Meningitis is deadly and debilitating; it strikes quickly, has serious health, economic and social consequences, and affects people of all ages in all countries of the world. Bacterial meningitis is particularly unpredictable – it can lead to death within 24 hours, it can leave one in five patients with lifelong disability after infection, it can lead to epidemics, and it can cause havoc and disruption to communities and health systems. Many cases of meningitis are vaccine preventable, but progress in defeating meningitis lags behind that for other vaccine-preventable diseases.

In 2017, representatives from governments, global health organizations, public health bodies, academia, the private sector and civil society called for a global vision to defeat meningitis as a public health threat. WHO took up the call for action and, with global partners and experts involved in meningitis prevention and control, developed a road map to defeat meningitis by 2030. Wide public and expert consultations took place throughout 2020.

The meningitis road map was approved at the Seventy-third World Health Assembly, in the first ever resolution on meningitis prevention and control. It is an essential component in achieving universal health coverage.

The road map will reinforce and combine with wider initiatives, such as those aimed at strengthening primary health care and health systems, increasing immunization coverage, improving global health security, fighting antimicrobial resistance and advocating for the rights of persons with disabilities. It will complement other global control strategies, such as those addressing sepsis, pneumonia, tuberculosis and HIV.
Scope

The first global road map on meningitis sets out a plan to tackle the main causes of acute bacterial meningitis: *Neisseria meningitidis* (Nm), *Streptococcus pneumoniae* (Spn), *Haemophilus influenzae* (Hi) and group B streptococcus (GBS), which also cause sepsis and pneumonia and were responsible for over 50% of 250 000 deaths from all-cause meningitis in 2019. Effective vaccines that protect against disease caused by all four organisms are currently available (or in development).

Vision

Towards a world free of meningitis

Our collective vision is “Towards a world free of meningitis”. Because meningitis has so many causes, it cannot be eliminated or eradicated. There will be no “world free” moment for meningitis, but we are committed to get as close as possible. This plan, therefore, aims to defeat meningitis as a public health threat, reducing the number of cases substantially and keeping them down.

Visionary goals by 2030

- **Eliminate bacterial meningitis epidemics**¹
- **Reduce cases of vaccine-preventable bacterial meningitis by 50% and deaths by 70%**²
- **Reduce disability and improve quality of life after meningitis due to any cause**

All United Nations Member States are committed to achieving universal health coverage by 2030. The visionary goals of eliminating epidemics, reducing the number of cases and deaths, and giving priority to caring for those with disability are fully aligned with universal health coverage and have equity as a guiding principle.

The synergistic pillars to defeat meningitis

To achieve the visionary goals, the road map identifies 19 strategic goals, key activities and milestones for concerted actions across five interconnected pillars:

- Prevention and epidemic control
- Diagnosis and treatment
- Disease surveillance
- Support and care for people affected by meningitis
- Advocacy and engagement

Defeating meningitis will drive progress toward universal and primary health care, strengthened immunization programmes, global health security, and access to disability support. The road map will also bring complementary benefits to other diseases, such as sepsis and pneumonia.

¹An epidemic is defined for this goal as a cumulative attack rate of >100 suspected meningitis cases/100 000 population within one year in a given population based on a definition used for the African meningitis belt. Each region will set its own definitions for epidemics and targets for reduction according to local epidemiology.

²The baseline year for these global targets is 2015. The targets were derived by assessing the likely impact of the road map milestones in consultation with experts across the world and will be measured by reductions in incidence and mortality rates. Vaccine-preventable bacterial meningitis refers to all acute bacterial meningitis caused by Nm, Spn, Hi and GBS whatever the serotype/group.
Towards a world free of meningitis

Strategic Goals

**PILLAR 1**
Prevention and epidemic control
Achieved through development and enhanced access to affordable vaccines, effective prophylactic strategies and targeted control interventions.

**Strategic Goal 1:**
Achieve and maintain high coverage of licensed WHO prequalified vaccines against \( N_{m} \), \( S_{p} \), \( H_{i} \), and \( G_{B} \) with equal access in all countries, and introduce these vaccines in countries that have not yet introduced them in line with WHO recommendations.

**Strategic Goal 2:**
Introduce effective and affordable new WHO prequalified vaccines targeting \( N_{m} \), \( S_{p} \), \( H_{i} \), and \( G_{B} \).

**Strategic Goal 3:**
Develop evidence-based policy on \( N_{m} \), \( S_{p} \), \( H_{i} \), and \( G_{B} \) vaccination strategies that result in optimal individual protection and, where possible, herd protection.

**Strategic Goal 4:**
Develop and implement context-specific strategy to prevent \( G_{B} \) infection in infants.

**Strategic Goal 5:**
Develop and improve strategies for epidemic prevention and response, including vaccination, chemoprophylaxis, infection control, and risk communication, inclusive of mass gatherings and humanitarian emergencies.

**Strategic Goal 6:**
Improve diagnosis of meningitis at all levels of care.

**Strategic Goal 7:**
Develop and facilitate access to diagnostic assays at all levels of care to increase confirmation of meningitis.

**Strategic Goal 8:**
Develop and implement a context-specific policy to identify mothers who are \( G_{B} \) carriers, and for diagnosis of infant \( G_{B} \) infection, particularly for low resource settings.

**Strategic Goal 9:**
Provide and implement appropriate, context-specific, quality-assured guidelines and tools for treatment and supportive care to reduce the risk of mortality, sequelae and antimicrobial resistance.

**PILLAR 2**
Diagnosis and treatment
Achieved through improving diagnosis at all levels of health care, health worker training and prompt and effective case management.

**Strategic Goal 10:**
Ensure that effective systems for surveillance of meningitis and detection of the main meningitis pathogens are in place.

**Strategic Goal 11:**
Develop and implement global strategies for surveillance of invasive \( G_{B} \) disease, including for low-income settings.

**Strategic Goal 12:**
Develop and conduct surveys and studies to establish the burden of sequelae.

**PILLAR 3**
Disease surveillance
Achieved by surveillance of all major pathogens causing bacterial meningitis, and its sequelae, to guide meningitis control policies and accurately monitor progress toward the goals.

**Strategic Goal 13:**
Strengthen the availability of and access to appropriate care and support for: (i) people affected by meningitis; (ii) their families and carers.

**Strategic Goal 14:**
Increase health-seeking behaviour and access to prevention and care.

**Strategic Goal 15:**
Ensure that funders and policy-makers at the national, regional and global levels recognize that the road map to defeat meningitis is prioritized and integrated into country plans at all levels.

**Strategic Goal 16:**
Ensure awareness, among all populations, of the symptoms, signs and consequences of meningitis so that they seek appropriate health care.

**Strategic Goal 17:**
Ensure and raise awareness of communities about the impact of meningitis and available support after meningitis.

**Strategic Goal 18:**
Ensure that people and communities know how to access meningitis vaccines, other prevention and support after meningitis, and that they value and demand them.

**Strategic Goal 19:**
Maintain high vaccine confidence.

**PILLAR 4**
Support and care for people affected by meningitis
Achieved by ensuring that effective health systems and communities are capable of timely identification and management of sequelae of meningitis, and that people, families and carers affected by meningitis can access appropriate support and care services that meet their needs.

**PILLAR 5**
Advocacy and engagement
To work with partners to raise public and political awareness of meningitis and its impact, including potential to cause disability, in order to improve health-seeking behaviour and access to prevention and care.

**Technical partners** commit to providing oversight, expertise and innovative development.

**Donors** commit to supporting the implementation of the plan, both regionally and globally.

**Civil society** commits to supporting the road map, raising awareness and accelerating engagement.

© WHO / NOOR / Sebastian Liste