






COVID-19 and the global need for knowledge on nurses' health

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AIM

In this paper, we emphasize that nurses need to be fully protected to carry out their vital role, particularly during pandemics, however, the lack of a standardized and systematic collection of high-quality disaggregated data on nurses' health and wellbeing inhibits our ability to assess this within and across many countries. These limitations reflect the weak and biased public health information systems currently in place, globally, and underscores the long-standing structural problems that continue to plague nurses. Building on current

Abstract

Aim: To emphasize that nurses need to be fully protected to carry out their vital role, particularly during pandemics, yet the lack of a standardized and systematic collection of high-quality disaggregated data on nurses health inhibits our ability to assess this within and across countries.

Background: Nurses are the largest workforce group in the health sector, yet only 59 countries worldwide report on nurse COVID-19 infections and related deaths, and the standardized, systematic collection of disaggregated health data is not yet in place.

Sources of evidence: Medline, International Council of Nurses, World Health Organization, Centers of Disease Control and Prevention and the experiences of the authors.

Discussion: Inconsistent recording and definitions of nurses, precarious and informal employment conditions, limited transparent and reliable data, lack of mass testing and long-standing structural issues and biases have affected nursing for too long.

Conclusions: These issues are reflected in the limited capacity of many national public health information systems to collect, monitor and report on the health of the largest group of health workers. Political will, accountability and public data transparency at different levels are essential to adequately protect nurses at work.

Implications for nursing practice, and nursing and health policy: Building on current momentum in the nursing field, immediate political action is required to strengthen existing nursing and midwifery policies, standards and regulatory capacity, as well as existing public health services and information and surveillance systems. The generation of up-to-date, context-specific knowledge is needed to inform and monitor political decisions related to the protection of nurses, and the improvement of their employment conditions, as well as to strengthen accountability for these areas at various levels.

KEYWORDS

accountability, COVID-19, health information system, nursing, nursing policy, public health

momentum in the nursing field, we call for immediate political action, and we present a number of key recommendations in order to protect nurses, improve their employment conditions and strengthen accountability at various levels.

BACKGROUND

In the era of big data, where health data alone make up 30% of the world's stored data in the past five years (OECD, 2020), huge knowledge gaps exist. Nurses account for the largest

group of health workers in the health sector (WHO, 2020a), yet there is a lack of transparent, accurate and timely information available on their health. The coronavirus disease 2019 (COVID-19) pandemic has revealed the essential need to strengthen public health information systems globally. It is crucial that countries have detailed and consistent data about the health workers who have been infected and died from COVID-19, to understand how, why and where the virus is spreading, who is most vulnerable to infection and whether current interventions are effective. Protecting the health and wellbeing of all health workers remains paramount, especially during pandemics (Lancet, 2020), yet many countries worldwide have been failing to adequately protect them, for example, through the lack of personal protective equipment (PPE) provision, or inadequately safeguarding their mental health and wellbeing (Amnesty International, 2020; Crespo et al., 2020; Lancet, 2020).

SOURCES OF EVIDENCE

Evidence has been identified from PUBMED, Medline, International Council of Nurses (ICN), World Health Organization (WHO), Centers of Disease Control and Prevention (CDC) and the experiences of the authors.

DISCUSSION

Over the past years, prior to COVID-19, there has been a growing global awareness of the need to improve the availability, quality and use of data on health workforce and the importance of monitoring this through a key set of indicators focused on achieving an adequate size and skill mix to attain various population health goals at national and global levels. For example, in May 2016 the National Health Workforce Account (NHWA) gathered broad consensus amongst Member States of the WHO in the 69th World Health Assembly and in its resolution 69.19, which 'Urges all Member States to ... progressively implement the NHWA'. In addition, the High-Level Commission on Health Employment and Economic Growth and the UN General Assembly resolution (A/RES/71/159) adopted in December 2016 support the implementation of NHWA. In the first report published in early 2020, impressively, 193 out of 194 WHO Member States reported data on the state of nursing education, workforce and leadership in a standardized manner (WHO, 2020a). Despite this great effort, the pandemic has re-emphasized that nurses can only provide quality care if they are in good physical and mental health, an issue currently underreported.

WHO recommends to improve global public health information systems and provides information on how to strengthen them in order to track specific health workforce indicators to inform policies and make rapid, evidence-based decisions in the context of the COVID-19 pandemic (WHO, 2020b). To support this, disaggregated high-quality information is crucial to have a more comprehensive and accurate

picture of the nursing workforce and their health, particularly during pandemics, as well as to be able to identify, measure and monitor health inequalities (Cash-Gibson et al., 2021). However, previous research shows that many national health information systems around the world have important research capacity gaps (Llop-Gironés et al., 2019; Peralta et al., 2019), which has likely limited these countries' capacity to rapidly respond to, and effectively manage, the pandemic (Cash-Gibson et al., 2021).

Even prior to the pandemic, while data are frequently collected and available on the number of female and male nursing workers and their age, there is a lack of publicly available disaggregated information on nurses infections and deaths by gender, age, occupation, grade (including nursing students), level of care, working time and geographical location. The lack of detailed statistical information is even more marked when it comes to social class, race/ethnicity, caste or migrant status, despite the fact that worldwide one in eight (i.e. 3.7 million) nurses practices in a country other than the one they were born or trained (WHO, 2020a).

With existing data one can glimpse that nurses, the majority of which are women, are disproportionately affected by COVID-19 compared to other health workers, regardless of whether they specifically treat COVID-19 patients or not. On 31 December 2020, the ICN reported that the cumulative number of deaths of nurses was 2,262 (ICN, 2021). Using data from six US states, the Centers for Disease Control and Prevention (CDC) reported that among the total number of SARS-CoV-2 infection, 32.1% were nurse aides and 29.5% were professional nurses, compared to 3.2% of physicians (Hughes et al., 2020). Amongst COVID-19-associated hospitalizations in 13 US states, professional nurses account for the largest group (35%), followed by nurse aides (15%) compared to physicians (5%) (Kambhampati, 2020). In Spain, the National Nursing Association estimates that approximately 60% of health-care professionals infected are professional nurses; also, it has reported that nine nurses died from COVID-19 since March 2020, yet, the Institute of Statistics of Spain does not provide this type of detailed data. Finally, no data are currently available on the impact of long-term COVID-19 on the nurses' wellbeing, an issue in which the Royal College of Nursing of UK has called to raise awareness of governments and scientific bodies.

The ICN (2021) states that a standardized and systematic collection of anonymized data on nurses' SARS-CoV-2 infections and related deaths is not in place and that so far only 59 out of 195 countries have reported data on this. ICN (2021) recognizes that the figures are likely to be a significant underestimation, despite the fact that current COVID-19 reporting systems in a number of high-income countries are expected to have good-quality information of nursing. This may be in part due to a number of reasons.

First, globally, there is incomplete and poor documentation, likely related to the inconsistent recording and definitions of who is a nurse (WHO, 2020a). The role of a nurse in a specific country may be different from that in another country, and this makes it even more challenging when aiming



to make a comparison of data across different countries and regions. Yet, there is a standard definition based on the ISCO-08 system to categorize the health workforce, but high-income countries, such as Spain, still lack an adequate systematization of the registry of occupations such as nurse aides or nursing homes' carers with minimal qualifications, despite these workers are probably the ones with the most contact with patients. In addition, countries like the UK or Spain have employed nursing students and retired nurses during COVID-19 surges, also now with the vaccination. These workers are also at risk of infection and death (Marsh, 2020), but it is unknown whether public health information systems may consider them.

Second, precarious employment in nursing not only increases the hazardous conditions damaging their health, where women are disproportionately affected (Menéndez et al., 2007), but also affects the accuracy of data reporting. Before the pandemic, informalization of nurses' employment already had an impact on working hours and conditions, minimum wage and social protection (WHO, 2020a). In Mexico, for example, the proportion of nurses working in the health sector with no written contract increased during the period of study (Aristizabal et al., 2019).

Third, there is a lack of public data transparency at different levels (Amnesty International, 2020), which limits accountability. Healthcare facilities, including private healthcare facilities and nursing homes, may deliberately choose to hide existing reports on COVID-19 work-related infections and deaths from nurses and other healthcare workers, and governments fail to compel them to provide data, as was the case in the USA for example (National Nurses United, 2020). Furthermore, most governments are not providing timely and publicly accessible data on nurses.

Fourth, it has been argued that mass testing of asymptomatic health workers during COVID-19 pandemic might not be necessary in health facilities with protocols for PPE (Bielicki et al., 2020; Chow et al., 2020). Yet what has been less discussed are the implications this may have in terms of the accuracy of reported COVID-19 data, which is crucial for policy guidance and decision-making, and how it can contribute to the increase of community transmission of SARS-CoV-2 (Pearce et al., 2020a, 2020b). In fact, the CDC (2020) recommends testing asymptomatic healthcare workers without known or suspected exposure to SARS-CoV-2 working in nursing homes. Moreover, there are reports of nurses working in Belgium and the USA who must return to work once symptoms disappear, regardless of PCR results; this situation might also be true for other countries (Silberner, 2020). In Mexico, a number of nurses affected by SARS-CoV-2 have not been offered testing (Agren, 2020), and in Nepal, most of the private health facilities and hospitals have not insured nurses working in COVID-19 wards (Manoj, 2020).

Lastly, deep-rooted power structures, including patriarchy and gender bias (WHO, 2019), and chronic underinvestment in the health sector, fuelled by the austerity measures of the last decade (Crespo et al., 2020), have likely accelerated such data gaps within and between countries. Furthermore, due to long-standing health systems and workforce hierarchies, and pre-

carious employment condition (WHO, 2020a), amongst other things, nurses have long been invisible, uncounted, undervalued and silenced with the system, which must be addressed.

Fortunately, during the COVID-19 pandemic, the vital role of nurses in health care has achieved broad societal and professional recognition; the current momentum created by this, and the NHWA, should be leveraged to take political action to ensure the protection of nurses.

RECOMMENDATIONS

First, we call for immediate political action to strengthen existing national public health services, and health and sociodemographic information and surveillance systems, globally. This infrastructure is crucial to be able to generate up-to-date, comprehensive, context-specific knowledge on nurses' health, which can be used to inform and monitor decisions related to their protection, improving their employment conditions, and strengthen accountability for these issues at various levels.

In addition, and in line with the draft resolution of the 74th World Health Assembly on Strengthening nursing and midwifery: investments in education, jobs, leadership and service delivery (WHO, 2021), we recommend that

...professional councils and regulatory bodies should strengthen nursing and midwifery policies, regulations and standards, as applicable, and enhance regulatory capacity ... Also, professional associations and trade unions should mobilize collective action and advocacy for investments in nursing and midwifery; ... advance the ILO's Decent Work Agenda for safe and equitable workplaces; ... and engage in data strengthening as the basis for evidence-informed policy dialogue, decision-making and a long-term pandemic preparedness strategy. (WHO, 2021, pp. 6–7)

Furthermore, governments should develop national Government Chief Nursing Officer and nursing leadership programmes to promote stronger regulation of nursing education and employment conditions for nurses, together with a clearer competency-based practice for public health nurses. The high-level nursing positions within national governments should then champion institutional capacity-building for nursing health information systems, which, as WHO explains, '...may entail permanent mechanisms to convene stakeholders, including nursing leaders, to establish clear mechanisms for collation and exchange of data, to discuss data availability, quality, and challenges, and to implement interoperable data systems' (WHO, 2020a, p. 69).

CONCLUSION

Over the past year or so, many nurses and other health professionals have died or have been seriously ill from COVID-19.

However, the exact numbers remain unclear. The lack of a standardized and systematic collection of high-quality disaggregated data on nurses health, and their employment conditions, reflects the weak and biased public health information systems currently in place and underscores the long-standing structural problems that continue to plague nurses around the world. Political action is urgently needed to implement a number of key employment- and health-related policies, to strengthen national health information systems capacities and their international interlinkages to analyse and monitor employment conditions and assess their impact on nurses' health, wellbeing and health equity.

IMPLICATIONS FOR NURSING POLICY

To enable nurses to carry out their vital role, they must be fully protected, and this requires a number of key components to be in place. First, international and national political will is vital to address the current structural problems, along with the implementation of a series of economic and health policies designed to strengthen nursing standards and regulatory capacity as well as current public health services in different countries. In addition, robust health and sociodemographic information and surveillance systems need to be in place, which can periodically and transparently collect and report robust disaggregated data to generate up-to-date, comprehensive and context-specific knowledge on nursing health. This knowledge is required to inform and monitor political decisions related to the protection of nurses, to improve their employment conditions, and strengthen accountability at various levels.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS


Manuscript conception: ASG and ALG; manuscript writing: ALG and LCG; approval of the final draft: ALG, ASG, LCG, JB and AZ; critical revisions for important intellectual content: JB and AZ.

ACKNOWLEDGEMENT

JB gratefully acknowledges the financial support by ICREA under the ICREA Academia programme.


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How to cite this article: Llop-Gironés, A., Santillan-Garcia, A., Cash-Gibson, L., Benach, J. & Zabalegui, A. (2022) COVID-19 and the global need for knowledge on nurses' health. *International Nursing Review*, 69, 196–200. <https://doi.org/10.1111/inr.12722>