LOCAL/GLOBAL ENCOUNTERS



The Unlikely Saviour: Portugal's National Health System and the Initial Impact of the COVID-19 Pandemic?

Jorge Varanda^{1,2,3} · Luzia Gonçalves^{3,4} · Isabel Craveiro³

Published online: 3 December 2020 © Society for International Development 2020

Abstract

What is the impact of COVID-19 on Portugal's *Serviço Nacional de Saúde* (SNS), the country's national health service? The story, still unfolding, has all the elements of a recipe for disaster: one of the most elderly populations in the world; a weakened SNS, the result of a litany of policies and interventions by the 'Troika' (the European Commission, the European Central Bank and the International Monetary Fund); a health care delivery system focused on non-communicable diseases and long-term care; the growing public distrust in public services, compared to private, hotel-like health care facilities. We are aware that these are still the early days of the epidemic, yet it is safe to say that algorithmic scenarios of doom and gloom have so far been averted. In the past six months of the pandemic, the level of trust of the Portuguese population in the SNS and its health personnel has significantly improved, while the government has started to provide additional funding and to work for the expansion of the public system. At the very inception of the pandemic, private hospitals practically closed their doors to COVID-19 patients. Unexpectedly a new disease, COVID-19, by definition *the* foe of any health system, has granted the opportunity for a rare consensus amongst different key political and/or corporate actors in a long-called-for reform of the SNS. Social science and humanities, with their analytical tools and theoretical-conceptual frameworks, are mandatory in providing well-funded answers to such riddles and better grasping the reasons for the twist and turns.

Keywords Trust · Social sciences · COVID-19 · National health service · Community · Portugal

COVID-19 in Portugal and the Unpredictable Averting of a Disaster

The unfolding history of COVID-19 in Portugal has all the ingredients of a recipe for disaster: one of the most elderly populations in the world; a national health service heavily weakened by a litany of austerity policies and the international financial intervention by the Troika (May 2011–April 2014)¹; the focus on non-communicable diseases and

Jorge Varanda jorge.varanda@uc.pt

- ¹ Department of Life Sciences, University of Coimbra, Coimbra, Portugal
- ² Centro em Rede de Investigação em Antropologia, Coimbra, Portugal
- ³ Global Health and Tropical Medicine, Instituto de Higiene e Medicina Tropical, Universidade Nova de Lisboa, Lisbon, Portugal
- ⁴ Centro de Estatística e Aplicações da, Universidade de Lisboa, Lisbon, Portugal

long-term care; a growing public distrust in public health services, to the advantage of the private, hotel-like facilities. As of September 2020, however, the outcome has been unexpected. This article focuses on the impact that the COVID-19 epidemic process has generated on the *Sistema Nacional de Saúde* (SNS) in these 'early days' of the pandemic (March–September 2020). It argues that the early actions by the community alongside the trust granted to governmental institutions was key to this early success story.

Most studies about epidemics focus on preparedness and response protocols evoking biotechnological views and responses. The HIV/AIDS, SARS, ZIKA and Ebola epidemics show that the social realm, which we take to include the cultural, economic and political spheres, is actually central in shaping biomedical health systems, their responses and management of epidemics. The Portuguese health system has long been focused on non-communicable diseases; COVID-19 is changing this scenario. Unexpectedly, social

¹ This term refers to the consortium of the European Commission, the European Central Bank and the International Monetary Fund which advanced the strict structural adjustment program that was to be enforced by the Portuguese government.

sciences and humanities such as anthropology, with its vast body of knowledge on epidemics in non-western contexts, as well as history and sociology are of great importance in managing this pandemic (Douglas 1992; Beck 1992; Gilson 2006; Birkmann et al. 2013; Hewlett and Hewlett 2008; Wilkinson et al. 2017; Raven et al. 2018). According to the World Health Organization (WHO) this perspective, alongside the analytical toolbox of social sciences, is central to filling the knowledge gap in responses to epidemics (WHO 2020). The adoption of a multidisciplinary perspective, including sociocultural historical knowledge, produces a better understanding the long and complex pandemic process in the making, where biomedical views are but a small portion of a highly articulate whole. The future is a key element of present-day global health ecosystems, even more so during an epidemic (Varanda and Théophile 2019).

The first two cases of COVID-19 were reported in Portugal on 2 March. In the following two weeks, events unfolded at great speed. In many ways the national community got alerted with the situation in Italy and Spain and mobilized prior to the government declaration of the state of emergency. Parents voluntarily decided to keep their children at home well before primary schools, high schools and universities closed on 16 March, the date of the first reported COVID-19 related death. On 17 March the city of Ovar, with a population of 55,000, was quarantined. The state of emergency was declared on 18 March, only two days after the first case of COVID-19 death. With just 245 cases, Portugal was following in the wake of Italy (10 March and roughly 9,000 cases) and Spain (15 March and roughly 5,000 cases). On 11 September, six months after the WHO's declaration of the pandemic, Portugal had 62,813 reported COVID-19 cases, with a total of 1,855 deaths.²

Until 25 March Portugal tested only those who had symptoms and met specific criteria (e.g. essential workers, people admitted to hospitals or persons who came into contact with a COVID-19 case). From March 26 to April 9 the country started testing anyone who showed three COVID-19 symptoms. From 10 April, Portugal resorted to the public and private health sectors to expand its testing capacity, which enabled an extended testing capacity widespread across the national territory. The tracking and diagnostic capacity almost decuplicated from 2, 500 tests a day in March to 21,700 on 11 September, a trend that continued to increase in October. There is little information on contact tracing, but in the early stages of the epidemic it might have contributed to minimize the spreading of the disease. Digital tracking with specific apps started rather late (1 September), and until now with little success and increasing controversy.

We are aware, these are still the early days of the epidemic, yet it is safe to say that the algorithmic scenarios of doom and gloom were averted. The Portuguese population has shown an improved level of trust in the public health system, its health personnel and the national health authorities. With confidence building up, the government has provided additional funding and has enhanced its health planning to expand the public system so as to include provision of social care and assistance for the elderly population (Portugal 2020). Against all expectations, it is an enemy of the SNS, the new epidemic COVID-19 disease, that will in the end contribute to increased funding and to reforms aiming at an extended national health system.

Epidemics, Pandemics and the Relevance of Social Sciences?

An epidemic is the overwhelming generalized spread of a disease within a population in a certain period of time. The 1948 WHO definition of 'health' goes beyond the biomedical realm. Epidemics are no different. Epidemics do not spread uniformly, but are amplifying mirrors of the fault lines inherent to societies. They feed these fault lines, whether it's class, gender, employment, age, area of residence, nationality or legal status. This means that the social, cultural, political and economic determinants ought to be considered in any epidemic response, alongside social science disciplines.

Historical analysis of epidemics tells us that these phenomena often represent moments of change in human history or societies. Rosenberg's (1992) emphasis on the drama-like analysis of a lion's roaring entrance, before quietly fading away, is at times more enlightening than most epidemiological models advanced for COVID-19 or Ebola. Epidemics bring fear and sudden, widespread death; thus, they demand quick visible responses. Epidemics shape preferential pathways into the moral fabric of societies. For example, the HIV/AIDS risk-groups categorized in the 1980s by the Center for Disease Control (CDC) and labelled as "the 4 Hs"-Homosexual, Heroin users, Hemophiliacs, Haitians-clearly underlined racial, gendered and national profiling somewhat at odds with the biological traits of the virus. COVID-19 is no exception. The narrative of children as potential COVID-19 'super carriers' elicits memories of moral interpretations similar to Les enfants sorciers of Democratic Republic of Congo or crianças feiticeiras of Angola (Lachenal 2020). In a nutshell, any piecemeal biotechnological narratives of outbreak, risk, vulnerability, or pathways to panaceas, are produced under the bias-effect of a historic-social-cultural framework. The contemporary epidemic preparedness plans and tools were devised under the framework of the War on Terror and its security-risk

² https://www.ecdc.europa.eu/en/covid-19/data. Accessed 24 September 2020.

assessment agenda, which favours the strict biotechnological approach and curtails the broader multidisciplinary perspectives that epidemics, indeed, demand (Harrison 2016).

Sociocultural, political and economic drivers have to be considered. This was underlined by Navarro (1975), and Doyal and Pennell (1979), who noted how the macro scenario of capitalism and globalization influences local conditions and the availability of biomedical care. Packard's tour de force on a century of mining and TB in South Africa reinforce this reasoning significantly (Packard 1989). The initial stalemate and the discriminatory HIV/AIDS public health programmes triggered off a political transformation that re-shaped the health landscape into what is the presentday global health scenario. The historical roots and wide scale of the HIV/AIDS epidemic called for new analytical instruments that further emphasized the key role of nonbiological elements in shaping the epidemic, as well as in tailoring responses and public reactions to those affected (Farmer 1999, 2004). But an ailment does not affect isolated bodies. People inhabit contexts that can have a powerful and unpredictable effect on ill health. The notion of syndemics is key to understanding how the social dimension fuels epidemics (Singer 2009). HIV/AIDS also brought the zoonotic trait of particular epidemics to attention. Under the guise of emergent diseases (Snowden 2008) and/or neglected tropical diseases (Varanda and Théophile 2019), social sciences helped to problematize the naïve representation of the viral spillover and/or the linear narrative of the perfect storm (Wald 2008; Giles-Vernick et al. 2013; Varanda 2015).

This said, the watershed moment for social sciences in the epidemic response was the 2014-2016 Ebola epidemic in West Africa. The gaze of anthropology and the tools developed during the HIV/AIDS crisis have helped highlight the role of poverty in amplifying epidemic situations in West Africa even further (Wilkinson et al. 2015). Gender and stigma are also important sociocultural elements affecting the geography of ill health, the lives of those affected, and those who survived (Parker and Aggleton 2003). The Ebola epidemic has taught us that when faced with (biological) uncertainty, the sociocultural becomes the 'safe' ground where policymakers and public health personnel operate (Bolten and Shepler 2017; Kelly et al. 2019). The same applies to COVID-19. In the Ebola case, the timely and close collaboration between anthropological science and the institutions on the ground generated better understanding and trustful liaisons between international health organizations and communities, thus contributing to a shortening of the epidemic (Abramowitz et al. 2018a). Trust is a voluntary relational notion that links different individuals and/or institutions and it involves vulnerability and risk. Trust in health care is important as it relates to public health authorities' legitimacy and power and consequently public cooperation (Gilson 2006). Trust is central for any epidemic: the community has to be 'on-board'. It must place its trust in the national health services and institutions. Trust is also a crucial element in the 'communication' between national and global public health players (Abramowitz et al. 2018b; Ryan et al. 2019). A key lesson from the Ebola epidemic is that 'the lack of community engagement and unilateral disregard of local practices were recognized as some of the main reasons for the exacerbation of the health crisis' (WHO 2015; Stellmach et al. 2018).

The community's active participation in the response is crucial to facing the epidemic.³ This apparently self-evident mantra is actually rather recent and, more often than not, fraught with disciplinary hierarchies. An increasing chorus of international health-related organizations and hard-scientists advocate for the inclusion of social sciences in the epidemic preparedness and responses (Bardosh et al. 2019; Bedford et al. 2019). Epidemics 'call' for space at the table for social sciences, that is, bodies of knowledge that focus on society, institutions and cultures.

Portugal and Its National Health Service

Located at the edge of Western Europe and with 22% of the population aged over 65 (totalling 10,286,263 residents) (PORDATA 2020), Portugal is one of the most aged countries in the world, only preceded by Japan (27%) and Italy (23%).⁴

The Portuguese National Health Service (known as SNS) was created in 1979 and is a universal tax-based welfare system. The Ministry of Health is responsible for the health sector planning, organization, and regulation. The provision of health care is granted by public entities (primary care centres, hospitals, and continued and palliative care) and complemented by private partners (consultations, diagnostic and therapeutic examinations, hospitals, and other private clinics) (Nunes and Ferreira 2019).

Since 2010, Portugal has witnessed to a twofold reduction in public health expenses, namely in personnel (between 2010 and 2012, this was reduced by 27%) and in capital expenses (a reduction of 81%) between 2010 and 2014 (Hespanha 2019). The share of out-of-pocket payments is the second largest source of revenue for health care spending (28%), well above the EU average (15%) (OECD and

³ On Ebola Epidemics see https://www.who.int/news-room/featu re-stories/detail/ebola-then-and-now. Accessed 22 September 2020; https://www.who.int/news-room/feature-stories/detail/ebola-thenand-now. Accessed 22 September 2020; For Zika outbreak see https ://www.cdc.gov/globalhealth/healthprotection/fieldupdates/summe r-2016/rapid-responder-zika.html. Accessed 22 September 2020.

⁴ https://www.worldatlas.com/articles/countries-with-the-largestaging-population-in-the-world.html. Accessed 22 September 2020.

European Observatory 2017: 7). At the beginning of the pandemic, the Portuguese government was still pretty much seeking to recover from the consequences of the Troika's intervention. The SNS has received investments of \notin 2 billion since 2016 and will receive an additional injection of \notin 800 million from the 2020 budget. However, these amounts will not compensate the draconian austerity cuts (Simões et al. 2017).

Both the population of Portugal and the SNS have changed considerably since the '70 s. The expansion of lifespan has been dramatic, the SNS has seen the number of physicians tripled and infant mortality sharply decreased. The number of physicians (physicians registered, including retired physicians) per 1000 population is currently above the EU average (OECD and EOHSP 2019). Having said that, the extraordinary quantitative increase of health professionals does not mechanically imply improvement in the population's access to the health services (Dussault et al. 2014). The situation is quite different for nursing staff. Although Portugal has steadily increased the nurses to inhabitants' ratio, the relative number of nurses in 2014 (638 per 100,000 population) was below the EU average (864 per 100.000 population). In 2015 a survey concerning public sector physicians in the Lisbon area was designed to explore physicians' individual resilience and coping strategies in times of economic crisis, including intentions to migrate (Russo et al. 2017). But it was nurses facing low wages and lack of employment opportunities that were rather pushed in great numbers abroad. Portuguese was the second nationality among foreign nurses in England (Pereira and Azevedo 2019); more than 18,000 Portuguese nurses who have left the country while in Portugal suffers from a chronic relevant shortage of nurses.⁵ Improving salaries for health care workers is surely one of the needed measures for improving the SNS response capacity (Simões et al. 2017).

As in many other European countries, due to the epidemiological profile based on non-communicable diseases, it soon became clear that the Portuguese health system was poorly tailored to tackle infectious diseases. In a comparative 2012 European study, Portugal had the lowest number of intensive care beds in the EU (4.2 beds per 100,000 people), with Germany at the opposite pole (29.2 beds per 100,000 people), closely followed by Austria and Romania (with over 20 beds per 100,000 people) (Rhodes et al. 2012). The number of intensive care beds available in a country's health system is considered a crucial asset for the successful response to an outbreak.⁶

The acceptance of all public health measures recommended at once, at a given time, is correlated with a high level of confidence in the health system (Kehoe and Ponting 2003). Since the degree of confidence stems from previous experiences with the health system (Gopichandran et al. 2020), and distrust in the health system can be considered harmful to the effective control of infection (van der Weerd et al. 2011), the importance of high public trust in the health system's performance and in the health authorities becomes gains enhanced value in the era of COVID-19. The 'U-turn' in terms of confidence in the public health system is a case in point of Portugal's COVID-19 story. By the mid-2010s, only 45% of the Portuguese people fully trusted the SNS (Coelho do Vale and Moreira 2016). Long waits and admission fees largely contributed to this collective perception. COVID-19 has changed this landscape. By mid-March 2020 the actions undertaken by the public health sector had fueled a sharp confidence increase, up to 75% of the population.⁷ Now, in practical terms, how did Portugal manage to boost reliance in its weakened health system? How did the country get round with a relatively mild picture in terms of contagion spread and death toll in the six months of the pandemic? How did Portugal avert its gloomy predictions?

The time lag between the first case detected in China (1 December 2019) and the first case in Portugal (2 March 2020), later than Italy (31 January 2020) and Spain (25 February 2020), might have acted as a buffer for the initial impact of the epidemic. The Portuguese government's timely policymaking, imposing a national lockdown, has played successfully, although the role of society's preventive mobilization for the early-stage effective handling of the epidemic remains largely undetected. Two days before the formal declaration of the state of emergency (18 March), many schools (primary schools, high schools) and universities had already closed down. The government decision came in the wake of growing calls by parents to 'shut the schools and the country', and of decreasing numbers of children in schools, starting in early March. A month-long state of emergency is approved in parliament with 216 votes in favor and 14 abstentions. A national convergence emerges in the face of the national crisis: all parties represented in the national assembly rally behind the government's call. Ultimately, the government trailed people's preventive

⁵ https://www.jornaldenegocios.pt/economia/saude/detalhe/sns-preci sa-de-mais-5500-medicos-30000-enfermeiros-e-140-farmaceuticos Accessed 24 September 2020.

⁶ https://www.politico.eu/article/charting-europes-capacity-to-dealwith-the-coronavirus-crisis/. Accessed 24 September 2020.

⁷ https://sondagens-ics-ul.iscte-iul.pt/wp-content/uploads/2020/03/ Sondagem-ICS_ISCTE_Mar%C3%A7o2020_Covid.pdf Accessed 28 September 2020.

actions—self-imposed quarantine—with no scent of dissent, either in parliament or on the streets.

The particular features of the lockdown, less strict than those implemented in Northern Italy or even in Madrid, also contributed to maintaining the high levels of trust. The decree allowed most factories and construction sites, alongside the food and distribution industries, to keep operating. National health authorities strictly followed the WHO non mandatory guidelines on masks, but people rushed to get or produce their own masks and buy hand sanitizers. This situation was replicated in hospital settings.⁸ Local communities, universities, companies actively designed and started manufacturing protective equipment for health workers. The delayed arrival of the virus allowed policymakers and health institutions, as well the business sector and society, to learn from the dramatic situation in Italy and neighbouring Spain, as well as prepare and adapt. Smart working and remote teaching became the norm. Although citizens were allowed to do daily exercise, shop in supermarkets or in the pharmacies and care for their relatives, the vast majority of the population strictly abided by the confinement, with 51% leaving home once a week or less.⁹ However, being locked had disastrous effects in terms of domestic violence (Oliveira and Fernandes 2020) and mental health (Passos et al. 2020).

Conclusion

Despite catastrophic predictions, the impact of COVID-19 on Portugal's *Sistema Nacional de Saúde* was far from devastating. The number of deaths (1,971 as of 30 September 2020) is relatively low.¹⁰ In general, the intensive care units in hospitals were not overwhelmed with patients. After the past months' halt of other health services, a focus on general care provision (consultations, surgeries, etc.) is slowly resuming.

Old negative narratives about the SNS have paved the way to a surprising chorus of support. The public health sector has been recognized by the population and by political parties as a key asset for the nation and the community. The government increased the capitalization of the National Health Service, in terms of both staff and technical means, which probably contributed to the boost of confidence by the population. The new epidemic COVID-19 disease has granted an opportunity to reach a rare consensus amongst different key political and/or corporate actors in a long-called-for NHS reform. But, as noted earlier, contemporary and past epidemics have one teaching: epidemics are tackled with the community on board, not by health sector alone. Therefore, this is the perfect moment to incorporate social sciences into preparedness responses and build a multidisciplinary twenty-first century science to handle epidemics. Furthermore, it would be most interesting if the new SARS-CoV-2 virus could have an analogous effect in tackling anthropogenic practices to advance the adoption of greener policies and practices for the planet.

Acknowledgements This publication could not have been completed without the financial support by Fundação para a Ciência e Tecnologia UIDB/04038/2020.

References

- Abramowitz, Sharon A., David B. Hipgrave, Alison Witchard, and David L. Heymann. 2018a. Lessons From the West Africa Ebola Epidemic: A Systematic Review of Epidemiological and Social and Behavioral Science Research Priorities. *The Journal of Infectious Diseases* 218(1): 1730–1738. https://doi.org/10.1093/infdi s/jiy387.
- Abramowitz, Sharon, Tamara Giles-Vernick, Jim Webb, Jennifer Tappan, Elanah Uretsky, Jorge Varanda-Ferreira, Katherine Mason, Molly Beyer, Claire Collin, and Amadou Sall. 2018b. Data Sharing in Public Health Emergencies: Anthropological and Historical Perspectives on Data Sharing during the 2014-2016 Ebola Epidemic and the 2016 Yellow Fever Epidemic. Paris: Institute Pasteur, Wellcome Trust.
- Bardosh, Kevin, Daniel de Vries, Darryl Stellmach, Sharon Abramowitz, Adama Thorlie, I. Cremers, John Kinsman. 2019. Towards People-Centred Epidemic Preparedness & Response: From Knowledge to Action, *GLOPID-R* (Global Research Collaboration for Infectious Diseases Preparedness), London.
- Bedford, Juliet, Jeremy Farrar, Chikwe Ihekweazu, Gagandeep Kang, Marion Koopmans, and John Nkengasong. 2019. A new twentyfirst century science for effective epidemic response. *Nature* 575: 130–136. https://doi.org/10.1038/s41586-019-1717-y.
- Birkmann, Joern, Omar D. Cardona, Martha Liliana Carreno, Alex H. Barbat, Mark Pelling, Simon Schneiderbauer, Stefan Kienberger, Margreth Kelier, David Alexander, Peter Zeil, and Torsten Welle. 2013. Framing vulnerability, risk and societal responses: The MOVE framework. *Natural Hazards* 67(2): 193–211.
- Beck, Ulrich. 1992. Risk Society: Towards a New Modernity. Leicester: Sage.
- Bolten, Catherine, and Susan Shepler. 2017. Producing Ebola: Creating Knowledge In and About an Epidemic. *Anthropological Quarterly* 90(2): 349–368. https://doi.org/10.1353/anq.2017.0022.
- Coelho do Vale, Rita, and Isabel Moreira. 2016. Felicidade, satisfação e qualidade de vida, solidão e perceção de saúde, Novembro 2016, Observatório da Sociedade Portuguesa- CATÓLICA-LISBON.
- Douglas, Mary. 1992. Risk and Blame: Essays in Cultural Theory. London and New York, NY: Routledge.
- Doyal, Lesley, and Imogen Pennell. 1979. *The Political Economy of Health*. London: Pluto Press.

⁸ https://expresso.pt/sociedade/2020-09-06-Ha-menos-medicos-portu gueses-a-morrer.-Porque-. Accessed 26 October 2020.

⁹ https://www.publico.pt/2020/04/12/sociedade/noticia/vida-quare ntena-14-portugueses-passaram-duas-semanas-sair-casa-1911997. Accessed 20 September 2020.

¹⁰ https://covid19.min-saude.pt/wp-content/uploads/2020/09/212_ DGS_boletim_20200930-002.pdf. Accessed 30 September 2020.

- Dussault, Gilles. A. Biscaia, Isabel Craveiro, Inês Fronteira, Luis Lapão, and M. Temido. 2014. Os Recursos Humanos da Saúde. In Simões Jorge and Campos Correia (org.) 40 Anos de Abril na Saúde. ISBN 978-972-40-5651-7.
- Farmer, Paul. 2004. An Anthropology of Structural Violence. *Current* Anthropology 45(3): 305–325.
- Farmer, Paul. 1999. *Infections and Inequalities: The Modern Plagues*. Berkeley, Los Angeles, London: University of California Press.
- Gilson, Lucy. 2006. Trust in health care: Theoretical perspectives and research needs. *Journal of Health Organization Management* 20(5): 359–375.
- Giles-Vernick, Tamara, Didier Gondola, Guillaume Lachenal, and William H. Schneider. 2013. Social History, Biology, and the Emergence of HIV in Colonial Africa. *The Journal of African History* 54(1): 11–30.
- Gopichandran, V., S. Subramaniam, and M.J. Kalsingh. 2020. COVID-19 Pandemic: A Litmus Test of Trust in the Health System. Asian Bioethics Review 29: 1–9. https://doi.org/10.1007/s41649-020-00122-6.
- Harrison, Mark. 2016. Pandemics. In *The Routledge History of Disease*, Routledge.
- Hespanha, Pedro. 2019. The Impact of Austerity on the Portuguese National Health Service, Citizens' Well-Being, and Health Inequalities, *e-cadernos CES* [Online], 31/2019-http://journals.opene dition.org/eces/4187. https://doi.org/10.4000/eces.4187. Accessed 22 September 2020.
- Hewlett, Barry S., and Bonnie L. Hewlett. 2008. *Ebola, Culture and Politics: The Anthropology of an Emerging Disease*. Belmont, CA: Thomson.
- Kelly, Ann H., Frédéric Keck, and Christos Lynteris (eds.). 2019. The Anthropology of Epidemics. New York: Routledge. https://doi. org/10.4324/9780429461897.
- Kehoe, Susan M., and J.Rick Ponting. 2003. Value importance and value congruence as determinants of trust in health policy actors. *Social Science and Medicine* 57(6): 1065–1075. https://doi. org/10.1016/S0277-9536(02)00485-9.
- Lachenal, Guillaume. 2020. Les enfants sorciers, *Liberation*, 13 May, https://www.liberation.fr/debats/2020/05/13/les-enfants-sorci ers_1788281 Accessed 23 September 2020.
- Navarro, Vicente. 1975. The Political Economy of Medical Care: An Explanation of the Composition, Nature, and Functions of the Present Health Sector of the United States. *International Journal of Health Services* 5(1): 65–94. https://doi. org/10.2190/9FHP-MX0Q-WBGX-NEF8.
- Nunes, Alexandre Morais, and Diogo Cunha Ferreira. 2019. Reforms in the Portuguese health care sector: Challenges and proposals. *International Journal of Health Planning and Management* 34: e21–e33. https://doi.org/10.1002/hpm.2695.
- OECD and European Observatory on Health Systems and Policies. 2019. *Portugal: Perfil de Saúde do País 2019, Estado da Saúde na UE, OCDE*. Brussels: Paris/European Observatory on Health Systems and Policies.
- OECD and European Observatory on Health Systems and Policies (EOHSP). 2017. *Portugal: Country Health Profile 2017*. Brussels: State of Health in the EU, OECD Publishing, Paris/European Observatory on Health Systems and Policies. https://doi. org/10.1787/9789264283527-en.
- Oliveira, Marta, and Carina Fernandes. 2020. Managing the coronavirus pandemic in Portugal: A step-by-step adjustment of health and social services. *Psychol Trauma*. 12(5): 536–538. https://doi. org/10.1037/tra0000879.
- Packard, Randall. 1989. White Plague, Black Labor: The Political Economy of Health and Diseases in South Africa. Berkeley: University of California Press.
- Parker, Richard, and Peter Aggleton. 2003. HIV and AIDS-related stigma and discrimination: A conceptual framework and

implications for action. *Social Science and Medicine* 57(1): 13–24.

- Passos, Lígia, Filipe Prazeres, Andreia Teixeira, and Carlos Martins. 2020. Impact on Mental Health Due to COVID-19 Pandemic: Cross-Sectional Study in Portugal and Brazil. International Journal of Environmental Research and Public Health 17(18): 6794.
- Pereira, Cláudia and Joana Azevedo (eds.). 2019. New and Old Routes of Portuguese Emigration. *IMISCOE Research Series*. https://doi. org/10.1007/978-3-030-15134-8_5.
- PORDATA. 2020. *Retrato de Portugal*, PORDATA, Edição 2020. ISBN: 978-989-9004-65-8.
- Portugal. 2020. Plano da Saúde para o Outono-Inverno 2020–21, Ministério da Saúde. Direção-Geral da Saúde. Lisboa: Direção-Geral da Saúde.
- Raven, Joanna, Haja Wurie, and Sophie Witter. 2018. Health workers' experiences of coping with the Ebola epidemic in Sierra Leone's health system: A qualitative study. *BMC Health Services Research* 18(1): 251.
- Rhodes, A., Patrick Ferdinande, Hans Flaatten, Bertrand Guidet, Rui Moreno, and P.G. Metnitz. 2012. The variability of critical care bed numbers in Europe. *Intensive Care Medicine* 38(10): 1647– 1653. https://doi.org/10.1007/s00134-012-2627-8.
- Rosenberg, Charles E. 1992. What is an Epidemic? AIDS in Historical Perspective. *Explaining Epidemics and Other Studies in the History of Medicine*, 278–292. New York: Cambridge University Press.
- Ryan, Molly J., Tamara Giles-Vernick, and Janice E. Graham. 2019. Technologies of trust in epidemic response: Openness, reflexivity and accountability during the 2014–2016 Ebola outbreak in West Africa. *BMJ Global Health* 4(1): e001272.
- Russo, Giuliano, Carlos André Pires, Julian Perelman, Luzia Gonçalves, and Pedro Pita Barros. 2017. Exploring public sector physicians' resilience, reactions and coping strategies in times of economic crisis; findings from a survey in Portugal's capital city area. BMC Health Services Research 17: 207. https://doi. org/10.1186/s12913-017-2151-1.
- Simões, Jorge, Goncalo de Almeida, Figueiredo Augusto, Ines Fronteira, and Cristina Hernández-Quevedo. 2017. Portugal: Health system review. *Health Systems in Transition* 19(2): 1–184.
- Singer, Merrill. 2009. Introducing Syndemics: A Critical Systems Approach to Public and Community Health. San Francisco, CA: Wiley.
- Snowden, Frank M. 2008. Emerging and reemerging diseases: A historical perspective. *Immunological Reviews* 225(1): 9–26. https://doi.org/10.1111/j.1600-065x.2008.00677.x.
- Stellmach, Darryl, Isabel Beshar, Juliet Bedford, Philipp du Cros, and Beverley Stringer. 2018. Anthropology in public health emergencies: What is anthropology good for? *BMJ Global Health* 3: e000534.
- van der Weerd, Willemien, Daniëlle R.M. Timmermans, Desirée Jma Beaujean, Jurriaan Oudhoff, and Jim E. van Steenbergen. 2011. Monitoring the level of government trust, risk perception and intention of the general public to adopt protective measures during the influenza a (H1N1) pandemic in the Netherlands. *BMC Public Health* 11(1): 575. https://doi.org/10.1186/1471-2458-11-575.
- Varanda, Jorge, and Josenando Théophile. 2019. "Putting Anthropology in Global Health—A Sisyphean Task or Herculean Challenge? Anthropology in Action- Journal for Applied Anthropology in Policy and Practice, Special Issue - Locating Anthropology in Global Health. https://doi.org/10.3167/aia.2019.260104.
- Varanda, Jorge. 2015. The emergence of HIVs—The under examined epidemics: HIV-2 in Guinea-Bissau and HIV-1 in Angola. 64th annual meeting of American Society for Tropical Medicine and Hygiene, Philadelphia, 21 May.
- Wald, Priscilla. 2008. Contagious: Cultures, carriers, and the outbreak narrative. Durham: Duke University Press.

- Wilkinson, Annie, Melissa Parker, Fred Martineau, and M. Leach. 2017. Engaging 'communities': Anthropological insights from the West African Ebola epidemic. *Philosophical Transactions of The Royal Society B Biological Sciences* 372: 20160305.
- World Health Organization (WHO). 2020. A Coordinated Global Research Roadmap: 2019 Novel Coronavirus. Geneva: World Health Organization.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.