

NTD News

NEGLECTED TROPICAL DISEASES NEWSLETTER



Vanuatu integrated mass drug administration campaign for yaws elimination with deworming and non-communicable diseases (NCD) and scabies screening

The Vanuatu Ministry of Health implemented the integrated NTD-NCD community outreach campaign in the two provinces with the highest burden of yaws, namely Efate and Tafea. The campaign integrated mass drug administration for the elimination of yaws with deworming of children, screening and mass treatment of scabies, and individual screening of the adult population for NCD risks by testing blood sugar, blood pressure and body mass index (BMI). The campaign aimed to bring a minimum package of public health services to an otherwise unreached population and achieved over 80% treatment coverage.

1 NEWS FROM MEMBER COUNTRIES

American Samoa

The American Samoa Department of Health organized a nationwide mass drug administration (MDA) campaign to accelerate elimination of lymphatic filariasis (LF) from 22 September to 9 November 2019. Using the triple drug therapy strategy, American Samoa was the first endemic setting within the Global Programme to Eliminate Lymphatic Filariasis to complete two rounds of triple drug MDA at programme scale. Support was provided by the United States Centers for Disease Control and Prevention (USCDC) and the Pacific Island Health Officers Association (PIHOA). Prior to the MDA in 2019, there were media campaigns, along with social mobilization and training of health staff, aimed at securing high treatment coverage. Approximately 30 000 people were treated in the second round of triple drug MDA, and the reported drug coverage was 53.6%. Although reported coverage was less than the recommended minimum of 65%, provisional surveyed coverage was 75.2%, indicating that an adequate rate was achieved.



Nationwide MDA campaign to accelerate elimination of lymphatic filariasis, American Samoa, 22 September - 9 November 2019

@USCDC

Cambodia

The National Helminth Control Program of the Ministry of Health, working with local health authorities and the University of Ghent, Belgium, conducted a survey to assess the efficacy of mebendazole (500 mg) against soil-transmitted helminthiasis amongst 650 school-aged children in Kampong Chhnang province in July 2019. Preserved stool samples were sent to the University of Ghent for further analysis.

In July 2019, the National Helminth Control Program in collaboration with the Department of Rural Health of the Ministry of Rural Development, the Provincial Health Department, the Provincial Department of Rural Development, the Provincial Department of Education, Youth and Sport, the District Office of Education, Youth and Sport, the District Office of Rural Development, representatives of Health Centres and the Operational District of Health, and commune leaders, implemented the CL-SWASH (Community-Led initiatives to eliminate Schistosomiasis by combining deworming with WASH interventions) in six new schistosomiasis-endemic villages (four in Kratie province and two in Stung Treng province).



Survey on efficacy of mebendazole against soil-transmitted helminthiasis among school-aged children in Kampong Chhnang province, Cambodia, July 2019



CL-SWASH implementation in six new schistosomiasis-endemic villages in Kratie and Stung Treng provinces, Cambodia, July 2019

Between October and November 2019, the National Helminth Control Program, together with the local health authorities (Provincial Health Department, Health Operational District, Health Center and Village Health Volunteers) and village chiefs, assessed the *S. mekongi* infection status and administered mass preventive chemotherapy in 20 schistosomiasis-endemic villages in Stung Treng and Kratie Provinces. Three individuals infected with *S. mekongi* were identified in the spot-check village (one case from Kratie and two cases from Stung Treng), whereas no cases of infection were found in the four sentinel site villages.



Stool examination and MDA in schistosomiasis-endemic villages in Kratie and Stung Treng provinces, Cambodia, October-November 2019

The National Helminth Control Program, together with local health authorities (provincial, district and commune levels) and school teachers, assessed the soil-transmitted helminthiasis infection status of schoolchildren from November to December 2019 in 12 primary schools of Banteay Meanchey, Rattanakiri, Pursat, Kampot, and Kampong Cham provinces. Of the 975 children tested, 85 (8.7%) were found to be infected with low intensity soil-transmitted helminthiases. Hookworm was the most prevalent, but in all cases the infection intensity was low.



Soil-transmitted helminth prevalence survey among school-aged children, Kampong Cham province, Cambodia, November-December 2019

The National Helminth Control Program, together with local human and animal health authorities, schools and the Faculty of Veterinary and Agricultural Sciences of the University of Melbourne, Australia, conducted the One Health intervention study for the control of hookworm infection in children and canines in Kampong Chhnang Province in November 2019. The study consisted of deworming domestic dogs with ivermectin, and deworming children with albendazole semi-annually and monitoring the infection rate in children, also semi-annually, to determine whether the hookworms infecting children are canine species (*A. ceylanicum*).

From 17 to 18 December 2019, the National Helminth Control Program provided training on the Kato-Katz technique for laboratory technicians from the Referral and District Hospitals of five provinces (Kratie, Stung Treng, Rattanakiri, Mondulkiri, and Preah Vihear).



One Health intervention study for control of hookworm in children and canines in Kampong Chhnang Province, Cambodia, 2019



Training on Kato-Katz technique for laboratory technicians at Provincial and District Referral Hospitals, Kratie Province, Cambodia, 2019

China

On 14 August 2019, the meeting on joint prevention and control of echinococcosis in five provinces (Tibet, Sichuan, Qinghai, Yunnan and Gansu) was held in Lhasa, Tibet. The National Health Commission, together with the National Institute of Parasitic Diseases, and the Provincial Authorities of Health, Agriculture, Public Security, Education and Religious Affairs from the five provinces attended the meeting and shared their experiences and lessons learnt on echinococcosis control.



©Health Commission of Tibet Autonomous Region Meeting on joint prevention and control of echinococcosis in five provinces, Lhasa, Tibet, 14 August 2019

From 21 to 22 August 2019, the National Competition for Parasitic Disease Control and Prevention Techniques was staged by the National Health Commission and co-organized by the National Institute of Parasitic Diseases, the Health Commission of Jilin province, the Jilin Centers for Disease Control and Prevention, and Jilin University. A total of 128 participants from 30 provinces (municipalities/autonomous regions/Xinjiang Corps) and the General Administration of Customs took part in the competition. It consisted of two parts: i) the written part to assesses basic knowledge of the transmission cycle, diagnosis and treatment of common parasitic diseases; and ii) the practical session focusing on specimen preparation and microscopy skills for selected parasites. This is the ninth national competition since 2011 to sustain laboratory capacities among provincial Centers for Disease Control and Prevention and medical institutions.



@National Institute of Parasitic Diseases, China CDC
National Competition for Parasitic Disease Control and Prevention Techniques, Jilin, China, 21-22 August 2019

Fiji

Integrated MDA to treat three highly endemic diseases namely, namely LF, scabies and soil-transmitted helminths was implemented across the Northern Division from 1 July to 24 August in 2019, covering all four implementation units, namely Macuata, Taveuni, Bua and Cakaudrove with a total population of 131 918 (2017 census). Following recent WHO recommendations for LF elimination, triple therapy in the form of ivermectin, diethylcarbamazine and albendazole was distributed which, with the addition of a second dose of ivermectin, is effective treatment for all 3 diseases. A treatment coverage of 96.97% was reported for the first dose of triple therapy and 86.99% for the second dose of ivermectin.

The treatment of scabies as part of the MDA was under a research project conducted by Murdoch Children's Research Institute (MCRI) called the Big SHIFT. The Big SHIFT is measuring the impact of ivermectin-based

MDA on the incidence of skin and soft tissue infections and other serious bacterial complications of scabies (bloodstream, kidney and heart diseases) in hospital and primary healthcare settings throughout the Northern Division. Results of this study will be available in late 2020.



Integrated MDA campaign for elimination of LF and control of scabies and soil-transmitted helminths in Northern Division, Fiji, July-August 2019

Training on the trachoma baseline survey was conducted from 4 to 14 September 2019 and the survey commenced on 16 September in the Western Division. The aim was to estimate trachoma prevalence throughout Fiji in order to determine the need for trachoma elimination MDA. Recommendations for trachoma mapping involve clinical grading of trachoma using an internationally standardized study protocol. However, due to the apparent lack of association between trachomatous inflammation-follicular (TF) and ocular *Chlamydia trachomatis* (Ct) infection in other parts of Melanesia, WHO recommended that Fiji conduct an ancillary survey to determine the proportion of trachoma-related conjunctival scarring in communities with high prevalence of TF in addition to the conventional prevalence survey. Results of the survey are awaited. Owing to the nationwide measles campaign and other priorities, however, the surveys were interrupted and postponed to 2020.

French Polynesia

Pre-TAS and TAS 1 was conducted in January 2020 in the Marquesas Islands south group. These consist of three very secluded islands with total population of 3 291 people. In the pre-TAS, 260 individuals above five years of age were tested using filaria test strips (FTS) and five were antigenaemia positive. In TAS 1, 96 children were tested using FTS and only one was positive.

The Leeward Islands were divided into two evaluation units in December 2019: (i) Huahine and (ii) other island

groups (Bora Bora, Raiatea, Tahaa, and Maupiti). Pre-TAS was conducted in each evaluation unit. In Huahine, 200 individuals of all age groups above five years old were tested with FTS and 21 were positive (10.5%). In other island groups, 300 individuals above five years of age were tested and two were found positive (0.6%). TAS 1 will be conducted in other island groups in March 2020.

Kiribati

Dr Takeshi Kasai, WHO Regional Director for the Western Pacific, Dr Soumya Swaminathan, WHO Chief Scientist, and Dr Park Neunghoo, Minister of Health and Welfare of the Republic of Korea and Chair of the seventieth session of the WHO Regional Committee for the Western Pacific presented a plaque and certificate for achievement of elimination of LF as a public health problem to Mr Tauanei Marea, Kiribati Minister of Health and Medical Services during the seventieth session of the WHO Regional Committee for the Western Pacific in October 2019 in Manila, Philippines.

The second round of semi-annual deworming continued in September 2019. The nurses conducted their deworming through house-to-house visits targeting all children and women of child-bearing age between 15 and 45 years old. In the outer islands, on the other hand, nurses visited schools to deworm children. The treatment data is awaited.

Lao People's Democratic Republic

The Ministry of Health, the Ministry of Agriculture and Forestry, Lao veterinary students and citizens, with support of the Food and Agriculture Organization of the United Nations (FAO), the World Organization for Animal Health (OIE) and WHO, celebrated World Rabies Day on 27 September 2019 at an event in Chao Fa Ngum Park, Vientiane. At the centre of the event was a stall where people could take their dogs for a free rabies vaccination. There were also information stalls and speeches.



World Rabies Day event, Chao Fa Ngum Park, Vientiane, Lao PDR,
27 September 2019

@FAO

The technical consultation meeting to update the strategic plan for rabies prevention and control for 2020-2024 was conducted by the Ministry of Health in Vientiane on 17 and 18 October 2019, along with key stakeholders from the Ministry of Agriculture and Forestry and the Ministry of Health, supported and facilitated by FAO, OIE, the Global Alliance for Rabies Control (GARC) and WHO. The meeting participants reviewed the 2011-2015 strategic plan and carefully examined each component to update it for 2020-2024 in line with the global target to achieve elimination of rabies as a public health problem by 2030.



Technical consultation meeting to update the strategic plan for rabies prevention and control for 2020-2024, Vientiane, Lao PDR, 17-18 October 2019

In Champasak province in July 2019, staff from the Ministry of Education and Sport and the Ministry of Health jointly conducted refresher training for school principals on bringing teaching on the control and prevention of schistosomiasis into the curricula for all primary and secondary schools. The refresher courses were held at Khong Education Center and were facilitated by the school health taskforce of the Ministry of Education and Sport and the Ministry of Health.



Refresher training on integration of health education on control and prevention of schistosomiasis into the primary and secondary teaching curricula, Khong, Champasak province, Lao PDR, July 2019

The second LF TAS was conducted from 11 November to 2 December 2019 in Attapeu province by the staffs of the Centre for Malaria, Parasitology and Entomology (CMPE), the provincial malaria station and the district malaria units. 1 605 children were tested with filaria test strips and all were negative. The third TAS will be carried out in 2021, before validation of elimination of LF as a public health problem.



LF Transmission assessment survey in Attapeu province, Lao PDR,
11 November - 2 December 2019

The study to assess the efficacy of mebendazole for the control of soil-transmitted helminthiases was conducted by CMPE staff, with technical support from the Ghent University, Belgium, and WHO, from 9 September to the end of October 2019. As a baseline survey, 1 019 school-aged children were recruited from five primary schools from Xiengngeun district of Luang Prabang province. A total of 760 subjects underwent parasitological screening, 64 (8.4%) of which were positive for hookworm, 209 (27.5%) positive for *T. trichiura* and 452 (59.6%) positive for *A. lumbricoides*. Of the 503 children that were positive for any soil-transmitted helminth infection at baseline, 471 individuals provided a stool sample for follow-up evaluation two to three weeks after treatment with a single oral dose of 500mg mebendazole. Of the 471 children, 60 (12.7%) remained positive for *A. lumbricoides*, 199 (42.3%) for *T. trichiura* and 418 (88.7%) for hookworm.

Integrated MDA against soil-transmitted helminthiases and schistosomiasis was implemented in October- December 2019 in Champasak province. Treatment coverage data is awaited.

The national NTD committee and taskforce meeting took place for the first time on 27 December 2019 in Vientiane. The meeting was chaired by the Vice Minister of Health. The objective of the meeting was to report on progress of NTD activities in 2019 and advocate for further high-level support for control and elimination of NTDs. Participants included NTD committee and taskforce members composed of the representatives from the Ministry of Health, the Ministry of Agriculture and Forestry and the Ministry of Education and Sport.



National NTD committee and taskforce meeting, Vientiane, Lao PDR,
27 December 2019

Malaysia

The LF MDA campaign using triple drug therapy continued in ten hotspot communities in Sabah State (1 893 individuals), 12 in Pahang (1 831 individuals) and nine in Perak (2 880 individuals). The MDA coverage was in the range of 96 to 100%.

In September and October 2019, IU Bekenu in Sarawak State implemented TAS 2, while Medamit in Sarawak State and Tangkarason in Sabah State implemented TAS 3 using Brugia Rapid tests. No positive individuals were found in Bekenu and Medamit. Tangkarason also passed TAS 3 with six positive individuals (1.82%). Despite TAS 3 success, intensified surveillance and targeted treatment will continue in Tangkarason in 2020-2021.



MDA campaigns in aboriginal villages in Pahang and Perak State, Malaysia,
July-December 2019



Implementation of transmission assessment survey (top) and the LF team reaching survey schools by boat (bottom) in Sarawak State, Malaysia, September–October 2019

Nauru

The Ministry of Health completed its trachoma prevalence survey in July 2019, with support of the Fred Hollows Foundation and the University of New South Wales (WHO Collaborating Centre for Trachoma). A total of 2 451 people aged over 1 year of age in 458 households from 20 clusters were examined. The results showed high TF prevalence among children aged 1 to 9 years old. The national trachoma action plan meeting was held from 25 to 29 November and facilitated by the Fred Hollows Foundation, the International Trachoma Initiative and WHO. The meeting recommended a round of MDA in 2020, followed by an impact survey to determine whether MDA should be continued for two additional rounds.

Papua New Guinea

The training of health staff who will serve as team leaders during the LF MDA campaign was organized in Kokopo, East New Britain province, on 8 and 9 July 2019 by the Provincial Health Department and the National Department of Health. The training guide on LF elimination using IDA strategy was developed with a focus on prevention and management of severe adverse events (SAEs) and data reporting and management. The training workshop was attended by the relevant provincial health staff and representatives of all health facilities throughout the province and was facilitated jointly by the National Department of Health (NDOH), WHO and the Japan International Cooperation Agency (JICA).



LF MDA training workshop for health staff from all health facilities of East New Britain province facilitated by NDOH, WHO and JICA, Kokopo, East New Britain province, Papua New Guinea, 8–9 July 2019

Training of community drug distributors was held throughout September 2019 in all four districts. The purpose was to build the capacity of the health workforce throughout the province with a focus on prevention and management of SAEs and data reporting and management. Team leaders who were previously trained in July 2019 cascaded their training to all health facility-designated volunteers for the MDA campaign.

The province-wide MDA campaign started on 4 October 2019. The launching ceremony was attended by the former Minister of Health, the Acting Deputy Health Secretary, the Acting Executive Manager of Public Health, the Acting Director of Public Health of the Provincial Health Authority, the Deputy Provincial Administrator, the Papua New Guinea Chief Representative of JICA and the WHO Representative to Papua New Guinea. The MDA campaign continued to December 2019. This was the second province after New Ireland Province where LF MDA implementation was scaled up in the country. Over 380 000 people were treated with triple drug therapy and a treatment coverage of 83% and reported coverage of 84% was achieved across the province.



The first LF MDA campaign in East New Britain province of Papua New Guinea, launched on 4 October 2019 in Kokopo, Papua New Guinea

Philippines

The Integrated Helminth Control Program (IHCP) of the Department of Health conducted a follow-up consultation meeting to develop the guidelines on the inclusion of private schools in MDA from 13 to 15 July 2019 in Manila. This was done to ensure universal access to quality prevention and control services, to increase MDA coverage and to reduce morbidity due to soil-transmitted helminthiases. Moreover, guidelines on the intervention packages for soil-transmitted helminthiases at-risk areas were also finalized to highlight the importance of a comprehensive and integrated package (including strategies for environmental sanitation) for the control of soil-transmitted helminthiases. Lastly, considering the huge logistic requirements and operational difficulties in conducting MDA campaigns, the IHCP also conducted a consultative meeting on the development of the National Guidelines on Preventive Chemotherapy on schistosomiasis and soil-transmitted helminthiases on 22 October 2019 in Manila.

The Department of Health organized the seventh NTD stakeholders' forum from 14 to 15 August 2019 in Manila, under the heading of: Integration of NTDs in Universal Health Care: A New Hope to End NTDs. The forum was attended by NTD Partners from both private and public sectors, and an international donors' organization. Awarding of the titles of filariasis-free, malaria-free and rabies-free provinces was held during the event.



Seventh NTD stakeholders' forum, Manila, Philippines, 14-15 August 2019

The 20th International Leprosy Congress was held from 11 to 13 September 2019 in Pasay City. The theme of the congress was: Global partnership to address current challenges: zero discrimination, zero transmission, zero disability. The keynote speaker was the Secretary of Health, Hon Francisco Duque III and Yohei Sasakawa, Chairman of the Nippon Foundation and WHO Goodwill Ambassador for Leprosy Elimination. The welcome remarks were given by the Undersecretary of Health, Dr. Myrna C. Cabotaje and Dr. Christian Johnson, President of the International Leprosy Association. The International Leprosy Congress was attended by 901 delegates from 24 countries.



20th International Leprosy Congress, Pasay City, 11-13 September 2019

The leprosy policy updating and revision took place on 23 October 2019 in Manila. The administrative order for the updated guidelines on the treatment of leprosy in the Philippines was revised accordingly. The participants in this activity were the technical working group members for the leprosy programme, including the Disease Prevention and Control Bureau and Health Policy and Development Planning Bureau of the Department of Health, the Philippine Dermatological Society, the Research Institute of Tropical Medicine, the Culion General Hospital and Sanitarium, the Jose Reyes Memorial Medical Center, and WHO.

The nationwide training of trainers on the use of the NTD Management Information System (NTD-MIS) was conducted from 12 to 14 November 2019 in Batane. It is planned that the NTD-MIS will be rolled out to community level by the end of 2020 and officially used nationwide as the data recording and reporting system of the IHCP in 2021. The regional information technology (IT) and programme coordinators were invited and trained in the use of the system. They were asked to develop plans on cascading and implementing the system at the barangay level. Additionally, the schistosomiasis module on MDA reporting was also finalized and tested in September 2019 in one barangay in the province of Cagayan. Issues, challenges and suggested recommendations were to be collected in this area by the end of the January 2020 campaign, prior to the full-scale implementation of the schistosomiasis module.



Regional and IT coordinators of the DOH Centers for Health Development during the nationwide TOT on the NTD Management Information System, Batanes, Philippines, 12-14 November 2019

LF MDA campaigns were implemented in four provinces (Aklan, Sultan Kudarat, Zamboanga del Norte and Davao Occidental), all reaching effective coverage of 71.5-92.3%, in July 2019. The second round of nationwide school deworming for control of soil-transmitted helminthiases was also implemented in July 2019, achieving national coverage of 59.5% for children aged 1 to 4 years and 60.0% for children aged 5 to 19 years. Additionally, three provinces passed TAS 1, four provinces passed TAS 2 and ten provinces passed TAS 3 between July and December 2019.

Solomon Islands

The Ministry of Health and Medical Services carried out province-level microplanning for population-based interventions for yaws elimination in the four provinces (Isabel, Central Islands, Guadalcanal and Honiara City Council), between July and December 2019. The aim of the microplanning was to identify and prepare an efficient and cost-effective MDA implementation plan for yaws elimination across the Solomon Islands through direct involvement of key implementing partners at provincial level. The national NTD team of the Ministry of Health and Medical Services coordinated with each provincial health team to plan and conduct microplanning workshops. The key participants of the workshops included the provincial health directors, programme focal points, health promotion officers and area/zone health supervisors.



Yaws elimination microplanning workshop in Guadalcanal province, October 2019 (left) and in Isabel Province, July 2019 (right)

The Ministry of Health and Medical Services supported province-level teacher training on deworming operations and treatment reporting, facilitated by the NTD coordinator and health promotion officers, in Guadalcanal Province on September 2019. The country continues to prepare other provinces to expand the school-based deworming for control of soil-transmitted helminthiases through the integrated and decentralized health system approaches.

The Ministry of Health and Medical Services organized a training session for facial cleanliness and environmental improvement (F&E) trainers for the purposes of trachoma elimination on 7 October 2019, supported by the Fred Hollows Foundation. The training aimed to equip F&E officers with the necessary knowledge on trachoma and enhance facilitation and coordination of F&E activities to further train F&E volunteers in Central islands and Western province.

Tuvalu

The Tuvalu Ministry of Health implemented the nationwide MDA campaign to accelerate elimination of LF using the triple drug therapy strategy between October and December 2019. The MDA campaign adopted the DOT strategy, visiting each household. Medicines for school children were delivered to their homes, except in the case of the boarding school in Vaitupu. However, where medications had been taken outside of the home e.g. in offices and schools, or other islands, individuals were crosschecked during the follow-up to avoid double registration and/or double dosing. Those that had not resided in Tuvalu for more than six months, including expatriates, were not registered but were offered medicines.

Vanuatu

From October to November 2019, the Ministry of Health implemented the community outreach campaign in the two provinces with the highest burdens of yaws, namely Efate and Tafea. The campaign integrated MDA for the elimination of yaws with deworming of children, screening and mass treatment of scabies, and individual screening of the adult population for non-communicable disease risks by testing blood sugar, blood pressure and body mass index (BMI). In preparation for the campaign, all health staffs and community health workers in the two target provinces were taught about the transmission of various NTDs and preventive measures, including the importance of personal hygiene. The campaign aimed to bring a minimum package of public health services to an otherwise unreach population; it achieved over 80% treatment coverage and reached over 43 000 people in the target provinces.



Integrated community outreach campaign for the elimination of yaws with deworming of children and screening of scabies and non-communicable disease risks in Tafea province, Vanuatu, October 2019

The Ministry of Health organized health education within 20 selected NTD high-burden communities and 22 schools in four provinces. The work was funded by the Queen Elizabeth II Jubilee Fund with the support of the Fred Hollows Foundation and WHO.

On 25 October 2019, the handwashing awareness campaign was conducted on Global Handwashing Day in three selected schools. It included an NTD quiz and practical handwashing classes for the school children.



Handwashing awareness on Global Handwashing Day, Nakuskasaru school, Vanuatu, 25 October 2019,

Viet Nam

From July to Sept 2019, soil-transmitted helminthiases prevalence surveys among school-aged children were conducted in Ha Giang, Bac Kan and Quang Ninh, Viet Nam's three northern mountainous provinces, using Kato-Katz stool examination. The results showed persistently high prevalence of soil-transmitted helminthiases in Ha Giang with an 84.1% prevalence for all forms of soil-transmitted helminths but relatively low prevalence in

Bac Kan and Quang Ninh with 10.8% (35/305 samples) and 2.3% (13/552 samples) respectively, for all soil-transmitted helminths.

Two short training courses were organized for provincial staffs in November 2019 in order to strengthen capacity in diagnosis and treatment of parasitic diseases. 28 technicians from 28 Northern provinces and cities in the country attended the courses.

From July to Sept 2019, clonorchiasis prevalence surveys were conducted in high-risk groups within four communes in Yen Bai province, namely Dai Dong, Han Da, Mong Son and An Phu. The results showed very high infection rates of 58.9% in An Phu (265/450 stool samples) and 57.5% in Mong Son (259/450 samples), and lower rates in Han Da with 11.5% (52/450) and Dai Dong with 23% (105/450).

The second round of the semi-annual deworming of high-risk age groups was implemented, covering 1 856 800 children aged 24-60 months in 22 provinces in November 2019, and 3 064 388 school-aged children (6-11 years old) in 34 provinces in October and November 2019.



Primary school deworming in Ha Giang province in July 2019, and health education for school-aged children in Quang Ninh province, Viet Nam, November 2019