

Midterm evaluation of the Global strategy to Eliminate Yellow fever Epidemics (EYE) 2017–2026

Evaluation brief – January 2023

In response to the 2016 yellow fever (YF) outbreak in Angola and the threat of international spread, Gavi, the Vaccine Alliance UNICEF and WHO developed a comprehensive, multi-partner strategy to Eliminate Yellow fever Epidemics (EYE) 2017–2026 with objectives to protect at-risk populations, prevent international spread and rapidly contain outbreaks. A mid-term evaluation was undertaken by the WHO Evaluation Office working with the Regional Offices for Africa and the Americas, in collaboration with Gavi and UNICEF.

Key achievements

Since inception of the EYE strategy in 2017, significant progress on some key EYE M&E indicators has been observed with 185 million people across African high-risk countries vaccinated for YF by August 2022.

The supply of vaccines for Gavi-eligible countries has increased by about 75%. The International Coordinating Group (on vaccine provision) emergency stockpile of YF vaccine has been maintained at 6 million doses since 2016 ensuring vaccines for outbreaks.

The observed narrowing of the gap between YF vaccine and measles-containing vaccine coverage through routine immunization (RI) programmes indicates that suboptimal coverage for YF relates not so much to issues specific to YF vaccination but rather to challenges associated with weak health systems and inferior general RI programmes.

Major progress was noted in the African Region on the time from onset of disease/suspected case to confirmatory results due to strengthened laboratory capacity and a well-functioning international sample shipment transportation system (EYE Ops, the operational arm of the EYE secretariat). Ongoing efforts at global level to enhance and simplify YF diagnostics were also noted and could become “game changers” in the elimination of YF epidemics going forward.

Brazil has demonstrated rapid outbreak responses building on multifaceted surveillance systems (epidemiological, zoological and entomological) and successful coordination.

There are positive examples of studying and tailoring approaches to reach vulnerable populations and using community-based approaches from Ghana.

No confirmed YF case has been exported from YF high-risk countries to non-endemic areas causing local transmission.

Challenges and gaps

Scarce capacity for implementation of the EYE strategy is a key challenge at all levels to reach set targets. Human resources and communication budgets are insufficient and rely mostly on in-kind support from partner organisations.

Low prioritization of YF versus competing priorities at all levels (global, regional and country) and indications of limited political commitment to mobilize domestic resources.

Sustaining momentum has proved difficult especially during COVID-19 and other recent external shocks. There is a perceived need to rejuvenate commitment to the EYE strategy. At country level, the tendency is to focus on YF during outbreaks; more emphasis on prevention, preparedness and sustainable strategies is warranted.

Strong EYE governance structure at global level, but with scope to improve on inclusiveness, diversification and country engagement. The limited engagement of countries in the EYE governance structures can be seen as limiting ownership and commitment at country level.

While YF outbreaks are mainly found in hard-to-reach and underserved communities, gender, equity and human rights aspects are not addressed systematically, despite availability of such expertise in EYE partner organisations. Even in contexts achieving high YF coverage of vaccination efforts through RI and campaigns, ongoing pockets of unimmunized vulnerable and high-risk groups exist (i.e. agricultural, forestry, mining and migrant workers, urban slum areas and residents of security-compromised communities). Lack of vaccination in these groups adds to outbreak risk and potential international spread.

EYE partners have complemented each other well and provided substantial coordination and implementation support, but integration and synergies should be further explored for maximum impact. Governance structures have enabled good coordination but YF is still largely viewed as a vertical programme at global level with insufficient bonds to other relevant programmes.

Despite progress in vaccine supply, continued supply chain bottlenecks persist at country level. Insufficient surveillance and outbreak response delays, unrelated to supply issues, were noted mainly across African high-risk countries.

Limitations of the M&E framework (e.g. data gaps, missing baseline values, and data quality concerns) have presented a challenge to adjust and course-correct, and new research findings need close monitoring. Strategic indicator milestones are generally lacking, monitoring of disaggregated data (by gender, age, location) is limited, and several targets remain largely aspirational/unrealistic. Stronger linkages could be made to other relevant M&E indicator frameworks.

Sustainability concerns exist and there is scope to improve complementarity with other interventions, partners and initiatives. Continued reliance on external support (especially in Africa) threatens sustainability of ongoing efforts. The current EYE engagement (funding and advocacy) strategy lacks a mechanism to sustain gains through domestic financing, exiting from external finance in the long term.

Conclusions

Relevance Overall, the EYE strategy design is appropriate and relevant, with comprehensive high-level and technical engagement and endorsement, despite identified gaps. Features and mechanisms allowing course-correction and adaptation to changing conditions were included in the EYE strategy design and have facilitated operational changes. However, at a strategic level, EYE core documents have not adapted to emerging developments with the same flexibility, and require adjusting. This includes re-examining high-risk country prioritization in light of changing environmental and contextual factors and future funding prospects from Gavi.

Efficiency and coherence While the EYE governance structure is strong at global level, full involvement and ownership at regional and country levels was less evident and could be strengthened through a relaunch. Human resource challenges, including in governance structures, constrain efficient implementation and compelling evidence exists to support scaling up staff levels for the remaining period of the EYE strategy. The EYE partnership is comprehensive but there is scope to improve complementarity and synergy with partners working on vaccine-preventable diseases, urban health, health systems strengthening, vector surveillance and control, and International Health Regulations. Stronger representation of civil society organizations and the private sector in the EYE partnership would further enhance efficiency and impact. Monitoring and reporting of progress on strategic M&E indicators could be improved for greater oversight and accountability, with more effective dissemination of lessons learned and good practices for necessary course corrections.

Effectiveness Important progress has been made to address YF challenges and risks, including low population immunity levels, vaccine availability, diagnostic commodities and processes/capacity, YF laboratory networks and international sample transportation. During recent YF outbreaks, almost all YF cases were found in high-risk workers or among vulnerable, mobile or hard-to-reach populations. Lack of vaccination and surveillance among these groups adds to risks of outbreaks and potential international spread. Identified challenges point to the urgent need to roll out subnational risk assessments, conduct immunization gap analyses, establish guidance and funds for catch-up activities to reach high-risk and vulnerable populations, and strengthen RI. Quality campaign surveys and risk mitigation planning for potential vaccine supply constraints need attention. Strengthening of International Health Regulations at borders and land-crossings, fast-tracking development of urban readiness plans and prioritizing peri-urban and urban areas for preparedness, prevention and response services are critical to global health security. Expanding community-based surveillance, simplifying diagnostics in Africa, and using multifaceted surveillance systems would help detect and rapidly contain outbreaks.

Sustainability Collaboration with RI programmes needs to be strengthened to ensure sustainable results and returns on the significant investments of preventive mass vaccination campaigns. Insufficient sustainable financing prospects threaten achievements. In Africa, where reliance on external support remains significant, the development of resource

mobilization plans is critical. Uncertainty of international development partners' commitments (including the transition trajectory affecting some high-risk countries) may compromise future regional and country efforts. The EYE strategy could be phased out by end 2026 if certain conditions are met: i) expected target on the number of people vaccinated for YF in Africa is achieved by 2026, ii) substantial resource allocation over the next 4 years, iii) investments in increased country ownership and accountability, iv) increased coverage of vaccination campaigns, reaching vulnerable communities and maximizing complementarities, v) increased involvement of partners to further support and integrate certain EYE activities.

Recommendations

1. Address critical capacity requirements for effective implementation of the EYE strategy by reviewing resources available at all levels (global, regional and country) based on the experience of implementation up to the midterm and engage in joint (WHO/PAHO, UNICEF, Gavi) resource mobilization efforts.
2. Relaunch the EYE strategy for renewed political commitment and increased attention from all stakeholders to YF and Global Health Security by developing strong business cases, organizing high-level events and disseminating advocacy and communication materials more broadly.
3. Expand and diversify the EYE governance structure (coordination and decision-making bodies) and the EYE partnership for improved ownership, effectiveness and efficiency.
4. Scale up the use of subnational risk assessments, conduct immunization gap analyses and implementation research of hard-to-reach communities and develop tailored outreach strategies to improve targeting of underserved, high-risk and vulnerable populations.
5. Improve integration and synergies for maximum impact by: ensuring EYE representation in IA2030 structures; capitalizing on broader vaccine-preventable disease surveillance and vaccination efforts; and, at the same time, increasing linkages to vector control programmes and mapping opportunities for multisectoral approaches.
6. Continue efforts to ensure robust supply chains, including clear mitigation plans to address risks of inadequate vaccine supply, and improve attention to surveillance and coordination for improved detection and faster response to outbreaks.
7. Revise the EYE M&E framework and its monitoring approach before mid-2023 and address new research findings to guide and adapt implementation.
8. Develop a three-year "EYE transition and sustainability framework" for the period 2024–2026 to prepare for the end of the EYE strategy by 2026.

Contacts

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