

EYE of the EAGLE

THE
CARTER CENTER



Volume 22, Number 1

Winter 2021

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Uganda Resumes MDA, Follows COVID-19 Protocols

After stopping in April 2020 because of the COVID-19 pandemic, The Carter Center-assisted mass drug administration (MDA) program for onchocerciasis in Uganda restarted in August, making it one of the first such campaigns in the world to resume.

The campaign provided 1,338,717 Mectizan® (donated by Merck & Co., Inc., Kenilworth, N.J., USA) treatments to the two foci of Uganda still under MDA, demonstrating that MDA can safely be conducted when paired with well-focused coronavirus prevention messages, adequate protective equipment, and diligent adherence to protocols.

The World Health Organization (WHO) advised on April 1 that community-based neglected tropical disease (NTD) programs should halt activities to prevent the spread of the novel coronavirus. The Uganda Ministry of Health (MOH) established a task force to develop procedures for COVID-19

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The Carter Center

In Uganda, a community drug distributor follows COVID-19 protocols, including wearing a mask and administering treatment outdoors. Ugandan children under age 6 are not required to wear masks.

Trachoma Control Program Adjusts to Pandemic

The Carter Center has always strived to be an adaptable organization, prepared to respond to global changes and challenges when implementing programs in some of the world's most remote and ever-changing environments. Insecurity, flooding, government leadership changes, and food shortages are just some of the many issues that the Center's Trachoma Control Program has faced over the past 21 years.

The ability to adapt was put to the test

in 2020 as the world faced the COVID-19 pandemic. The program has sought to adapt activities to address short-term COVID-19 needs while working alongside in-country partners and ministries of health to develop risk assessment and mitigation action tools. In preparation for the restart of SAFE implementation (SAFE stands for surgery, antibiotics, facial cleanliness, and environmental improvement), the program has been developing strategies and new standard operating procedures to reduce the risk of COVID-19 community transmission during the implementation of interventions. The goal

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Electronic
Edition

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30th IACO Notes Progress Despite COVID-19

Discussion at the 30th InterAmerican Conference on Onchocerciasis centered around the challenges the COVID-19 pandemic has presented to the partners of the Onchocerciasis Elimination Program for the Americas.

The IACO meeting was held virtually Dec. 1–2, 2020. Dr. Marcos Espinal from the Pan American Health Organization and Dr. Mauricio Sauerbrey from The Carter Center gave opening remarks, and 10 presentations centered on the Americas' last remaining transmission zone, the Yanomami focus area, which straddles the shared border of Venezuela and Brazil, home to about 35,000 Yanomami indigenous people.

Mandated COVID-19 mitigation efforts resulted in reduced treatment coverages (especially in Venezuela), delayed assessments, and canceled training. Air transit to reach the most remote communities was limited in both countries, while fuel shortages also affected Venezuela's river-based activities.

However, there is optimism.

The 2020 OEPA report in the WHO Weekly Epidemiological Record included an analysis of mass drug administration (MDA) treatment rounds with effective coverage (i.e., coverage of at least 85%) in the Yanomami focus area. This analysis concluded that over 70% of the administrative districts should be classified as “suspected transmission interruption” because they have received over 20 effective treatment rounds. Brazil and Venezuela reported

Studies suggest that mature programs like Brazil and Venezuela can withstand a missed treatment or two.

on 2019–2020 entomology testing and serology assessments in children that supported OEPA's conclusion; further serology and entomology should help solidify these findings. COVID-19 impact modeling studies suggest that mature programs like Brazil and Venezuela can withstand a missed treatment or two without great

large crowds associated with fixed-post MDA campaigns. Community drug distributors (CDDs) dispense Mectizan within their kinship zones, limiting the involvement of nonresidents and reducing the risk of transmission. Third, thorough risk assessments were conducted, and appropriate mitigation measures were instituted. CDDs, supervisors, and other health workers wore masks, washed their hands frequently, and administered Mectizan outdoors. Checklists helped ensure protocols were followed.

The MDA had its challenges. Despite a robust public information effort, many rural residents perceived



setbacks in elimination timelines.

Ecuador, which stopped MDA in 2009, reported a 2018 OV16 serological study conducted in children ages 5 through 9 living in previously hyperendemic communities; all tested negative, indicating continued absence of onchocerciasis transmission. This study was published in the November 2020 issue of American Journal of Tropical Medicine and Hygiene.

IACO celebrated renewed support to OEPA from the U.S. Agency for International Development. In addition to its donation of Mectizan[®], Merck & Co., Inc. (Kenilworth, N.J., USA), provided a one-year monetary grant to OEPA. IACO also noted the attendance of several longtime partners from both Lions Clubs International Foundation and local Lions Clubs of the endemic and formerly endemic countries.

COVID-19 as an urban disease. Many individuals who could no longer work or afford to live in cities because of the national lockdown moved to rural communities. The influx meant there were drug shortages in some communities, but mop-up operations ensured everyone was treated. MDA also extended past the planned two-week period as some CDDs moved from their villages, necessitating a repeat of household registration.

The Carter Center–assisted River Blindness Elimination Program in Uganda is supported in part by USAID's Act to End NTDs–East program, led by RTI International.

Uganda Resumes MDA

Continued from page 1

mitigation and a practical plan for restarting NTD programs. The MOH, implementing partners, and donors collaboratively developed plans, following the WHO's evolving guidance. The WHO issued provisional guidelines for resuming core NTD activities in late July, and the MOH resumed MDA for onchocerciasis in August.

The restart decision hinged on several factors. First, Uganda had few (1,029) COVID-19 cases at the time MDA was planned. Second, Uganda employs a house-to-house MDA approach, which avoids the

Uganda Shows Significant Progress Toward Elimination

The 13th Uganda Onchocerciasis Elimination

Expert Advisory Committee (UOEEAC) meeting focused on three topics: (1) two foci that have completed post-treatment surveillance, (2) two foci where transmission is still ongoing, and (3) cross-border transmission zones Uganda shares with South Sudan and the Democratic Republic of the Congo.

The meeting took place Aug. 4–6, 2020. Due to the COVID-19 pandemic, it was held virtually and with a condensed agenda to accommodate participants in different time zones.

River blindness was initially endemic in Uganda in 16 foci, comprising 40 districts and about 4.7 million people at risk, excluding the Victoria Nile focus, which eliminated the disease in the early 1970s. Since the launch of the elimination program in 2007, approximately 3.1 million people are no longer at risk of onchocerciasis; Uganda has achieved transmission elimination in seven foci and transmission interruption in another seven foci, which are under post-treatment surveillance.

Two foci, Wadelai and West Nile, have now completed the three-year post-treatment surveillance period recommended by the World Health Organization (WHO). The UOEEAC recommended these foci conduct serological surveys and submit the results to the committee before the August 2021 UOEEAC meeting. If there is no evidence of transmission, the foci will be reclassified as “transmission eliminated.”

The UOEEAC advised that programmatic activities, including mass drug administration, resume as soon as possible following nationally prescribed COVID-19 precautions. (MDA took place soon after the meeting occurred.) For the Madi Mid North focus, the UOEEAC recommended the program investigate whether there is evidence of transmission in adjacent areas. Ivermectin treatments are provided semiannually within the focus boundary, which spans parts of 11 districts in northern Uganda. The splitting and creation of new administrative units over time means that certain subcounties outside the focus lack baseline data. The UOEEAC recommended the program determine transmission risk in such areas following current WHO guidelines.

The UOEEAC also recommended that Uganda continue to provide laboratory support to the South Sudan and DRC programs and continue promoting cooperative

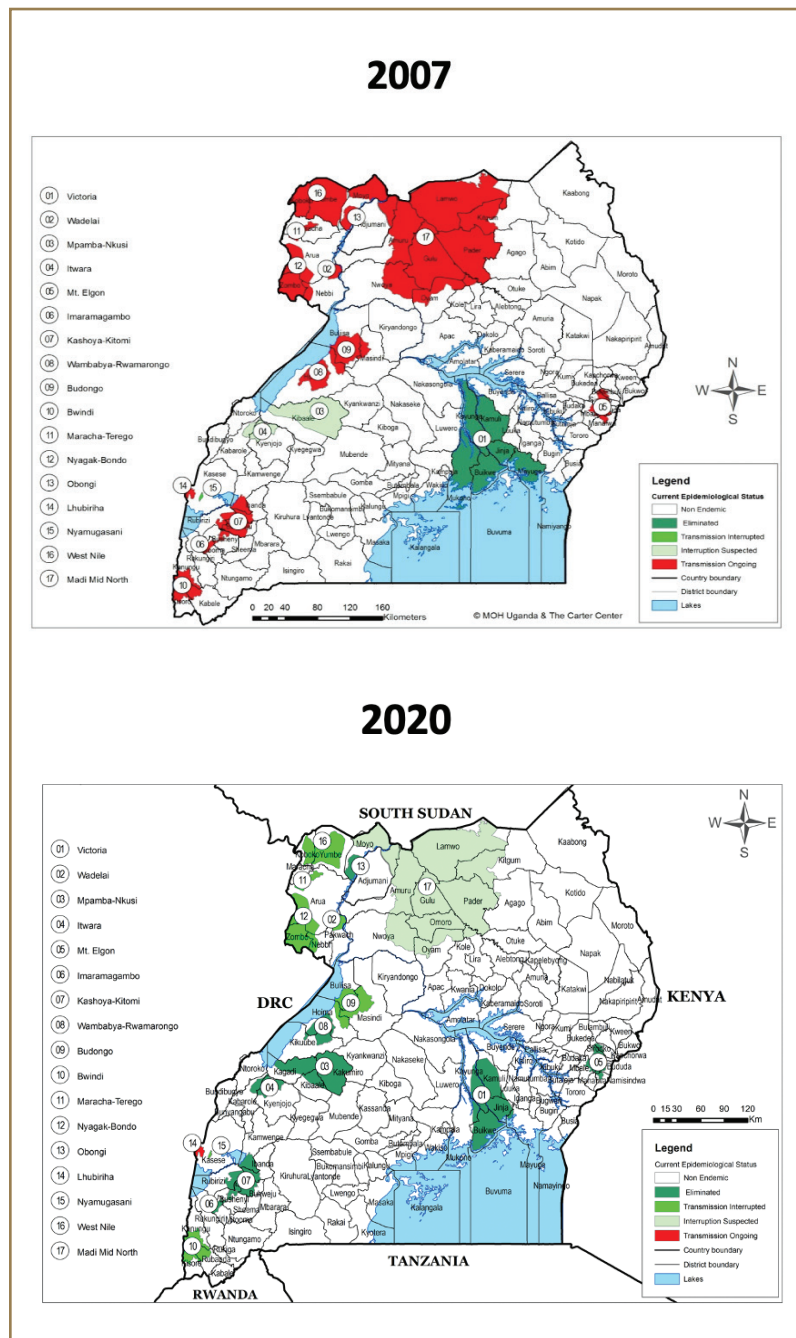


Figure 1. Uganda’s Progress in the Elimination of River Blindness

entomological activities in cross-border areas. The committee was pleased to hear that the three countries are drafting joint multidisease health plans that include references to onchocerciasis elimination in cross-border areas. The UOEEAC expressed its hope that these plans will be signed as soon as possible to enable effective coordination among the ministries of health.

Ethiopia Elimination Meeting Focuses on Mapping Endemicity

The seventh meeting of the Ethiopian Onchocerciasis Elimination Expert Advisory Committee (EOEEAC) celebrated achievements in mapping and impact on transmission despite limitations imposed by the coronavirus pandemic.

The meeting, held virtually Oct. 27–29, 2020, focused on efforts to map the endemicity of onchocerciasis throughout the country, assessments of communities along Ethiopia’s border with Sudan, and comprehensive evaluations of areas with unusual or lingering transmission. Although the first round of treatments was missed in 2020 because of the pandemic, the Ethiopian program desires to restart soon. Ethiopia delivers treatments every six months and has the largest such program in the world, with over 30 million treatments administered in 2019.

A major goal of the program is to complete onchocerciasis elimination mapping as soon as possible. Since the sixth meeting, 35,900 samples were collected from adults, largely from northern and eastern Ethiopia. Just under half (15,300) of these were analyzed in time for the meeting. These samples were tested in the Lions-Carter Center-assisted molecular laboratory based at the Ethiopian Public Health Institute. Two of 51 districts surveyed had $\geq 2\%$ OV16 positivity and were recommended for mass drug administration by the committee. Only 17 districts remain to be mapped in Ethiopia, a major achievement that has taken many years to reach.

As perhaps the largest effort to map onchocerciasis

endemicity using serology in the world, Ethiopia is well positioned to share its experience with site selection, team management, and laboratory development. These data are also of global importance as the onchocerciasis community discusses new procedures and thresholds for decision making.

Other discussions focused on adding nuance to the categories used to track districts—the “oncho flag.” Based on a color-coded ranking, the flag quickly shows how the country is progressing at a high level. The EOEEAC discussed ways to incorporate midterm assessments and mathematical modeling to add new colors to the flag.

Over 40 people attended the virtual meeting, including representatives from Federal Ministry of Health, Ethiopia Public Health Institute, Sudan, five regions, and Jimma and Addis Ababa universities. Key partners included The Carter Center, RTI International, Light for the World, the END Fund, the Bill & Melinda Gates Foundation, Lions Clubs International Foundation, and representatives from the Onchocerciasis Technical Subgroup at the World Health Organization. Hiwot Solomon, head of the Disease Control and Prevention Division of the Federal Ministry of Health, opened the meeting, which was chaired by Professor Rory Post of Liverpool John Moores University. Fikre Seife, national NTD coordinator for the Federal Ministry of Health, and Dr. Zerihun Tadesse, country representative for The Carter Center, are co-secretaries.

Ambaye Areru, Ethiopian Project Officer, Retires

Ambaye Areru is retiring after over a decade of service to The Carter Center in Ethiopia. Ambaye joined the Center in 2007 as a malaria and onchocerciasis project advisor for Bench Maji, Kaffa, and Sheka project areas. He later joined the country office as project officer for the onchocerciasis and lymphatic filariasis elimination programs. During his tenure, he established



Ambaye Areru

an admirable partnership with the regional government, health sectors, and other partners, for which he and The Carter Center were acknowledged by the regional Bureau of Finance and Economic Cooperation (BoFEC) for best performance in 2016. He made significant contributions in organizing malaria-onchocerciasis campaigns, which are believed to have helped reduce the diseases’ prevalence. He made major contributions to the design, preparation, and development of behavioral change activities, training modules, and health education

materials.

Ambaye received a bachelor’s degree in public health from the University of Gondar in 1974. Before joining The Carter Center, he served his country at governmental and non-governmental organizations for more than two decades.

Ambaye demonstrated amazing leadership in coaching teammates; facilitating large meetings, workshops, and trainings; and producing quality reports. After decades of dedicated service, he is now retiring, and the program staff wish him a healthy and peaceful life.

Trachoma Staffers Make Exam Scopes From Scratch

Ideally, trachoma grading in the field is conducted in person by a trained grader who examines the patient’s conjunctivae, the membranes that cover the inner eyelids, for signs of trachomatous inflammation-follicular (TF). When an in-person exam is not possible because of a lack of trained graders, remote examination of high-quality magnified photos has been shown to be a possible alternative.

A relatively simple magnifying scope attachment system for a smartphone makes taking grading-quality photos of the conjunctivae easy. The 3D-printed smartphone case—developed by the University of California San Francisco, and further adapted by the Carter Center’s Trachoma Control Program—houses a magnification lens, two LED lights for external illumination, a rotating arm that contacts the patient’s skin around the eye socket, and a battery to power the lights.

The Trachoma Control Program’s research manager, Drew Deathe, and program associate, Vanessa Scholtens, plan to fabricate two dozen of the scopes in the coming months.

Scholtens owns a \$500 3D printer she uses in her hobby creating figurines. While working from home in Atlanta during the COVID-19 pandemic, she realized she could use it to print parts for the trachoma grading scopes. After making some mechanical adjustments to her printer, she was able to print all six parts for a scope in just a couple of days.

“It was a real delight to be able to repurpose one of my hobbies into something that would help the program in such a meaningful way,” Scholtens said.

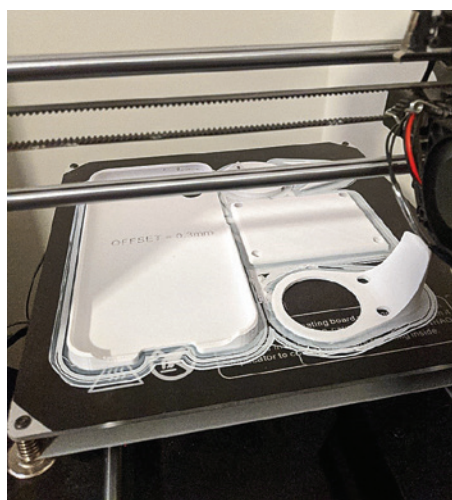
Once the parts are printed out of a polymer called acrylonitrile butadiene styrene (ABS), Scholtens sends them to Deathe’s home. Deathe then solders the electrical components and assembles the full scope.

“While it was a bit overwhelming at first, this has been a great opportunity to get creative and hands-on while working remotely last spring,” Deathe said.

Over the next few months, Scholtens and Deathe will manufacture and send scopes to be used in operational research projects in Ethiopia, Niger, and South Sudan. They plan eventually to design versions tailored to fit a variety of mobile phone models.



Drew Deathe solders electronic components for the 3D-printed scope, which can be attached to a mobile phone for use in assessing trachoma symptoms.



A trachoma grading scope is fabricated on a 3D printer in Vanessa Scholtens’ home office in Atlanta.

The need for the devices is expected to grow.

“As national programs progress toward and reach elimination goals, it will become more difficult to find active cases to reliably train trachoma graders,” said Kelly Callahan, director of the Trachoma Control Program. “We can use gradable photos taken by survey teams both to diagnose patients from centralized grading centers and to train graders wherever they may be. This is an exciting innovation that we will be able to implement in multiple upcoming projects.”

Trachoma Control Program

Continued from page 1

is to ensure the safety of the staff and communities served while continuing to fight blindness.

The response to COVID-19 has taken different forms in each country where the Trachoma Control Program works. In Amhara, Ethiopia, The Carter Center has provided a vehicle and driver to support the regional COVID-19 task force and distribute supplies; it also has allocated laboratory space and the use of an Abbott m2000 RealTime System to process COVID-19 samples at the Amhara Public Health Institute laboratory in Bahir Dar. The Carter Center developed specific standard operating procedures for house-to-house mass drug administration and surgical services; the Ethiopia Federal Ministry of Health adopted these procedures as the exemplar and shared them with implementing partners in other regions.

In Niger, thanks to the support of the Conrad N. Hilton Foundation, The Carter Center quickly pivoted to assist the Ministry of Health and regional health administrations to adapt trachoma radio broadcasts to include COVID-19 preventative messages. For many years, community radio has been used to share information about trachoma and was easily adaptable to address both diseases. Also in Niger, The Carter Center has supported the Ministry of Health and regional directorates of Diffa, Maradi, and Zinder regions to purchase soap, personal protective equipment, and handwashing stations, all of which address both the pandemic and trachoma.

The Carter Center-Sudan's Trachoma Control Program and

Public Health Training Initiative have been working together to disseminate COVID-related health education messages and distribute supplies in collaboration with the Sudanese Ministry of Health.

In South Sudan, where The Carter Center has continually adapted to a changing environment for years, the Trachoma Control Program has focused on adapting protocols so SAFE activities can resume as soon as possible. The focus is on mass drug administration (MDA) and health education. In collaboration with the Guinea Worm Eradication Program and using its information, education, communication tools, the trachoma program has supported the Ministry of Health to develop and implement new communication materials and adapted health messages. These activities will help integrate hygiene and other messages relevant to COVID-19 prevention. The materials have been

rolled out in select areas, and the program is already seeing success. Additionally, the Trachoma Control Program is piloting an adapted MDA protocol in Eastern Equatoria state that aims to successfully implement MDA while also mitigating the transmission of COVID-19 among both program staff and the communities being treated. The pilot saw some challenges, especially related to social distancing; however, the MDA was well-received. The program hopes to continue trachoma activities with added safety measures in the months to come.

Despite the new challenges that 2020 brought, the Trachoma Control Program has remained flexible and adapted to fight against trachoma. While the future is uncertain, the program will continue to move forward and adjust as necessary toward eliminating trachoma as a public health problem and reducing suffering.



A radio broadcaster in Niger disseminates trachoma health education and COVID-19 preventative messages with the support of federal and regional ministries of health and The Carter Center.

Amhara Program Manager Melds Innovation With Collaboration

As the trachoma program manager for The Carter Center in Amhara, Ethiopia, Eshetu Sata wears many hats to ensure the program runs smoothly. Based in Addis Ababa, Sata manages a team of over 120 people working across the Amhara region. He works alongside officials from the Federal Ministry of Health and the Amhara Regional Health Bureau to support national and regional trachoma programming. The Carter Center has been supporting Amhara's trachoma activities since 2001 and supports the full implementation of the World Health Organization-endorsed SAFE strategy.

Sata joined The Carter Center-Ethiopia team in July 2011 as the monitoring and evaluation manager and is now overseeing the full Trachoma Control Program there. Since he joined the team, the program has grown and changed in many ways. Still, it continues moving forward with the same goal: eliminating trachoma as a public health problem. As the program manager, Sata provides technical assistance and guidance to the program, supervises and monitors its implementation, and provides technical assistance and advice to regional and subregional project managers.

Sata has implemented innovative approaches in Amhara, including operational research and house-to-house case finding to identify people needing surgical services. Both are much needed in one of the most trachoma-endemic regions in Ethiopia and the world.

Sata also serves on the National Trachoma Task Force, which brings together implementing partners and government entities to collaborate on national program policies. Sata notes

that one of the most challenging parts of his job is advocating for the program.

“Sometimes, trachoma activities may not be considered a priority health service,” he said. “Much work is needed within the health sector to enhance ownership of the program.”

2020 was a challenging year for the program. Several adjustments across the Amhara region were made to address the COVID-19 pandemic. Sata's team developed standard operating procedures for implementing mass treatment, active case-finding of trachomatous trichiasis (TT) cases, and population-based surveys in the context of COVID-19.

The procedures require precautionary measures to implement activities and guide health workers, program managers, and community members to ensure activities are safely implemented while COVID-19 remains a threat. Sata, along with the Amhara Regional Health Bureau, led the way for the national program, sharing the operating procedures developed as templates for other programs looking to restart activities. The Carter Center-Ethiopia has also supported national COVID-19 response efforts in several ways. Health workers at all levels have been involved in spreading awareness of the pandemic, contact tracing



Eshetu Sata (left) manages the Carter Center's trachoma projects in Amhara, Ethiopia. He is pictured with Mulat Zerihun, regional manager for the Carter Center's trachoma and malaria control projects in the Amhara region of Ethiopia.

and monitoring interventions. The Carter Center's vehicles and drivers have been made available to regional officials as needed to implement COVID-19 activities.

Despite the challenging year, Sata remains committed to his work and is inspired by what he sees in the field. His favorite parts of his work are observing the implementation of activities in remote villages, whether sight-saving TT surgery, mass drug administration, or the school trachoma program, and witnessing the satisfaction of the people relieved of suffering.

“I am looking forward to intensifying program activities in the years ahead,” he said, “and seeing the continued impact of the program.”

Findings May Help Speed Elimination in Amhara, Ethiopia

Historically, Ethiopia's Amhara region has the highest known burden of trachoma in the world. Since scaling up the SAFE strategy over the years, substantial disease reductions have been achieved.

However, some areas are proving slow to improve despite interventions. Children are given clinical exams to monitor for the presence of trachomatous inflammation-follicular (TF). While continuing this practice, The Carter Center and its research partners have deployed alternative monitoring tools to allow deeper study of disease transmission in an effort to understand the epidemiology of trachoma in Amhara and unlock the door to accelerating progress.

Since 2011, The Carter Center has been collecting ocular swabs to test for *Chlamydia trachomatis* infection and

add to the TF indicator information. Through a generous donation from Abbott, the Amhara Public Health Institute can test ocular samples using a chlamydial DNA test. In a study recently published in PLOS NTD, the Center's authors swabbed a sample of over 7,000 children. They determined that after five years of SAFE strategy interventions, considerable infection remained. Furthermore, the youngest children and those with clinical signs of trachoma had the most significant infection burden in this population. The study was titled "Ocular *Chlamydia trachomatis* infection and infectious load among pre-school aged children within trachoma hyperendemic districts receiving the SAFE strategy, Amhara region, Ethiopia."

With many cumulative doses of antibiotic having been distributed,

antimicrobial resistance is a concern that prompted a second study. Using a technique called whole genome sequencing, the Center and its partners used a sample of 99 ocular swabs from across Amhara to more effectively characterize *C. trachomatis* circulation. This study, called "Genomics of Ocular *Chlamydia trachomatis* after five years of SAFE interventions for trachoma in Amhara, Ethiopia," was published in the Journal of Infectious Diseases. It demonstrated that the *C. trachomatis* circulating in Amhara had genetic sequences that were typical of ocular *C. trachomatis* worldwide. Furthermore, the authors found no evidence of macrolide resistance in this population, which is excellent news for a program using antibiotics as a critical intervention.

Recently, the Center and its partners also studied program participants' blood for signs of lifetime trachoma exposure. Survey teams working in Amhara collected dried blood spots from all individuals examined for trachoma. The spots were assayed in Atlanta by the U.S. Centers for Disease Control and Prevention for serological responses to trachoma. That study determined that serology can discriminate between districts with low levels of trachoma and those with high levels of both infection and clinical disease. This tool could be used for long-term surveillance in Amhara and other trachoma-endemic areas. The study, "Population-based prevalence of *Chlamydia trachomatis* infection and antibodies in four districts with varying levels of trachoma endemicity in Amhara, Ethiopia," was published in the American Journal of Hygiene and Tropical Medicine.



In Amhara, Ethiopia, a line of women with advanced trachoma await eyelid surgery. The Carter Center and its partners are researching why disease reduction is taking longer in some areas than others.

Carter Center Experts Present Research at Major Annual Conferences

The Carter Center is recognized as a leader in neglected tropical disease (NTD) control, elimination, and eradication. One of the Carter Center's many contributions to the public health field has been its operational research efforts, advanced through hundreds of published scientific studies throughout the years. These efforts have contributed significantly to the growth, innovation, and development of more effective and impactful NTD programs in more than 30 African and Latin American countries.

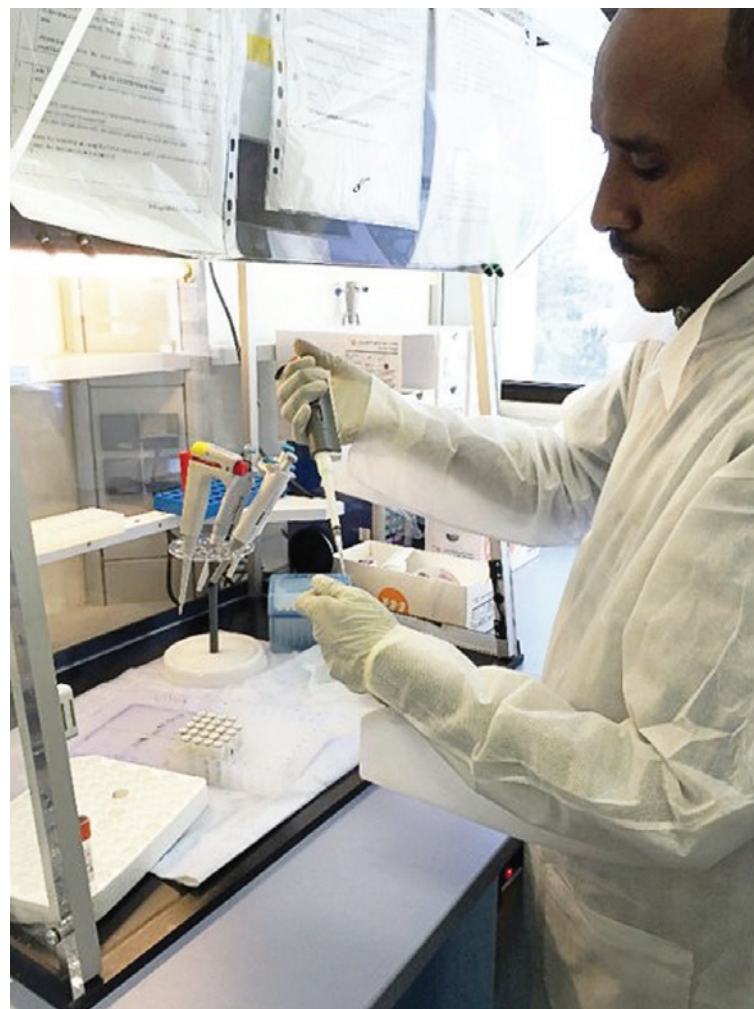
Since 1982, the Center has been an active participant of the American Society for Tropical Medicine and Hygiene (ASTMH), the largest international scientific organization dedicated to reducing the worldwide burden of tropical infectious diseases and improving global health. The Carter Center also has been an active member organization for the Coalition for Operational Research for Neglected Tropical Diseases (COR-NTD) since its launch in 2014. COR-NTD meets each year in conjunction with the annual ASTMH conference, with participation from the World Health Organization, country program managers, implementers, researchers, and donors.

In 2020, Carter Center health program representatives presented 20 studies across both events, comprising 10 oral presentations, nine digital posters, and one symposium.

For the first time, The Carter Center shared innovative research findings on the intersection of mental health and NTDs. The Center is uniquely positioned to address the stigma and mental health impact of NTDs, leveraging more than 30 years

of mental health expertise under former First Lady Rosalynn Carter's leadership. Center experts shared their work on recognizing stigma associated with lymphatic filariasis (LF), the program's support to patient groups, called Hope Clubs, in Haiti and Nigeria, and innovative research in Haiti to evaluate the impact of a chronic disease self-management program on LF patients' well-being.

Representing the Trachoma Control Program, Scott Nash presented in both meetings on alternative antibiotic treatment strategies, focusing on the operational research conducted in the Amhara region of Ethiopia. Other topics brought forth by the Carter Center team included the whole genomic sequencing studies conducted in Amhara, the trachoma elimination study by focused antibiotics (TESFA), the interruption of onchocerciasis transmission in active endemic areas in the Americas, and the assessment of serological responses to *Wuchereria bancrofti* and *Onchocerca volvulus* during LF post-treatment surveillance



Groundbreaking operational research has been conducted at the Amhara Public Health Institute laboratory in Bahir Dar, Ethiopia.

in Nigeria, among others.

Lastly, the Center's Guinea Worm Eradication Program chaired a symposium at ATSMH titled "Of Dogs and Dragons: Understanding Parasite Transmission Ecology and Applying It to the Global Guinea Worm Eradication Program." The event explored the increase in Guinea worm infections in domestic dogs, cats, and baboons and how these infections have not followed classical epidemiological patterns resulting from water-borne transmission.

New CEO, Health Vice President Begin Carter Center Tenures

Paige Alexander joined The Carter Center last summer as its new CEO. She succeeds Ambassador (ret.) Mary Ann Peters, who retired.

The CEO is charged with leading the Center into its next era of building peace, health, and hope for the world's poorest people.

"Paige Alexander will carry forward the vision and values of the Carter Center's founders, my grandparents, Jimmy and Rosalynn Carter," said Jason Carter, chair of the Carter Center Board of Trustees. "The Center's mission to alleviate suffering and advance human rights globally has never been more urgent."

Said President Carter, "Rosalynn and I are excited that Paige Alexander will become CEO of The Carter Center. Paige is exceptionally well qualified to lead the Center into its next chapter, and she is fully aligned with our vision for the Center. We are confident that many of the Center's most significant accomplishments are yet to come."

"My life's work has been to lift up human rights, justice and fairness, economic and social opportunity," said Alexander. "For years, I have observed and admired the work of The Carter Center on the ground and in global human rights, health and peace-keeping contexts. Joining the Center at this time of transition, when the founders' vision, legacy and mission are needed more than ever, is the privilege of a lifetime."

As CEO, Alexander will provide vision and leadership for The Carter Center and will oversee all program implementation and operations.

Alexander has had a distinguished



Paige Alexander

global career, with over two decades of experience spanning government and nonprofit sectors. She has held leadership positions at two regional bureaus of the United States Agency for International Development (USAID),

covering missions and development programs in 25 countries from Eurasia to the Middle East and Africa over 15 years (1993–2001, 2011–2017).

She also has had over a decade of nonprofit leadership roles, including as SVP and European founder/president of IREX (2001–2010), an international civil society, democracy, and education nonprofit organization. Since 2017, she has served as executive director of the European Cooperative for Rural Development (EUCORD) in Brussels and Amsterdam. EUCORD helps marginalized farmers in Africa grow marketable crops that sustainably improve the livelihoods of families and communities.

Kashef Ijaz, M.D., M.P.H., was appointed vice president for health programs at The Carter Center last October.

As a medical epidemiologist, Ijaz most recently served as the principal deputy director in the Division of Global Health Protection, Center for Global Health at the U.S. Centers for Disease Control and Prevention. At The Carter Center, he will provide leadership for programs working to prevent or eliminate six tropical diseases in 18 nations, as well as efforts to improve mental health care in the United States and abroad. He succeeds Dr. Dean Sienko, who

served in the role since 2016 and retired last October.

"We are thrilled to welcome Dr. Ijaz to the team, as he is a respected scientist, an engaged and passionate leader, and a manager who builds collaboration and trust across diverse teams," said Carter Center CEO Paige Alexander. "Colleagues describe him as visionary, inspiring, and motivational. I know his ambition will help The Carter Center continue to make an impact by further improving health care for the world's poorest people in the coming decade."

Ijaz has held successive leadership positions since joining the CDC in 2002, including deputy director for science and programs in the Center for Global Health, and chief of the Tuberculosis Field Services and Evaluation Branch in the National Center for HIV, STD and TB Prevention. He began his career as a medical epidemiologist at the Arkansas Department of Health, where he

worked with marginalized rural populations at the state, local, and community levels. He has worked extensively in Asia, Africa, and across the developing world on malaria, tuberculosis, and Ebola.

He is a physician trained in public health

from the University of Oklahoma and holds certificates in public health leadership from the University of Alabama and in national preparedness and response leadership from the Kennedy School of Government and Harvard T.H. Chan School of Public Health at Harvard University. Ijaz has more than 100 presentations and publications in peer-reviewed journals.



Dr. Kashef Ijaz

Carter Center Plays Key Role in 2020 NNN Conference

The year 2020 marked a crucial anniversary for neglected tropical diseases (NTDs). The World Health Organization and key stakeholders in the global NTD community came together to celebrate accomplishments and affirm commitment to a new NTD Road Map that aims to reduce the burden of NTDs significantly by 2030. Now more than ever, as the COVID-19 pandemic preys on the health and well-being of all populations, partnerships and innovation are needed to chart a path forward to reach global NTD elimination targets by 2030.

In this context, the Neglected Tropical Disease Nongovernmental Organization Network (NNN) held its annual conference in September 2020, with the title “Accelerating to 2030: Building Resilient NTD Programmes in a Changing World.” The NNN was founded in 2009 as a global forum for NGOs to contribute to the control, elimination, eradication, and management of consequences of NTDs as outlined in the WHO’s NTD Road Map.

As an active member of the NNN

from the beginning, The Carter Center was deeply involved in the September 2020 conference as a sponsor and through staff participation. Carter Center staff presented in three workshops and rapid-fire sessions, touching on two crucial and relevant topics in the NTD arena: mental health and NTDs, and effective NTD work in conflict and humanitarian emergencies. Carter Center staff are active in almost every NNN working group and disease-specific group and make significant contributions to NTD implementation and best practices. Angelia Sanders, associate director of the Carter Center’s Trachoma Control Program, is chair of the NNN’s Conflict and Humanitarian Emergencies working group.

Because the 2020 NNN Conference was a virtual event, The Carter Center encouraged broad staff participation worldwide. A record 84 Carter Center staff, including notable NTD experts from many countries, attended. To promote greater understanding and perspective, the Center organized a pre-conference gathering

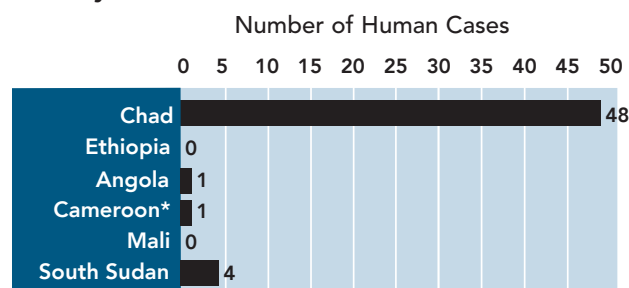
to provide context for meeting participants. The meeting also served as an opportunity to celebrate and recognize the Center’s long history as a recognized leader in the global fight against NTDs, focusing efforts in some of the poorest and most isolated places on earth.

Carter Center staff worldwide appreciated the opportunity that the virtual NNN conference provided to better understand their focused NTD work and the essential connections between the Center’s contributions and those of other organizations and coalitions. Also important was the opportunity to learn about other programs and new ideas or strategies to support individual work.

As The Carter Center continues to fulfill its mission to fight disease and build hope through eradicating and eliminating NTDs, we remain committed to the fundamental value of partnership and interconnectedness. We look forward to continued involvement and leadership in networks and coalitions that will allow us to achieve more in partnership than in isolation.

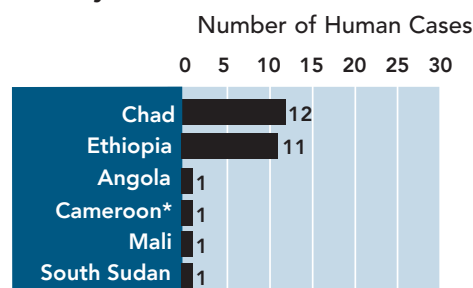
Guinea Worm Disease Update

January–December 2019



*Likely imported from Chad

January–December 2020**



**Provisional

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This issue is made possible in part thanks to the Michael G. DeGroot Health Program Publications Fund.

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In Memoriam: Center Pays Tribute to Three NTD Heroes

The Carter Center acknowledges, with great sadness, the passing of three giants in the neglected tropical diseases community.



Dr. Adetokunbo "Ade" Lucas was the founding director of the World Health Organization's Special Program

for Research and Training in Tropical Diseases from 1976 to 1986. He worked toward the eradication of malaria, the elimination of schistosomiasis, the improvement of maternal and child health, and further development of health systems in Africa.

Dr. Lucas was a valued member of the Carter Center's International Task Force for Disease Eradication from 2001 to 2017. Former U.S. President Jimmy Carter personally testified to

Dr. Lucas' skills as an organist and was happy to count him as a friend.



Dr. Julius Schachter, a microbiologist at the University of California, San Francisco, was a force in the global

trachoma community. The study of chlamydial diseases, along with their diagnosis and treatment, encompassed his career.

Dr. Schachter pioneered the treatment of trachoma through mass drug administration.

He supported the Carter Center's work and was an esteemed collaborator in its Trachoma Control Program, speaking at its annual program review.

Dr. Ricardo Thompson was a renowned parasitologist and an epidemiologist. At the World Health



Organization, he conducted numerous consultancy missions. Dr. Thompson was known for his strong focus

on the collection of quality data to support country decisions as well as his commitment to the development of in-country technical expertise.

He recently served as director and principal investigator of the Chókwe Health Research and Training Centre in Mozambique and as a member of the International Task Force for Disease Eradication. The Carter Center's Dr. Donald Hopkins said Thompson's death was "a terrible loss for his family and for humankind."

Dr. Tebebe Yemane Berhan, a giant of Ethiopia public health, passed away as this issue was going to press. His tribute will appear in the next issue.