As COVID-19 disrupts immunization, a call for action and funds to protect children by vaccination
Immunization has brought wild poliovirus to the brink of eradication and led to a dramatic decline in measles worldwide. During 2000-2018, measles vaccination prevented an estimated 23.2 million deaths, making measles vaccine one of the best buys in public health; 83 countries have been certified free of measles. Over 18 million people are estimated walking today who would have been paralyzed without polio vaccination. In August 2020, the World Health Organization (WHO) African Region was certified free of wild poliovirus, meaning that five of the six WHO regions – representing over 90% of the world’s population – have now eradicated wild poliovirus – a historic immunization success.

That progress is threatened by the COVID-19 pandemic, which has led to the disruption of essential immunization services worldwide. Even when available, people are unable to access services because of lockdown and transport disruptions, or unwilling due to fear of contracting SARS-CoV-2. This has resulted in plummeting uptake of vaccination in many countries, falling to as low as 50% in some countries during the crisis. Polio and measles vaccination campaigns, designed to fill gaps in essential services, were also paused to prevent possible infection of health workers and communities, while protection measures were put in place. The result of the pause is that more than 94 million children have missed out on measles vaccination alone. In July, WHO and UNICEF warned of this alarming decline in the number of children receiving vaccines around the world and called for vaccination to restart safely as soon as possible.

As some countries resume vaccination campaigns, WHO and UNICEF now call on countries to respond urgently to emerging disease outbreaks, prioritize immunization in national budgets and strengthen collaboration with partners for increased synergies.

In the immediate future, the most threatening vaccine-preventable disease outbreaks are of measles and polio, as the number of unimmunized children grows.
THREAT OF POLIO & MEASLES OUTBREAKS

The polio eradication public health infrastructure has been used extensively for COVID-19 response, while for reasons of safety and adequate preparation, polio vaccination campaigns had to be paused. While necessary to prevent the spread of COVID-19, the suspension of more than 60 planned polio vaccination campaigns in 28 countries has already resulted in growing polio outbreaks. Wild poliovirus transmission is increasing in intensity and geographic scope in the two remaining endemic countries, Afghanistan and Pakistan. Cases of circulating vaccine-derived poliovirus – a form of the virus that can arise in areas where vaccination coverage is low* – have increased nearly five-fold over 2019 levels, with evidence of international spread leading to multi-country outbreaks in Africa.

COVID-19 IMPACT ON RESUMPTION OF CAMPAIGNS

Immunization activities for both polio and measles have recently restarted in some countries, jointly where possible, and linking with other health interventions such as meningitis A vaccine, vitamin A and deworming. The costs of campaigns have risen due to additional COVID-19 safety measures that are necessary to protect health workers and communities. Countries are providing resources to keep frontline health workers protected (e.g., masks, hand sanitizer/soap) while ensuring campaigns are carried out respecting physical distancing requirements. Countries are also identifying efficiencies with the broader public health community to explore options for combining delivery of vaccines with other health services, depending on immediate community needs, availability of resources, and operational and logistical considerations.

COVID-19 SUPPORT AND PLATFORMS FOR EVENTUAL VACCINE

Wherever polio resources are available, the polio network continues to provide critical support to protect communities from COVID-19. Building on decades of experience stopping polio outbreaks, over 30,000 polio workers are active in the fight against COVID-19. Networks of social mobilizers, influencers and community leaders are working to educate the public and combat the spread of misinformation. Globally, the polio surveillance network is being used for COVID-19 case detection, contact tracing, laboratory testing and data management. Similarly, immunization staff experienced with measles immunization, community engagement and campaign planning are being called upon to underpin the COVID response in many countries. The Global Measles Rubella Laboratory Network, the largest WHO-coordinated laboratory network with facilities in almost every WHO Member State, has been involved in or repurposed to provide laboratory space, equipment, staff and reagents for SARS-CoV-2 diagnostic testing. These systems and infrastructure will play a critical role during the eventual roll-out of a COVID-19 vaccine.

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* Circulating vaccine-derived poliovirus (cVDPV): Circulating VDPVs can occur if the weakened strain of the poliovirus originally contained in the oral polio vaccine is allowed to circulate among under-immunized populations for extended periods of time. More than 10 billion doses of oral polio vaccine have been given to nearly three billion children worldwide since 2000. Thanks to this, more than 650,000 cases of paralysis are averted every year. The aim of the GPEI is to ensure that no child is ever again paralysed by any poliovirus, wild or vaccine-derived. Once all remaining strains of wild poliovirus have been eradicated and the world is certified free of such strains, use of oral polio vaccines will be stopped to eliminate any long-term risk of VDPVs.
MEASLES

2019 marked an unfortunate milestone for measles, with over 850,000 cases reported globally, the highest number since 1996. Sustained outbreaks occurred in all WHO Regions, resulting in preventable measles deaths. The fundamental causes behind these outbreaks – immunity gaps resulting from inadequate coverage with measles vaccine – are being exacerbated by the COVID disruptions. Generous support from Gavi, the Vaccine Alliance, has enabled access to funding for outbreak response, preventive campaigns and routine immunization strengthening, including additional support for catch-up vaccination of children who were missed due to COVID-19 disruptions. However, significant financing gaps remain in middle-income countries which are not Gavi-eligible. To fully finance remaining gaps in countries’ ability to recover from the pandemic-related disruptions and to adequately prepare, prevent and respond to measles outbreaks requires approximately an additional US$ 255 million over the next three years. This figure is based on extensive analyses of the financing gaps in the 45 countries at highest risk of imminent outbreaks and provides support to address system weaknesses that lead to outbreaks. The funding would be used in high risk priority countries for urgent immunization campaigns where outbreaks are otherwise imminent, and to build capacity in countries to identify gaps in immunization systems that need building for resilience. The appeal is also to support outbreak response in all non-Gavi countries affected by outbreaks, including the costs of vaccination. Being the most visible and infectious of vaccine preventable diseases, measles serves as a tracer in the global vaccine and immunization strategy for the new decade, “Immunization Agenda 2030” (IA2030), signalling weaknesses in immunization systems. Measles is the “equity virus,” a tracer that helps us to pinpoint where we need to go to reach zero-dose children.

The pivot to building progress towards measles goals based on strengthening immunization programmes and health systems is clearly outlined in the Measles Rubella Strategic Framework 2030, an annex to the IA 2030 that was developed under the leadership of the Measles & Rubella Initiative. A more complete recovery and resilience plan under the IA 2030 umbrella, including comprehensive surveillance and a global Measles Outbreak Strategic Response Plan, will be rolled out in the coming months.

POLIO

COVID-19 has exacerbated programmatic challenges for the eradication of polio, the only other disease designated as a current Public Health Emergency of International Concern. As of September 2020, 19 countries are responding to 29 distinct outbreaks of vaccine-derived poliovirus, most of them in Africa. With vaccination campaigns that reach all children, experience shows that outbreaks can be rapidly stopped. A novel oral polio vaccine to more effectively stop such outbreaks in a more sustainable way is expected to be launched in Q4 2020. The Global Polio Eradication Initiative (GPEI), of which WHO and UNICEF are the implementing agencies, had estimated budget for outbreak response; however, the current budget and funding cannot cover the extraordinary costs caused by the COVID-19 pandemic and the resulting outbreaks of polio and other vaccine preventable diseases. Based on epidemiological and financial modelling, the GPEI estimates that up to US$ 400 million will be needed over 2020/2021 to support countries in responding to polio outbreaks in a COVID environment. Even as WHO and UNICEF work closely with partners to identify synergies and cost-savings, these costs remain beyond the current resources of the GPEI. Given the increasing number of countries responding or preparing to respond to outbreaks, coupled with the limits on the resources of the GPEI, WHO and UNICEF are appealing an extraordinary and urgent support for polio outbreak response for US$ 400 million to cover the 2020/2021 period**. The most urgent needs are related to polio vaccines – required in larger quantity than previously anticipated – and outbreak response activities – which are more expensive due to pandemic conditions.

** These costs might change as the COVID-19 situation evolves and are being updated and reviewed as part of the 2021 GPEI budget revision.
CONTACT FOR POLIO

- WHO: Sona BARI  baris[at]who.int
- UNICEF: Ikuko YAMAGUCHI  iyamaguchi[at]unicef.org

CONTACT FOR MEASLES

- UN Foundation: Lori SLOATE lsloate[at]unfoundation.org
- UNICEF: Yodit SAHELMARIAM  ysahlemariam[at]unicef.org