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Global health and innovation: A panoramic view on health human resources in the COVID-19 pandemic context

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Abstract

While policy-makers in many jurisdictions are paying increasing attention to health workforce issues, human resources remain at best only partially aligned with population health needs. This paper explores the governance of human resources during the pandemic, looking at the Quebec health system as a revelatory case. We identify three issues related to health human resource (HHR) policies: working conditions, recognition at work and scope of practice. We empirically probe these issues based on an analysis of popular media, policy reports and participant observation by the lead authors in various forums and research projects. Using an integrated model of HHR, we identify major vulnerabilities in this domain. Persistent labour shortages, endemic deficiencies in working environments and inequity across occupational categories limit the ability to address critical HHR issues. We propose three ways to eliminate HHR vulnerabilities: reorganize work through participatory initiatives, implement joint policy making to rebalance power across the health workforce, and invest in the development of capacities at all system levels.

KEYWORDS

COVID-19 pandemic, health human resources, health workforce innovation, workforce governance

1 | INTRODUCTION

The COVID-19 pandemic emphatically underlines the importance of health issues in the contemporary world,[1] obliging national jurisdictions to revisit their health human resources (HHR) policies. In Canada, HHR policies have been assessed and studied extensively in recent years[2] and provinces have undertaken significant reforms to adapt their health systems to emerging needs and issues.[3] However, numerous vulnerabilities persist.[4,5] Bourgeault and colleagues[6] stress the importance of national HHR strategy to address misalignment with priority health needs. Policy reports since the outbreak of the pandemic in Canada underline deficiencies with regard to HHR that have come to the fore,[7–10] and a recent report in Quebec[11] identifies particular problems with insufficient staffing, incentive structures that limit the ability to attract and retain appropriate levels of HHR, limited sector and occupational integration, and low productivity. HHR policies need to address integration[12] and capacity challenges[13] in order to move from short term responses to compensate labour shortages to a more comprehensive approach. This article looks at HHR challenges in a publicly funded health system (PFHS), in Quebec (population 8.45M, representing 22.5% of the Canadian population) in the context of the COVID-19 pandemic. Canada is a decentralized federation where most responsibilities for health care are in the hands of provinces and territories. Health systems represent nearly 50% of public program spending in Quebec.[14] HHR issues in Quebec are emblematic of challenges facing high income countries and of these countries' failure to take them seriously.[15]

1.1 | Theoretical background: HHR policies in Canada

Contemporary work on HHR policies sees human resources as a critical asset in achieving high quality and equitable care.[15] HHR is considered not only from the standpoint of human resources management within local healthcare organizations, but also in terms of alignment with population health needs. Better alignment of HHR with population health needs depends on working conditions, recognition at work and scope of practice.[16–22]

Working conditions relate to the creation and implementation of work environments that facilitate attraction, engagement and retention of staff. A constellation of factors are at play, from proper initial training, to the availability of sufficient resources to meet daily work demands, to the participation of health workers in decisions related to the organization of work.[15,19,22] Recognition at work pertains to policies and managerial practices to address professional and occupational stratification and inequity. Gender and racial issues in HHR are revealing of how broader societal factors impact on the health workforce.[17,22] In response to inequities in the recognition received by a majority of health workers, working conditions are increasingly contested.[15] Recognition and valuation of the work of health workers at the bottom of the occupational hierarchy also depend on their participation and representation in higher professional, managerial and policy-maker hierarchies.[22–24] Finally, prevailing rigidities in the organization of work and professional scopes of practice are counter-productive, with regulations and conservative occupational norms limiting the ability of professionals and health workers to practice at full scope and develop effective collaboration and team-based care.[16,20,21] How these three HHR issues are tackled determines the ability of the health workforce to respond to population health needs in both 'normal' and pandemic contexts.

To empirically explore these three HHR challenges, we look to the integrated model of HHR developed by Khulmann.[12] According to this model, system integration entails alignment of the educational system with HHR needs in a given jurisdiction. Sector integration refers to a balanced approach among various sectors of care to ensure appropriate and comprehensive responses to health needs. Occupational integration refers to proper skill-mix and task shifting to ensure that professionals and health workers are used to their full scope of practice. Gender integration refers to recognition and valuation of health workers and professionals across occupational categories. Similar considerations are made around an inclusive workforce that reflects societal racial and cultural

diversity. These different dimensions of integration of HHR policies inform our analysis of HHR issues with the Quebec health system during the pandemic.

In addition, responding to HHR challenges requires more than good intentions: health systems need capacities to transcend current vulnerabilities.[13] Policy capacity is defined 'as the set of skills and resources—or competencies and capabilities—needed to perform policy functions'[13(p166)]. Three critical capacities are recognized: political, analytical and operational. These capacities can be developed and deployed at systemic, organizational and individual level. Systemic capacities are located in government and support the design and implementation of sound HHR policies. For example, rebalancing the health workforce may require the political ability to navigate a contested political landscape, analytical capacity to align policies with best available evidence, and operational capacity to support policy implementation. Similarly, organizational capacity requires political capacity to garner support for broad system goals, analytical capacity to monitor performance and provide feedback to health providers, and operational capacity to engage in continuous improvement. Finally, policy capacity is embedded in individuals who intervene at these three levels.

2 | METHODOLOGY

Our inquiry focused on the HHR situation in the Quebec healthcare system during the pandemic. As of 28 December 2020, Quebec had a total of 194,930 cases of COVID-19 and 8060 COVID-19 deaths in its population of 8.4 million. These numbers place Quebec in a worse position than other Canadian provinces, but somewhat better position than many European countries.[25] Over 80% of COVID-19 deaths were among residents of long-term care (LTC) (REF CIHI 2020), a sector that faced such immense challenges that the Canadian Armed Forces and Red Cross had to intervene to compensate labour shortages. We therefore concentrated our analysis on the HHR situation in LTC settings (including nursing homes) as revelatory of broader HHR issues.

To document HHR issues, we tracked policy reports published before and during the pandemic and daily media from the onset of the pandemic until December 2020. More precisely, we gathered evidence of HHR issues in (1) six newspapers searched in EUREKA and FACTIVA data repositories (Le Devoir, La Presse, Le Soleil, Le journal de Québec, Le journal de Montréal and The Montreal Gazette) and (2) digital platforms of the Canadian Broadcasting Corporation (CBC). Policy reports were identified through Google Scholar and a detailed exploration of the Quebec government's website. EndNote was used to code the material according to pre-defined and emerging codes. We then theorized and problematized HHR issues around our three main analytical themes.[26,27] These data were supplemented by data from two ongoing research projects on HHR issues in Quebec's health system.[28,29]

3 | RESULTS

3.1 | System integration

System integration refers to having the right mix of healthcare workers in sufficient quantity to respond to demands for COVID-19 and non-COVID care.[30] In the case of Quebec, the health system went into the crisis with severe labour shortages in very sensitive areas such as LTC and public health.[11,31] Care aides who offered the majority of care to vulnerable persons in LTC settings[7] were at the bottom of the occupational hierarchy and were already in short supply. Labour shortages coupled with high levels of absenteeism due to health risks, infections or burn-out meant that this sector was unable to provide high quality care.[32] In the first wave of the pandemic, the impact of shortages was dramatic, with very high numbers of health workers in LTC settings becoming infected with the virus, and LTC residents not receiving necessary care and suffering high rates of COVID-19 mortality.[33]

Problems with HHR cannot be fixed instantaneously; they depend, in PFHS, on long-term deliberate strategies and planning by governments. Shortages in various occupational categories are a long-standing issue in Quebec's health system.[34–36] As in other Canadian provinces, the system developed historically around two main centres of gravity—medical and hospital care—guaranteed under the Canada Health Act,[3] which has had the effect of limiting the attention paid to emerging health priorities such as care for a growing vulnerable elderly population.

These sectors have limited capacity to attract and retain qualified professionals as well as non-professionals. In the words of one medical doctor:

> What shocked me during the pandemic was that there are not enough care aides because it's a job that is very low-valued. No one wants to clean up other people's poop and that's how it's seen socially.[37]

In response to the dramatic situation in the LTC sector, Quebec's government implemented a program to quickly train new care aides and increase care aide wages. The training program attracted nearly 10,000 trainees. Public discourse by political leaders insisted on the value of care aides in the system:

> I therefore appeal from the bottom of my heart to all Quebecers who want to take care of our vulnerable people. If you are willing to share your strength, your energy, your humanity, if you want to make a difference in the lives of those who have built our society, then please get involved.[38]

While the government reacted with determination to labour shortages in the LTC sector, and to a lesser degree in public health,[31] the pandemic shone a light on structural vulnerabilities in the health system and underlined the urgency of taking a more comprehensive approach to HHR. It emphasized the need to improve the status, roles and valuation of the most disadvantaged members of the health workforce.

3.2 | Sector integration

Despite Quebec's attempts over time to re-balance the distribution of resources across sectors of care,[3] the first wave of the pandemic revealed persistent difficulties in responding to needs in LTC settings, home care and in deprived areas. A recent report by the Protecteur du citoyen[33] concluded that the government invested efforts in preparing hospitals for the pandemic, but paid little policy attention initially to other sectors of care. Moreover, policies adopted by government to promote transfers across healthcare organizations during the pandemic exacerbated the spread of the virus among health workers. Resources in LTC settings were dedicated to supporting the transfer of some hospitalized patients to LTC.[33] Access to personal protective equipment for health workers outside hospital settings was uneven, unreliable and insufficient. The results of these policy decisions were dramatic:

> Between March 1 and 14 June 2020, 13,581 healthcare workers were confirmed to have COVID-19, representing one quarter of the cases reported in Quebec during the first wave of COVID-19. Eleven of these healthcare workers (0.08%) died. Their risk of contracting COVID-19 was approximately 10 times higher than that estimated for the rest of the population.[39]

These data reveal that some segments of the health workforce were at greater risk of contracting the virus, and highlight inequalities in access to a safe work environment. A recent report commissioned by the Royal Society of Canada[7] concludes that Canada performed badly in term of excess mortality in LTC settings during the first wave of the pandemic compared to others jurisdictions. In addition, recent surveys document distress among health workers across Canada.[40]

Unsafe and difficult working conditions amplify labour shortages in key areas of care:

> The media has reported numerous testimonials from healthcare professionals at their wits' end, many of whom have decided to put their careers on hold. According to a compilation by the newspaper La Presse, nearly 1,100 nurses and nursing assistants as well as 510 orderlies left their jobs between March and July 2020.[41]

Recent reforms and persistent shortages in some occupational categories put excessive pressure on the health workforce. This led to extensive reliance on healthcare personnel contracted at high cost from private agencies.[42] Union leaders voiced their longstanding concerns around working conditions:

> According to FSSS-CSN President Jeff Begley, the crisis "couldn't come at a worse time" when the network was already weakened by a major labour shortage. "It was inevitable, in my opinion. I think it was inevitable," he says. "Before the pandemic, there was a 10 to 15 per cent shortage of resources on the floor in long-term care facilities on a regular basis," he says.[43]

At the worst of the crisis, daily press briefings by the Prime Minister, the Minister of Health and Social Services and the National Director of Public Health called on doctors, retired health workers and citizens generally to help address needs in LTC. In public health as well, labour shortages were perceived as critical and were mostly attributed to earlier budget cutbacks.

Overall, sector integration issues in HHR during the pandemic were symptomatic of the trajectory adopted by Quebec's PFHS over 20 years. Investments and policy attention were dedicated to assuring access to acute care and highly specialized medicine, a focus largely supported by public opinion. It appeared politically difficult to shift resources to implement robust primary care organizations that might have enabled community-based care to help address the pandemic.[44] The situation in Quebec's health system during the pandemic illustrates how the ability to deal with a crisis depends on the state of the pre-pandemic HHR workforce.

3.3 | Occupational integration

Occupational integration reveals that health planning faces limits when it is not based on a comprehensive approach.[12] Occupational integration thus appears highly dependent on more macro HHR policies taken by governments to foster system and sector integration.

A key factor in occupational integration is the level of collaboration in HHR across healthcare organizations, sectors of care, professions and occupational categories.[45] The pandemic context produces the unusual challenge of reorganizing care under intense pressures and uncertainty. For example, testing and contact tracing facilities had to be set up in communities, healthcare establishments had to reorganize to care for COVID-19 patients while maintaining capacity to deliver non-COVID care and protecting those patients from infection, and systems for mass vaccination had to be planned. These challenges had to be met without additional HHR and often with reduced HHR as health workers suffered from exhaustion and infection with COVID-19.

The pressures the pandemic imposed on healthcare facilities provided fertile ground to renegotiate professional boundaries. The Ministry and professional colleges accelerated negotiations to expand the scope of practice of non-medical professionals such as occupational therapists, physiotherapists and pharmacists[46]:

> On Tuesday, Quebec pharmacists gained new powers to better serve the population. […] They can, for example, prescribe over-the-counter drugs under certain conditions […] and according to the pharmacist's judgment.[47]

An ongoing empirical study of Quebec's healthcare system[28,29] suggests that in Family Medicine Groups, the pandemic led healthcare teams to invest more fully in inter-professional collaboration, with the support of administrative personnel, in order to respond to increased demand. Preliminary findings indicate that the ability to engage in such reorganizations varies across clinical settings and depends on previous experience of collaboration. In addition, middle managers in healthcare organizations, an occupational category often neglected in analysis of HHR issues, seem to play crucial roles in enabling organizations to respond to central policies and adapt care to evolving demands.[48] In the context of the pandemic, they support the reorganization of work and facilitate learning from front-line health workers. However, reforms in Quebec's health system in 2015 cut the number of middle mangers by more than 20%, which meant they had less direct contact with clinical teams under their responsibility.[49]

This reduction in the health management workforce meant that sectors such as LTC were already at a disadvantage in facing challenges brought by the pandemic:

> Referring to the army report: "In many cases, the management of the CHSLDs (nursing homes) was deficient and sometimes the management team was decimated by the disease. "The main challenges seem to lie in the leadership structure of setting and managing task priorities," the report states.[50]

Lack of proper managerial leadership and supervision at the point of care, coupled with past reforms that significantly increased centralization within the Quebec healthcare system, are blamed for the sector's poor performance during the pandemic:

> In the context of COVID-19, this top-down management and governance model is problematic to the point of compromising the safety of stakeholders and the public. The recent experience of CHSLDs (nursing homes) demonstrates this. By depriving local departments and their managers of decision-making power, centralization has the effect of devaluing or even paralyzing any local initiative. Ultimately, this type of governance demotivates, disengages and disempowers the actors concerned.[51]

In addition, nurses denounced the fact that they were not sufficiently consulted and invited to participate in decision-making bodies.[52] Current work on clinical governance[53,54] stresses the importance of supporting healthcare workers and teams through facilitative leadership and management, proper feedback and relevant information on the outcome of care, training in effective team work and continuous improvement, and time for learning. In addition, macro policies may limit the participation of key professionals, such as medical doctors, in healthcare teams and in unattractive sectors such as LTC.

Recent health system reforms coupled with labour shortages created a perfect storm when the pandemic struck. A system that was stretched thin before the crisis, with a lack of investment in clinical governance alongside excessive centralization, would have limited ability to perform adequately. While our analysis focused mainly on HHR challenges in LTC settings, a similar pattern would be found in community-based care and public health.[31]

3.4 | Gender integration

Gender integration refers to recognition and valuation of health workers and professionals across all occupational categories. A gender divide exists in many professional and non-professional occupations, including nursing, social work and care aides. Similar divides exist in the health workforce participation of racialized groups and cultural communities (*see next dimension*). While more and more women are entering medicine,[55] they also make up the bulk of healthcare staff in a variety of occupational categories, many of which are at the bottom of the pecking order:

> In Quebec, two-thirds of public service jobs are held by women, and of the 275,000 or so employees of the RSSS, more than 80% are women. They are the main fighters in the war against COVID-19.[56]

Women, many from racialized groups, are at the front line in the battle against the pandemic. At the worst of the pandemic in Quebec, health workers, including those in low-status occupations, were called *guardian angels* to underscore their devotion and commitment. Many criticized this designation, used by politicians and government to morally support health workers. Public discourse tends to reproduce prevailing gender inequality in relation to the valuation and recognition of work.[24] As stated by the president of the Quebec College of Nursing (OIIQ):

> The expertise and skills that the profession requires today are ignored, even misunderstood by the public, but also by healthcare players. "Doctors still take nurses for technicians and not professionals," notes Mr. Mathieu. For many patients, nurses are "thin", benevolent, they pass out pills and give injections. According to the president of the OIIQ, its members are fed up with this reductive vision. Too many people hide the fact that nurses are autonomous professionals who provide care based on scientific data. The term "guardian angel", used since the beginning of the pandemic, is grazes the ears of many.[57]

Recognition by politicians and the public of the crucial roles played by these *guardian angels* during the pandemic contrasts with the reality of their working conditions. The daily life of many health workers involves excessive workloads, compulsory overtime, assignments in high risk clinical zones, witnessing and often being the sole support for distressed patients, feelings of guilt at the inadequacy of care that can be provided in a context of severe labour shortages, and persistent fear of making mistakes under pressure. In addition, they put their own health at serious risk, as evidenced by the high infection rates among health personnel.[56]

Poor working conditions before the pandemic impacted on the stress, distress and mental health problems experienced by health workers, and on the ability to attract, recruit and retain personnel[58–60]

Overall, a gender lens on the division of labour in the Quebec health sector reveals that not all professions and occupational categories are equal in their opportunity for fulfilling work experience.[61] Balancing work and other obligations is also difficult to achieve in this context and keeps many professionals and non-professionals from taking on full-time positions, which further exacerbates staff shortages. As well, government rationalization policies have, in the past, favoured precarious jobs in health care.[62]

3.5 | Socio-cultural integration

Socio-cultural diversity relates to having a health workforce that reflects the socio-cultural diversity of the population. The hypothesis here is that the provision of care will be more aligned with health needs if socio-cultural considerations are embedded within the health system. Socio-cultural diversity also refers to the ability of a health system to offer equal opportunities and treatment to workers from racialized communities or groups. This second meaning is similar to the gender integration discussed above.

During the pandemic's first wave, Quebec's government issued a public call for people to volunteer to compensate staff shortages in health facilities. Many of those who responded to the call were refugees seeking asylum. Quebec's government made promises to hear their claims quickly and normalize their status in recognition of their contribution, but has been slow to fulfil this promise:

> Under the current agreement with Ottawa, only refugee claimants who provided direct patient care at the height of the first wave of the pandemic will be eligible for a bridge to permanent residence. Where is the logic in including the insecure employee who held the hand of a patient with COVID-19,

> but excluding the one who took such a risk by washing the floor right afterwards with inadequate protective equipment? The truth is that there is none. Nor is it logical. Nor fair.[63]

The mobilization of asylum seekers to get involved is extreme, but revelatory of the position of racialized HHR in the health system. In urban areas, there is a concentration of recent immigrants and members of racialized groups in low-status health occupations.[64] These workers face greater risks of infection at work and tend to live in more crowded dwellings in deprived neighbourhoods where infection rates are higher than in more affluent areas.[65]

Overall, the recognition and protection of HHR was problematic from the onset of the COVID-19 pandemic. Social demarcations according to gender and race were reflected in a segmented health workforce where these workers were concentrated in occupational categories at the low end of the hierarchy.

4 | DISCUSSION

This paper explores the HHR situation in Quebec's healthcare system during the pandemic in order to identify pathways for renewing HHR policies. While the case of Quebec presents a dramatic picture of HHR governance in the pandemic context, we argue that many health systems in Canada and abroad face similar challenges.[7,9,66] Based on our analysis of this case, we identify three areas that need attention to eliminate HHR vulnerabilities: (1) the organization of work to increase valuation at work, (2) the politics of HHR policies to address structural inequalities across occupational segments, and (3) the alignment of levels of governance to increase the coherence and effectiveness of HHR policies in health systems, including the expansion of health workers' scope of practice. Our analysis aims to transcend the paradox of engagement through which increased demands are placed on HHR in a context where it is increasingly difficulty to mobilize HHR.

4.1 | Rethinking the organization of work

Our analysis reveals that the pandemic catalysed innovation in clinical settings. The pandemic increased collaboration across organizations and professional and occupational groups, bringing greater flexibility to HHR roles and practices. One example was the involvement of paramedical technicians in the provision of home care support to reduce the need for frail patients to visit hospital emergency rooms.[67] Paramedical technicians worked closely with Primary Health Care Nurse Practitioners and mental health professionals in accomplishing these new roles.

Such initiatives are rooted in the involvement and creativity of front-line health workers whose input is usually less valued in the system. Our research suggests that the combined mobilization of front-line health workers and health managers enables the design and implementation of innovations in care delivery.[68] Mobilization goes beyond commitment to meeting care demands, to include involvement in decision-making structures. In the management of the pandemic, the views of front-line health workers have been relatively neglected, as seen in their lack of representation on key decision-making committees. This situation limits the ability to compensate and resolve deficiencies in the health system. Studies on more plural forms of leadership in complex systems reveal the importance of bringing different sources of expertise and legitimacy to bear in shaping system operations when dealing with unusual situations such as a pandemic.[69,70] However, local engagement of HHR cannot effectively address system dysfunctions. Systemic issues need to be dealt with at a more macro level of intervention.

4.2 | The politics of HHRs policies

Health systems are structured around a broad policy frame that dictates who will exert power.[71] Our analysis of HHR issues underlines limitations in the power that health workers outside the medical profession can exert to influence their working conditions and status in the system. Studies on the organization of work in health care and other contexts document the growing distance or alienation of human resources from their work context, and increasing resistance.[72–75] Alienation results from extreme pressure at work coupled with low capacity to meet work demands and share the burden at work.

Alienation from work can reduce commitment and collaboration, and lead to counter-productive behaviours.[76] While the managerial elite tends to look at resistance as an illegitimate behaviour, a more critical look at HHR policies suggests that the genuine engagement of workers in their work context requires a better balance between pressure and support from the organization. These issues can only be resolved through more progressive HHR policies.

Progressive HHR policies are based on a political project that involves a broad set of mechanisms to re-balance power among occupational categories. Such policies go beyond objective working conditions (wages, scheduling, workload) to also consider the importance of meaning and recognition at work.[68,77] When health workers face undue pressure and working conditions conducive to sub-standard care or practices, they tend to disengage. Dealing with negative work environments only on an individual or personal basis will necessary exacerbate labour shortages.

Progressive politics around HHR imply that under-valued occupational categories in health care, including gendered and racialized segments of the health workforce, gain a collective voice to co-produce solutions to improve their experience of work. Unions and professional associations can play a key role in challenging politicians and policy-makers in this regard. While such a re-balancing of power may seem utopian, it opens up the possibility of productive resistance in organizations, where managerial and political elites might relinquish their control over the agenda to workers and middle-managers to help resolve collective problems.[78]

4.3 | Multi-level governance of HHRs

In the introduction, we refer to policy capacity as a necessary ingredient to support changes in HHR policies. Adaptation will not happen naturally. Deliberate strategies must be put in place to reverse current trends and move towards a more progressive view of HHR policies. As found by Wu and colleagues,[13] political capacity emphasizes the need to create and implement joint policy-making bodies that involve unions, worker representation and policy-makers to achieve system change. Planning and management of HHR to achieve recognition and valuation of important segments of the health workforce should be in the hands of this type of joint policy-making entity.

Health organizations can also play a crucial role by investing in team-based organizations and clinical governance. The development of analytical and operational capacities are at the heart of clinical governance. Team-based organizations may facilitate the development of more equitable exchanges among professional and non-professional segments of the health workforce and contribute to mobilizing the expertise of front-line workers.

Finally, individual capacities must be developed to reinforce recognition of the most disadvantaged segments of the workforce by valuing their competencies, expertise and insights. This brief discussion of policy capacity illustrates the importance of looking at HHR policies as a multi-level governance effort. Macro level policies are needed to stop the reproduction of detrimental and unproductive HHR policies. Meso level initiatives help by creating working environments that will benefit from adaptive and innovative HHR. Individual capacity development supports the creation of new agentic capacities among health workers to support transformations in the day-to-day life of health organizations and systems.

5 | CONCLUSION

In this article we look at HHR issues arising in the pandemic context in Quebec. We focus on three issues highlighted in HHR scholarship: working conditions, recognition at work and scope of practice. We use the five integrative dimensions of HHR[12] to depict the situation of HHR in these areas. Based on empirical analysis, we then develop three propositions to address vulnerabilities in HHR policies. These propositions are demanding and transformative. Creating favourable working environments will require more participatory work organizations and more inclusive decision-making in health organizations. This is not a new idea, but it has lost significance in recent years through multiple reforms, budget cutbacks and destabilization. Renewing HHR policies rests on innovations in the policy process within government, such as the creation of joint policy-making structures to rebalance power across occupational categories. Finally, capacity development is crucial at all levels of governance of the health system to ensure robust development and monitoring of policies, transformation of the organization of care in health organizations, and the engagement of health workers to exert influence over their work context. Post-pandemic governance of HHR should be different and can be different if these propositions are seriously considered and implemented.

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CONFLICT OF INTEREST

All the authors certify that they have no conflict of interest.

DATA AVIALABILITY STATEMENT

The data that support the findings of this study are available in web sites of daily press used in the paper and from Government website.

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