

IMMUNIZATIONS: REACHING THE LAST MILE





BACKGROUND

Vaccines are arguably the single most-effective public health tool ever developed. Vaccines have helped to tackle a wide range of childhood illnesses including polio, measles, mumps, rubella, diphtheria, pertussis, tetanus, and newer vaccines like those for the Human Papilloma Virus, and rotavirus. Vaccines have entirely eliminated smallpox, which <u>once</u> <u>killed 30% of people</u> infected and is estimated to have killed 500 million people in the 20th century. Together, with improved health systems and greater access to clean water, these vaccines have helped drive down rates of child mortality globally from <u>12.7 million</u> <u>deaths under age 5 in 1990 to 5.2 million in 2019</u>.

Thanks to advances over the past decade, more children than ever before can access immunizations with approximately <u>85% of children</u> worldwide receiving their basic vaccines. As a result, the lives of approximately <u>2 to 3 million children</u> are saved every year, with <u>13 million deaths averted</u> since 2000, and countless more are protected from debilitating illness.

Gaps remain leaving millions behind

Despite the progress, millions of children still miss out on the life-saving benefits of immunization every year with more than <u>13 million children</u> – known as zero-dose children – missing out on immunization services all together. Notably, <u>forty four percent of all zero-dose children</u> live in fragile or conflict-affected contexts leaving them increasingly vulnerable to disease and death.

Key barriers standing in the way of reaching the last 15% of unvaccinated children include:

- Weak health systems: In many low-income countries, public health systems are heavily underfunded and under-resources leading to inadequate infrastructure, lack of supplies and equipment including vaccine stock, shortages of qualified staff, and issues with the quality of care provided. Fragile and conflict-affected countries are often plagued by these challenges after years of instability.
- Cold chain capacity and storage: It is estimated that more than <u>one-third of vaccine doses are</u> <u>wasted</u> in developing countries due to inadequate temperature, expiring in warehouses, or misuse. The

biggest challenges occur in remote areas where electricity is unavailable or unreliable, cold chain infrastructure is inadequate, and there are difficulties transporting vaccine doses to the target population living far from health centers.

VACCINE HESITANCY

Defined as a "delay in acceptance or refusal of vaccines despite availability of vaccination services," <u>vaccine</u> <u>hesitancy has been reported</u> in more than 90% of countries and can be caused by a range of factors from safety concerns, myths and misconceptions to mistrust in healthcare professionals or the healthcare system. <u>Suspicions</u> of cholera immunization campaigns in Mozambique, <u>mistrust of the Ebola</u> <u>vaccine</u>, <u>rumors</u> surrounding tetanus toxoid and <u>other</u> <u>vaccines</u> in various countries in East and West Africa, and increased public concerns about and <u>refusal of</u> <u>vaccinations in Zimbabwe</u> all suggest that vaccine hesitancy trends and risks are on the rise across Africa. Mistrust & misinformation: Too often, the poor quality of services—compromised by long-waiting times, vaccine stock-outs and a scarcity of trained health workers—impacts trust in these services and leads to low use. Many caregivers also lack the information necessary to ensure their child receives the doses necessary to complete their immunizations. This is exacerbated by myths and misperceptions around the safety of vaccines.

HOW THE IRC IS RESPONDING

The International Rescue Committee (IRC) aims to help people whose lives and livelihoods are shattered by conflict and disaster to survive, recover and gain control of their future. With more than 40 years working in crisis and conflict-affected settings, the IRC has extensive experience delivering immunization services across the most challenging contexts. This includes delivering routine childhood immunizations and executing mass vaccination efforts to tackle infectious diseases with the highest morbidity, mortality and epidemic potential including measles, polio, meningitis and cholera. With health programs in 31 countries and expertise working in the most challenging, hard-to-reach areas, the IRC is wellpositioned to help reach the last mile and reduce cases of zero-dose children.

Our strategies for impact

- Strengthening health systems: The IRC works
 with Ministries of Health (MoH) and other stakeholders
 to build the capacity of the health workforce and
 support health facilities. To expand vaccine coverage,
 we support supply chains by helping to transport
 vaccines from central locations to districts and in some
 contexts like Kenya and Uganda we replace, repair,
 and upgrade cold chain equipment. During acute
 emergencies, we also work with the MoH to improve
 epidemiological surveillance.
 - **Supporting frontline health workers:** The IRC has years of experience strengthening the capacity of frontline health workers to deliver vaccines. In Burkina Faso, Ethiopia, Central Republic of Africa (CAR), Chad, Democratic Republic of Congo, Kenya, Mali, Nigeria, Somalia, South Sudan, Syria, Thailand, and Yemen,



for example, we work with the MoH to support the WHO's Expanded Programme on Immunization (EPI), which aims to ensure all children are vaccinated for diphtheria, whooping cough, tetanus, measles, poliomyelitis and tuberculosis, and Hepatitis B.

- Empowering community health workers: As trusted members of communities, CHWs are well placed to promote improved health practices including sharing key messages on vaccines, tracking defaulters, referring caregivers and their children to health facilities for necessary doses, and in some contexts directly distributing the vaccines. In CAR, Chad, Ethiopia, Kenya, Nigeria, South Sudan, Somalia and Uganda, CHWs have also played a critical role in disease surveillance and mobilization efforts to generate vaccine acceptance and demand.
- Harnessing digital technologies: The IRC developed a mobile health platform, the mReach defaulter tracing data platform, that enables health workers to register eligible children and track their immunization status. It also provides automatic alerts for children who have missed an immunization appointment. In northern Uganda, this initiative resulted in the immunization of more than 5,600 children. Over 95% of children who had dropped out of their immunization schedule were successfully traced and vaccinated. In Somalia, mReach was further enhanced with Google Maps improve tracking through geo-coding. Along the Thai/Myanmar border, the IRC developed an innovative Digital Health ID, which collects a patient's individual health records into a digital ID that moves with them across borders.



Leveraging other health service delivery points: Recognizing that immunization services are the cornerstone of the primary health care system in many low-resource settings, the IRC implemented an integrated program offering family planning services to postpartum women during infant immunization visits. In Ethiopia, the IRC provided color-coded calendars known as "Enat Mastawesha" (mother's reminder) adapted to help women track both child immunization schedules as well as planning around perinatal care services, skilled delivery, postpartum family planning. In Uganda, mReach was adapted to track mothers due for a follow-up dose of short acting family planning methods while also maintaining the applications ability to help track children defaulting on their vaccine schedules.

Targeting cross-border populations:

Communities with large populations that move along and across borders are highly vulnerable to the spread of infectious diseases. As an implementing partner of the Core Group Polio Project (CGPP), the IRC works to track and support immunization service delivery for children in border regions of Ethiopia, Kenya and Uganda. Across these countries, the IRC supports community mobilization, deployment of vaccination teams, supervision, and the provision of immunization-related communication materials. CHWs, health workers, and other community members are trained/supervised in community disease surveillance to stop spread of disease.

- Prioritizing community engagement and
 mobilization: Any effective vaccination efforts
 must include proactive community engagement that
 encourages all stakeholders -- including community
 and religious leaders, women's groups, patients' and
 CHWs to play a role in creating and sharing key
 messages and allows them to actively engage in
 decision making processes. In Ethiopia, for example,
 the IRC works closely with religious leaders to
 inform them about the benefits of the vaccines,
 dispel misinformation, and garner their support in
 mobilizing community members. Elsewhere, outreach
 sessions are held in locations where people convene
 churches, schools, markets to share key messages
 and mass awareness campaigns leverage local media.
- Informing policy and planning: Beyond service delivery and capacity strengthening, the IRC engages with key government officials to help inform national vaccine policies and strategies. In Somalia, we partnered to develop an urban immunization strategy that would reach displaced populations in Hargeisa, Bosaso, and Mogadishu. Grounded in qualitative research and interviews with mothers and health workers, the strategy guides UNICEF's immunization service delivery in Somalia today. The IRC also advocates for the inclusion of refugees and other displaced populations within national vaccine strategies and plans.



THE IMPACT OF COVID-19 ON IMMUNIZATIONS

Disruptions to routine immunization services during the COVID-19 pandemic pose a real threat to the rise of vaccine preventable disease outbreaks. This has happened in other outbreaks such as during the Ebola outbreak in the DRC, where measles deaths were triple the number of deaths from Ebola.

From March to April 2020, <u>Gavi estimated</u> that more than half (53%) of the 129 countries where data were available reported moderate-to-severe disruption of routine immunization services, or a total suspension of vaccination services.

Continuity of routine immunizations is essential for keeping the burden of vaccine-preventable diseases low. As countries strengthen their capacity to deliver a COVID-19 vaccine, there is a unique opportunity to strengthen the system at large.

THE IRC'S IMPACT

In FY20, more than 178,000 children across 14 countries received the DPT 3 vaccine via IRC directly delivered or IRC supported vaccination programs.



IRC teams check refrigeration temperatures to maintain the vaccine cold chain.

International Rescue Committee

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