

ROADMAP TO ADVANCE DENGUE PREVENTION AND CONTROL IN APEC ECONOMIES 2026-2030

What the Dengue Roadmap advocates to APEC economies?

Why is the growing dengue threat a concern?



Rapid urbanization

High population density heightens human-mosquito contact risk.
Weak water & sanitation systems in megacities cultivates mosquito breeding spots in homes and communities.



Globalization

Increased movement of infected individuals to non-endemic areas
Aedes vector can bite infected individuals and transmit the virus, causing localized outbreaks.



Seasonality

Outbreaks occur during monsoon and drought season in tropical regions, and during summer in temperate areas.
Subsequent waves driven by different serotypes (DENV-1 – 4) increases risk for severe complications.



Lack of sustained investment

Preventive measures (vaccination, vector control, surveillance) are underfunded between dengue outbreaks.
Many economies only react to dengue waves.

The APEC Roadmap serves as a flexible and pragmatic guide, offering a spectrum of policy and programmatic recommendations to all member economies that they can strategically select and tailor to their specific dengue situation

For endemic economies

1

Fortify existing dengue prevention, control, and treatment measures.

2

Foster collaborative research, development, and innovation of novel interventions.

3

Mobilize sustained investment to alleviate public health burden and economic costs against recurrent dengue outbreaks.

For endemic economies

1

Strengthen preparedness and early warning mechanisms against imported cases and potential establishment of local outbreaks

2

Ensure collaborative and regional health security from future outbreaks.

Foundational Pillars

Member economies require harmonized policies, multisectoral and regional collaboration, sustained funding, and continuous innovation to ensure a cohesive, and proactive approach to managing dengue.



Policy and legislation are vital to support dengue interventions, establishing the necessary regulatory frameworks and mechanisms to drive a cohesive, enforceable, and sustainable domestic strategy for dengue action.

Dengue requires a multisectoral response at the local/city level, which fosters collaboration among government agencies, industry, academia, community organization and various stakeholders to promote collective action for an effective dengue response.



Sustainable and direct funding is necessary to support long-term dengue action, allowing essential public health programs to operate without interruption, and invest in the development of novel dengue tools and innovations.

Regional and international coordination facilitates capacity building and knowledge exchange. APEC collaborations are vital for harmonizing policies, sharing best practices for dengue prevention and control, and promoting cross-economy initiatives to combat dengue at both local and regional levels.



Research, development, and innovation (RDI) are essential to enhance or develop new tools for vector control, vaccinations, surveillance, diagnostics, and antiviral treatments to combat the dengue epidemic as well as operational and implementation research for the successful uptake of these interventions.

Strategic Interventions

Strategic interventions must be integrated and focused to combat dengue. Robust surveillance is the critical first step, enabling early detection and provides time for health systems to prepare for outbreaks.

Effective dengue control demands consistent and integrated multi-prong interventions focused on preventive action, holistically deploying measures across the prevention and control continuum to systematically address all facets of the dengue transmission throughout the outbreak cycle.



Surveillance is the cornerstone for early detection of dengue. Robust surveillance systems provide essential data needed to assess dengue, enable timely and targeted preventive and control actions and preparing the health system for emerging outbreaks.

Contextualized Implementation

Economies need to tailor dengue responses according to local contexts, empowering local authorities with strong policy support, resources, and training to implement interventions that equitably addresses all populations.



Dengue responses must be context-specific due to the highly localized nature of outbreaks, varying epidemiological profiles and socioeconomic conditions. Each economy requires a unique repertoire of tailored measures to address their local dengue situation.

Local authorities need to be aware and empowered to carry out dengue control measures. They require policy support, resources, and capacity building to coordinate and implement dengue measures.



Interventions should target vulnerable populations who face a heightened risk of dengue due to socioeconomic and environmental factors. Local authorities must tailor strategies to address their distinct needs to ensure equitable health outcomes.

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