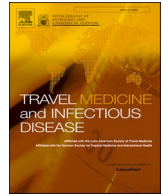




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Children orphaned by COVID-19: A grim picture and the need of urgent actions

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ABSTRACT

The COVID-19 had caused a global pandemic and resulted in enormous burdens. In addition, faced with the proliferation of SARS-CoV 2 variant strains, this pandemic is continuing unremitting. The world seemed to focus primarily on middle-aged and elderly deaths, however the interest of the impact of COVID-19 on children is limited. Scientists have estimated that orphanhood and caregiver death related to COVID-19 had increased twice in the last six months compared with the first 14 months of the pandemic. Orphans face directly the health consequences.

1. The intense fact of orphans due to COVID-19

Nowadays, Coronavirus Disease-2019 (COVID-19) has spread globally with catastrophic damages in public health, social and economical status. As of July 1st, 2022, the World Health Organization (WHO) recorded over 545 million confirmed cases of COVID-19 and over 6.3 million deaths globally [1]. Furthermore, the proliferation of SARS-CoV 2 variant strains is of great threat to the continued pandemic [2,3]. Faced with these challenges, global responses were directed towards preventing infections, advancing treatment, and developing and distributing vaccines. The Economist Intelligence Unit has forecast that it will be 2023 or later for 85 low- and middle-income countries to have 60–70% vaccine coverage rates [4]. Moreover, many countries with the highest rates of COVID-19 deaths were not able to achieve herd immunity. Thus, the COVID-19 pandemic seems to be a war that could not end anytime soon, with consequences that take a long time to overcome.

Data on cases and deaths due to COVID-19 has proved its asymmetry in relation to age. The world has focused primarily on middle-aged and elderly cases and deaths, while interest in children seems to be limited [5]. According to a study from Hillis et al., more than 1.5 million children under the age of 18 have seen COVID-19 claim the lives of their

parents, grandparents, and carers by the end of April 2021 [6]. Of those, more than 1 million children witnessed the death of the mother, father, or both, and were called orphans [6] (Fig. 1).

In particular, the number of children whose fathers have died is nearly five times higher than those whom their mothers had died [6]. Furthermore, according to the Orphanhood report by the Centers for Disease Control and Prevention (CDC), for every two deaths due to this pandemic worldwide, one child is left behind and faced with the death of their parent or caregiver [6]. With the current increase in more variant strains, the number of orphans due to COVID-19 is expected to increase if the mortality does not decrease.

The number of orphaned children due to COVID-19 is different between countries or regions, and depends mainly on the number of deaths. However, other country-specific factors such as age groups, vaccination rates, and disease prevention policies are also notable. Mexico has the fifth-highest number of deaths globally [1], but according to Hillis's estimate, it has the highest number of orphans due to COVID-19 with more than 113 thousand children [6]. On the other hand, the USA has the highest number of COVID-19 deaths globally [1], but the USA only has the third-highest number of COVID-19-related orphans, after Mexico and India [6] (Fig. 2). Orphanhood report by

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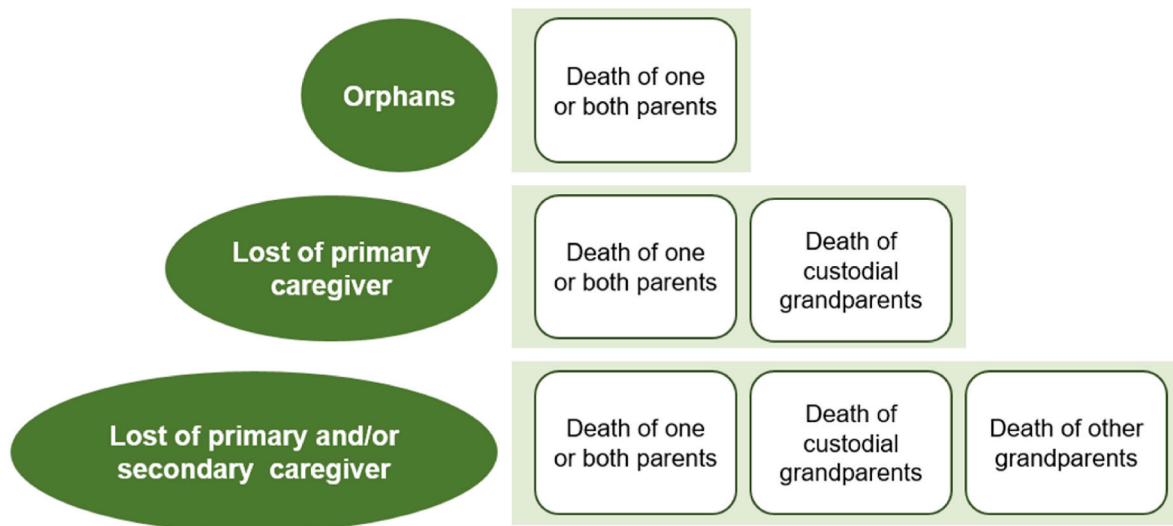


Fig. 1. Definition of orphan, lost of primary caregiver, and lost of primary and/or secondary caregiver. This definition is based on the Orphanhood Report by CDC [7]. Orphans is known as children experiencing the death of one or both parents. Lost of primary caregiver is the death of parents or custodial grandparents. Lost of primary and/or secondary caregiver is the death of parents, custodial or co-residing grandparents.

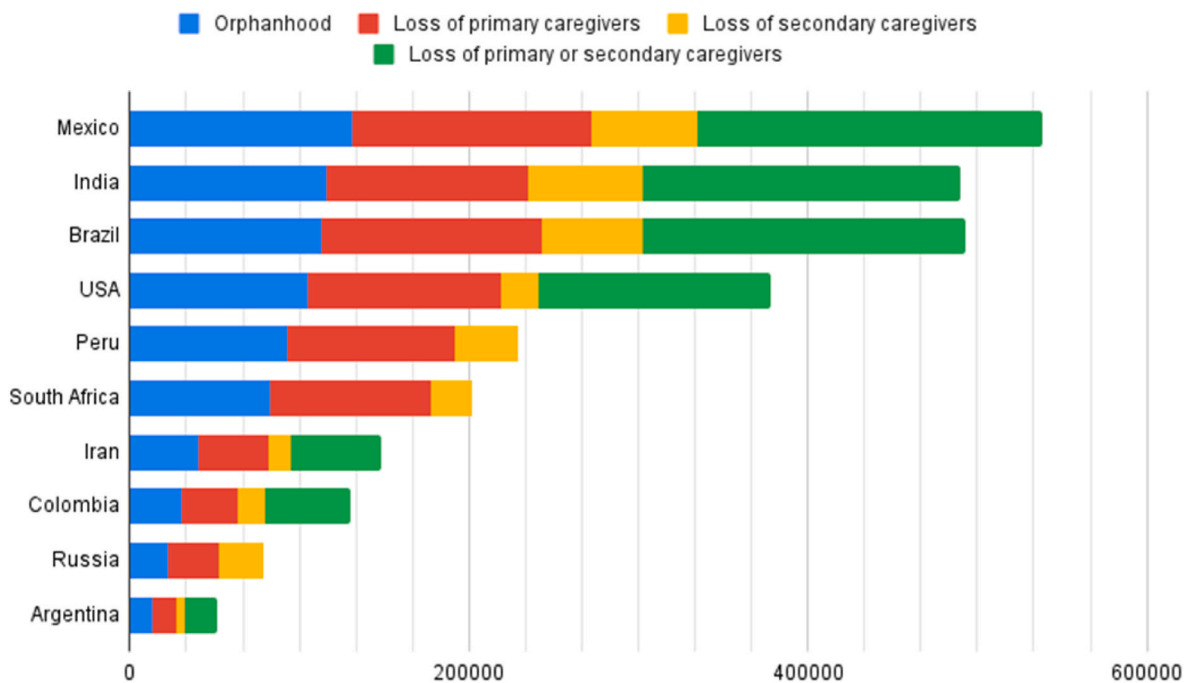


Fig. 2. Top 10 countries with the highest number of COVID-19-related orphans in the world. This data based on the Hillis’s study [6]. Statistics estimate the number of orphans, lost of primary caregiver, lost of secondary caregiver, and lost of primary and/or secondary caregiver from March 1, 2020 to April 30, 2021. Of the 21 countries listed in the Hillis’s study, we selected the 10 countries with the highest number of orphans, lost of primary caregiver, lost of secondary caregiver, and lost of primary and/or secondary caregiver.

the CDC showed that the Americas has over 529 thousand orphans. Europe has approximately 120 thousand children [7] (Fig. 3).

Thus, this will be a significant burden on countries if there are no timely countermeasures. It can have serious health consequences and an impact on children’s rights. Orphans have to face directly the lack of primary living conditions such as food, shelter, and clean water. As a result, many social problems arise, such as increasing malnutrition rates, infectious diseases incidence, and child mortality. Moreover, not being appropriately educated also entails a series of consequences in the future. Orphans may be at risk of sexual abuse, prostitution, violence, and teenage pregnancy. On the other hand, these children may

experience unexpected death of a family member or caregiver. Facing loneliness and despair can leave orphans vulnerable to mental health problems. All of these consequences may violate the children’s rights under the UNICEF convention [8]. Protecting children from the negative influence of the COVID-19 pandemic is an important goal that needs timely attention [9]. It is in line with the UN’s Sustainable Development Goals, in which we need to emphasize Goal 3: “Ensure healthy lives and promote well-being for all at all ages” [10].

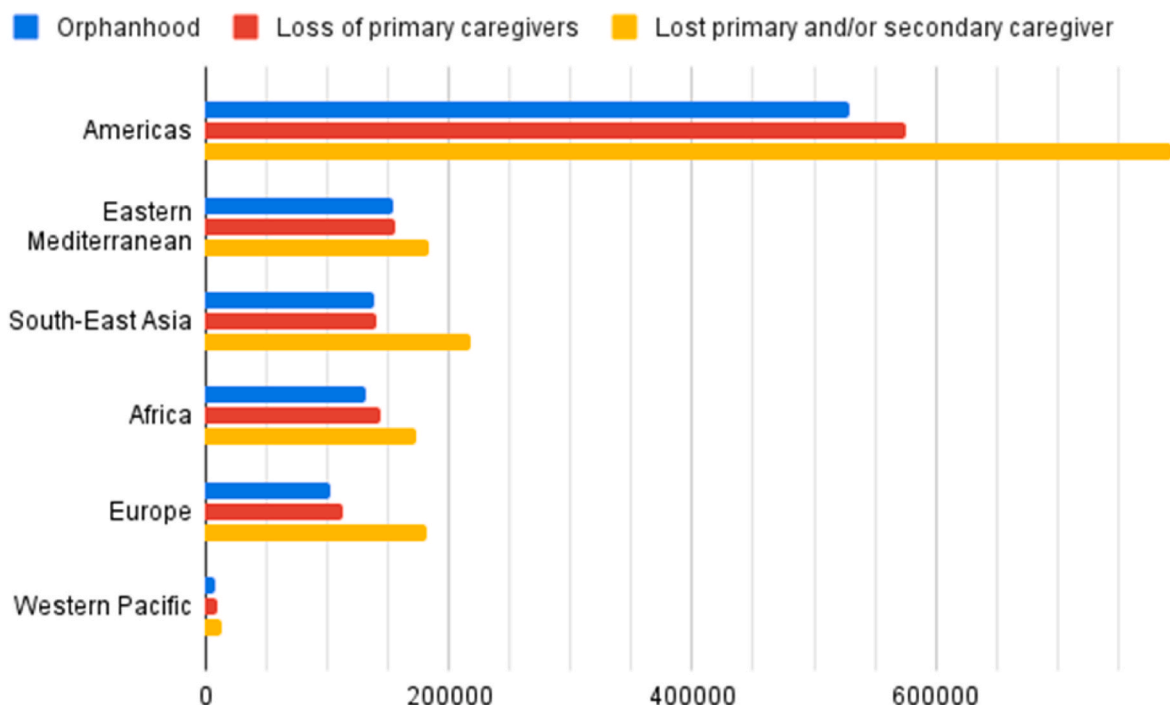


Fig. 3. Estimates number of COVID-19-related orphans by region. This data is based on the Orphanhood Report by CDC [7]. CDC estimates the number of orphans, lost of primary caregiver, and lost of primary and/or secondary caregiver in six regions from March 1, 2020 to April 30, 2021.

2. The need for urgent actions

As mentioned above, orphaned children are among the most vulnerable in today’s pandemic situation. In a recent meta-analysis, orphanhood and caregiver death in relation to COVID-19 had increased 2x in the last six months compared to the initial first 14 months of the pandemic [11].

Therefore, it is necessary to have global policies to ensure the minimum rights for children to live and develop [5]. Governments of each country need to have policies to ensure social and security conditions for orphans due to the COVID-19 pandemic, such as food support packages

and stable accommodation arrangements. Moreover, they need to be guaranteed the opportunity to study and work when they are mature enough. Cooperation and support between countries and regions must ensure the safety of children and avoid violence, forced labor, or child trafficking. In addition, each government needs to invest in developing support centers or organizations that support orphans, and local governments also need to help children bury their loved ones.

It is necessary to have policies to ensure medical examination and treatment to ensure physical health for children. They need to be guaranteed nutrition, reduced or exempted from medical expenses. State and local governments must have hotlines or organizations to protect

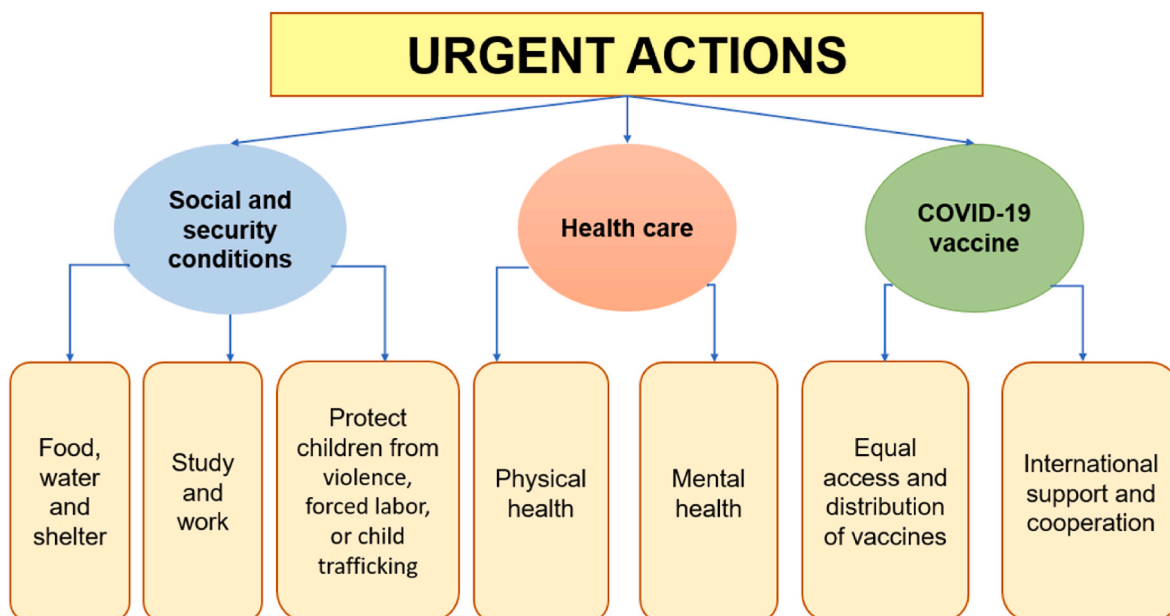


Fig. 4. Urgent actions for orphaned children due to COVID-19.

orphaned children from bullying, sexual abuse, infectious diseases, and chronic diseases. Furthermore, orphaned children have to face loneliness, sadness, helplessness, and nervousness, so the governments have to take care of children's mental health. It is the work of doctors and needs the support of teachers. These children need to be cared for by people who genuinely love them, such as relatives or reputable orphanages.

The vaccination situation and the number of orphans vary from country to country [6]. There should be equal access and distribution of vaccines across countries so that children and adults have the opportunity to be fully immunized. Therefore, depending on the situation of each country and the government, it is necessary to have specific policies. Every country must deploy vaccines as quickly as possible and ensure safety during injection to reduce the number of deaths from COVID-19. Developed countries and organizations worldwide need to join hands to help developing countries access vaccines and lighten the burden of the pandemic.

Citizens have to make sense of protecting themselves and others due to the COVID-19 pandemic. Everyone should strictly follow anti-pandemic measures, be fully vaccinated, wash/sanitize hands, and disinfect regularly. Besides, each person needs to have empathy and support both materially and spiritually for children whose parents have died due to the COVID-19. On the other hand, the increase in data statistics on COVID-19-related orphans should be stepped up. In short, we need to take urgent action and long-term planning to protect orphans and ensure their children's rights around the world (Fig. 4).

Ethical approval

This is a perspective and no ethical approval is required.

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Declaration of competing interest

The authors declare that they have no conflict of interests, financial

or otherwise.

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