

'Hidden pandemic': orphanhood and loss of caregivers in the COVID-19 pandemic

Nick Spencer ¹, Georgina Warner,² Jamile Marchi,³ Sahar Nejat³

To cite: Spencer N, Warner G, Marchi J, *et al.* 'Hidden pandemic': orphanhood and loss of caregivers in the COVID-19 pandemic. *BMJ Paediatrics Open* 2022;**6**:e001604. doi:10.1136/bmjpo-2022-001604

Received 21 July 2022

Accepted 29 August 2022

The WHO estimates that there were 14.9 million excess deaths (deaths associated with COVID-19 directly due to the disease or indirectly due to the pandemic's impact on health systems and society) in 2020–2021.¹ COVID-19-associated excess deaths have occurred mainly among adults with rates increasing with age. Child deaths have been relatively rare; however, children have been affected by what has been described as a 'hidden pandemic' of orphanhood and loss of primary and secondary caregivers.² Initial global estimates, based on mortality and fertility data from 21 countries, showed that approximately 1.5 million children had experienced loss of at least one primary or secondary caregiver to SARS-CoV-2 infection between 1 March 2020 and 30 April 2021; however, updated estimates, modelled on COVID-19-associated excess deaths up to 1 May 2022, show greatly increased numbers with 10.4 million children having lost a parent or caregiver and 7.5 million children having experienced orphanhood.²

The consequences for children who have been orphaned or have lost primary or secondary caregivers are potentially severe. The effects are likely to stretch beyond initial grief and bereavement to increased risk of experiencing institutionalisation, developmental and mental health problems, family poverty and subsequent suicide and chronic diseases.² In low/middle-income countries, the risk of dying before reaching adulthood for children whose mother died is significantly elevated: almost five times for an infant and twice for children over 6 months, compared with children whose mother lived.³

The right of children to live with their parents is enshrined in Articles 9 and 18 of the United Nations Convention on the Rights of the Child and the pandemic has undermined this right for millions of children. Loss of a grandparent may be seen as less significant

than parental loss; however, globally, 38% of households that are multigenerational, including grandparents, are rising to 50% in Asia.⁴ Grandparents frequently provide direct care as well as psychological and financial support for their grandchildren.⁴ While multigenerational households may be less common in high-income countries, grandparents play a major role in childcare and support. For example, 40% of grandparents living with their grandchildren in the USA are their primary caregivers.⁴

Despite the magnitude of the numbers of children affected, relatively little attention has been paid to this consequence of the pandemic. Understandably, health services and governments have focused on prevention and management of SARS-CoV-2 infection among adults and vulnerable populations resulting in relative neglect of the needs and rights of children in the pandemic. The modelling studies have been invaluable in estimating the size of the hidden pandemic but, otherwise, the literature is sparse.

COVID-19 has been described as a syndemic⁵ in which SARS-CoV-2 infection has exacerbated existing social inequalities and chronic disease. Cases, hospitalisation and deaths in most countries of the world have reflected these inequalities with the most deprived bearing the brunt of the pandemic. Even in high-income countries with very different social policies, such as England and Sweden, these inequalities in adult mortality during the pandemic have been documented in official data. Age-standardised COVID-19 death rates per 100 000 in England reported by the Office of National Statistics varied from 570 (95% CI 562 to 578) in the most deprived decile to 296 (95% CI 291 to 300) in the least deprived decile.⁶ Adults with incomes in the lowest quintile in Stockholm, Sweden were



© Author(s) (or their employer(s)) 2022. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

¹Division of Health Sciences, University of Warwick, Warwick Medical School, Coventry, UK

²Department of Public Health and Caring Sciences, Social Medicine/CHAP, Uppsala University, Uppsala, Sweden

³Paediatrics, Karolinska University Hospital, Stockholm, Sweden

Correspondence to

Dr Nick Spencer; N.J.Spencer@warwick.ac.uk

more than twice as likely to die from COVID-19 as those in the highest income quintile.⁷

As a result, children in low-income and disadvantaged families and communities are likely to be at highest risk of loss of caregivers; however, data on inequity in orphanhood and caregiver loss are scarce. Global estimates of children orphaned or who have lost caregivers are not equally distributed across regions with South East Asia and Africa having the highest numbers affected.² The worst affected individual countries are India (3 490 000 children), Indonesia (660 000 children affected) and Nigeria (430 000 children affected).² Hillis *et al*,⁴ using rate ratios, calculated as loss of caregivers per 100 000 minority ethnic group children/lost caregivers per 100 000 non-Hispanic white children, found that compared with white US children, American Indian and/or Alaska Native children, black children, Hispanic children, and Asian children were 4.5, 2.4, 1.8, and 1.1 times more likely, respectively, to lose a caregiver. These ethnic differences in the USA and elsewhere often reflect differences in socioeconomic status.

Consistent with the characterisation of the pandemic as a syndemic, the increased risk of orphanhood and loss of caregivers in the pandemic among children in low-income and disadvantaged households and communities adds to the pre-existing higher risk of experiencing adverse life events such as poverty, frequent residential mobility and parental separation. The psychological and mental health consequences of loss are likely to be heightened compared with their more fortunate peers. The abrupt nature of the loss resulting from premature, unexpected COVID-19 deaths is likely to have left many children unsupported particularly those in already vulnerable family situations.

The ‘hidden pandemic’ of orphanhood and loss of caregivers has important implications for paediatric, family and child healthcare practice and research (figure 1). Given the numbers of children experiencing loss, paediatricians, general practitioners, family physicians and child healthcare practitioners are likely to have children exposed to recent loss in their case load, especially if their service covers low-income, disadvantaged communities. Awareness of the problem is necessary but

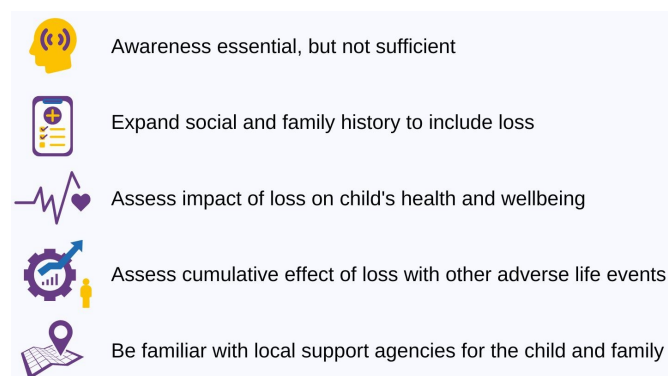


Figure 1 COVID-19 orphanhood and loss of caregivers: implications for paediatric and child healthcare practice.

not sufficient; practitioners will need to expand their social and family history to encompass the possibility of loss and explore the extent to which the child’s health and well-being has been affected. Providing assistance and support to children who have experienced loss may require referral to other services and agencies and practitioners should familiarise themselves with appropriate referral pathways in their areas.

The modelling studies²⁴ have exposed and highlighted a major adverse consequence of the pandemic for children globally. However, further research is needed to identify the nature and extent of this ‘hidden pandemic’ and to inform policy to ensure children are protected against exploitation and abuse. Empirical research based on existing cohort studies and national survey data linked to mortality data is needed to fulfil these aims. For example, the linked administrative data from Medical Birth Records across the early life course in Scandinavian countries have the potential to provide a basis for quantitative and qualitative studies across whole child populations. Comprehensive child health records in countries such as Scotland and whole population vaccination records, for example, in US states, could also be used as sampling frames to further explore the ‘hidden pandemic’. In low/middle-income countries, Demographic and Health Surveys and Multiple Indicator Cluster Surveys are potential sources of data on orphanhood and loss of caregivers during the pandemic. Research applying an equity lens is essential to understand the full impact of the ‘hidden pandemic’ and ensure that the needs of the most vulnerable children are identified and their needs met through policy and service interventions.

Contributors All four authors worked on the editorial content and NS prepared the initial draft. GW, JM and SN commented on the draft and NS wrote the final version. GW designed and prepared the figure. All four authors approved the final version for submission.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not required.

Ethics approval Not applicable.

Provenance and peer review Commissioned; externally peer reviewed.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iD

Nick Spencer <http://orcid.org/0000-0003-2748-6349>

REFERENCES

- World Health Organisation (WHO). 14.9 million excess deaths associated with the COVID-19 pandemic in 2020 and 2021. who news, 2022. Available: <https://www.who.int/news/item/05-05-2022-14.9-million-excess-deaths-were-associated-with-the-covid-19-pandemic-in-2020-and-2021>
- Hillis SD, Ntwali N'konzi J-P, Msemburi W, *et al*. 10.4 million children affected by COVID-19-associated orphanhood and caregiver death: an imperative for action. *MedRxiv*.

- 3 Nguyen DTN, Hughes S, Egger S, *et al.* Risk of childhood mortality associated with death of a mother in low-and-middle-income countries: a systematic review and meta-analysis. *BMC Public Health* 2019;19:1281.
- 4 Hillis SD, Blenkinsop A, Villaveces A, *et al.* COVID-19–Associated Orphanhood and Caregiver Death in the United States. *Pediatrics* 2021;148:e2021053760.
- 5 Bamba C, Riordan R, Ford J, *et al.* The COVID-19 pandemic and health inequalities. *J Epidemiol Community Health* 2020;74:jech-2020-214401–968.
- 6 Office for National Statistics. Deaths involving COVID-19 by local area and socioeconomic deprivation: deaths occurring between 1 March and 31 May 2020, 2020. Available: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/deathsinvolvedwithcovid19bylocalareasanddeprivation/deathsoccurringbetween1marchand31july2020>
- 7 Bartelink V, Tynelius P, Walander A, *et al.* Socioekonomiska faktorer och covid-19 i Stockholms län. November 2020. Stockholm: Centrum för epidemiologi och samhällsmedicin, region Stockholm, 2020. Available: https://www.ces.regionstockholm.se/globalassets/verksamheter/forskning-och-utveckling/centrum-for-epidemiologi-och-samhallsmedicin/folkhalsoguiden/rapporter-och-faktablad/rapport-2020.10-socioekonomiska-faktorer-och-covid-19-i-stockholms-lan_november-2020_.pdf