likely to fluctuate and change, much more so than pre-pandemic.

Secondly, a well-coordinated pandemic response runs on established battle rhythms deployed at local, regional and national levels with clear lines of communication between each. Key meetings, in which situation reports and briefings are shared, enable discussion, debate and joined-up decisions. In the UK these new arrangements and their evolution has disrupted the "centre–periphery" model[13] which traditionally exists between national and local government. In the pandemic response model, the action of each "cog" and specifically the sharing of key information and data is intrinsically necessary for the COVID-19 response "machine" to work. The battle rhythm structure requires contributors to quickly establish common goals and working relationships in order to knit together policy and action so that the time gap between them is minimised.

The management of NCDs has shown sustained and persistently poor outcomes. Indeed, the "strategy paradox" [4] was described where despite successive plans developed globally and nationally to tackle major NCDs, they continually fail to address or respond to locally changing patterns of disease[14]. The COVID-19 pandemic response describes a new way of working, where form follows function. Disrupting and rethinking the model for NCD outcome control and management may be one way to gain momentum and develop the operational and professional partnerships necessary to achieve improvements.

Thirdly, a wealth of scientific expertise has been unleashed and resulted in rapid progress in our understanding of the transmission, vaccine effectiveness, behavioural insights and genomics of COVID-19. The focus has been on translational evidence that can lead to transformative action and dedicated resource, streamlined grant application processes[15] and turbo-charged global scientific collaboration has enabled this.

Scientific investment is now urgently needed to tackle the impacts on NCD outcomes. Specifically, research to rapidly test out hypotheses and determine effective control measures that could protect against further preventable harm.

Finally, the pandemic crisis has brought the need for structural public health reforms to the attention of various countries and governments[16, 17]. Public health leaders working in partnership with political colleagues have a tangible opportunity to use proposed changes to create systems founded on NCD outcome control and management improvement; moving forward from ill-health service models to proactively protecting and saving lives.

There is a recognised and very real risk of far reaching public health "harm" following the pandemic. This has the potential to far outweigh the direct COVID-19 burden but should not be accepted as a "necessary evil" of the COVID-19 crisis. Instead, embedding the learning from pandemic response is needed to achieve a significant and sustained step change in NCD management at the system level.

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