



Children's
Environmental Health
Collaborative

Climate Change and Health Forum

Session 1: “A Threat to Progress: Confronting the Effects of Climate Change on Child Health and Well-being”: A New UNICEF Report August 14, 2024

Hosted by:

The Child Health Task Force and Children's Environmental Collaborative



**Global
Communities**



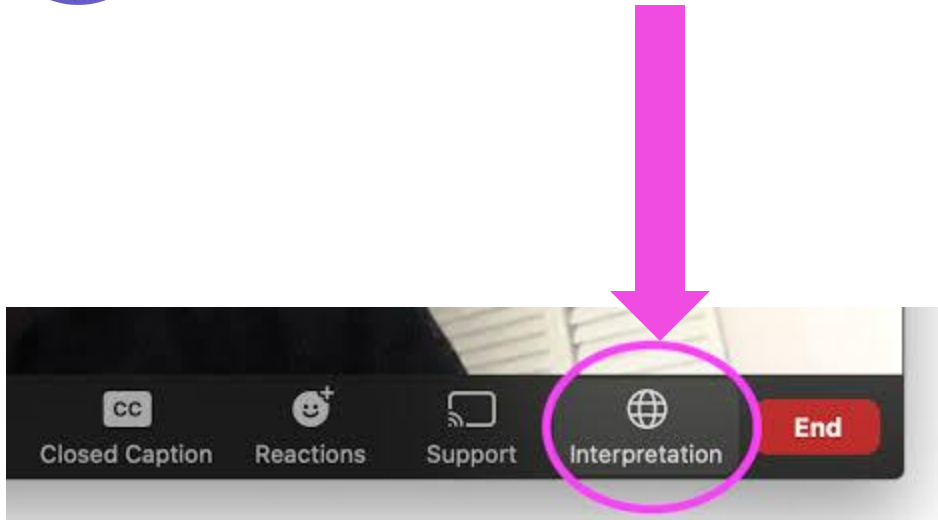
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Climate and Health Forum

Session 1:

“A threat to progress: Global stock take on how climate change impacts child health”: A New UNICEF Report



Children's
Environmental Health
Collaborative



Women's,
Children's and
Adolescents'
Health



Global
Communities



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Phase 2 of Climate Change and Child Health Series

Objectives of the series

- Build on the past series, “Adapting Health Systems to Protect Children from Climate Change.”
- Continue to raise awareness of the child health-specific health and climate change intersections.
- Share program successes, challenges, and innovations across communities, partners, donors, and governments.
- Build the capacity of Task Force members to inform climate adaptations to health plans and programs.

Phase 1 Series Overview

Session 1: Healthy Environments for Healthy Children (HEHC) Framework

Session 2: Children’s Climate Risk Index (CCRI)

Session 3: The Impact of Climate Change on Newborn Health Outcomes: A Focus on Congenital Heart Defects

Session 4: Protecting Children and Pregnant People from Heat Stress

Session 5: Climate Effects on Malaria Programming for Children

Session 6: Climate Effects on Arboviruses and Child Health

Session 7: Financing Health and Climate Adaptation

Session 8: Communicating Health Effects of Climate Change

Session 9: Early Warning Systems

Link to webinar recordings: [Adapting Health Systems to Protect Children from the Impact of Climate Change Series | Child Health Task Force](#)

Presenters



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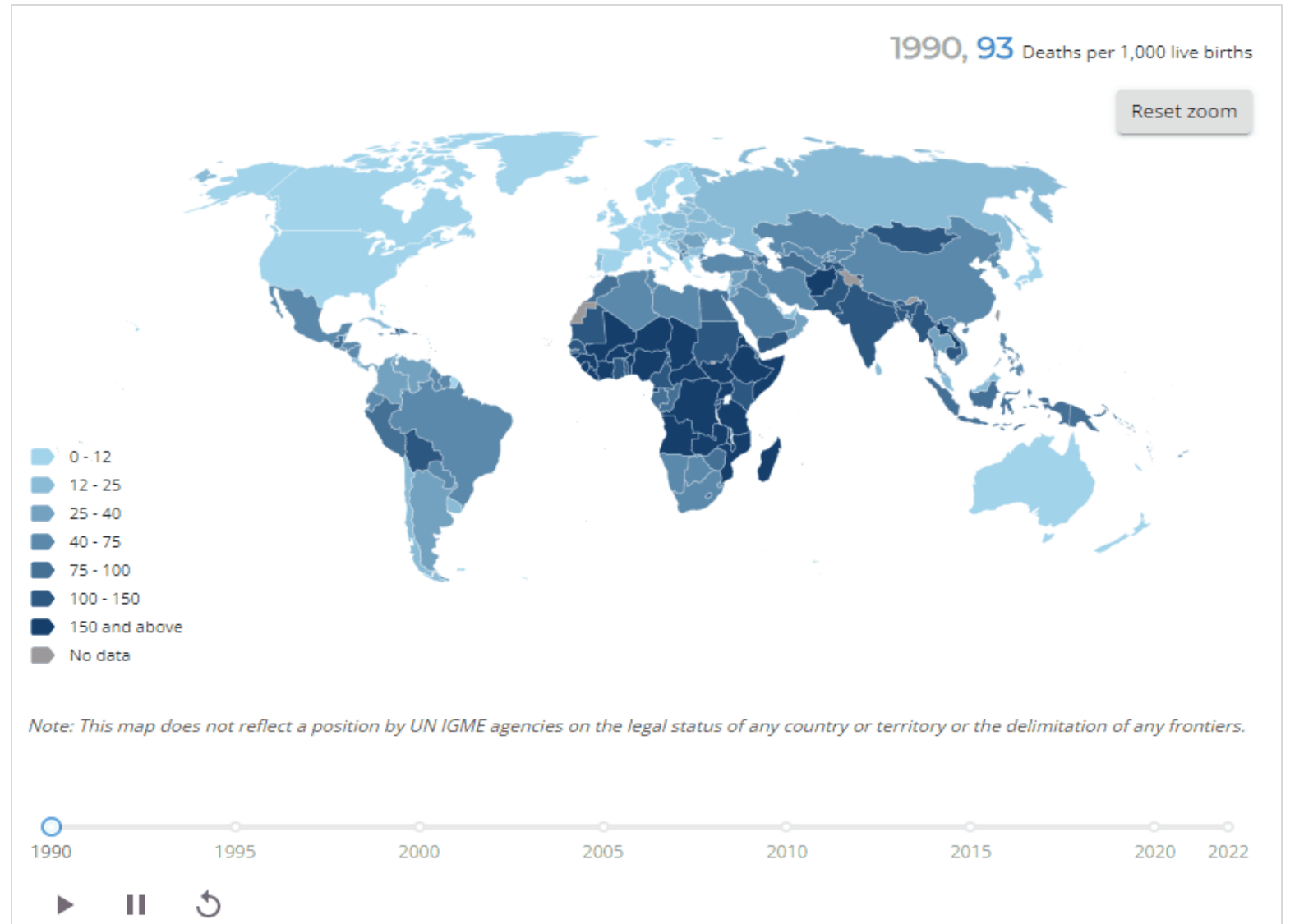
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A threat to progress: Confronting the impact of climate change on child health and well-being

Abheet J. Solomon, UNICEF and Tobias Alfvén, Karolinska Institutet

The problem: Progress on child survival, health and well-being is under threat

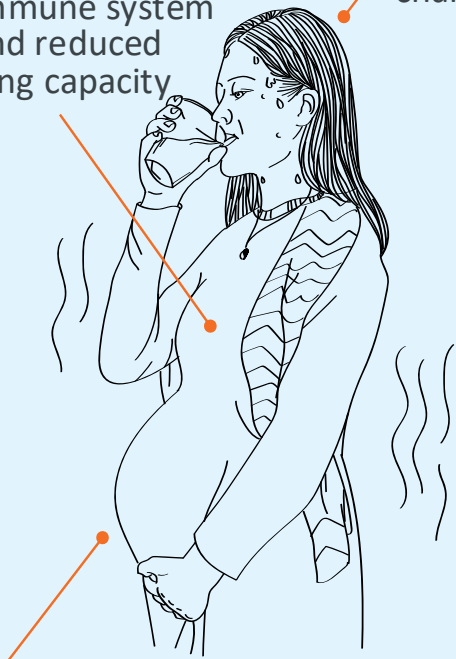
- Children today face multiple overlapping environmental risks! Today, more than a million children under five years die every year due to unhealthy environments.
- Climate change is exposing children to extreme weather events, extreme heat, changing ecosystems, food insecurity and water scarcity.
- Industrialization-related pollution has steadily increased including the use of hazardous chemicals, such as lead, in consumer products.
- Unsafe built environments pose additional risks for children.
- **There is no child health without planetary health!** A holistic approach to children's environmental health is thus critical.



Pregnancy

Weakened immune system and reduced lung capacity

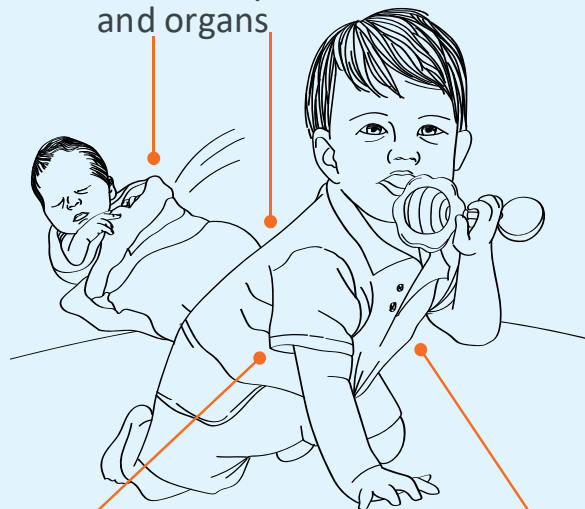
Hormonal changes



Fetuses can be exposed in utero to physical, biological, and chemical agents

Infancy and childhood

Rapidly developing immune system and organs

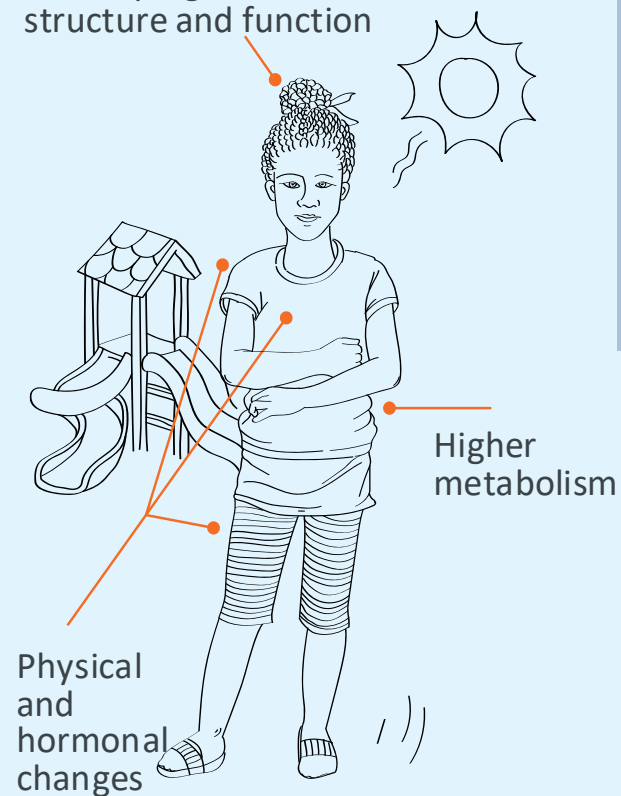


Higher metabolism

Breathing more air per unit of weight

Adolescence

Developing brain structure and function



Higher metabolism

Physical and hormonal changes

Impact of climate change on child survival, health and well-being

Hazards

Climate-related hazards with significant impact on children:

- Extreme heat
- Droughts
- Wildfires
- Floods and storms
- Ecosystem changes
- Air pollution

Multipliers

Factors made worse by climate change:

- Water scarcity and contamination
- Food insecurity and contamination
- Infrastructural damage
- Service disruption
- Displacement

Vulnerabilities

Inequities and factors that determine the severity of the impact:

- Socio-economic status
- Gender
- Location
- Existing health status
- Country context and capacity



Unique vulnerabilities across the life-course

Impacts

Health outcomes contributing to child mortality and morbidity



Pregnancy complications and adverse birth outcomes



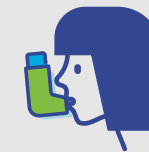
Malnutrition



Infectious diseases



Injuries



Non-communicable diseases



Impacts on neurodevelopment and mental health



Effects on well-being

The health impact is severe and can last a lifetime



Pregnancy complications and adverse birth outcomes

- Still birth
- Low birth weight
- Preterm birth
- Congenital defects
- Preeclampsia
- Gestational diabetes
- Gestational hypertension



Malnutrition

- Stunting
- Wasting
- Underweight
- Overweight and obesity
- Micronutrient deficiencies



Infectious disease

- Pneumonia and other respiratory infections
- Diarrhoeal diseases such as cholera
- Malaria, dengue, zika and chikungunya
- Lyme disease
- Other neglected tropical diseases



Injuries

- Drowning
- Burns
- Poisoning



Non-communicable diseases

- Heat-related illnesses such as heat stroke
- Asthma
- Allergies
- Sudden Infant Death Syndrome
- Chronic metabolic and cardiovascular diseases



Impacts on neurodevelopment and mental health

- Cognitive dysfunction
- Developmental delays
- Anxiety
- Depression
- Post-traumatic stress disorder



Effects on well-being

- Learning loss
- Loss of caregiver, peers and community
- Violence, abuse and exploitation such as gender-based violence
- Sleep quality

Extreme heat

- Extreme heat can lead to **pregnancy complications** and **adverse birth outcomes**, such as **preterm birth**.
- Beyond direct impacts from heat, higher temperatures are associated with **increases in all-cause mortality rates** among younger children, and among older children and adolescents extreme heat can lead to **poorer cognitive and physical development**.
- By 2050 almost every child under 18 in the world – nearly 2.2 billion – will be exposed to high heatwave frequency, up from only 24 per cent of children in 2020



Droughts

- Droughts have multiple health impacts and can **increase all-cause rates of mortality and morbidity** among children, lead to water scarcity and food insecurity that results in **increased rates of undernutrition** and **spread of infectious diseases**.
- Similarly to other extreme weather events, living through droughts can have **severe implications for mental health** among children.
- Climate change will lead to increases in temperature extremes, with droughts becoming more frequent and severe, especially if global warming reaches 2°C or above.



Wildfires

- Wildfires are prevalent in many regions of the world. In addition to direct physical harm to children, wildfire smoke can lead to **adverse pregnancy outcomes** and **interact negatively with neurodevelopment in children**.
- Exposure to wildfire smoke can lead to **respiratory diseases and increased susceptibility of respiratory infections** in children, while there also exist **negative mental health impacts**.
- Projections show that there will be a global increase in extreme fires of up to 14 per cent by 2030, and 50 per cent by the end of the century.



Floods and storms

- Floods and storms have been linked to **pregnancy complications, adverse birth outcomes** and **adverse impacts on neurodevelopment** that can have long-lasting consequences.
- Flooding can lead **to increased spread of infectious diseases** and exposure to toxicants, while the lived experience of extreme weather events can lead to **mental health impacts, such as depression**, in children and adolescents.
- Without adaptation and with accelerated climate change, half of the world's population will be exposed to flooding by the end of the century.



Air Pollution

- Particulate matter air pollution and other chemicals related to burning of fossil fuels and dust storms are linked to **worsened respiratory capacity in children**, such as **development and worsening of asthma**.
- **Allergic and atopic diseases** are set to become more prevalent with increased spread of allergens.
- Particulate matter air pollution is a direct by-product of fossil fuel combustion, while a significant amount of air pollution comes from climate change related droughts, wildfires and dust storms that is set to increase.



Changing disease patterns

- **Increased risk of zoonotic disease** transmission and vector **born diseases such as malaria, dengue fever, zika virus and Lyme disease**, challenging progress made in reducing the impact of these infectious diseases on children.
- The burden of **other infectious disease pathogens, including those causing respiratory infections and diarrheal diseases** are set to increase with climate change as well with implications for **antimicrobial resistance** patterns.
- An additional 4.7 billion people may be at risk of malaria and dengue by 2070.



Recommendations

#1: Limit emission to meet 1.5 C threshold ensuring the best interest of the child

#2: Protect Children from the impact of climate change

#3: Make informed decisions based on impact on child health and well-being

Full report: <https://www.unicef.org/reports/threat-to-progress>



Recommendations

#1: Limit emission to meet 1.5 C threshold ensuring the best interest of the child

- **Countries with greater capacity and responsibility for emissions** – particularly high income and high-emitting countries among the G20 – **take more ambitious and rapid action** and provide financial and technical support to developing nations.
- Energy transitions in low- and middle-income countries that **provide universal access to energy, lift millions out of poverty and expand strategic industries.**
- The **elimination of cooking poverty by 2030**, enabling the world's poor to cook with modern fuels and technologies and reduce child deaths attributable to household air pollution.
- **Scale up of climate education programmes** in schools to improve the uptake of active mobility, sustainable diets and food practices.
- **Accelerate transition to green infrastructure** that ensures cleaner air, road safety, mental health and opportunities for physical activity, whilst supporting skills development in furthering a just transition.
- **Decarbonization technologies are integrated with detoxification strategies** to not aggravate the toxic burden on children and the planet.



Recommendations

#2: Protect Children from the impact of climate change

1. **Provide caregivers with information and skills to protect children:** multi-hazard early warning systems, orientation on unique vulnerabilities of children and protective actions, skilling workers on prevention, referral and management, engagement with community platforms
2. **Ensure a focus on primary health care towards climate-resilient and low-carbon health systems:** a supported health workforce equipped, health facilities operate through disasters, manage patient burden in flux, continuity in essential MNCH supplies, implement monitoring and surveillance systems
3. **Safeguard access to food and water while establishing climate-resilient water and sanitation infrastructure:** climate-resilient nutrition services, guaranteed food security, integrated water resource management, access to safe and resilient WASH systems
4. **Ensure better preparedness and response to the triple planetary crisis:** Prepare communities and institutions, adapt humanitarian action, implement effective response to outbreaks, promote adoption
5. **Prioritize child-sensitive and shock-responsive social protection:** invest in universal child benefits, disability and unemployment/pension benefits, establish insurance and credit options for adapting to emergencies, ensure child-critical services for displaced children



Recommendations

#3: Make informed decisions based on impact on child health and well-being

- **Vulnerability and adaptation assessments** prioritize the impact of climate change on child health and well-being across the life course.
- **Generating evidence to establish global or country-level estimates** of climate change-related child mortality or morbidity are available.
- National household surveys, such as DHS and MICS, and health information systems **incorporate indicators to assess the impact of climate change** on child health and well-being.
- **Research focuses on the impact of climate change on children** across the life course to support comprehensive local and national action including using implementation research and participatory action.
- **Knowledge to action gaps at local and global levels are bridged** through multistakeholder collaborative action on children's environmental health including through the global collaborative.





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Civil society



SickKids

cap 2030 Children in All Policies

IPA International Pediatric Association
Every Child · Every Age · Everywhere



Sociedad Argentina de Pediatría



IFMSA International Federation of Medical Students' Associations



Save the Children.



SCAN ME

Children's Environmental Health Collaborative

The mission of the Collaborative is to mobilize international action to protect child health and development from the impact of climate change and environmental degradation.

Key Products:

- [Protecting Children from Heat Stress](#)
- [Safe from Wildfire Smoke](#)
- [A Threat to Progress: Confronting the Effects of Climate Change on Child Health and Wellbeing](#)

Children's Environmental Health Profiles



1. Context



2. Climate change



3. Pollution



4. Built environment



5. Injuries



6. Antimicrobial resistance



7. Occupational health

Select an indicator

Children under 18 exposed to water scarcity (%)

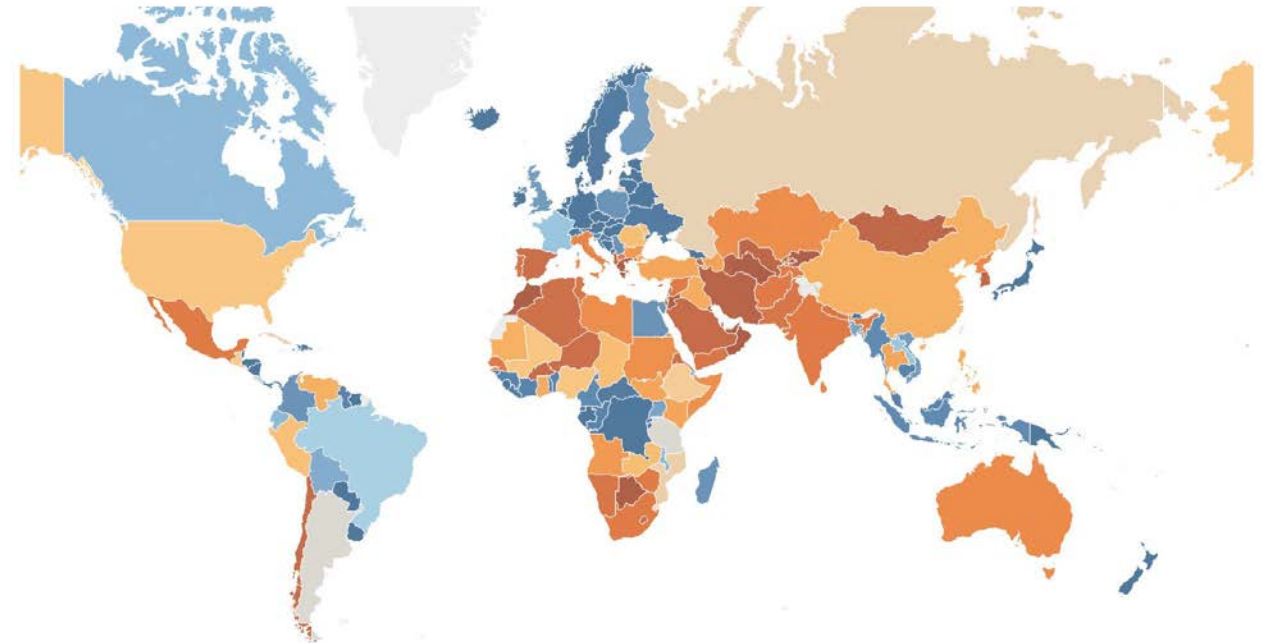
Global status

Country comparison

Equity

Climate change: Children under 18 exposed to water scarcity (%)

Data provider: WRI



Reflections



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Q&A



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Subgroup information, recordings and presentations from previous webinars are available on the subgroup page of the Child Health Task Force website:
www.childhealthtaskforce.org/subgroups/expansion

Disclaimer

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