Weekly epidemiological record
Relevé épidémiologique hebdomadaire

27 ,E ¸ EMBE 2024, 99 ¸1

The Onchocerciasis Elimination Program for the Americas (OEPA)[2] was created at the end of 1993 following Resolution CD35.R14, adopted by the 35th Directing Council of the Pan American Health Organization in 1991, which called for the elimination of onchocercia-

semiannual approach, the Venezuela South Focus Programme reached a coverage of 86% in the frst treatment round but did not reach it in the second, with 83% coverage of its semiannual eligible population of 13 630 individuals. In the 67 high-priority communities targeted with a quarterly MDA approach in 2023, coverage was 81%, 90%, 92% and 83% of the eligible population of 2287, respectively, each quarter.

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Preliminary results from the ongoing Ov-16 serology assessments in YFA (partially reported in a previous *Weekly Epidemiological Record*[5]) showed unexpectedly high prevalences, ranging from ≥1.0 to 50.0% of Ov-16 antibodies, in children in areas with either a low burden of disease or those reporting ≥20 effective rounds of treatment, which could be explained by several hypotheses, among which is the possibility that the cross-border movements of this semi-nomadic population could maintain the transmission cycle of onchocerciasis. In 2022, the OEPA steering committee stressed the importance of documenting all treatments given in the Brazil and Venezuela programmes to populations from the neighbouring country and recommended that a system for registering such movements be established and the resultant ! e v] w
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IACO congratulated both countries on the preliminary serological assessments in children <10 years, which indicated that transmission of onchocerciasis might have been interrupted in 16 subareas (11 in Brazil and 5 in Venezuela) of the YFA, as compared with the WHO serological elimination threshold of <0.1%[6]. The central theme of IACO 2023 was “Towards interruption of onchocerciasis transmission and stopping of mass treatment with ivermectin in the Americas by 2025”. While the programmes reported signifcant progress, the serology results suggest that the ambitious goal of 2025 should be reviewed.

IACO commended the two countries on development of the new binational information system for monitoring ivermectin treatment provided to cross-border or migrant populations from the neighbouring country and recommended that the system be further strengthened by improving community inventories and coordi-

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C n l f e idemic meningi i in c n ie in he Af ican meningi i bel , 2023

Backg nd

Bacterial meningitis is a potentially severe infection of the meninges, the thin lining of the brain and spinal cord. The common symptoms are sudden onset of headache, high fever, stiff neck and sensitivity to light. In 2021, WHO launched a global road map to "defeat meningitis by 2030", after its approval by the World Health Assembly at its Seventy-third session in November 2020.[1] The road map addresses the 4 main causes of acute bacterial meningitis: *Streptococcus pneumoniae*

and *Streptococcus agalactiae* (commonly referred to as "group B streptococcus") as well as the sequelae and after-effects that can occur from meningitis of any cause. The 3 visionary goals to be achieved by 2030 are: (1) elimination of bacterial meningitis epidemics; (2) reduction by 50% in the number of cases and by 70% in the number of deaths from vaccine-preventable meningitis; and (3) a reduction in disability and an improvement in the quality of life after meningitis of any cause.

Of the bacterial meningitis pathogens, meningococcus ( ) is of particular concern because of its potential to cause large epidemics. Of the 12 subtypes or serogroups identifed, 6 (A, B, C, W, X and Y) are recognized as the main causes of disease and epidemics. Although meningococcal meningitis occurs worldwide, large, recurring epidemics mainly affect an extensive region of sub-Saharan Africa known as the "meningitis belt", which comprises 26 countries, from Senegal to Ethiopia. Pneumococcus (*Spn*), which has over 90 capsular serotypes, has also been associated with several meningitis outbreaks and causes an increasing proportion of meningitis cases in the meningitis belt. Most meningitis cases and outbreaks in this region occur during the epidemic season, which can extend from November to June, depending on the location and year.

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Before the roll-out of a meningococcal A conjugate vaccine (MenACV),[2] serogroup A (*A*) was responsible for most meningitis epidemics in the meningitis belt.[3] Mass preventive vaccination campaigns with MenACV targeting the population aged 1−29 years were conducted between December 2010 and December 2019 by 24 of the 26 countries in the meningitis belt, either nationwide (12 countries) or in high-risk areas (12 other countries) (*Map 1*). These campaigns had an

[1] See https://www.who.int/initiatives/defeating-meningitis-by-2030.

[2] The MenACV vaccine was developed for the meningitis belt by the Meningitis Vaccine Project, a partnership between WHO and PATH, funded by the Bill & Melinda Gates Foundation.

[3] Lingani C et al. Meningococcal meningitis surveillance in the African meningitis belt, 2004–2013. Clin Infect Dis. 2015;61: S410–5.

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C n e e

La méningite bactérienne est une infection potentiellement grave des méninges, la fne paroi qui entoure le cerveau et la moelle épinière. Les symptômes courants sont l'apparition soudaine de maux de tête, une forte fèvre, une raideur de la nuque et une sensibilité à la lumière. En 2021, l'OMS a lancé la feuille de route mondiale pour vaincre la méningite à l'horizon 2030, qui avait été approuvée par la Soixante-Treizième Assemblée mondiale de la Santé en novembre 2020.[1] Cette feuille de route est axée sur les 4 principaux agents responsables de la méningite bactérienne aiguë, à savoir S*treptococcus pneumo-*

et Streptococcus agalactiae (couramment appelé «strep-

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immediate and dramatic effect, with virtual elimination of *A* meningitis, due to interruption of transmission and herd protection resulting from the effect of the vaccine on carriage. No case of *A* has been confirmed in these countries since 2017. After evaluating their risk, the 2 countries that were still to conduct mass campaigns, Rwanda and the United Republic of Tanzania, decided to give priority to strengthening their meningitis surveillance systems before considering introduction of meningococcal vaccines.

To sustain the impact of the campaign, the corresponding component of the MenACV strategy[4] is introduction of the vaccine into routine childhood immunization programmes no longer than 5 years after completion of mass campaigns, to protect new birth cohorts and maintain population protection. The introduction should be associated with a catch-up campaign to protect those children who were not born (or were too young) at the time of the mass campaign.

As of December 2022, 14 countries had introduced the vaccine into their national immunization schedules and conducted related catch-up campaigns.

In May 2023, Guinea Bissau introduced MenACV in Mac
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In total, approximately 360 million people aged 1–29 years were vaccinated in mass or catch-up campaigns. To sustain this major achievement and the resulting protective effect of MenACV, countries that have not yet introduced the vaccine into routine immunization, with associated catch-up campaigns, are strongly encouraged to do so, as *A* could catastrophically resurge if herd protection wanes.

of countries participating in the ES surveillance network has increased over time, from 8 in 2003 to 25 countries since 2022.

In 2023, epidemiological data were reported by 24 of the 25 countries in the surveillance network (all countries except for Guinea-Bissau), an increase from 23 in 2022. The number of reporting countries previously reached the highest level in 2019, when 24 ES countries reported epidemiological data. During the 2023 meningitis epidemic season, the 24 countries reported a total of 18 933 suspected cases, including 922 deaths ( ), resulting in a case fatality rate (CFR) of 4.9%. The number of suspected cases increased by 47.6% over that in the previous year and 56.6% and 88.8% over those in 2021 and 2020, respectively, indicating an increasing trend in the number of cases reported in the ES system.[8–10]

The countries that reported the largest numbers of suspected cases during the 2023 season were Ethiopia (4741), the Democratic Republic of the Congo (DRC8 ч N C8 ч N n R a t N ľ 4

Table 2 Number of cerebrospinal fluid (CSF) samples collected, and antigen identified from collected meningitis cases, included under enhanced surveillance in Africa, 2023
Tableau 2 Nombre de échantillons de liquide céphalo-rachidien (LCR) collectés et agents antigéniques identifiés chez les cas de méningite dans le cadre de la surveillance renforcée en Afrique, 2023

Country – Pays	No. CSF samples –

characterization directly on CSF specimens, and the need to increase awareness among countries about the

South Sudan, districts crossed the epidemic threshold for <2 weeks, and, among the very few laboratory-confrmed cases, predominance was not determined (*Table 2*). Ethiopia reported the largest number of suspected cases and districts that crossed the epidemic threshold, both during the season (4741 cases and 22 districts) and the whole year (9137 cases and

Gagarawa, Gumel, Maigatari and Sule Tankarkar LGAs in Jigawa State. A campaign targeting the population

[13] See https://apps.who.int/gb/ebwha/pdf_files/EB152/B152_10-en.pdf

[14] See https://www.who.int/publications/m/item/defeating-meningitis-by-2030-a-global-road-map-technical-taskforce-(ttf)--terms-of-reference

Conclusion

The increases in the numbers of cases and of districts that crossed the epidemic threshold in 2023, particularly in neighbouring Niger–Nigeria regions demonstrate the unpredictable, continued risk of large-scale meningitis outbreaks and call for vigilance and preparedness for 2024 and beyond. The successful MenACV programme has so far resulted in the disappearance of *A*. Continued introduction and reinforcement of MenACV in national childhood immunization programmes remain crucial to avoid catastrophic resurgence of *A* epidemics. Furthermore, timely reactive meningococcal vaccination covering other serogroups remains essential.

WHO prequalification of a long-awaited, affordable, new multivalent meningococcal conjugate vaccine in 2023 and WHO recommendations on its use in countries in the African meningitis belt provide a concrete basis for

WHO web pages on infectious diseases — Sites internet de l'OMS sur les maladies infectieuses

Adolescent health	https://www.who.int/health-topics/adolescent-health#tab=tab_1	Santé des adolescents
Avian influenza	https://www.who.int/health-topics/influenza-avian-and-other-zoonotic#tab=tab_1	Grippe aviaire
Buruli ulcer	https://www.who.int/health-topics/buruli-ulcer#tab=tab_1	Ulcère de Buruli
Child health	https://www.who.int/health-topics/child-health#tab=tab_1	Santé des enfants
Cholera	https://www.who.int/health-topics/cholera#tab=tab_1	Choléra
COVID-19	https://www.who.int/health-topics/coronavirus#tab=tab_1	Maladie à coronavirus 2019 (COVID-19)
Dengue	https://www.who.int/health-topics/dengue-and-severe-dengue#tab=tab_1	Dengue
Ebola virus disease	https://www.who.int/health-topics/ebola#tab=tab_1	Maladie à virus Ebola
Emergencies	https://www.who.int/emergencies/situations	Situations d'urgence sanitaire
Emergencies dashboard	https://extranet.who.int/publicemergency	Tableau de bord des urgences sanitaires
Foodborne diseases	https://www.who.int/health-topics/foodborne-diseases#tab=tab_1	Maladies d'origine alimentaire
Global Health Observatory (GHO) data	https://www.who.int/data/gho	Données de l'Observatoire de la santé mondiale
Global Influenza Surveillance and Response System (GISRS)	https://www.who.int/initiatives/global-influenza-surveillance-and-response-system	Système mondial de surveillance et d'intervention
Global Outbreak Alert and Response Network (GOARN)	https://extranet.who.int/goarn/	Réseau mondial d'alerte et d'action en cas d'épidémie (GOARN)
Health topics	https://www.who.int/health-topics/	La santé de A à Z
Human African trypanosomiasis	https://www.who.int/health-topics/human-african-trypanosomiasis#tab=tab_1	Trypanosomiase humaine africaine
Immunization, Vaccines and Biologicals	https://www.who.int/health-topics/vaccines-and-immunization#tab=tab_1	Vaccination, Vaccins et Biologiques
Influenza	https://www.who.int/health-topics/influenza-seasonal#tab=tab_1	Grippe
International Health Regulations	https://www.who.int/health-topics/international-health-regulations#tab=tab_1	Règlement sanitaire international
International travel and health	https://www.who.int/health-topics/travel-and-health#tab=tab_1	Voyages internationaux et santé
Leishmaniasis	https://www.who.int/health-topics/leishmaniasis#tab=tab_1	Leishmaniose
Leprosy	https://www.who.int/health-topics/leprosy#tab=tab_1	Lèpre
Lymphatic filariasis	https://www.who.int/health-topics/lymphatic-filariasis#tab=tab_1	Filiariose lymphatique
Malaria	https://www.who.int/health-topics/malaria#tab=tab_1	Paludisme
Middle East respiratory syndrome coronavirus (MERS-CoV)	https://www.who.int/health-topics/middle-east-respiratory-syndrome-coronavirus-mers#tab=tab_1	Coronavirus du syndrome respiratoire du Moyen-Orient (MERS-CoV)
Neglected tropical diseases	https://www.who.int/health-topics/neglected-tropical-diseases#tab=tab_1	Maladies tropicales négligées
Onchocerciasis	https://www.who.int/health-topics/onchocerciasis#tab=tab_1	Onchocercose
OpenWHO	https://openwho.org/	OpenWHO
Outbreak news	https://www.who.int/emergencies/disease-outbreak-news	Flambées d'épidémies
Poliomyelitis	https://www.who.int/health-topics/poliomyelitis#tab=tab_1	Poliomyélite
Rabies	https://www.who.int/health-topics/rabies#tab=tab_1	Rage
Schistosomiasis	https://www.who.int/health-topics/schistosomiasis#tab=tab_1	Schistosomiase
Smallpox	https://www.who.int/health-topics/smallpox#tab=tab_1	Variole
Soil-transmitted helminthiases	https://www.who.int/health-topics/soil-transmitted-helminthiases#tab=tab_1	Géohelminthiases
Trachoma	https://www.who.int/health-topics/trachoma#tab=tab_1	Trachome
Tropical disease research	https://tdr.who.int/	Recherche sur les maladies tropicales
Tuberculosis	https://www.who.int/health-topics/tuberculosis#tab=tab_1	Tuberculose
Weekly Epidemiological Record	http://www.who.int/wer	Relevé épidémiologique hebdomadaire
WHO Lyon Office for National Epidemic Preparedness and Response	https://www.who.int/about/structure/lyon-office	Bureau OMS de Lyon pour la préparation et la réponse des pays aux épidémies
Yellow fever	https://www.who.int/health-topics/yellow-fever#tab=tab_1	Fièvre jaune
Zika virus disease	https://www.who.int/health-topics/zika-virus-disease#tab=tab_1	Maladie à virus Zika