

COVID-19 WATCH: GLOBAL DIVERGENCE

I have just finished reading Hilary Mantel's latest (nearly 900-page) book, The Mirror and the Light, the last in her Thomas Cromwell trilogy. It is set during the reign of Henry VIII; it opens with the execution of Anne Boleyn and ends with Cromwell's own beheading in 1540. I am halfway through George Alagiah's book, The Burning Land, 'a gripping, pacey thriller about corruption and homicide in South Africa'. Both are worth reading.

But what does this have to do with COVID-19? One of the problems with being immersed in a world-changing event like this pandemic is having a sense of proportion. Mantel's work provides this. It is a window into the lives, hopes and fears of people 500 years ago. It is a realization of the futility of much of what went on among fallible people. Alagiah interviewed me about HIV, more than 30 years ago, when he was a BBC correspondent based in Zimbabwe. His book is a realistic window into the struggles of South Africa as it was then. This was the pre-COVID-19 world. I wondered how it would change if it were written today. Will it date? Unfortunately, I do not have Richard Horton's book, The COVID-19 Catastrophe: What's Gone Wrong and How to Stop It Happening Again, so that review will have to wait.

There is no startling new information about COVID-19 this week. The numbers continue to rise at a truly alarming rate. The Americas are worst affected. In England, pubs and other social centers opened on 4 July. The efforts to find treatments and develop vaccines continue, but global political and epidemiologic leadership remain lacking.

I am delighted to include in this commentary a piece written by Jonathan Crush and Zhenzhong Si on 'COVID-19 and Food Security in the Global South'. Under 'Responses' I have included the Association of Science of South Africa's statement, lots of common sense there.

There are three items listed in the reference section. All three help to understand risks and should be of

interest. We are getting a clearer sense of the disease.

The Numbers

On Wednesday, there were over 10 450 628 cases, with the United States of America (USA) leading with over two and a half million cases. Second was Brazil with close to one and a half million. Russia was third, although the number of daily cases was declining, followed by India with a steady increase in the number of daily cases. The United Kingdom (UK) remained in fifth place, but here too the number of new cases had declined. China was reporting virtually no new cases, as were Spain and Italy.

Globally the pandemic is still not under control. The increase is coming from many countries across the world. Peru and Chile have moved into sixth and seventh place ahead of Spain and Italy. People can see the daily case rate by checking the <u>John Hopkins Coronavirus Resource Center</u> and clicking on any country of interest.1 As Table 1 shows, it took three months for the first one million people to become infected, but just eight days for the last million.

Table 1: Global and national cumulative numbers of confirmed COVID-19 cases (alphabetical order)2

Date	Global cases	China	India ?	Italy	Russia	Brazil	South Africa	Spain	United Kingdom	United States
15 Feb	69,000	68,400		3	2	0	0	2	9	43
4 Mar	93,000	80,480		3,100	3	4	0	222	86	149
18 Mar	201,500	81,100		35,700	147	372	116	13,900	2,600	7,800
1 April	861,000	82,400		110,600	2,777	6,836	1,400	104,100	29,900	213,400
15 April	1,982,552	83,351		162,488	24,490	28,280	2,415	174,060	94,845	609,422
29	3,117,756	83,940		201,505	99,399	79,685	4,996	232,128	162,350	1,012,583
13 May	4,262,799	84,018		221,216	232,243	180,000*	11,350	228,030	227,741	1,369,964
27 May	5,594,175	84,103		230,555	362,342	291,222	24,264	236,259	266,599	1,681,418
3 June	6,382,951	84,159		233,515	423,186	555,383	35,812	239,932	279,392	1,831,821
10 June	7,250,909	84,198		235,561	493,023	739,503	52,991	241,966	290,581	1,979,893
24 June	9,264,569	84,653°	456,183	238,833	598,878	1,145,906	106,108	245,752	307,682	2,347,022
1 July	10,477,554	84,785	585,481	240,578	646,929	1,402,041	151,209	249,271	314,160	2,636,538

^{*}estimate ° this does not make sense ? will add in greater detail next week

It is hard to compare numbers for China with 1.439 billion people, with the US' 331 million, or South Africa's 59 million. To make a full assessment we need to look at rates per million, as shown in Table 2.

Table 2: COVID-19 deaths and cases per million (alphabetical order)3

	China	France	Italy	Russia	South Korea	South Africa	Spain	United Kingdom	United States
Deaths 19 May	3.33	421.07	529.64	18.84	Error*	Error*	593.04*	523.33	275.8
Total cases 20 May	58.4	2,189	3,736	1,991	216	277	4,953	3,629	4,557
Deaths 26 May	3.33	424.27	544.04	25.15	5.21	8.32	574.31	555.19	299.79
Total cases 25 or 26 May	58.4	2,225	3,806	2,421	216	398	5,034	3,847	4,964
Deaths 3 June	3.33	429.83	533.93	33.56	5.27	Error*	580.58	587.24	320.93
Total cases 2 or 3 June	58.4	2,320	3,856	2,905	225	579	5,125	4,070	5,472
Deaths 17 June	3.33	438.73	568.76	49.01	5.38	27.14	580.78	627.71	354.46
Total cases 16 or 17 June	58	2,410	3,924	3,681	237	1,239	5,221	4,372	6,386
Deaths 23 June	3.33	442	573	59	5	38	606	865	370
Total cases 22 or 23 June	58	2,462	3,942	4,058	243	1,712	o	4,497	6,985
Deaths 1 July	3.33	444	574	63	5	43	606	655	385
Total cases 30 June or 1 July	58	2,516	3,976	4,393	249	2,432	o	4,595	7,826

^{*}misread these data ° data missing

Global and National Divergence

There are over 10 million COVID-19 cases globally and over half a million deaths. Tedros Adhanom Ghebreyesus, the head of the World Health Organization (WHO), issued a warning on Monday, 29 June that the pandemic "is not even close to being over." He said in a press conference, "We all want this to be over. We all want to get on with our lives. But the hard reality is this is not even close to being over ... We're all in this together, and we're all in this for the long haul".4 As of Sunday 28 June, 60% of new cases were from the Americas, indicating that the situation there is bleak.

Countries

British Prime Minister Boris Johnson believes the UK is emerging from the worst of the epidemic. He is, however, not speaking for the entire UK. Nicola Sturgeon, First Minister of Scotland is determined to go at her own pace in easing the lockdown. In fact, she has gone so far as to suggest that people coming to Scotland from other parts of the UK may have to go into quarantine if infection rates get worse. She said: "I hope that need won't arise because I very much hope that we will see infection levels fall in Scotland, as they are right now, and fall in the rest of the UK. But from a public health perspective we have to be able to consider all options."5

The need for tailored responses is increasingly evident. In England, for the first time since the pandemic began, a specific town, Leicester, was put under additional lockdown measures. This move was announced in the House of Commons on 29 June by Health Secretary Matthew Hancock. At the time, the

infection rate of 135 per 100 000 people, was three times higher than the next highest local area in England.6 Schools in Leicester closed on Thursday, 2 July. Hancock wanted everyone with symptoms to come forward for testing, although it is not clear what this would achieve. There are important lessons as other parts of the world that seemed to have COVID-19 under control are also seeing localized outbreaks. These must be addressed immediately and effectively. Examples include a nightclub in South Korea, an abattoir in North Rhine-Westphalia in Germany, and the city of Melbourne in Australia.

The numbers are moving mostly in the wrong direction in parts of the Americas, south Asia and Africa.7 The US has the most infections and most deaths from COVID-19 anywhere in the world and with extraordinary increases being seen in some states, notably Arizona, Texas and Florida. In response, governors are defying the Trumpian optimism and re-imposing restrictions. Brazil's situation is catastrophic and India is in fourth place for the absolute number of cases.

The numbers are also growing across Africa, with South Africa leading the way. As of 30 June 2020, the cumulative number of confirmed COVID-19 cases in South Africa is 151 209. The infection rates in South African provinces are 42.5% in the Western Cape, followed by Gauteng with 27.6%, the Eastern Cape with 18.2% and KwaZulu-Natal with 6.3%. This can partly be explained by the fact that the Western Cape saw the first confirmed cases. The country's mortality rate is 1.8%.8 Minister of Health Dr Zweli Mkhize, noted "extreme concern" at a "fatigue" [to follow COVID-19 protocols] appears to have set in three months after the country went into lockdown on 26 March and as the COVID-19 curve in South Africa is about to spike.9 I fear case numbers in Africa will rise rapidly.

Locations

As indicated above, certain workspaces are at higher risk than others. The disgrace of this pandemic, in the UK and Canada at any rate, has been the care homes. In Canada, 81% of COVID-19 deaths were in care homes. This was double the rate in the rest of the Organisation for Economic Co-operation and Development.10 In the UK, according to the Guardian, the risk of death in a care home was 13 times higher than in Germany.11 This is not to say that there are not excellent care homes that cherish their residents, of course there are. The reality though is that carers in most countries are poorly paid, have low status, and were at the end of the line when it came to getting protective equipment. There will be commissions of enquiry when this is over, these will be national and hopefully international. Care homes, the elderly and how we regard and treat them must be high on the agenda.

Responses

The Academy of Science of South Africa (ASSAf) is a statutory academy, established to provide evidence-based advice on issues of pressing national concern. Most senior academics are members and their public statement on COVID-19 provides common-sense guidelines that are applicable beyond South Africa.12 There are three key points: including scientists from a broad range of disciplines; operating beyond national borders; and looking beyond the crisis.

COVID-19 is more than a medical problem. Their statement notes, for example: "Psychologists need to advise on the far-reaching mental health costs of the pandemic following extreme forms of isolation. Sociologists need to advise on the efficacy of social distancing in human settlements marked by inequality ... Political scientists must advise on the norms that should govern the relationship between government and its citizens in emergency conditions." This multidisciplinary approach to scientific advice is crucial.

The focus should be on the regional African context. "A virus, especially this rapid transmission coronavirus, does not respect national borders." South Africa is a regional hub for medicine and commerce. In normal times, thousands of people cross the borders daily. Regional connectedness needs to be considered because of the nature of a public health crisis and as a "statement of solidarity with African neighbor states with even more precarious national health systems."

Finally, ASSAf notes, "while it is understandable that the work of the National Coronavirus Command Council deals with managing the immediate crisis, it is not too soon for a broad range of scientific advice to be drawn on to address urgent concerns such as the future of the economy, business, education, human settlements, the environment and, of course, health care reform". The statement calls for "resetting the country" whilst addressing fault lines exposed by COVID-19.

Most importantly, especially for the UK and US contexts, ASSAf recognizes that there is "an indispensable connection between science and the public trust. In the face of a pandemic, with all the fear and uncertainty of a novel virus, the credibility of governmental authority depends more than usual on winning the trust of the public." There is a lot in this statement. I quoted more than normal because it is so apt, especially the last point on trust. It seems in the UK the irresponsible Dominic Cummings is back in the public consciousness, while senior civil servant Mark Sedwill has resigned (or has been pushed out).

COVID-19 and Food Security in the Global South by Jonathan Crush and Zhenzhong Si13

There is widespread agreement that a primary indirect consequence of the COVID-19 pandemic across the Global South is a dramatic increase in the prevalence of hunger and food insecurity. The Food and Agriculture Organization has called the food security consequences of the global COVID-19 pandemic a crisis within a crisis, while the World Food Programme calls it a hunger pandemic, warning that 30 million people could die of starvation. The number of severely food insecure people could double from 130 million to 265 million by the end of 2020. The disruption to food systems and security in low and middle-income countries (LMIC) cities has important implications for epidemic control and the current and future food security of urban residents. Impaired food security, in terms of malnutrition, caloric deficit and decreased dietary diversity, may increase susceptibility to infection and worsen the well-being of the infected. The interconnections between food insecurity and the outbreak highlight the urgent need to examine and improve food security interventions during and in the aftermath of viral epidemics.

The dramatic increase in food insecurity in LMIC cities is partly a function of the disruption of national and globalized food supply chains. Food access in urban areas is highly contingent on the importation of food from the hinterland, other parts of a country or from global markets. While food production, distribution and retailing is generally considered an 'essential service' many states have allowed formal retailers, such as supermarkets and their supply chains, to remain operational while shutting down the informal food sector on which the urban poor depend for food and income. In addition, restrictions on internal movement and international travel have negatively affected informal cross-border trade in foodstuffs.

Containment measures had an immediate and severe impact on food security in many Southern cities, through the disruption of food supply chains, bans on informal food markets and street vending, controls on movement, layoffs and unemployment, a precipitous decline in household income, and the shuttering of school feeding programs. Most poor urban households live in conditions where individual social distancing measures are impossible to implement or enforce. Particularly vulnerable are the urban poor in low-income and informal settlements and, within these areas, population sub-groups such as femaleheaded households, young children, older adults, day laborers, informal sector workers, the homeless, and migrants and refugees.

In China, quarantined residents resorted en masse to online food purchasing and delivery. However, this option is non-existent for the urban poor in many LMIC cities. Most households have no means of ordering

food online and there is limited or non-existent delivery infrastructure. Hunger and the search for food drive desperate people to defy containment measures. Social unrest, including looting of food outlets and delivery trucks, is growing in many cities. Some governments have introduced or ramped up existing social protection and food distribution programs while others have focused on ensuring compliance through force. In some countries, such as India, non-governmental organizations have been more effective than the state in collecting and distributing food to the needy.

Since 2014, the Hungry Cities Partnership at the Balsillie School of International Affairs (https://hungrycities.net) has focused its attention on the transformation of food systems accompanying rapid urbanization in the Global South and the vulnerability of urbanizing populations to food insecurity in its various forms – food availability, food access, food utilization, food safety and food stability over time. We have conducted comprehensive citywide household food security surveys, surveyed informal food vendors in city markets and on the streets, and examined the impact of the supermarket revolution and online retailing on the food environment. We have also researched the governance of urban food systems and the impact on food consumption behavior. Central to this research has been a focus on city markets, including wet markets which achieved a certain media notoriety during the COVID-19 pandemic, and their role in providing affordable food to urban residents. In 2020, as the impact of the pandemic on food systems and food security became increasingly apparent, HCP was awarded a Canadian Institutes of Health Research (CIHR) COVID-19 Rapid Research Funding grant to research the food security and social policy implications of public health responses to the COVID-19 pandemic in China, with a focus on the two major cities of Wuhan and Nanjing (https://hungrycities.net/covid-19-and-food-security-projects/). We are now planning to scale up this research to seven additional countries: Ecuador, India, Jamaica, Kenya, Mexico, South Africa and Zimbabwe. Our main objectives are as follows:

- Examine the nature and impact of public health containment and mitigation responses to COVID-19
 on food systems and household food security in affected cities in the Global South;
- Undertake a longitudinal analysis of COVID-19 induced changes in levels and drivers of food insecurity through comparison with pre-COVID baseline survey data collected by HCP;
- Assess the effectiveness of government, business, non-governmental organizations, community
 organizations and other stakeholder social policy responses to food security challenges and promote
 more effective policy measures and responses;
- Provide critical decision-making and pandemic response data to international and local stakeholders to inform broader global debates, and public health and social policy responses to the COVID-19 pandemic; and
- Strengthen the capacity of researchers and research institutions to respond rapidly to ongoing food security challenges arising from the COVID-19 pandemic.

In conclusion, population-level containment strategies have been particularly hard on the urban poor and vulnerable population groups such as female-headed households, children, youth, the homeless, informal sector employers and employees, casual workers, the unemployed, and migrants and refugees. As a direct result, a secondary pandemic of hunger and food insecurity is now impacting many of these groups. An effective and sustainable global response to the COVID-19 (and any further) viral pandemics must therefore ensure that food security is an essential piece of the containment and mitigation puzzle.

Conclusion

Although lockdown was necessary, in the short term, to avoid health services being overwhelmed, it has to end, or economies will tank. The resultant depression will last for a generation. People will not get education, immunization, and social support. National lockdowns are a blunt instrument. They must be replaced by much more focused and sophisticated testing, tracing and isolating policies. The situation in the USA is desperate but the steady increase in so many other countries means the WHO warning that this epidemic is not over is true.

References (risks): -Wall Street Journal, 'How Exactly Do You Catch COVID-19? There Is a Growing Consensus Surface contamination and fleeting encounters are less of a worry than close-up, person-to-person interactions for extended periods' 16th June https://www.wsj.com/articles/how-exactly-do-you-catch-covid-19-there-is-a-growing-consensus-11592317650

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- Vox, Why you're unlikely to get the coronavirus from runners or cyclists: Understanding the key concepts of transmissibility and infectious dose should reassure you. 3rd June
 www.vox.com/future-perfect/2020/4/24/21233226/coronavirus-runners-cyclists-airborne-infectious-dose

1John Hopkins Coronavirus Resource Center: coronavirus.jhu.edu/map.html

- 2 Data is from the JHUM website. The countries are chosen because of their epidemics.
- 3 Deaths: www.statista.com/statistics/1104709/coronavirus-deaths-worldwide-per-million-inhabitants/ Case per million: ourworldindata.org/grapher/total-confirmed-cases-of-covid-19-per-million-people
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