Innocenti Research Brief

2022-09

unicef
Office of Research – Innocenti

Covid-19 & Children

Evidence and Gap Map Research Brief

UNICEF STRATEGIC PLAN 2018–2021: COVID-19 SPECIAL EVIDENCE BRIEF

What this research brief is about

This research brief is one of a series of six briefs, which provide an overview of available evidence shown in the Campbell-UNICEF Mega-Map of the effectiveness of interventions to improve child well-being in low- and middle-income countries (LMICs), with this brief mapping the COVID-19-relevant studies.

This brief provides an overview of the available evidence that may inform responses to the COVID-19 pandemic or that furthers our understanding of its impact on child well-being outcomes. This evidence may be directly related to policies to reduce COVID-19 transmission, such as closure of schools and colleges, personal protective equipment, movement restriction between borders and social distancing, or studies of interventions responding to the immediate socio-economic impacts, such as social protection measures, educational programmes and tele-health.

The purpose of the research brief is to:

- Make potential users aware of the map and its contents
- Identify areas in which there is ample evidence to guide policy and practice, and so encourage policymakers and practitioners to use the map as a way to access rigorous studies of effectiveness
- Identify gaps in the evidence base, and so encourage research commissioners to commission studies to fill these evidence gaps.

© UNICEF/UNI332885/Dicko

Campbell Collaboration

unicef | for every child

This brief is an update of the 2020 version. Thanks to additional funding support from the Bill & Melinda Gates Foundation, this forms part of our commitment to make the Mega-Map and associated briefs a 'living product', updated annually and made openly available as relevant evidence evolves over the lifetime of UNICEF's Strategic Plan 2018–2021.

Box 1: What is the Campbell-UNICEF Child Well-being Mega-Map?

The Campbell-UNICEF Child Well-being Mega-Map maps evidence synthesis studies – evidence and gap maps and systematic reviews – here on in referenced simply as studies, which report studies of the effectiveness of interventions to improve child well-being. The evidence is structured by intervention categories, such as education, nutrition and rights, and by outcome domains, such as school attendance and learning outcomes.

Systematic reviews help establish which programmes are effective, for who and in what circumstances. Evidence maps guide users to the evidence from systematic reviews and impact evaluations. The Mega-Map is an evidence and gap map (EGM) of 536 systematic reviews and 25 EGMs organized into six intervention categories and six outcome domains. This year's update has seen an increase of 52 systematic reviews on 2020.

The map shows only evidence syntheses that summarize evidence from around the world. It does not show the individual studies. The map shows what evidence syntheses are available, not what the evidence says.

https://www.campbellcollaboration.org/funding/global-funds/child-welfare-global-fund.html

What evidence is included for global response to COVID-19?

COVID-19, with its triple hit to health, education and income, presents an enormous challenge for reaching the 2030 Agenda and the Sustainable Development Goals (SDGs). Millions of children, particularly vulnerable children – migrants and refugees, the poor, those affected by violence and exploitation – are being exposed to even higher levels of risk during the pandemic.

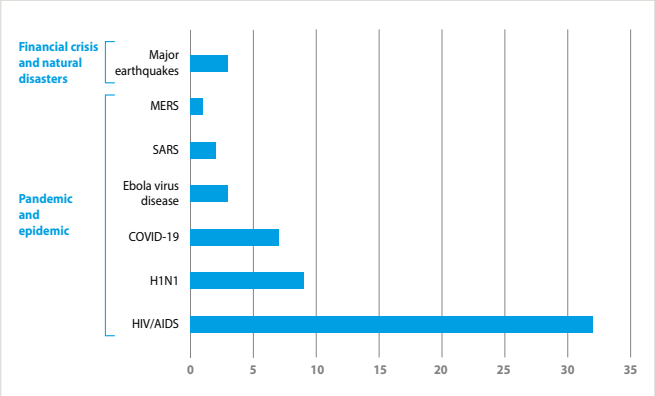
UNICEF's response to COVID-19 focuses on the following two strategic priority areas:

- Strategic priority 1: Public health response to reduce COVID-19 transmission and mortality
- Strategic priority 2: Continuity of health, HIV, nutrition, education, water, sanitation and hygiene (WASH), child protection, gender-based violence, social protection and other social services; assessing and responding to the immediate socio-economic impacts of the COVID-19 response

This brief focuses on reviews with an explicit focus on response measures to pandemics and epidemics or financial crises and natural disasters. There are 48 such studies in the Mega-Map (43 systematic reviews and 5 EGMs); examples of each are listed in Table 1. Figure 1 shows the distribution of the studies across the categories (some studies are in more than one category).

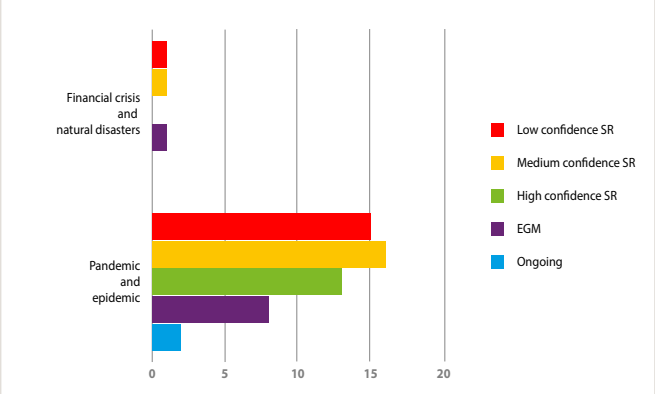
- Pandemics and epidemics: There were 45 studies identified in this category, with only 7 of these on COVID-19 specifically.
- Financial crises and natural disasters: Only three studies were identified.

Figure 1: Number of studies by intervention category



Approximately 69% of the reviews (29 out of 42) are rated as low and medium confidence (Figure 1; see also Endnote on systematic review confidence rating).

Figure 2: Number of studies by systematic review (SR) confidence



The evidence and gap map shows what evidence exists but not what it says. However, to give a taste of the evidence contained in the studies, Box 2 summarizes the evidence of a selected study related to education.

Table 1: Mega-Map studies with a focus on response measures to pandemics and epidemics or financial crises and natural disasters

UNICEF strategic priority response	Specific focus	No.	Examples of studies
Strategic priority 1: Public health response to reduce COVID-19 transmission and mortality	Quarantine and social isolation	2	Non-pharmaceutical public health interventions for pandemic influenza: An evaluation of the evidence base (Aledort et al., 2007) Systematic review of economic evaluations of preparedness strategies and interventions against influenza pandemic (Pérez Velasco et al., 2012)
	Social and physical distancing	2	School closure and management practices during coronavirus outbreaks including COVID-19: A rapid systematic review (Viner et al., 2020)
	Movement restriction within and across the border	1	Non-pharmaceutical public health interventions for pandemic influenza: An evaluation of the evidence base (Aledort et al., 2007)
	School and daycare centre closure	6	Closure of schools during an influenza pandemic (Cauchemez et al., 2009)
	Closure of non-essential business and working from home	1	Systematic review of economic evaluations of preparedness strategies and interventions against influenza pandemics (Pérez Velasco et al., 2012)
	Human surveillance and case reporting	2	Interventions to significantly improve service uptake and retention of HIV-positive pregnant women and HIV-exposed infants along the prevention of mother-to-child transmission continuum of care: Systematic review (Vrazo et al., 2018)
Strategic priority 2: Assessing and responding to the immediate socio-economic impacts of the COVID-19 response	Social protection programme	13	A rapid review of economic policy and social protection responses to health and economic crises and their effects on children: Lessons for the COVID-19 pandemic response (Tirivayi et al., 2020)
	Educational programmes	17	Evidence review: Promoting adolescent girls' health and well-being in low-resource settings in the era of COVID-19 (Blake and Temin, 2020)
	Access to healthcare	7	The uptake of integrated perinatal prevention of mother-to-child HIV transmission programs in low- and middle-income countries: A systematic review (Car et al., 2013)
	Tele-health	5	A systematic review of mobile phone interventions (SMS/IVR/Calls) to improve adherence and retention to antiretroviral treatment in low-and middle-income countries (Demena et al., 2020)
	Hand hygiene and respiratory health	4	Which public health interventions are effective in reducing morbidity, mortality and health inequalities from infectious diseases amongst children in low-income and middle-income countries (LMICs): Protocol for an umbrella review (Besnier et al., 2019)
	Vaccine	4	Effectiveness of 2009 pandemic influenza A (H1N1) vaccines: A systematic review and meta-analysis (Lansbury et al., 2017)

Table 2: Outcomes reported in the studies with focus on responses measures to pandemics and epidemics or financial crises and natural disasters

UNICEF Goal	Outcomes
Every child survives and thrives	Mortality (18); morbidity (20); nutrition (3); disability and childhood illness (4); immunization coverage (2); mental health and psychosocial improvement (9); antenatal care including breastfeeding (1); utilization of health services like immunization and childcare (10)
Every child learns	Enrolment (2); attendance (2); learning and achievement (3); dropouts and truancy (2)
Every child is protected from violence and exploitation	Child abuse and neglect (5); gender role and decision-making (4)
Risk factor reduction	Handwashing (5); clean environment (3); alcohol and substance abuse (1)
Economic impact	Cost-effectiveness (8); formal savings (5); cost–benefit (2)

What outcomes are reported?

The 48 studies identified report a broad range of outcomes (see Table 2). Most of these outcomes relate to health and education. However, there are also a number related to risk factor reduction and economic impact.

What population subgroups were covered?

The majority of the reviews assessed the impact of response measures on children aged 3–10 years (29) and adolescents (27). There were striking gaps in evidence synthesis on vulnerable children.

Box 2: Findings from a selected review

School closure and management practices during coronavirus outbreaks including COVID-19 (Viner et al., 2020).

Findings from modelling studies from the COVID-19 pandemic support the use of national school closures as part of a package of social distancing measures. Yet, the only study to examine school closures as a separate intervention warned that the impact was relatively marginal, given the reasonable assumptions that household and community contacts would rise as a consequence.

Where is the evidence from?

Systematic reviews are often global in scope. We included in the map all reviews for which studies from developing countries were eligible for inclusion, whether or not there were actually any studies from developing countries included. The screening process did not check whether the review actually included studies from developing countries. An example of a global review is Kristjansson (2006), School feeding for improving the physical and psychosocial health of disadvantaged students, which includes nine studies from low- and middle-income countries and nine from high-income countries.

Where are the evidence gaps?

The clear gap is the small number of reviews focusing explicitly on response measures for children in pandemic and epidemic situations and some key evidence gaps are:

- Vulnerable populations: There is a dearth of evidence on children in vulnerable circumstances, such as conflict-affected regions and marginalized communities.
- Financial crises and natural disasters: There seems to be a significant gap in evidence synthesis on response measures for children in financial crises and natural disasters, such as major earthquakes.

Implications of findings

This brief provides an overview of the state of evidence base on the effects of pandemics and epidemics, and their response measures, on different child protection outcomes. There is a fair amount of evidence synthesis on what is known about successful – and unsuccessful – approaches in pandemic and epidemic situations which provide the most reliable guide to policy.

How can the map be used by UNICEF?

UNICEF staff and partners can draw on the lessons from the evidence identified in this brief, the brief's main use should be to motivate staff to identify priority areas for which new evidence synthesis and new primary studies should be commissioned.

REFERENCES

1. Aledort, J.E., Lurie, N., Wasserman, J., and Bozzette, S.A. (2007). Non-pharmaceutical public health interventions for pandemic influenza: An evaluation of the evidence base. BMC Public Health, 7, 208.
2. Besnier, E., Thomson, K., Stonkute, D., Mohammad, T., Akhter, N., Todd, A. et al. (2020). Which public health interventions are effective in reducing morbidity, mortality and health inequalities from infectious diseases amongst children in low-income and middle-income countries (LMICs): Protocol for an umbrella review. BMJ Open, 9(12).
3. Blake, S. and Temin, M., (2020). Evidence review: Promoting adolescent girls' health and well-being in low-resource settings in the era of COVID-19. Population Council.
4. Car, L.T., Brusamento, S., Elmoniry, H., van Velthoven, M.H.M.M.T., Pape, U.J., Welch, V. et al. (2013). The uptake of integrated perinatal prevention of mother-to-child HIV transmission programs in low- and middle-income countries: A systematic review. PloS One, e56550.
5. Cauchemez, S., Ferguson, N.M., Wachtel, C., Tegnell, A., Saour, G., Duncan, B. et al. (2009). Closure of schools during an influenza pandemic. The Lancet Infectious Diseases, 9(8), 473–481.
6. Demena, B.A., Artavia-Mora, L., Ouedraogo, D., Thiombiano, B.A. and Wagner, N. (2020). A systematic review of mobile phone interventions (SMS/IVR/Calls) to improve adherence and retention to antiretroviral treatment in low-and middle-income countries. AIDS Patient Care and STDs, 34(2), 59-71.
7. Kristjansson, B., Petticrew, M., MacDonald, B., Krasevec, J. Janzen, L., Greenhalgh, T. et al. (2007). School feeding for improving the physical and psychosocial health of disadvantaged students. Cochrane Database of Systematic Reviews, 1, article CD004676.
8. Lansbury, L.E., Smith, S., Beyer, W., Karamehic, E., Pasic-Juhas, E., Sikira, H. et al. (2017). Effectiveness of 2009 pandemic influenza A (H1N1) vaccines: A systematic review and meta-analysis. Vaccine, 35(16), 1996–2006.
9. LoVette, A., Kuo, C. and Harrison, A. (2019). Strength-based interventions for HIV prevention and sexual risk reduction among girls and young women: A resilience-focused systematic review. Global Public Health, 14(10), 1454–1478.
10. Pérez Velasco, R., Praditsitthikorn, N., Wichmann, K., Mohara, A., Kotirum, S., Tantivess, S. et al. (2012). Systematic review of economic evaluations of preparedness strategies and interventions against influenza pandemics. PloS One, e30333.
11. Tirivayi, N., Richardson, D., Gavrilovic, M., Groppo, V., Kajula, L., Valli, E. et al. (2020). A rapid review of economic policy and social protection responses to health and economic crises and their effects on children: Lessons for the COVID-19 pandemic response. Florence: Office of Research – Innocenti, Working Paper.
12. Viner, R., Russell, S., Croker, H., Packer, J., Ward, J., Stansfield, C. et al. (2020). School closure and management practices during coronavirus outbreaks including COVID-19: A rapid systematic review. The Lancet Child & Adolescent Health, 4(5), 397–404.
13. Vrazo, A., Firth, J., Amzel, A., Sedillo, R., Ryan, J. and Phelps, B. (2018). Interventions to significantly improve service uptake and retention of HIV-positive pregnant women and HIV-exposed infants along the prevention of mother-to-child transmission continuum of care: Systematic review. Tropical Medicine & International Health, 23(2), 136-148.

About this Innocenti research brief

This research brief was prepared by Howard White and Ashrita Saran with the assistance of Yashika Kanojia, Campbell Collaboration. The production of the brief benefited from technical inputs provided by Kerry Albright, Laurence Chandy, Priscilla Idele and Alessandra Ipince, UNICEF.

Funding to support its production was provided by UNICEF Office of Research – Innocenti. Comments may be sent to info@campbellcollaboration.org or research@unicef.org

UNICEF Office of Research Innocenti
Florence Italy

www.unicef-irc.org
+39 055 20330

florence@unicef.org
@UNICEFInnocenti
facebook.com/UnicefInnocenti