



Summary of the Thirty-First Meeting of the International Task Force for Disease Eradication (ITFDE) October 20-21, 2020

The 31st Meeting of the International Task Force for Disease Eradication (ITFDE) was convened at The Carter Center in Atlanta, GA, USA on October 20-21, 2020 at 8:30am until 2:15pm each day to discuss “The Impact of the COVID-19 Pandemic on Eradication/Elimination Programs and the Way Forward.” The Task Force members are Dr. Stephen Blount, The Carter Center (Chair); Dr. Peter Figueroa, The University of the West Indies, Jamaica; Dr. Donald Hopkins, The Carter Center; Dr. Kashef Ijaz, The Carter Center; Dr. Fernando Lavadenz, The World Bank; Dr. Mwelecele Malecela, World Health Organization (WHO); Professor David Molyneux, Liverpool School of Tropical Medicine; Dr. Ana Morice, Independent Consultant; Dr. Stefan Peterson, UNICEF; Dr. David Ross, The Task Force for Global Health; Dr. William Schluter, Centers for Disease Control and Prevention (CDC); Dr. Nilanthi de Silva, University of Kelaniya, Sri Lanka/WHO Strategic and Technical Advisory Group for Neglected Tropical Diseases (STAG-NTDs); Dr. Laurence Slutsker, PATH; Dr. Jordan Tappero, Bill & Melinda Gates Foundation; and Dr. Dyann Wirth, Harvard School of Public Health. Thirteen Task Force members (Blount, Figueroa, Hopkins, Ijaz, Lavadenz, Malecela, Molyneux, Morice, Schluter, de Silva, Slutsker, Tappero, Wirth) participated in this meeting; three were represented by an alternate (Drs. Fatima Barry for Lavadenz, Robin Nandy for UNICEF, Paul Emerson for Ross). Presenters included Drs. Natasha Crowcroft, WHO/Geneva; Matthew Ferrari, The Pennsylvania State University; Deirdre Hollingsworth, University of Oxford; Jonathan King, WHO/Geneva; James V. Lavery, Emory University; Dr. Kim Lindblade, WHO/Geneva; Barbara Marston, CDC; Scott Nash, The Carter Center; Hannah Slater, PATH; Anthony Solomon, WHO/Geneva; Kimberly Thompson, Kid Risk, Inc.; John Vertefeuille, CDC; and Adam Weiss, The Carter Center.

Introduction: Epidemiology of COVID-19 and Ethical Considerations

The COVID-19 pandemic is having a devastating effect on our fragile planet, especially on vulnerable populations. This report of the ITFDE meeting held virtually on October 20-21, 2020 considers the pandemic’s impact on two global eradication programs and five global elimination efforts. With ethical considerations at the forefront of debates about whether and how to continue eradication, elimination, and control efforts in the face of the pandemic, ethical issues were central considerations at this meeting.

The ambitious agenda and space limitations require that this ITFDE report is somewhat different from previous ones. Given the urgency, and daily updates on reported COVID-19 cases and deaths available elsewhere, the presentation on COVID-19 emphasized clinical characteristics

and transmission dynamics. A set of general recommendations are offered, followed by discussions of the seven programs, with specific conclusions and recommendations for each program: Guinea Worm Eradication Program (dracunculiasis; GWEP); Global Polio Eradication Initiative (GPEI); elimination programs for measles and rubella (MR), malaria, river blindness (onchocerciasis; RB), and lymphatic filariasis (LF); and the program for the Global Elimination of Trachoma (GET). The conclusions and recommendations are intended to help national level decision makers with the difficult choices they face in 2021 to balance the need to continue or resume public health programs while mitigating the risks of exposing health workers and community members to COVID-19.

Participants considered the impact of the pandemic on the pillars of effective public health programs, including a competent and motivated workforce; sufficient infrastructure to administer interventions; political will at community, intermediate, and national levels; donors to help finance the effort; and a supply chain able to deliver the needed diagnostics, therapeutics, and vaccines in time. The pandemic threatens each of these pillars. The ITFDE noted the challenges that the COVID-19 pandemic presents by impeding delivery of needed and effective public health programs to many badly underserved populations, as well as the exceptional potential opportunities for national programs and donors to improve mutually beneficial cooperation between disease-specific programs and provision of broad health services. The critical importance of public health leadership was also noted.

COVID-19 manifests clinically with non-specific symptoms such as fever, cough, shortness of breath, and loss of taste or smell, with a wide-range of reported severity and numerous complications such as pneumonia, respiratory failure, multisystem organ failure, or inflammatory and neurologic manifestations, as well as asymptomatic infections, all of which may affect transmission of the virus. The incubation period is estimated at 2-14 days, but transmission can occur before symptoms begin, with a high viral load possible early in the course of infection. Severe illness is more likely in older persons or those with underlying health conditions, while “long COVID” where patients display drawn out effects, remains to be fully understood.

The public health response to COVID-19 has been influenced by previous experience with other coronaviruses, where the response also was based on symptom screening and contact tracing that needed to be done quickly in order to limit transmission effectively. As was true for Severe Acute Respiratory Syndrome (SARS-CoV1), pneumonia, respiratory failure, multisystem organ failure, or inflammatory and neurologic manifestations due to COVID-19 are also difficult to distinguish from other infections, (e.g., influenza). In addition, at first there were few therapeutic options and no pre-existing vaccine for COVID-19, which heightens reliance on other preventive measures.

As COVID-19 cases increase around the world, with a majority of cases outside of Africa, models predict that there will be many more COVID-19 cases in Africa, but with fewer deaths than in other regions mainly due to a younger population. However, the potential impact of climate and environmental characteristics and some comorbidities (e.g., malaria, HIV/AIDS, malnutrition) on the experience of COVID-19 in Africa are unknown, and the models do not adjust for altered health care capacity or feasibility of social distancing measures.

Decisions about how, when, and where to continue, and even intensify, eradication/elimination and control programs must rely on ethical principles, in the face of priorities that some may see as competing. This is particularly true in considering the ethical value of community and stakeholder engagement and the importance of respect when engaging populations. Ethics in global health programming is a way of reasoning through complex interests at stake when multiple organizations and stakeholders with vastly different levels of power, resources, and influence engage in cooperative action to pursue shared, or unilaterally imposed, goals. Ethical reasoning provides language and concepts to help frame and analyze ethical issues and develop valid rationales and arguments about what might constitute the best solution, and for whom, such as whether to suspend mass drug administration (MDA) or mass vaccinations in a pandemic.

Ethics can provide tools for advocacy, but can also be explanatory, e.g., it can help clarify complex issues such as equity in the context of specific programs, or at broader policy or strategic levels. Most important is the *substance* of those issues, where the primary goal is to balance efforts to address target diseases against the desire not to contribute to spreading COVID-19 to or from health care workers, program recipients, and/or other community members. What program design is most likely to achieve fair partnerships and foster the necessary political will? What are the donor interests compared to other stakeholder interests? What are the ultimate goals of prioritizing and what is the best way to forge alignment among donors?

The scope of the current pandemic demands that we ask whether the reasoning reflected in ethical principles of global public health has become obsolete and/or inoperable. Early in the COVID-19 pandemic, the World Health Organization (WHO) issued initial guidance to suspend programming such as MDA or mass vaccination in the face of many unknowns and lockdowns, in an effort to avoid contributing to transmission of SARS-CoV-2. It is possible that this guidance could have been viewed by some stakeholders as imposing restrictions on disease eradication and elimination programmes. What if the guidance was viewed not as constraints but as an ethical framework—along with the principles of harm reduction, reciprocity, and transparency—to provide a way to organize and design strategies to keep critical programming going during crises like the COVID-19 pandemic, but also to help shape the kinds of data collection needed to demonstrate that programs satisfied the requirements of those ethical principles?

The burning importance of strengthening health systems while applying necessary “vertical” approaches to elimination and eradication programs was raised repeatedly during this meeting. This was expressed sometimes as the need for a “diagonal approach” rather than the traditional “vertical” or “horizontal” approaches, and at other times as the need to apply the data-driven and outcome-oriented discipline of vertical programs to implementing health systems broadly. The insistent demand to immunize infants against measles as soon as possible after they each become susceptible to that highly transmissible infection, and to prevent and treat malaria promptly, are urgent examples of the need for reliable and routine basic health services at community level everywhere. It was acknowledged that while countries will differ regarding political will, health of their population, and the strength of their health systems, best practices, goals, and indices should be shared by all.

In light of these epidemiologic and ethical considerations, and noting the desire to avoid compounding the harm from COVID-19 by withholding health services that may be continued if proper precautions are taken, the ITFDE offers the following general recommendations for programs in the current pandemic: (1) establish clear, quantifiable goals and use data to monitor progress; (2) work first in the most highly-endemic areas for targeted diseases; (3) continue comprehensive surveillance; (4) continue and deepen research and innovation activities, even in the late stages of an eradication program, and emphasize the role of social scientists; (5) recognize the tension between the universal health care (UHC) movement and disease-specific programming and try to negotiate them actively; and (6) understand how the pandemic has exacerbated longstanding social and health disparities and how this knowledge must inform current and future activities.

Program-Specific Considerations

Guinea Worm Eradication

The major challenge facing the GWEP during the pandemic is how to sustain and accelerate progress toward eradication among affected humans and animals, especially the large number of infected dogs in Chad and the risk of spillover from dogs to other animals.¹ WHO has certified 199 countries and territories as Guinea worm-free, including 16 formerly endemic countries, and the number of cases has been reduced from an estimated 3.5 million in 1986 to 54 cases in 2019, and 24 cases in January-September 2020. Seven countries remain to be certified, including 5 currently endemic countries. This program is implementing a robust research agenda, primarily to help address the problem of infected animals. Since the beginning of the pandemic, national programs are operating at about 95% of pre-COVID levels while taking precautions to protect program staff and community members, with intermittent movement restrictions and delays in some consultations, research, and shipment of specimens. National GWEPs have supplied Personal Protective Equipment to program staff, conducted COVID-19 cross-training, established protocols for community engagement meetings, and distributed related educational materials.

Conclusions and Recommendations:

So far, the COVID-19 pandemic has had limited impact on national Guinea Worm Eradication Programs. Although community-based interventions remained operational, any consequences from disruptions in 2020 will become manifest in 2021. In the meantime, National GWEPs should:

- Engage communities at high risk of Guinea worm disease where program activities and supervision were impacted.
- Continue implementing measures to minimize the risk of contracting COVID-19 by health staff and by people in the communities they serve.
- Capitalize on the restart of mass drug administration, mass immunization, and bed net distribution campaigns, to conduct integrated case searches.

¹ World Health Organization, 2020. Dracunculiasis eradication: global surveillance summary, 2019. *Wkly Epidemiol Rec* 95:209-227.

Polio Eradication

The major challenges facing the GPEI are the need to sustain progress and funding, and to meet the increasing problem of vaccine derived disease.² Five of WHO's six administrative regions are now free of wild polio virus, including Africa, which was certified as wild polio free in August 2020. Only two countries in the Eastern Mediterranean Region remain endemic for wild virus. All 21 high-risk countries have maintained polio surveillance despite the COVID-19 pandemic, but they suspended mass immunization activities for several months after February 2020, and began resuming them gradually in June-July, with precautions to protect all concerned. Shipment of laboratory specimens was disrupted, and some unused vaccine stocks expired. Modelers working with GPEI indicate that the program will have reductions in immunization coverage due to the impact of COVID-19, that may have been partially offset by reductions in polio transmission due to restrictions on travel and congregating, yet GPEI will still be off-track to achieve eradication after COVID-19.

Conclusions and Recommendations:

- Increased resources are needed to help the GPEI continue its progress toward polio eradication. Response to COVID-19 in the two countries still endemic for wild poliovirus has demonstrated that they possess good emergency mobilization and response capacity that should be applied to polio eradication also, as a public health emergency of international concern.
- Both endemic and outbreak countries will need to continue to assess how local COVID-19 transmission may impact polio field activities, particularly poliovirus surveillance and immunization, and adjust approaches to mitigate COVID-19 risk while optimizing polio program activities.
- The systems developed and used to deliver polio immunization may benefit provision of immunization against COVID-19 also, particularly reporting of adverse events and mechanisms to communicate with communities in need.
- The GPEI should seize opportunities for increased community engagement and collaboration with other health services, including for prevention of COVID-19.

Measles and Rubella Elimination

The major challenge facing the measles and rubella (MR) elimination program is to reverse the setbacks of the past decade and reestablish momentum toward elimination at Regional levels.³ MR elimination efforts made notable progress over the past two decades, with measles verified as eliminated from the Americas in 2016, but that fragile historic state was only maintained until 2018, and globally 2019 saw the largest number of cases reported since 1996. However, regional commitments to measles elimination remains strong. The COVID-19 pandemic has had significant impact on MR elimination efforts. Disrupted routine immunizations led to faster accumulation of susceptible populations and more of those persons will become infected in

² World Health Organization, 2020. Surveillance to track progress towards polio eradication worldwide, 2018-2019. *Wkly Epidemiol Rec* 95:229-240.

³ World Health Organization, 2020. Progress towards regional measles elimination-worldwide, 2000-2019. *Wkly Epidemiol Rec* 95:564-572.

subsequent outbreaks of measles. Suspended mass immunization campaigns and other targeted activities will exacerbate inequity, increase the likelihood of outbreaks, and may delay progress to elimination among countries that were near their threshold for elimination.

Conclusions and Recommendations:

- A new “diagonal” approach to building stronger integrated systems that link MR elimination with efforts to strengthen routine immunizations is rapidly gaining favor. The systems developed and sustained for measles immunization will benefit immunization against COVID-19.
- An equity approach will be needed to make timely progress towards measles elimination and the emphasis on equity in the Immunization Agenda 2020 may provide an opportunity to use measles as a marker of immunization coverage and equity. This includes intensive efforts for large countries with the weakest health systems as well as intensive efforts for the lowest performing districts within countries. This approach will likely also be needed in some of the large middle-income countries with quite strong health systems but uneven access for specific communities.
- There is no global goal for measles eradication.
- Existing tools may be sufficient to reach minimal conditions for eradication, but new tools such as point of care diagnostics, rapid diagnostic tests, and new strategies such as novel vaccine delivery and rapid pathway to market are needed to overcome traditional barriers to equity.

Malaria Elimination

Malaria-endemic countries may be categorized into high-burden countries where progress has stalled after a period of exceptional declines in morbidity and mortality between 2000 and 2015, and more than 34 countries that now report fewer than 1000 cases of malaria annually.⁴ The major challenge facing high-burden countries is to get back on track to meet goals established in the Global Technical Strategy for Malaria 2016-2030 that call for a 90% reduction in malaria morbidity and mortality by 2030. The goal for the eliminating countries is to accelerate progress towards achieving three years with zero indigenous malaria cases, attain WHO certification of malaria elimination, and prevent re-establishment of transmission. Since 1955, WHO has certified 37 countries as malaria-free, including four countries since 2018. The COVID-19 pandemic has challenged malaria programs, including in countries approaching malaria elimination, by delaying receipt of commodities, care seeking, case investigation and response; causing missed diagnoses; and by reducing mobility of health care workers. These issues are also of concern in high-burden countries. Tighter borders, while decreasing cross-border traffic, have increased the number of illegal crossings in some countries, and contributed to delayed shipments of commodities. Modelers have analyzed the impact of different COVID-19 scenarios on disruption of program activities and their effect on malaria morbidity and mortality and described the implications of overlapping symptoms of malaria and COVID-19 for treatment seeking and diagnosis.

⁴ World Health Organization, 2020. WHO calls for reinvigorated action to fight malaria. *Wkly Epidemiol Rec* 95:623-627.

Conclusions and Recommendations:

- The interest generated by countries that receive WHO certification of elimination helps maintain global momentum for malaria elimination and sustain support to high-burden countries. Malaria programs in high-burden countries will benefit from the lessons learned by eliminating countries to prepare for the challenges that they will face in the future.
- Routine provision of urgent malaria treatment and preventive services at community level, including bed net distribution and preventive chemotherapy campaigns, should be continued with proper precautions to prevent COVID-19 transmission, and these can complement measures to prevent COVID-19.
- Cross-border initiatives should include incentives for both sides and promote ownership of elimination.

River Blindness and Lymphatic Filariasis Elimination

The greatest challenge faced by those working to eliminate RB transmission and to eliminate LF as a public health problem is to maintain, and in some cases regain, the momentum toward elimination. Recent summaries illustrate that much progress has been made towards both elimination goals.^{5,6} Four of the six formerly endemic countries in the Americas have completed verification of elimination of river blindness (onchocerciasis) and many others worldwide have, based on transmission reductions achieved, stopped mass drug administration (MDA) for LF and for RB in some areas. Of 72 countries where LF was endemic, 17 have met criteria for verification of elimination as a public health problem through 2019. WHO issued interim guidance for Neglected Tropical Disease (NTD) programs related to COVID-19 in April 2020 and weighing the impact of the pandemic, called for cessation of community-based activities such as MDA.⁷ Initial mitigation measures delayed MDA campaigns, postponed surveys, and caused suspension of hydrocoele surgery and clinical care for persons affected by LF. WHO has since issued new guidance to NTD programs on continuing essential NTD services and community-based interventions while taking measures to mitigate the risk of COVID-19 transmission. The NTD Modeling Consortium has modelled the impact of the pandemic on RB and LF elimination and found that the impact of delayed MDAs can push back the timeline to achieve elimination targets, but certain measures can mitigate and even accelerate time to elimination. According to models, twice-yearly MDA with ivermectin can overcome the impact of delayed MDAs for RB. For LF, implementing triple-therapy MDA (combination of ivermectin, DEC, and albendazole) where warranted, would not only mitigate the negative impact due to COVID-19 delays, but also accelerate the reduction of microfilaremia to levels below elimination targets, according to models. Models also suggest that raising coverage from 65% to 80% of the total population would mitigate the negative impact of delayed or skipped MDAs over time for both RB and LF.

Conclusions and Recommendations:

⁵ World Health Organization, 2020. Elimination of human onchocerciasis: progress report, 2019-2020. *Wkly Epidemiol Rec* 95:545-554.

⁶ World Health Organization, 2020. Global programme to eliminate lymphatic filariasis: progress report, 2019. *Wkly Epidemiol Rec* 95:509-524.

⁷ World Health Organization, 2020. Neglected Tropical Diseases: impact of COVID-19 and WHO's response. *Wkly Epidemiol Rec* 95:461-468.

- National RB and LF programs should use this time of pause to plan modifications or redesign delivery strategies to improve coverage of the total population. NTD programs could also use the pause in field work to gather data and build up their elimination dossiers. Where schools are closed, programs should consider community-based transmission assessment surveys.
- WHO guidelines for resuming community-based interventions with proper precautions to prevent COVID-19 should be followed to maintain MDA for LF and RB wherever possible. RB endemic countries should consider biannual rather than annual MDA. In countries where only LF is endemic, programs should transition from two-drug to triple-drug therapy.
- National programs should plan for additional resources to be in place to support activities with mitigation measures. Care for persons with lymphedema and hydrocele must be maintained.
- Community-based health workers in LF and RB elimination programs are a potential resource for mutually beneficial cooperation with efforts to prevent COVID-19.

Trachoma Elimination

A significant challenge facing the Global Program for Elimination of Trachoma is the intense transmission and level of endemicity in parts of Ethiopia. Programs are at various stages of progress towards elimination of trachoma as a public health problem in 45 other countries.⁸ So far WHO has validated ten countries as having achieved elimination of trachoma as a public health problem and the global population living in areas requiring the A (antibiotics), F (facial cleanliness), and E (environmental improvement) components of the SAFE strategy has been reduced by 91% since 2002. With the support of the NTD Modeling Consortium, WHO has assessed the likely impact of COVID-19-related delays on trachoma programs and found that delayed or skipped rounds of antibiotic MDA; delayed baseline, impact, and surveillance surveys; delayed decision-making; and delayed research studies are all probable. In populations where transmission of ocular *Chlamydia trachomatis* is intense, there are likely to be high levels of accrued morbidity during COVID-19-related interruptions to MDA and new strategies are indicated to mitigate those effects, perhaps by performing extra rounds of MDA in 2021. These strategies may also benefit districts where active trachoma appears to remain persistently above the elimination threshold despite many years of implementation of the A, F and E components of the SAFE strategy.

Conclusions and Recommendations:

- Implementing the SAFE strategy for trachoma should be maintained in at-risk areas wherever possible, with proper precautions to prevent transmission of COVID-19.
- When field work again becomes possible, implementation research is urgently needed to evaluate strategies to accelerate reductions in the prevalence of active trachoma, particularly in districts with persistently elevated disease.

⁸ World Health Organization, 2020. WHO Alliance for the Global Elimination of Trachoma by 2020: progress report, 2019. *Wkly Epidemiol Rec* 95:349-359.

- An operational definition of persistent active trachoma is needed urgently, as well as empirical data demonstrating how the A, F, and E components of the SAFE strategy can be enhanced for affected populations.
- Community-based health workers in the trachoma program are a potential resource for mutually beneficial cooperation with efforts to prevent COVID-19.