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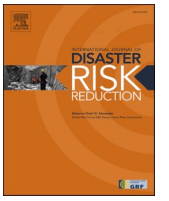
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Decentralization of healthcare during crises: Riding the wave of post-pandemic health system reforms to rethink health workforce

Lessons learned from the ongoing COVID-19 pandemic have prompted governments to rethink the organization of their healthcare systems and workforce. Specifically, Italy has announced the *Piano Nazionale di Ripresa e Resilienza* (PNRR), which includes a reform of the primary healthcare system. We recommend that Italy and other countries undergoing a similar process of reform, seize this opportunity to improve care provision and disaster preparedness by: 1) decentralizing services to primary and community care providers; 2) instituting task-sharing/shifting, expanding responsibility for basic care to non-physician staff.

Already before the pandemic, the demand for healthcare had increased to unprecedented levels because of an aging population and the steady rise of non-communicable diseases (NCDs) in high (HICs) and low- and middle-income countries (LMICs) [1]. Concomitantly, the world has been facing a shortage of healthcare workers (HCWs) [2]. These issues were further aggravated by the pandemic. Many HCWs died because of the virus, and there has also been a high dropout rate among HCWs due to the mental strain caused by the need to manage acute cases, while simultaneously ensuring continuity of care for chronic patients [3].

The pandemic focused public attention and resources on highly centralized and sophisticated hospital systems, often at the expense of person-centered care at the primary level, leaving marginalized people barred from accessing ongoing care during the crisis [4]. By funding primary care and community health programs, alongside supporting reforms that empower non-physician HCWs to meet some health needs currently met only by physicians, health for all can be more robustly maintained. Besides relocating some types of care to homes and community health facilities, Italy should institute protocols for sharing activities among healthcare personnel (physicians, nurses, community health workers) and strengthen collaboration between health and social services, thus connecting care to people. The above strategies can guarantee the provision of care to as many people as possible, especially when disasters occur, namely when an acute health response is needed, and concurrently ongoing non-disaster care must be guaranteed. Such a reform allows people to have a more complete and rapid answer to their needs with the proven benefits of better cost-effectiveness of healthcare provision, better health outcomes, and higher levels of community satisfaction with the care provided [5].

There are already models of success for such a shift in care provision. Several LMICs pioneered similar changes in provision when faced with the Human Immunodeficiency Virus (HIV) epidemic. People living with HIV, especially those in LMICs plagued by conflicts or disasters, experienced barriers in accessing antiretroviral treatment (ART) and had difficulty adhering to ART because of highly centralized care and a chronic dearth of HCWs. To improve people's access and adherence to treatment, ART delivery was moved from hospitals to more peripheral, less sophisticated levels of the health system. In South Africa and Mozambique, for example, nurses began to prescribe and maintain ART [6,7]. Additionally, "adherence clubs" led by CHWs were in charge of supervising patients' compliance to treatment and self-formed groups of adults collected ART for other individuals. Health service delivery improved by decentralizing services to primary and community providers, and by task-shifting to non-physicians or lay-cadres. This has resulted in an increased access to care and higher levels of adherence to treatment [8]. This positive experience has been further employed as a model of care delivery for the management of NCDs in unstable contexts, with positive outcomes [9]. A multitude of task-shifting activities were performed across Europe during the pandemic too, yet in Italy doctors are still responsible for most decisions about patient care [10].

We recommend that Italy and other countries that face similar challenges reshape health service delivery by decentralizing services to primary and community care and by instituting frameworks for task-sharing/shifting to make efficient use of all HCWs. At the hospital level, nurses can be empowered to autonomously treat patients with minor health problems in emergency departments, improving access and reducing waiting times. At the community level, household-based proactive and preventative primary care tasks, along with some public health functions, can be allocated to CHWs. Such a reorganization can grant better continuity of care,

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especially for hard-to-reach populations during disasters. Administrative tasks can be reassigned to specific non-medical cadres allowing HCWs to focus on clinical work. Patients can be empowered to actively cope with their own diseases in the context of their daily lives through self-management of their own conditions, or through expert patient initiatives.

This historical moment presents the opportunity now to improve disaster preparedness and make communities more resilient.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

[1] The Impact of the COVID-19 Pandemic on Non-communicable Disease Resources and Services: Results of a Rapid Assessment, WHO, Geneva, 2020.
[2] Global Strategy on Human Resources for Health: Workforce 2030, WHO, Geneva, 2016.
[3] J.H. de Kock, H.A. Latham, S.J. Leslie, M. Grindle, S.A. Munoz, L. Ellis, R. Polson, C.M. O'Malley, A rapid review of the impact of COVID-19 on the mental health of healthcare workers: implications for supporting psychological well-being, BMC Publ. Health 21 (2021), https://doi.org/10.1186/s12889-020-10070-3.
[4] R. Cash, V. Patel, Has COVID-19 subverted global health? Lancet 395 (2020) 1687–1688, https://doi.org/10.1016/S0140-6736(20)31089-8.
[5] M. Laurant, M. van der Biezen, N. Wijers, K. Watananirun, E. Kontopantelis, A.J.A.H. van Vught, Nurses as substitutes for doctors in primary care, Cochrane Database Syst. Rev. (2018) 2018, https://doi.org/10.1002/14651858.CD001271.pub3.
[6] L. Fairall, M.O. Bachmann, C. Lombard, V. Timmerman, K. Uebel, M. Zwarenstein, A. Boulle, D. Georgeu, C.J. Colvin, S. Lewin, G. Faris, R. Cornick, B. Draper, M. Tshabalala, E. Kotze, C. van Vuuren, D. Steyn, R. Chapman, E. Bateman, Task shifting of antiretroviral treatment from doctors to primary-care nurses in South Africa (STRETCH): a pragmatic, parallel, cluster-randomised trial, Lancet 380 (2012) 889–898, https://doi.org/10.1016/S0140-6736(12)60730-2.
[7] T. Decroo, B. Telfer, M. Biot, J.M. Maïkéré, S. Dezembro, L.I. Cumba, C. das Dores, K. Chu, N. Ford, Distribution of Antiretroviral Treatment through Self-Forming Groups of Patients in Tete Province, Mozambique, 1996. www.jaids.com.
[8] T. Kredo, N. Ford, F.B. Adeniyi, P. Garner, Decentralising HIV treatment in lower- and middle-income countries, Cochrane Database Syst. Rev. (2013), https://doi.org/10.1002/14651858.CD009987.pub2, 2013.
[9] É. Ansbro, R. Issa, R. Willis, K. Blanchet, P. Perel, B. Roberts, Chronic NCD care in crises: a qualitative study of global experts' perspectives on models of care for hypertension and diabetes in humanitarian settings, J. Migrat. Health 5 (2022) 100094, https://doi.org/10.1016/j.jmh.2022.100094.
[10] G.A. Williams, C.B. Maier, G. Scarpetti, J. Galodé, M.-C. Lenormand, K. Ptak-Bufken, I. De, L. Mata, C. Scotter, T. Zapata, Human resources for health during COVID-19: creating surge capacity and rethinking skill mix, Eurohealth (Lond). 28 (2022) 19–23.

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