

Global Imperative to Include Children’s Voice in Their Health and Right to a Healthy Future in Policy Development

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Introduction

Addressing the health and well-being of children, which herein refers to all individuals aged 18 or younger, to ensure the future health of society is a global public health priority. Placing both the positive and negative effects of public policies on children’s health and well-being at the forefront of policy development is a global imperative, as the consequences of these policies will impact children over their lifecourse (Defence for Children International, 2020). Ideally, all public policies, not only those related to health, should explicitly consider impacts on the health of children, including both short- and long-term effects early and later in the life course. This is an ethical obligation given their vulnerable status as children. In 2018, three years after adoption of the 17 Sustainable Development Goals (SDG), the Lancet Commission placed the health and well-being of children at the center of the SDGs (Clark et al., 2020). This work continues as Children in All Policies 2030 (CAP-2030; <https://cap-2030.org>), ensuring that children are supported in reaching their potential, which ultimately supports society more broadly.

Child-centricity of the Sustainable Development Goals

The 2022 SDG progress report highlights the devastating impact of poverty, poor education, food shortages, conflict, and the COVID-19 pandemic on the health and well-being of our society, especially children (UN Publication, 2022). As the world emerges from the worst pandemic in centuries, the negative impact on children is staggering. The number of children who missed routine vaccines increased by nearly four million from 2019 to 2020, which totaled 22.7 million children. Preventive measures (i.e., quarantine mandates, school lockdowns) to mitigate viral transmission resulted in 147 million children missing more than 50% of in-person education in 2020-2021 and 24 million children may never return to school (UN Publication, 2022). Global food insecurity is critical, with 149.2 million children under the age of five experiencing stunting due to food shortages (UN Publication, 2022). Evolving climate change events and disasters, occurring more frequently than in past centuries, and political conflict and instability have led to increasing societal disruptions and displacement of millions of people. Children account for 41% of displaced people globally (UN Publication, 2022).

Other emerging global challenges, such as environmental exposures, i.e. including air pollution and heat, have short- and long-term consequences on the lives and wellbeing of children, their families and communities. Compared with adults, children are highly vulnerable to environmental contaminants owing to differences in physical size, respiratory maturation and metabolic maturity (Hauptman, 2017). For several

environmental toxicants, infants and children have increased intestinal absorption, reduced biliary excretion, reduced enzymatic clearance, reduced renal clearance, and higher accumulation in neuronal tissue due to increased permeability of the neuronal barrier (Ljung, 2007; DeWoskin, 2008; Heyer, 2017). These physiological, developmental, and behavioral factors combine and result in generally higher internal doses of environmental contaminants in children compared with adults, which may have a greater impact during critical periods of development (Ginsberg, 2004; Heyer, 2017; Endocrine Society, 2018). These issues are urgent signals to place children at the center of public health policies.

To that end, the United Nations Convention on the Rights of the Child (UNCRC) put forth a legal obligation to engage children in policy development (UNCRC, 2009). The UNCRC's position that children have the right to freely express their view and that this view is given due weight implies that children's input and their opinions are heard and given serious consideration (UNCRC, 2009). Emergence of child councils or commissions for the purpose of engaging them in policy development to advise policy makers are anticipated to result in stronger policies (Waller, 2021; Conner, 2016). Similarly, children's involvement must extend beyond advisory, as was the most common role reported across studies in a recent scoping review (Macauley, 2022). Meaningfully involving children in the policy process, such as identifying goals and bringing lived experiences to aid in the synthesis of information, can result in more impactful policy. However, there are challenges to achieving these laudable goals.

Barriers to inclusion of children in policy development include a lack of diversity and a lack of inclusion of those with lived experience (Yamaguchi, 2022), which jeopardizes the representativeness of any child council membership. Often marginalized and disproportionately impoverished, children are challenged, unable, or denied the right to champion and advocate for their own position and needs in policy (Walker, 2019). The intersections of gender, age, race, poverty, tokenism, disenfranchisement, and unbalanced power in relation to adults are impediments to including children's voice in policy (Walker, 2019). The theoretical underpinning to acknowledge is adultism, which summarizes ingrained societal attitudes, beliefs, and behaviors that explicitly and implicitly entitle adults to make decisions for children *without* their consent or input (Conner, 2016). These behaviors are, in turn, internalized by children and adults in most, if not all, situations (Conner, 2016). A recently published scoping review of Australian child health policy revealed that only six of twelve policies reviewed engaged children in policy development processes (Waller, 2021). These findings suggest that although some progress in engaging and listening to children's voices has been made, more is needed to ensure that children are placed at the center of policy development and that their voices are being heard from the beginning.

We highlight three examples (global pandemics, climate change, and worldwide conflict) to illustrate how not prioritizing children in public health policies has adversely impacted child health and wellbeing, especially for the most vulnerable. We also emphasize how prioritizing and directly involving children in this work early on is critical to protect and advance the health and well-being of children around the globe.

1. Global Pandemic Response Policies and Implications for Child Health and Well-being

The COVID-19 pandemic emergency responses were necessary and effective in saving lives and in slowing infection transmission rates as the global public health crisis emerged. Though absolute rates of severe illness and death for children were much lower than for adults, COVID-19 was a leading cause of death among persons ages 0-19 years-old in the US (Flaxman, 2023). Pandemic emergency response actions imposed physical distancing and social isolation that were especially experienced by children (Guessoum, 2020). We are witnessing the devastating effects that physical distancing and social isolation had and

continues to have on the mental health children around the world and the consequences on educational inequities and vulnerability to abuse at home (Bell, 2023). The lack of social connectedness due to the isolation and confinement following the stay-at-home orders and school closures can exacerbate psychiatric symptoms (Guessoum, 2020; Office of the Surgeon General, 2023) and we have seen a global increase in depression and anxiety among children, as high as 20% prevalence (Racine, 2021). Children may not fully understand why COVID-19 restrictions were in place, and the resulting frustration can intensify mood and behavioral problems. Children with psychiatric disorders have difficulty coping with measures to restrict transmission of the virus (i.e., quarantine), those with attention-deficit/hyperactivity disorder exhibit more behavioral problems, and those with autism react negatively to disruption to daily structure (Guessoum, 2020; Lee, 2020). At the height of the pandemic there was limited access to mental health services for many children (Golberstein, 2020). Consequently, there was a rise in emergency services for behavioral health needs (Leeb, 2020), which can be detrimental for long-term development. In retrospect, pandemic emergency actions magnified pre-existing unaddressed morbidity and disparities, leading to the unintended impact on the mental health and wellbeing of children (Racine, 2021, Newlove-Delgado, 2023). More broadly, school closures have exacerbated inequities in access to educational opportunities. Younger people who did not return to school at all after school closures are at increased risk of longer term negative health outcomes (Allison, 2019).

Public health systems are obligated to plan and prepare for public health threats and disasters through a community-engaged approach (Rohlman, 2022). Regional, Indigenous, and local public health systems need to create closer partnerships with education, community program, agencies, and the children they serve to plan, deliver and evaluate how well they are addressing the needs of these children. This needs to be at the forefront for any decision that will have an impact on children.

2. Climate Change Impacts on Future Generations and Health Inequality

The multiple impacts of evolving global climate change events and disasters related to greenhouse gas emissions are already occurring and will have devastating effects on the health and well-being of children's lives. This has direct and indirect effects increasing child susceptibility to infectious, respiratory, and other diseases, overall morbidity, and mortality (Helldén, 2021, Al-Delaimy, 2019). Increased temperature and heat waves increase mortality risk especially for infants (Lakhoo, 2022). Rising global temperature will generate extreme weather patterns that could lead to an increase in large-scale natural disasters (UN Publication, 2022). These natural disasters, which can impact economic and agricultural stability, lead to child malnutrition, heat-related and wildfire smoke-related morbidity and mortality, infections, displacement, and depression, anxiety and emotional problems (Arpin, 2021; Helldén, 2021). Access to green space has positive effects on children's health (Fyfe-Johnson, 2021). These effects diminish opportunities to live to ones' potential, corresponding with potential losses of years lived in full health. Children are likely to bear the greatest burden of climate-related disability and morbidity (Philipsborn, 2018).

Climate change impacts on child health and wellbeing also are expected to exacerbate existing health inequities globally. Data on health inequities within and between countries consistently show disproportionately *greater* burdens due to climate-related health impacts and losses of healthy life years on children in disadvantaged communities and countries (Arpin, 2021). These adverse realities are amplified considering that low and middle income countries, with fewer resources and reserves, are *more susceptible* to extreme weather changes and are *less able* to overcome the negative direct and indirect effects (Arpin, 2021). Climate-related environmental and health inequalities are intertwined with long-standing, unaddressed social determinants of health experienced both by individuals and their communities. If the

impact on children is left unaddressed in policies and actions, or interventions are implemented without considering the impact on children, these inequities will magnify the devastating effects of climate-related events and disasters on future generations.

Evidence to date of the climate change impacts on child health and health inequities has primarily been descriptive and anecdotal, and often children are excluded from research (Padula, 2023). There is emerging evidence that environmental contaminants are impacting pubertal timing (Barrett, 2023). A clear understanding of the factors underpinning and mitigating the inequities exacerbated by climate change on child health and wellbeing is just the beginning. Multi-sectoral policy and actions will be needed, including those involving public health practice guided by early engagement with children, especially in the most impacted regions of the world. Knowledge gaps exist in the policies and programs that can mitigate the effects and promote more equitable child health for generations to come. It is imperative that we engage children in shaping policies to minimize the harmful health effects of climate change experienced by children now and over their lifecourse.

3. Worldwide Conflict Effects on Children

Children living in areas affected by armed aggressions and conflict are most vulnerable to the direct and indirect effect of violence and displacement on their health and well-being. The number of children living in proximity to violence and conflict has grown steadily from 2000 to 2017, increasing by approximately 47% (Bendavid, 2021). Globally, by 2018, as many as 28 million children have been displaced or removed due to conflict (Kadir, 2018), some of which is armed conflict. In addition to the physical injuries of conflict, there are environmental dangers (e.g., landmines, and unexploded ordnances can cause lifetime injuries and disabilities), damage to health and public health community and regional infrastructures (e.g., medical care, food access), and trauma-induced deterioration of mental and psychosocial health (Kadir, 2018).

The devastating effects of conflict on children are seen in both the short and long term. The impact of 12 years of violence on Syrian children has had profoundly negative effects on their health, including through violent injury, resurgence of communicable diseases, malnutrition and micronutrient deficiency, and mental health (Kampalath, 2023). Children are disproportionately affected in the current violence in Israel and Palestine. UNICEF has described Gaza as “a graveyard for thousands of children”, in reference to the exceptionally high proportion of deaths that were children, i.e., 42% or 6000 deaths by December 2023 (Chaudhry, 2023). The psychological and mental illnesses and trauma that the surviving children will suffer for the rest of their lives is devastating (Kadir, 2023).

A safe environment and access to resources are compromised as a result of the conflict, and can persist for years after the conflict has ended. These factors are significant barriers to a child’s ability to engage in the work of policymaking. Acknowledging there exists a range of structural barriers that make it difficult fo engage children, it is important to implement strategies to help enable their involvement in the policy process. The UNCRC outlines the rights to protection, promotion, and participation (Kadir, 2018). The Optional Protocol mandates the protection of children from any involvement in or recruitment into conflict. With these legal declarations in place, there is a precedent to engage children in policy to prevent or minimize the harmful effects of conflict. Interventions intended to promote physical and mental health during/after periods of conflict/trauma would benefit from the child’s voice to optimize aspects of social support, privacy, school coordination, and parental/caregiver involvement.

Recommendations for Prioritizing and Enhancing Children’s Involvement and Inclusion of Their Voice in Rights to a Healthy Future in Policy Development

Children can have meaningful input in promoting the protective effects of interventions and in building resilience for a range of issues that can affect their health and well-being. There is an ethical imperative to place children at the center of policies that impact the health and well-being over the lifecourse (Tomlinson, 2022). A recent editorial in the *Canadian Journal of Public Health* emphasizes this imperative and promotes a call to action that outlines a range of opportunities for the inclusion of children in research and policy making (Macdonald, 2023). Editorial boards of influential journals can have an impactful role in ensuring the publication of research and policy statements have meaningfully engaged the youth’s voice.

The International Network for Epidemiology in Policy strongly encourages policymakers, policy advisory groups, and public health influencers and practitioners to include consideration of the short and long term impact on children in policy development. We support prioritizing children’s right to a healthy and sustainable future, and to use reliable evidence on ways to achieve this, when creating and updating *all* public policies.

To achieve this, we offer overarching and specific recommendations for how future policies and practices can address issues that affect children and the consequences to their health and development, and secure beneficial outcomes for their adult life. These recommendations should be placed in context with adherence to [guidelines for the protection of children](#).

Overarching recommendations are:

1. Commit to incorporating centering of policies on children *as a core value and operating principle* in all work of relevant agencies or organizations.
2. Act equitably and intentionally in engaging and listening to the voices of children, their families, and the communities they live in from the beginning and throughout the policy process.
3. Address barriers to including children, develop approaches to overcome these barriers, and evaluate the effectiveness and impact of these approaches.

Specific recommendations are:

1. Assure that governmental and non-governmental national/federal, regional, Indigenous, local public health organizations create and maintain closer, ongoing partnerships with education, community programs, and other organizations and with the children they serve. For example, these partnerships could work to improve national and community preparedness and planning efforts such as response to and recovery from future infectious and other disease outbreaks, climate-related hazards, conflict-related disruptions, all of which are threats to children’s health and wellbeing.
2. Involve these partnerships in planning, delivery, and evaluation of how well policies are addressing the needs of the children they serve.

3. Engage children in an active and ongoing process to evaluate the impacts of public health interventions and improvement efforts and to advocate for policies that address both current and future needs of children and their families. Specifically,
 - a. Create youth positions on leadership teams of organizations and/or government offices to specifically provide input on the topics and issues that are critical for children.
 - b. Empower meaningful input. Active participation in a leadership position increases opportunities for meaningful input and for acknowledgement of their contribution.
4. Foster a societal shift in the fundamental principle that children are capable of providing credible input on policy development and implementation that will have major impacts over their life course.

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