

# UNICEF – Strategy For Water, Sanitation And Hygiene (Wash)

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## ABSTRACT

This paper was done to explore the impact of water treatment, hygiene, and sanitary interventions on improving child health outcomes such as absenteeism, infections, knowledge, attitudes, and practices and adoption of point-of-use water treatment. Focusing on the effects of access to safe water, hand washing facilities, and hygiene education among school-age children. Studies included were those that documented the provision of water and sanitation in schools for children less than 18 years of age, interventions which assessed WASH practices. Further research is required to assess the long-term impact of such interventions in different settings. The review concluded that the importance of access to safe water, hand washing facilities, and hygiene education cannot be underscored in abating water-borne illnesses, malnutrition, school absenteeism, and generally improving the quality of life and learning performance in children.

**Keywords:** Health, hygiene, sanitation, UNICEF, water and WASH

## 1. Introduction

Hand hygiene plays a vital role in preventing the spread of diseases. However, recent global statistics indicate that approximately 2.3 billion individuals do not have access to soap and water in their homes. Additionally, around 900 million school-aged children lack these basic hygiene resources in educational institutions, and 40% of health care facilities are unable to implement hand hygiene practices at the point of care. Ensuring access to adequate water, sanitation, and hygiene (WASH) services in homes, schools, and health care settings is among the most effective strategies to curb the transmission of infectious diseases, including COVID-19. The limited availability of these fundamental services in many regions reveals deep-rooted inequalities both across and within nations, heightening the vulnerability of affected populations during health crises such as the pandemic.

Providing adequate WASH facilities in schools is critical to creating a hygienic and safe learning environment, especially as educational institutions reopen after pandemic-related closures. Such infrastructure not only promotes health but also reduces the risk of schools becoming centers of disease transmission. In healthcare environments, WASH services, along with infection prevention and control (IPC) measures like waste disposal and environmental sanitation, are essential to protect both patients and medical staff. Despite their importance, there is a lack of comprehensive data to assess global progress in basic waste management, and only a few countries have reliable data on environmental cleaning standards.

The Centers for Disease Control and Prevention (CDC) leads a global WASH program that offers technical support and practical interventions aimed at safeguarding health by enhancing access to safe drinking water, improved sanitation, and hygiene practices. This program emphasizes long-term strategies for preventing disease, reducing poverty, and supporting socio-economic development, while also responding effectively to global emergencies and outbreaks. Strengthening WASH systems helps to diminish the severe impacts of diseases such as cholera, typhoid, and hepatitis, which are closely linked to poor water and sanitation conditions.

### Objectives:

The WASH Strategy's objectives are:

1. By 2030, achieve universal and equitable access to safe and affordable drinking water for all;
2. By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.

## 2. Review of Literature

Sommer et al. (2015) highlighted that school-based MHM programs supported by UNICEF have improved the attendance, dignity, and safety of adolescent girls. The strategy also ensures WASH services are accessible for persons with disabilities and marginalized groups (UNICEF, 2021).

According to WHO (2023), a lack of access to clean water and basic sanitation is responsible for a significant portion of preventable diseases in children. UNICEF has played a critical role in addressing WASH globally by combining emergency response, development programs, and system strengthening efforts (UNICEF, 2021).

## 3. Programming principles:

### A. Addressing Inequality in WASH Access

UNICEF is committed to reducing disparities in access to water, sanitation, and hygiene by directing program efforts toward the most marginalized populations. These include children with disabilities, those living in remote or underserved areas, and girls in impoverished households. To support this goal, UNICEF works with government actors and other stakeholders to prioritize equity-focused interventions. Program resources are strategically allocated to regions and communities facing the highest levels of deprivation. Additionally, efforts are underway to enhance monitoring systems in order to accurately identify vulnerable groups and better address their needs. The organization also promotes inclusive participation by ensuring that children and adolescents are empowered to express their concerns and contribute to decision-making processes.

### B. Ensuring Scalable and Sustainable Quality Services

Utilizing its global presence and established partnerships, UNICEF provides long-term strategic support to strengthen national systems for delivering reliable and high-quality WASH services. This support extends beyond technical infrastructure to include financial mechanisms, institutional frameworks, environmental sustainability, and social inclusion. The organization actively promotes innovative models and collaborative partnerships, including those involving private sector actors—from local entrepreneurs to international financial institutions—with a view to enhancing investment and innovation in WASH services. UNICEF also advocates for institutionalizing sustainability monitoring tools, such as third-party audits and certification of open defecation-free (ODF) areas, through formal agreements between governments and sector partners.

### C. Advancing Climate-Resilient WASH Development

UNICEF leverages its multi-level engagement capabilities to support communities in building resilience to climate-related shocks and emergencies. This includes promoting risk-informed planning and multi-hazard vulnerability assessments to inform national and local strategies. By strengthening institutional capacities, UNICEF facilitates improved risk mitigation and adaptive planning. Community-based adaptation efforts, such as rainwater harvesting and groundwater conservation, are also prioritized. These initiatives focus on managing growing threats like water scarcity, pollution, and natural disasters. Country-level support is guided by the UNICEF–Global Water Partnership (GWP) Strategic Framework, which includes phases like risk understanding, option analysis, solution implementation, and ongoing monitoring.

### D. Bridging Humanitarian and Development WASH Responses

UNICEF actively fosters the integration of humanitarian and development-oriented WASH programs. This approach enhances not only the efficiency and impact of emergency interventions but also the long-term resilience and sustainability of national WASH systems. The organization advocates for improved coordination across sectors by transitioning from emergency-focused cluster coordination to government-led mechanisms. It also promotes the incorporation of emergency preparedness, risk reduction, and prevention strategies into national WASH planning frameworks.

### E. Strengthening National Systems and Institutional Capacity

A core component of UNICEF's strategy is investing in the development of robust national systems capable of delivering WASH services at scale. This includes building the capacities of stakeholders across various sectors—such as health, education, nutrition, and finance—beyond the traditional water ministries. UNICEF supports the use of existing institutional systems while also offering technical assistance to enhance them. Efforts include improving planning, regulation, procurement, and monitoring functions within national frameworks. Additionally, UNICEF works with public and private partners to develop effective financing models and long-term investment strategies that support universal WASH coverage.

#### **4. Programming approaches:**

UNICEF will utilize six programming approaches to deliver lasting results for children.

##### **A. Enhancing the Enabling Environment**

UNICEF aims to strengthen enabling environments at all administrative levels—from national to local—by focusing on five critical dimensions identified by the Sanitation and Water for All (SWA) partnership. These include policy formulation, institutional coordination and accountability, financial planning, effective monitoring, and capacity enhancement. To identify and resolve barriers in these areas, UNICEF utilizes diagnostic tools such as the WASH Bottleneck Analysis Tool (WASH-BAT). These tools are used in collaboration with governments and partners through joint sectoral reviews and existing coordination mechanisms. A special emphasis is placed on building sub-national capacity in alignment with decentralization policies to ensure more responsive and localized service delivery.

##### **B. Using Evidence to Champion Children's Rights**

As a prominent advocate for children's rights, UNICEF leverages research and evidence to influence decision-making in the WASH sector. It actively promotes the recognition and fulfilment of children's rights to safe water and sanitation by encouraging governments and stakeholders to prioritize WASH investments. UNICEF works alongside WHO to co-lead global monitoring efforts such as the Joint Monitoring Programme (JMP), ensuring that robust data informs national and global policy agendas. The organization also emphasizes the inclusion of previously overlooked indicators like accessibility, availability, safety, and service quality. Through these efforts, UNICEF amplifies the voices of the most disadvantaged children—including those with disabilities—and ensures their needs are reflected in both development strategies and emergency responses.

##### **C. Mobilizing Sustainable Financing**

Meeting the Sustainable Development Goals (SDGs) related to WASH requires significant financial investments—far beyond the scope of traditional funding sources like Official Development Assistance (ODA). Recognizing this, UNICEF collaborates with international financial institutions such as the World Bank, the private sector, and other global stakeholders to explore innovative financing strategies. These efforts prioritize the enhancement of domestic financial systems to ensure effective and sustainable investment in WASH services. UNICEF's financial advocacy focuses on both increasing the volume of funding and improving how funds are allocated and managed to achieve equitable and scalable outcomes for children.

##### **D. Developing Sustainable WASH Markets**

UNICEF supports the development of sustainable markets that provide water, sanitation, and hygiene-related goods and services in a manner that meets both demand and supply in an equitable way. The goal is to ensure reliable and affordable access, especially in underserved and remote rural areas. On the supply side, UNICEF collaborates with governments to improve business environments, strengthen regulatory frameworks, and support the growth of small-scale private enterprises. These efforts include initiatives such as the professionalization of low-cost drilling services, aiming to ensure high-quality and affordable infrastructure for communities.

##### **E. Community Empowerment**

Central to UNICEF's approach is the empowerment of local communities. An empowered community is one that can assert its rights, participate in service delivery, and influence policy development. UNICEF promotes meaningful community engagement by ensuring people have access to relevant information, tools for monitoring services, and mechanisms to hold authorities accountable. Additionally, UNICEF supports communities in accessing necessary resources to improve resilience and sustain behavioral changes. Through community-led processes, the organization encourages the creation and reinforcement of positive WASH-related social norms, which are essential for maintaining healthy practices in the long term.

##### **F. Service and Supply Delivery**

UNICEF continues to provide direct support for service and supply delivery in situations where national systems lack the capacity or resources to meet demand. This strategic support is guided by three objectives: (1) to demonstrate innovative, evidence-based approaches at scale; (2) to respond during humanitarian emergencies when children are most at risk; and (3) to reach the most marginalized populations who would otherwise be excluded from essential services. These interventions may include accessible WASH facilities tailored for children with disabilities, as well as menstrual hygiene support for adolescent girls—both of which are crucial for promoting dignity, equity, and health.

## 5. The UNICEF Strengths In Wash

### A. Prioritizing the Most Vulnerable

UNICEF directs a substantial portion of its WASH investments toward Least Developed Countries (LDCs), with more than two-thirds of its expenditure focused on these regions—significantly higher than the sector average of one-third. At the national level, UNICEF places strong emphasis on reaching marginalized populations, particularly children, across both stable and crisis-affected contexts. This focus ensures that equity remains a central pillar in all stages of WASH programming.

### B. A Trusted Government Partner

UNICEF has cultivated long-term relationships with national governments in many countries, often providing sustained support for over four decades. This continuous engagement—spanning both periods of stability and emergency—positions UNICEF as a key partner in policy advocacy, reform implementation, and sector coordination. The depth of this collaboration allows UNICEF to play a catalytic role in expanding WASH coverage and improving outcomes.

### C. Promoting Innovation in WASH

Known for its pioneering role, UNICEF has consistently championed innovation in the water and sanitation sector. Drawing upon its field presence and global influence, UNICEF has introduced scalable and impactful solutions. Notable innovations include mobile-to-web tools for citizen-led monitoring, sustainability auditing systems, and specialized emergency hygiene kits that address the needs of women and girls. Furthermore, UNICEF has been instrumental in expanding the reach of the Community Approaches to Total Sanitation (CATS), a model that has significantly influenced global sanitation efforts.

### D. Leadership in Humanitarian WASH Response

UNICEF's humanitarian response capacity has expanded considerably, reflecting the growing demand for emergency WASH services. During the previous strategic period, its interventions benefited an average of 17 million individuals annually across more than 70 countries. UNICEF also leads global and country-level WASH coordination under the Inter-Agency Standing Committee (IASC) framework, further reinforcing its leadership role in emergency settings.

### E. Integrated, Cross-Sectoral Engagement for Children

With in-country teams composed of professionals from multiple sectors—including health, education, nutrition, and social protection—UNICEF promotes integrated programming that addresses the multifaceted needs of children. This cross-sectoral approach supports initiatives such as WASH in schools and healthcare facilities, as well as water and sanitation services aligned with nutrition programs, thereby maximizing health and developmental outcomes.

### F. Multi-Level Convening and Partnership Building

UNICEF operates at global, regional, and national levels, allowing it to engage across the full spectrum of WASH governance. It plays a central role in convening key sectoral platforms, such as hosting the Secretariat of the Sanitation and Water for All (SWA) partnership and organizing high-level coordination meetings. In many settings, UNICEF is one of the few major WASH actors with the capacity to support government structures and collaborate with partners across all administrative tiers—from communities to national institutions.

### G. Leadership in Monitoring and Transparency

UNICEF co-manages the Joint Monitoring Programme (JMP) for Water Supply and Sanitation with the World Health Organization (WHO), serving as a global leader in WASH monitoring. In addition, it actively assists countries in enhancing national data systems, enabling better planning and accountability. The organization also supports the adoption of innovative monitoring tools that promote transparency, community participation, and evidence-informed decision-making.

## 6. Results areas

UNICEF will focus on five results areas: water, sanitation, hygiene, WASH in institutions and WASH in emergencies

- **Water supply**

As part of its WASH strategy, UNICEF places significant emphasis on enhancing access to safe drinking water, in alignment with **Sustainable Development Goal (SDG)** which aims to “achieve universal and equitable access to safe and affordable drinking water for all by 2030.” UNICEF’s water programming supports the

progressive realization of this goal by promoting a service delivery framework known as the “**water service ladder**,” which captures incremental improvements—from no service to safely managed water access.

The SDG indicator used to measure progress in this area is the “**percentage of the population using a safely managed drinking water source**.” For a water source to be considered safely managed, it must meet the following criteria:

- The water source must be classified as improved, meaning it is likely to be protected from external contamination.
- It must be located on the user’s premises, eliminating the need for long-distance collection.
- Water must be available when needed, ensuring reliability and consistency in access.
- The source must be compliant with national water quality standards, particularly with respect to microbial contamination and hazardous chemical pollutants, including arsenic and fluoride.

UNICEF recognizes that the SDG targets are significantly more comprehensive and ambitious than their MDG predecessors. The language used in the SDGs reflects a global consensus among UN member states, aimed at encouraging measurable, transformative change. To support the interpretation and implementation of these targets, UNICEF—alongside government and development partners—provides normative guidance and technical frameworks. These resources help define the precise meaning of key SDG terms and clarify where intensified programmatic interventions are most needed to meet these expanded expectations.

**Table 1: Normative Interpretation of the Drinking Water Target**

Language in targets		Normative interpretation
By 2030, achieve	universal	Implies all exposures and settings including households, schools, health facilities, workplaces, etc.
	and equitable	Implies progressive reduction and elimination of inequalities between population sub-groups
	access	Implies sufficient water to meet domestic needs is reliably available close to home
	to safe	Safe drinking water is free from pathogens and elevated levels of toxic chemicals at all times
	and affordable	Payment for services does not present a barrier to access or prevent people meeting other basic human needs
	drinking water	Water used for drinking, cooking, food preparation and personal hygiene
	for all	Suitable for use by men, women, girls and boys of all ages including people living with disabilities

Source: JMP 2015

**Table 2: Elements of Good Water Programming at Water Point, Water Service and Water Sector Level**



Source: JMP 2015



At the **local or water point level**, UNICEF plays a facilitative role in empowering households and communities to take ownership of their local water resources. The organization promotes community stewardship by encouraging demand for water services that are not only safe and reliable but also easily accessible, sustainable, and affordable. As part of this effort, UNICEF invests in enhancing the skills and professionalism of water service providers, such as well drillers and maintenance technicians. Gender inclusivity is a core element of this strategy, with a particular focus on actively involving women in the planning, execution, and management of drinking water services, recognizing their critical role in sustaining household water systems.

At the **intermediate or water service delivery level**, UNICEF concentrates on building and strengthening institutional frameworks that regulate and ensure accountability among water service providers. The development of diverse service delivery models—covering financing, management, operations, and maintenance—is a key area of focus. These models often involve collaboration with the private sector to leverage innovation and improve efficiency. Community members are supported to participate in service planning and are provided with tools to monitor and evaluate the quality and reliability of services received, fostering transparency and user engagement.

At the **national or sectoral level**, UNICEF supports interventions aimed at improving overall sector governance and establishing robust enabling environments. This includes strengthening regulatory frameworks, promoting sustainable service delivery, and enhancing sector-wide monitoring mechanisms. The overarching objective is to institutionalize systems that are capable of ensuring long-term sustainability and accountability in the provision of water services.

UNICEF adopts a progressive service delivery framework, commonly referred to as the sanitation ladder, to guide and assess improvements in sanitation access. This framework captures a range of service levels—from the absence of any facility (characterized by open defecation) to the highest standard, known as safely managed sanitation. The underlying principle of this approach is the recognition that effective sanitation requires managing human waste throughout the entire sanitation chain, including containment, transportation, treatment, and safe disposal. A core focus of UNICEF's sanitation programming is the elimination of open defecation, which remains a significant public health and dignity challenge in many parts of the world. Alongside this, the organization works collaboratively with governments and development partners to ensure basic sanitation access for all, with a long-term vision of transitioning communities toward safely managed systems.

**Safely managed sanitation**, as defined by international standards and endorsed under SDG includes the following elements:

- Use of an improved sanitation facility that hygienically separates human excreta from human contact.
- The facility is exclusive to a single household (i.e., not shared with other families).
- Human waste, including infant and child feces, is either:
  - Safely disposed of on-site (e.g., through contained pit latrines or septic tanks), or
  - Transported and treated off-site through appropriate waste management systems.
- A hand washing station with soap and water is located nearby, supporting hygiene behavior and reducing disease transmission risks.

UNICEF's approach aligns with global consensus on the need for comprehensive sanitation systems that go beyond infrastructure alone to encompass behavioral change, service delivery models, and environmental protection.

Table 3: SDG Target and Implications: Sanitation and Hygiene

Language in targets		Normative interpretation
By 2030, achieve	access	Implies facilities close to home that can be easily reached and used when needed
	to adequate	Implies a system which hygienically separates excreta from human contact as well as safe reuse/treatment of excreta in situ, or safe transport and treatment off-site
	and equitable	Implies progressive reduction and elimination of inequalities between population sub-groups
	sanitation	Sanitation is the provision of facilities and services for safe management and disposal of human urine and faeces
	and hygiene	Hygiene encompasses the conditions and practices that help maintain health and prevent spread of disease including handwashing, menstrual hygiene management and food hygiene
	for all	Suitable for use by men, women, girls and boys of all ages including people living with disabilities
	end open defecation	Implies halting incidents where excreta of adults or children are: deposited (directly or after being covered by a layer of earth) in the bush, a field, a beach, or other open area; discharged directly into a drainage channel, river, sea, or other water body; or are wrapped in temporary material and discarded
	paying special attention to the needs of women and girls	Implies reducing the burden of water collection and enabling women and girls to manage sanitation and hygiene needs with dignity. Special attention should be given to the needs of women and girls in 'high use' settings such as schools and workplaces, and 'high risk' settings such as health care facilities and detention centres
	and those in vulnerable situations	Implies attention to specific WASH needs found in 'special cases' including refugee camps, detention centres, mass gatherings and pilgrimages

Source: JMP 2015

#### • Hygiene Promotion Strategies

UNICEF places a strong emphasis on fostering positive hygiene behaviors, recognizing their central role in public health, particularly for children and women. The organization targets four key areas in its hygiene interventions: handwashing with soap or ash, menstrual hygiene management (MHM), safe handling and storage of water, **and** safe disposal of human excreta. These domains remain underdeveloped in many national WASH programs despite their known health benefits, and UNICEF aims to strengthen them through strategic programming and advocacy.

To make handwashing a lifelong habit, especially among children, UNICEF leverages its broad engagement with education systems to influence behaviors from an early age. Moving beyond fear-based messaging, the organization incorporates emerging behavioral science insights—including those from psychology, anthropology, and marketing—to design more effective handwashing and hygiene promotion campaigns. These approaches focus on motivation, emotional triggers, and habit formation.

Moreover, UNICEF integrates safe water handling into its behavior change campaigns to ensure that water remains uncontaminated from the point of collection to the point of use. Recognizing the health hazards posed by improper disposal of infant and child feces, UNICEF also targets this area as a critical component of its sanitation programming, especially in low-resource settings.

#### • WASH in Institutions: Schools and Health Care Facilities

UNICEF recognizes that sustainable development in health, education, and gender equality (as framed in SDGs 3, 4, 5, and 6) is contingent on the availability of adequate WASH services in public institutions. The organization prioritizes improving access to WASH in schools, health care facilities (HCFs), and early

childhood development centers, where children and women are particularly vulnerable to the consequences of poor sanitation and hygiene.

In educational institutions, UNICEF continues to lead efforts to integrate WASH within national education sector frameworks. This includes advocating for dedicated financing and robust monitoring systems to ensure sustainable WASH implementation. The organization promotes cost-effective and scalable intervention models, such as the Three Star Approach, which emphasizes daily group hand washing practices and phased improvements in infrastructure and hygiene behavior.

UNICEF also addresses persistent barriers to WASH in schools, including the high cost of water infrastructure, operational sustainability challenges, and weak maintenance systems. At the same time, the organization works with ministries of health and WHO to develop practical models for scaling up WASH in health care settings, especially those that provide maternal and newborn services. These efforts are informed by findings from the **joint** WHO/UNICEF assessments of WASH in HCFs across low- and middle-income countries.

To enhance data-driven decision-making, UNICEF contributes to strengthening national monitoring systems, often in partnership with WHO's Joint Monitoring Programme (JMP). Furthermore, it sponsors research to expand the evidence base on WASH in institutions, which informs program development and strengthens advocacy.

- **WASH in Emergency Settings**

Access to water, sanitation, and hygiene services is especially critical during emergencies, where disruptions can severely impact health, safety, and dignity—particularly for women and children. In humanitarian contexts, restoring and maintaining WASH infrastructure becomes a top priority to prevent the spread of disease and maintain essential public services.

UNICEF's emergency WASH interventions focus on four strategic areas:

- Ensuring the continuity of WASH services in settings where infrastructure is compromised, to prevent outbreaks of waterborne diseases such as cholera.
- Supporting vector control initiatives to reduce the spread of diseases transmitted by mosquitoes, such as Zika virus and dengue fever.
- Assisting health care systems in outbreak responses—such as during Ebola epidemics—by ensuring the availability of safe water and adequate sanitation in health facilities.
- Maintaining **safe** hygiene practices throughout the emergency response cycle to safeguard the nutritional and general health status of affected populations.

UNICEF's experience and coordination capacity make it a key factor in the delivery of life-saving WASH services in both sudden-onset and protracted crises.

## 7. Implementing the strategy

To ensure maximum impact and sustainability of its WASH initiatives, UNICEF aligns its operations with a set of strategic principles aimed at delivering transformative outcomes for children:

- **Setting the Standard for Effective Programming:** UNICEF aspires to establish its WASH programming as a model of best practice in supporting governments to deliver measurable results for children. This involves continuous investment in internal capacity development and ensuring that qualified personnel are strategically positioned to meet programmatic demands at all levels.
- **Scaling Up through Theory-Driven Approaches:** Achieving transformational change requires a structured, evidence-based framework. UNICEF is committed to implementing a clearly defined **theory of change** to guide efforts in strengthening enabling environments. This includes setting measurable goals and rigorously tracking progress to ensure programs remain aligned with desired long-term outcomes.
- **Promoting Cross-Sectoral Integration:** Recognizing the interdependence of development outcomes, UNICEF employs a **multi-sectoral approach**, leveraging platforms such as health care, education, and social inclusion systems to both deliver WASH outcomes and use WASH as a catalyst for improvements in other development sectors. This integrated strategy enhances the efficiency and impact of interventions, especially for marginalized and vulnerable populations.



- **Reinforcing Emergency Response Leadership:** As a global leader in humanitarian response, UNICEF continues to strengthen its coordination role in emergency WASH interventions. By enhancing its readiness and operational capacity, the organization ensures timely and effective responses to crises that disproportionately affect children and communities.
- **Leveraging Global Knowledge and Evidence:** Drawing from its programming experience across more than 100 countries, UNICEF actively manages and disseminates the insights, evidence, and lessons learned from its WASH interventions. This accumulated knowledge is made accessible to governments, development partners, and practitioners to inform policy-making and improve sector-wide practices.

## 8. Conclusion

The primary objective of this publication is to motivate readers to independently explore water, sanitation, and hygiene (WASH) mapping using the methods and data sources outlined within the study. Future research should give particular attention to the positive impact of educational components on the adoption and consistent practice of hygiene behaviors. Multiple studies included in the review identified knowledge as a key enabling factor for improving hygiene-related outcomes and increasing participation in WASH interventions. Several independent variables—such as the child’s age, gender, academic level, socioeconomic status, accessibility to hygiene and sanitation infrastructure, and prior understanding of hygiene practices—were found to have a significant correlation with children’s health indicators. It is recommended that these variables be accounted for and controlled in the design of upcoming interventions to enhance their effectiveness and equity.

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