WEST AFRICAN HEALTH ORGANISATION
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CEPI

2025

LASSA END-TO-END ACCESS ROADMAP

a regional plan to support equitable access to future Lassa fever vaccines

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Picture: Lassa fever ENABLE study activities in West Africa

> *Equitable access in the context of this roadmap means that appropriate vaccines are first available to populations when and where they are needed to end an outbreak or curtail an epidemic, regardless of ability to pay, and are fully embraced by affected countries.*

WAHO & CEPI

FOREWORD by West African Health Organization (WAHO)

Lassa is a significant health problem in West Africa, with the disease causing almost 4000 deaths and US $110 million in productivity losses in the region annually. For decades, Lassa fever has silently taken lives, eroded livelihoods and tested the resilience of our health systems. This is why WAHO and CEPI convened the Lassa fever Vaccine Coalition, a multi-stakeholder partnership to enable and accelerate the development, readiness and equitable access to Lassa fever vaccines across West Africa. It supports countries in translating scientific progress into practical preparedness and ensures that West African leadership is central to shaping the Lassa vaccine ecosystem.

WAHO's mission is to ensure that a Lassa fever vaccine advances towards licensure, while strengthening the regional ecosystem needed for its development, introduction, widespread deployment and use. The goal is not only to achieve a safe, efficacious and effective vaccine, but also to ensure that it is adapted to— and accessible for — affected countries. We have made great progress in advancing Lassa fever vaccine development and strengthening regional capabilities to support this vision. The opportunities ahead of us go beyond the need for scientific progress. They are about building the foundations for equitable access—ensuring that when life-saving vaccines become available, they reach every individual who needs them across our countries. History reminds us of the cost of inadequate preparedness. These lessons drive our commitment to comprehensive readiness and true regional ownership, from development through to access.

Lassa fever is a shared threat that requires a unified and tailored solution. By planning now, we are laying the groundwork for rapid and equitable vaccine deployment and build a foundation for broader preparedness efforts. These collaborative efforts reflect our belief that equitable access is not a matter of chance. It is achieved through deliberate, strategic partnership and forward-planning. As we move towards late-stage vaccine development, strong regional engagement and robust partnerships remain essential.

I am proud to highlight the strong partnership between WAHO, our Member States, CEPI and all stakeholders that have provided inputs into this roadmap to advance this shared goal. By connecting the full spectrum of vaccine readiness from R&D and regulatory access to demand, manufacturing, delivery and equitable access under a single regional framework, the plan signals that West Africa is preparing to act. We are ensuring that when a Lassa fever vaccine is ready, the region is ready too. It also provides a clear entry point for partners now seeking to support or invest in the Lassa agenda, aligning their contributions with a coherent, regionally led roadmap toward equitable access.

This first version of the roadmap is only a starting point. WAHO looks forward to working with a broader set of stakeholders to refine the roadmap in the years ahead.

Dr. Melchior Athanase Joel C. AISSI
Director General,
West African Health Organization (WAHO)

FOREWORD by the Coalition for Epidemic Preparedness Innovations (CEPI)

A commitment to equitable access is inscribed in CEPI's DNA. It is core to CEPI's vision of a world in which epidemics and pandemics are no longer a threat to humanity. CEPI's commitment to equitable access informs every aspect of our work and has done so since our very beginnings.

Equitable access starts with funding the right vaccine products, ensuring those products meet country needs and are suitable for the people who need them the most. CEPI has so far funded five Lassa fever vaccine candidates, with two remaining in active development. Ensuring that those vaccines achieve licensure is now critical and CEPI cannot go this part of the journey alone.

To fully achieve equitable access and getting the vaccines to those who need them requires a broad set of activities across an 'ecosystem' of national and international partners, all moving in the same direction. CEPI, as an R&D funding organisation, cannot (and should not aim to) achieve this alone. With this end-to-end access roadmap, we hope to represent how, in partnership with countries, we need to bring all relevant stakeholders together to clarify their priorities and roles. CEPI's role is catalytic- bringing together science, policy and partnerships to drive collective progress. Thinking about these important future steps EARLY means we can use these insights to maximise impact of investments being made against Lassa fever.

Our collaboration with the West African Health Organization (WAHO) embodies this approach: regional leadership, global solidarity and shared responsibility for preparedness. CEPI is working with governments and partners through the Lassa fever Vaccine Coalition led by WAHO to support a range of capacity strengthening efforts — from clinical to regulatory and manufacturing investments in West Africa. Equitable access planning starts and ends with regional ownership and co-creation with countries early in the development process. I am proud to say this is a roadmap where WAHO truly led the efforts from the start. Just a few months ago we saw Ministers across West Africa come together to pledge their commitment towards accelerating the development and future equitable introduction of Lassa fever vaccines across the affected region.

Our upcoming strategy, CEPI 3.0, focuses on building and demonstrating the capabilities that underpin the 100 Days Mission: the ability to develop and deliver safe, effective and accessible vaccines within 100 days of identifying a new threat. The work described in this roadmap is a critical part of that system readiness, ensuring vaccines against epidemic and pandemic threats are developed, produced and delivered equitably across West Africa.

We hope this initial roadmap can serve as a blueprint for how regional leadership and global collaboration can deliver equitable access and long-term pandemic preparedness. In a constrained fiscal landscape, we hope this can help all stakeholders align on key priorities & gaps, de-duplicate efforts and align on key transition mechanisms from one partner to another across the vaccine value chain. As we look to the late stages of Lassa vaccine development, I hope this roadmap can highlight how West Africa is planning to be 'ready' for Lassa fever vaccines. At the same time, as this roadmap highlights, gaps remain. We call on partners to rethink how we work together to invest in and support regional readiness capabilities and ultimately achieve equitable access.

Dr. Richard Hatchett,
Chief Executive Officer, CEPI

Acknowledgments

The roadmap has been developed based on desk research and several consultations across the following organisations and stakeholders:

- Ministerial-convened Lassa fever vaccine task forces in Nigeria, Sierra Leone and Liberia
- A detailed workshop held in Nigeria in 2025 co-hosted by the Nigeria Centre for Disease Control (NCDC) and National Agency for Food and Drug Administration and Control (NAFDAC), with 30+ experts from Nigeria including with the National Primary Health Care Development Agency (NPHCDA), the National Health Insurance Authority (NHIA), Presidential Initiative for Unlocking the Healthcare Value Chain (PVAC), Private Sector Health Alliance of Nigeria (PSHAN), National Institute of Medical Research (NIMR) and civil society organisations such as New HIV Vaccine and Microbicide Advocacy Society (NHVMAS) and Women Advocates for Vaccines Access (WAVA)
- Additional country-level organisations such as PCN (Pharmacy Council of Nigeria) and several individual experts - Precious Nwiko; Dr. Alhassane Toure (WHO Guinea); Dr. Mubarak Zubairu (UNICEF Nigeria); Dr. Sory Condé - Director General of the National Agency for Health Security (ANSS); Thierno Hamidou Balde - Directeur Exécutif, Zero Pauvre en Afrique, Conakry Guniea; Prof Abudulaye Toure - Director General, Institut National de sante Publique; Dr Sékou Sidate Sylla - Directeur Préfectoral de la Santé de Dalaba; Dr. Idrissa Diallo - Director General, Prefectural Director of Health Director of the District of N'zérékoré; and Brittney M Varpilah - Country Director, Last Mile Health, Liberia
- Regional WAHO-led technical working groups on the Lassa Policy Research Agenda[1] facilitated by MMGH Consulting and Demand forecast for Lassa (2025) facilitated by IAVI
- Consultations facilitated by the Lassa fever Vaccine Coalition Secretariat Partner – Corona Management Systems, Nigeria Health Watch and Bloom Public Health
- Lassa fever vaccine Use Case Workshop in Ghana (2024) facilitated by MMGH
- Discussions with Lassa vaccine developers & manufacturers - IAVI, the University of Oxford and Institut Pasteur de Dakar (IPD).
- Regional and global organisations: WHO AFRO, IVB - Immunization, Vaccines and Biologicals, VHF - Viral haemorrhagic fevers, AVAREF (African Vaccine Regulatory Forum); Gavi (Market Shaping & Vaccine Investment Strategy team), Africa CDC and Gates Foundation

The roadmap was coordinated and developed by CEPI (Sharvani Saraf, Gill Mason, Emma Wheatley, Dr. Katrin Ramsauer and Oyeronke Oyebanji) and WAHO (Dr. Virgil Kuassi Lokossou and Dr. Aishat Bukola Usman).

[1] Lassa Policy Research Agenda 2025

Picture: Nigeria E2E Access workshop 2025

Abbreviations and Acronyms

AFRO	WHO African Region
AVAREF	African Vaccine Regulatory Forum
AMA	African Medicines Agency
AVMA	African Vaccine Manufacturing Accelerator
CEPI	Coalition for Epidemic Preparedness Innovation
COGS	Cost of Goods Sold
E2E ACCESS	End-to-End Access
EA	Equitable Access
EUL	WHO Emergency Use Listing
EUA	Emergency Use Authorization
EAP	Expanded Access Program
ECOWAS	Economic Community of West African States
IPD	Institut Pasteur de Dakar
IAVI	International AIDS Vaccine Initiative
LF VACCINES	Lassa Fever Vaccines
MAH	Marketing Authorization Holder
MCM	Medical Counter Measures
NCDC	Nigeria Centre for Disease Control and Prevention
NAFDAC	National Agency for Food and Drug Administration and Control
NITAG	WHO National Immunization Technical Advisory Group
NPHA	National Public Health Agencies
R&D	Research & Development
RITAG	WHO Regional Immunisation Technical Advisory Group
SAGE	The WHO Strategic Advisory Group of Experts on Immunization
TPP	Target Product Profile
100 DM	100 Days Mission
U.Oxford	University of Oxford
VIS	Gavi Vaccine Investment Strategy
WAHO	West African Health Organization
WHO	World Health Organization

1. Introduction

Objectives of the roadmap

The Lassa end-to-end (E2E) Access Roadmap outlines a coordinated pathway to ensure equitable access to licensed Lassa fever vaccines, outlining what is needed and who does what to ultimately reduce the burden of Lassa fever.

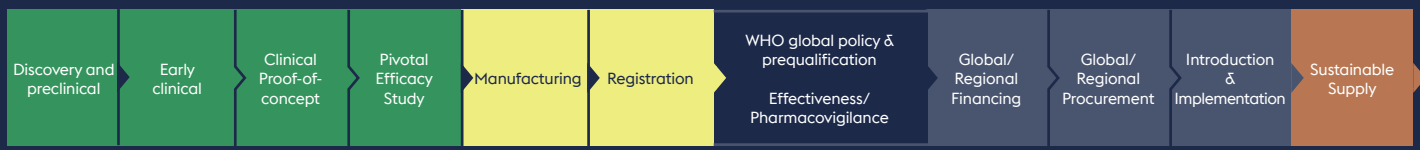
- The short-term objective is to identify critical equitable access needs and increase transparency across the ecosystem, so that stakeholders across the vaccine value chain can co-ordinate these gaps efficiently
- The medium-term objective is to serve as a call-to-action for governments, industry, financing institutions and donors to invest in the critical needs for the next 2-3 years on equitable access to Lassa fever vaccines
- The long-term objective is to facilitate smooth transitions between partners in the global health ecosystem to reduce access gaps and support the country-level introduction of Lassa fever vaccines.

The E2E access roadmap will enable this vision by:

- Identifying what needs to be done to enable equitable access to safe and effective Lassa fever vaccines, by when and by whom, especially in Lassa endemic countries;
- Leveraging lessons learnt from the use of similar vaccines in response efforts to strengthen preparedness and delivery;
- Ensuring R&D investments (by CEPI or other funders) consider downstream access needs from the start so that vaccine products ultimately serve target country needs;
- Engaging stakeholders early to clarify roles & responsibilities across the vaccine value chain, enable smooth transitions between partners and plan for coordinated proactive support.

The roadmap considers the equitable access needs along the entire end-to-end pathway for Lassa fever vaccines and connects the needs from early research & development through policy, manufacturing, procurement, delivery and sustained use.

Figure 1: Illustrative end-to-end pathway for vaccines



Early regional engagements are key to enabling ultimate equitable access outcomes. To support this, CEPI has co-developed this roadmap with WAHO and initiated this process *now*— years in advance of a licensed product— to ensure that national and regional perspectives across West Africa are incorporated along with global stakeholders relevant for Lassa fever. The roadmap is intended to be dynamic and iterative, and will be continuously evolved to capture the latest inputs across a wide range of stakeholders, based on changing contexts and assumptions.

There are multiple Lassa fever vaccine candidates in development. This roadmap is not tied to any single Lassa vaccine candidate but rather provides a disease-level framework aligned with timelines for the most advanced candidate vaccine.

Key insights

Three critical questions need to be answered to enable equitable access to Lassa fever vaccines:

- Who will finance late-stage clinical trials and enabling activities for vaccine development, and for how many candidates?
- Who will manufacture and commercialise the vaccines so that they are accessible in endemic countries?
- Who will fund and procure vaccines for widespread deployment?

While these questions are not completely answered at the current development stage, ongoing efforts focus on identifying these stakeholders, supporting their decision-making needs and establishing guiding principles for equitable access to Lassa fever vaccines that are in line with country needs. Pivotal needs to enable equitable access to Lassa fever vaccines are highlighted below:

- **Securing funding for late-stage vaccine development and enabling activities is critical** to ensure availability of licensed Lassa fever vaccines for affected populations.
- **Vaccines must be designed to meet the preferences of target populations in West Africa** (as identified in the roadmap); developers should explore product profile improvements and countries conduct social behavioural and community engagement research early to inform acceptance early.
- Lassa fever is endemic to Africa, and stakeholders emphasise the **importance of producing the vaccine within the region** to enhance equitable access, strengthen supply chains, build local capacity and support global health security. Further analysis is needed to identify the necessary incentives, investments and partnerships to achieve affordable and sustainable regional manufacturing.
- Timely policy and financing decisions for Lassa fever vaccines **require immediate evidence generation** such as disease burden and health-economic impact of vaccination under different use cases, guided by a prioritised set of regional needs as detailed in the roadmap.
- Financing for Lassa fever vaccines is currently unclear and may need **innovative financing mechanisms by public and private funders**. Early purchasing signals are needed so that the pathway is predictable and appropriate plans to enable affordability and long-term sustainability can be made.
- The long-term sustainability of Lassa fever vaccines **relies on strong regional ownership & local demand, global and regional collaboration and enhanced capacity** within countries. All related initiatives should prioritise these core elements.
- The role of early **social engagement and community preparedness** is critical to enable equitable access, with countries emphasising the need for vaccine trust, addressing misinformation and leveraging lessons learned from other vaccine introductions.

Call to action

To ensure that this roadmap leads to impact, we invite funders, donors, vaccine developers, policymakers, national governments, regional bodies, researchers, implementing partners and global health actors to:

1. **Advocate for and/or invest in the key gaps identified for Lassa fever vaccine** – critically on:
   a. Late-stage vaccine clinical trials & manufacturing scale-up needed for licensure
   b. Evidence generation to support decision-making on policy and financing
   c. Licensed Lassa fever vaccine doses
   d. Social behaviour, community engagement and communication approaches in countries
   e. Country readiness and implementation needs for equitable deployment
2. Ensure that equitable access vaccine needs from countries are **incorporated into the early product development pathway**
3. Support **continuous evolution and monitoring of the roadmap**, by providing your inputs for the next update
4. Embed Lassa fever and the equitable access needs within **national access plans**, identifying responsibilities across relevant national stakeholders, committing domestic funding, engaging communities and monitoring progress.

Governance, Monitoring and Implementation

It is expected that the high-level insights in the roadmap will be leveraged and translated into *developer-specific* commercialisation and access plans and *country-level* implementation and access plans, including key risks and risk mitigation mechanisms. The strategic objectives identified in the roadmap are expected to be translated into measurable key performance indicators (KPIs) for each country through a **regional readiness and access dashboard** so that progress can be monitored.

A Regional Lassa Vaccine Access Steering Group is expected to be convened led by WAHO and CEPI, to include key access experts from Lassa endemic countries, developers, manufacturers & commercialisation partners, and key regional and global organisations, including policymakers, potential Lassa vaccine funders, procurers and implementors. The aim of this group will be to solve together the strategic equitable access needs identified in the roadmap, set priorities and timelines, and identify funding & resources for the gaps. Detailed technical working groups for specific activities have been convened and will continue to under the Lassa Coalition structure. CEPI & WAHO will be jointly responsible for monitoring progress across each activity and updating the roadmap.

2. Relevant Context

A. Lassa fever Disease burden

Lassa fever is a significant public health concern in West Africa where it causes seasonal outbreaks. Hundreds of thousands of people in West Africa are estimated to be affected by Lassa fever each year, with the disease causing almost 4000 deaths and US $110 million in productivity losses in the region annually[2]. Symptoms range from mild headache to vomiting, facial swelling and widespread bleeding which can be fatal. In those that recover, hearing loss is commonly reported. The potential impact of the disease is set to worsen, with modelling research[3] predicting up to 700 million people could be at risk of Lassa fever infection by 2070 because of climate change and population growth. Country-level insights have suggested that Lassa fever significantly impacts routine healthcare delivery, as health workers are often affected during seasonal surges. The burden of disease is likely under-reported due to gaps in surveillance and diagnostic capabilities. CEPI is currently funding the largest-ever Lassa fever study assessing Lassa's disease burden and additional epidemiology studies are needed to better understand the impact of the disease.

B. Current vaccine development landscape

CEPI is the largest funder of Lassa fever vaccine development. To date, CEPI has invested in five vaccine candidates, two of which remain in active development[4]. IAVI's rVSV is the most advanced (currently in phase 2a) and in April 2024, IAVI launched the first-ever Phase II clinical trial of a Lassa vaccine in Nigeria, followed by Ghana and Liberia[5]. The University of Oxford ChAdOx candidate is currently in a Phase 1a study in the UK and a second phase 1 is expected to start in 2026 in Ghana[6]. CEPI is also testing rapid-mRNA vaccine candidates developed by SK Bioscience for use against Lassa and Disease X. If successful, the vaccine could be rapidly adapted to protect against other Arenaviruses.

Figure 2: Lassa Vaccine Portfolio – CEPI and non-CEPI funded; Source: CEPI website

Platform	Pre-clinical	Phase I	Phase 2	Registration
Viral Vector			iavi rVSVΔG-LASV-GPC	
		UNIVERSITY OF OXFORD ChAdOx1 LassaJ		
		Thomas Jefferson University LASSARAB		
		INSTITUT Pasteur MOPEVAC		
mRNA		SK		

Among these candidates, 1-2 will start clinical trials in WA with the next two years

[2] https://cepi.net/west-african-leaders-commit-advance-lassa-fever-vaccine-region

[3] https://www.nature.com/articles/s41467-022-33112-3

[4] CEPI Lassa Fever Fact File

[5] https://cepi.net/participants-nigeria-vaccinated-first-ever-phase-2-lassa-fever-vaccine-clinical-trial

[6] First volunteer receives Lassa fever vaccine in cutting-edge Oxford trial

C. Evidence & Policy considerations

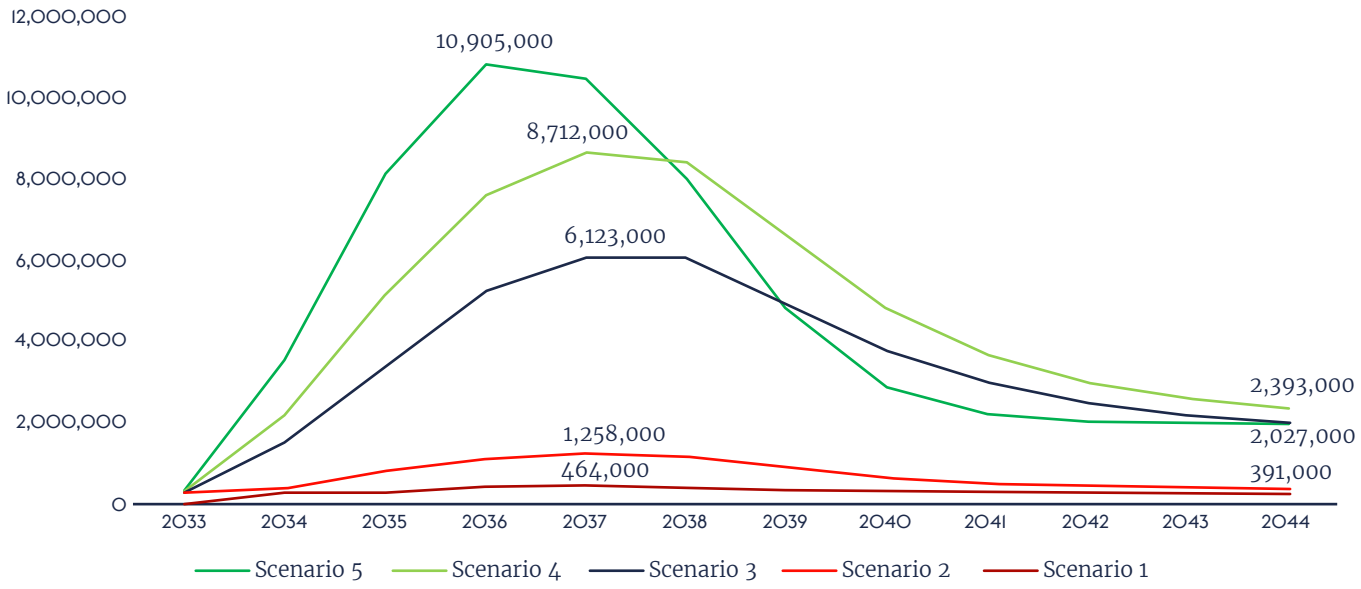
Use case & Demand

In addition to the importance of Lassa fever vaccines availability under outbreak conditions, there is increasing data supporting preventative implementation strategy in endemic areas of West Africa, including WHO's 2022 Target Product Profile (TPP)[7] placing priority on preventive vaccine use, a CEPI 2024 use case workshop[8] in Ghana that reinforced the desire to implement routine preventive vaccination in endemic areas of West Africa and several modelling exercises supporting initial value of a preventative strategy. While further evidence is needed to support policy recommendations around the use cases of these vaccines, **recognising this growing consensus, this plan places a strong emphasis on equitable access under *endemic* conditions (preventive use) together with access for epidemic (reactive) use.**

Initial demand forecast

An initial demand forecast conducted for Lassa fever vaccines across all countries shows peak demand between ~500,00 doses and ~11 million doses per year across several scenarios. This includes preventive demand (routine immunisation and planned campaigns) as well as reactive outbreak response with a stockpile. This forecast is currently being refined with national, regional and global experts to narrow down on key scenarios and will be published in early 2026.

Figure 3: Lassa demand forecast scenarios– preliminary; expected to be refined in early 2026 and published with underlying assumptions



Source: Lassa demand forecast at disease level conducted by IAVI

Scenarios go from most conservative to most ambitious assumptions around geographical targeting (e.g., targeted rollout in scenarios 1 & 2 vs. national rollouts in scenarios 3-5), uptake rates and populations targeted (e.g., adults not targeted in scenarios 1-2), etc. Detailed list of assumptions will be available in early 2026 once finalised based on country inputs.

[7] WHO Lassa TPP

[8] More details on the Use Case workshop insights in Annex C

D. Regional readiness in West Africa & beyond

The Lassa Coalition

The Lassa fever Vaccine Coalition[9] is a multi-stakeholder partnership established to enable and accelerate the development, readiness and equitable access to Lassa fever vaccines across West Africa. It is convened by the West African Health Organization (WAHO) with support from CEPI, bringing together national governments, regional institutions, vaccine developers, regulators, academia, implementing partners and funders to strengthen political commitment, technical coordination and financing for Lassa fever vaccine development and delivery.

The Lassa Coalition serves as a platform to align regional priorities with global efforts, bridging clinical research, ethical and regulatory strengthening, manufacturing and policy readiness, making at-risk and affected communities central to results. It supports countries in translating scientific progress into practical preparedness and ensures that West African leadership is central to shaping the Lassa vaccine ecosystem.

Lassa beyond West Africa

While many components of this roadmap are targeted towards equitable access for Lassa vaccines in endemic countries (Nigeria, Liberia, Sierra Leone, Guinea), efforts to understand needs for other at-risk countries (e.g., Benin, Burkina Faso, Cote d'Ivoire, Togo, Ghana, Senegal and Southern Mali) have been explored, including vaccine dose demand, target populations and stockpile-based reactive strategy. With the rising threat of climate change, humanitarian crises and threat of spillovers, there is a likelihood that Lassa fever could also affect other countries in Central, East Africa or beyond[10]. Interventions to enable rapid and equitable response to such a scenario are considered in this plan at a high-level, e.g., surveillance and early detection, rapid regulatory and policy pathways, investments in surge manufacturing capabilities and enabling access to LMIC doses in developer-specific provisions.

A new threat in the Arenavirus family or a new pathogen – e.g., Lassa X

While Lassa fever is a known disease, there is the ever-growing threat that the world could be affected by a new virus related to Lassa emerging and spilling over into people (known as 'Lassa X'). In this scenario, we do not know where it would strike, if Lassa vaccine candidates would also be effective against other Arenaviruses, whether the platforms that could achieve rapid regulatory approvals, etc. The WHO R&D Blueprint Team has convened a Collaborative OPEN Research Consortium (CORC) across all virus families to inform equitable R&D approaches for such scenarios[11], and equitable access strategies are expected to be defined under CEPI's Disease X strategy – not in scope for this document. Some approaches identified above – e.g., surveillance and early detection, surge capabilities, etc – could support equitable access for a Lassa X scenario.

[9] https://www.wahooas.org/web-ooas/en/actualites/meeting-lassa-fever-coalition-governing-entity-lge

[10] Lassa virus endemic area may expand dramatically in coming decades | Scripps Research

[11] https://cdn.who.int/media/docs/default-source/consultation-rdb/corcfamilies-and-corcs_24-feb_2025_amr.pdf?sfvrsn=1d24790_3

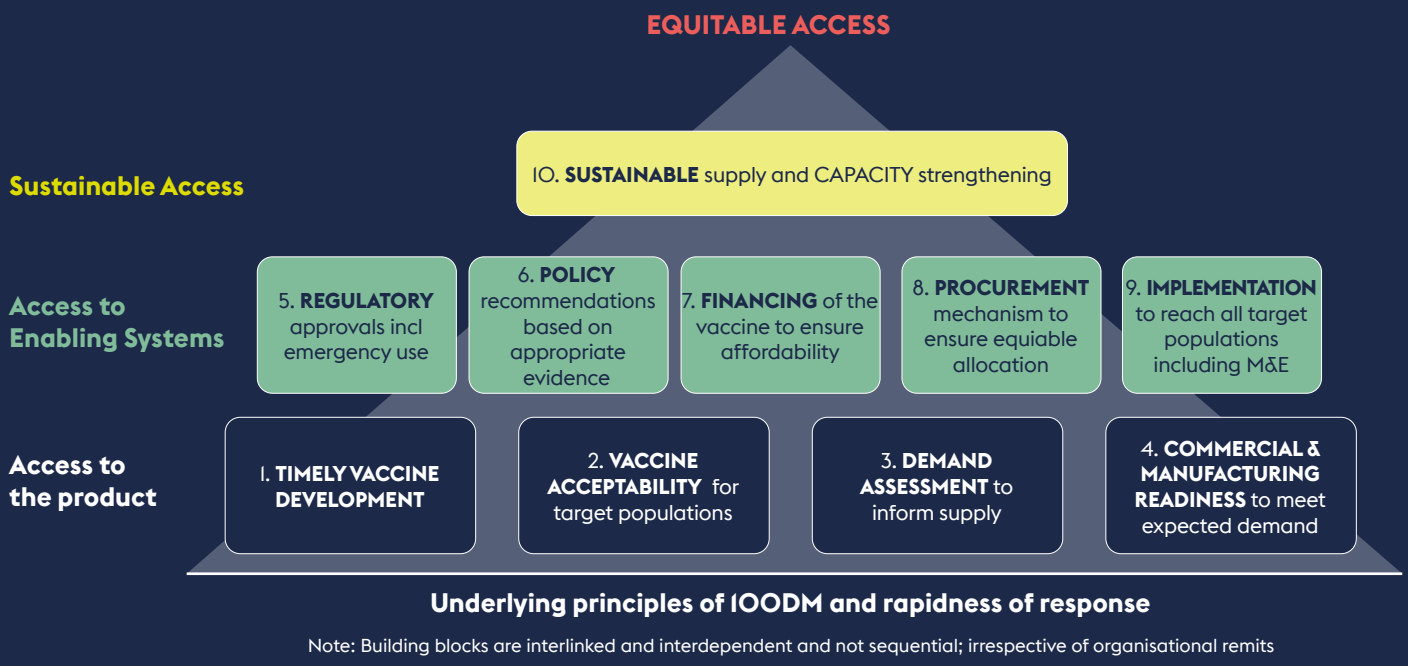
Other Medical Countermeasure approaches & system readiness

This roadmap focuses primarily on the needs for *vaccine* access but to truly achieve equitable access, a multi-pronged public health response is needed with investments in other medical countermeasures, including diagnostics and therapeutics. No licensed therapeutics currently exist specifically for Lassa fever treatment. Operational experience from Ebola and Mpox deployments in West Africa shows that equitable vaccine access depends heavily on system readiness – e.g., delayed case confirmation and limited diagnostic capacity, especially in rural endemic areas, constrain timely outbreak response. Challenging logistics including difficult terrain, insecurity in some regions, and limited refrigerated storage require differentiated delivery strategies. These considerations and needs beyond vaccines are expected to be included in country-level Lassa access plans.

3. Approach and methodology

The Lassa E2E Access roadmap looks at 10 key components integral to equitable access for Lassa fever vaccines i.e., Access to a suitable *product*, Access to enabling *systems* and Sustainable access in three layers as shown below.

Figure 4: Key components of equitable access to vaccines



Note: Building blocks are interlinked and interdependent and not sequential; irrespective of organisational remits

These components have been grouped into five key objectives to define the interventions needed for equitable access:

A. **Timely vaccine availability (1) and acceptability (2)**, to ensure timely development of suitable vaccines

B. **Vaccine demand (3), manufacturing and supply (4)** so that vaccine supply meets expected demand

C. **Regulatory (5) and Policy (6)** needs to enable timely access for target populations

D. **Financing (7) & Procurement (8)** to enable affordability for target populations & equitable allocation

E. **Sustainable implementation & capacity strengthening (9 & 10)** to enable uninterrupted reliable access to the vaccine

4. Key access objectives and interventions needed

Across each section, an assessment was made in terms of the key objectives for equitable access, and the interventions needed to achieve the objectives, both in the short to long-term.

Where known, the funding and leading organizations are noted. For CEPI, this indicates funding across both IAVI and University of Oxford Lassa fever vaccine candidates, and subject to internal governance and programmatic reviews. For partners, this is pending funding and resource commitments. Figure 3 shows the expected and approximate timelines.

A. Timely Vaccine Availability and Acceptability to ensure timely development of suitable vaccines

Background & Risks: There can be no access to LF vaccines without a product, and the faster a licensed Lassa fever vaccine (Emergency Use Authorisation and Full Authorisation) is available the faster an incipient outbreak can be curtailed. Based on current project timeline projections, the most optimistic expectation for licensure submission is *after* 2030 and opportunities to accelerate timelines are being explored. Advancing Lassa fever vaccine candidates into late-stage development is an urgent need and will require additional financing and coordinated investments - in addition to CEPI's investments – and there is strong political commitment within West Africa to support this effort[12]. In the meantime, ensuring supply of investigational ready reserves is as an interim access milestone, as the use of investigational doses for clinical trials during outbreaks could support evidence generation towards authorisation (or licensure).

Along with vaccine development, vaccines must be accepted by communities. The two most advanced candidates are expected to meet WHO Target product Profile minimal criteria for Lassa fever vaccine[13] and preliminary country consultations have provided insights into the considerations for acceptability.

Feedback by countries suggest significant access challenges with ultra cold-chain requirements for the IAVI rVSV candidate, which can affect vaccine uptake and cause higher vaccine wastage if not mitigated. Efforts are being undertaken by IAVI to improve thermostability, including exploring vaccine stability for 1 month at 2-8C which can support deployment, alongside other efforts to improve thermostability. A lyophilised formulation may improve heat-stability and extend shelf-life, but is not ideal (compared to a stable liquid formulation if feasible), given logistical challenges with reconstitution during storage and delivery and potential safety issues[14]. Although, healthcare workers have experience with using lyophilised formulation for other vaccines. The University of Oxford ChAdOx candidate does not require ultra cold-chain shipping and is currently a two-dose regimen. Country consultations emphasize issues with two-dose delivery which is less suitable for rapid outbreak response, and a drop-off in coverage rates after one dose. To mitigate, U. Oxford is evaluating the vaccine in both single- and two-dose regimens in Ghana, consistent with data from other ChAdOx-based vaccines showing robust immunogenicity after a single dose that is further enhanced by a second dose.

There are multiple trade-offs involved in product development accounting for speed, costs and acceptability, and these need to be understood early and validated with country-level stakeholders. In addition, social behavioural and community engagement work should be ideally embedded in vaccine development efforts to understand and improve perceptions around potential Lassa vaccines in communities, so that vaccines once introduced are more readily accepted by communities.

[12] https://cepi.net/west-african-leaders-commit-advance-lassa-fever-vaccine-region

[13] https://www.who.int/publications/m/item/who-target-product-profile-for-lassa-virus-vaccine

[14] https://doi.org/10.1016/j.vaccine.2016.01.001

What is needed to enable equitable access – i.e., key objectives

- **Key access outcome:** Lassa vaccine **licensure** as early as possible
- **Interim access outcomes:** Conditions for **Emergency Use Authorisation (EUA)** explored for access to high-risk groups during outbreaks and investigational ready reserves set up for use in clinical trials during outbreaks (or contexts defined by countries)
- **Acceptability:** Vaccines should meet WHO TPP characteristics at a minimum, and be stable at 2-8C with a single dose and ideally needing no reconstitution if feasible, to reach all populations

HOW do we get there – i.e., interventions (& tentative timelines*)	Known/ anticipated roles (F – Funding; L – Leading)
1. Access to **surveillance data** from countries & hotspot modelling to better inform clinical trial design and target high-risk populations and geographies (2026)	L: WAHO, NPHAs, MoH, Developers
Licensed vaccine doses	
2. **Pathways to accelerate licensure** timelines explored across the portfolio (2026-2027) – *ongoing*	F: CEPI; L: Developers & Country Regulators
3. Identify funding for late-stage clinical development via a **regionally embedded investment case** (2025-26) - *ongoing*	WAHO/ CEPI/ IAVI
★ 4. **Late-stage development** funded and kicked off (IAVI p2b prep by 2026)	F: TBD; L: Developers
Interim access	
5. **Investigational doses available** for use in clinical trials during outbreaks, including clinical trial protocols and clear roles across stakeholders (2027)	F: CEPI & WHO Arenavirus CORC; L: Developers + Country Regulators & MoH
Acceptability	
6. **Stability studies** conducted to explore thermostability improvements and enable storage at 2-8C; trade-offs for vaccine presentation explored (timeline TBD)	F: CEPI; L: Developers and Commercialisation partners
7. **Single-dose arm in trials** conducted to understand effectiveness and immunogenicity under single dose vs. two doses (2026)	F: CEPI; L: Relevant developers
★ 8. **Social behavioural research and community engagement** to assess and improve acceptability early *-various studies ongoing & planned*	F: TBD; L: WAHO & countries, Developers, Lassa research cites

★ Indicates pivotal activities within each section.

The blue-coloured boxes indicate activities that are currently funded or planned, subject to internal governance and programmatic reviews. *Timelines are indicative and dependent on resources and prioritisation across organisations.

B. Vaccine demand, manufacturing and supply so that vaccine supply meets expected demand

Background & Risks: Given both epidemic and endemic use, and seasonality of the disease in West Africa, demand for a LF vaccine is expected to be predictable, with majority of demand expected to come from Nigeria. A demand forecast exercise led by WAHO and informed by key technical experts is ongoing and expected to be published in early 2026 with initial estimates shown in Fig 2. The demand scenarios will need to be updated as funding, policy and supply assumptions become clearer. This is key to better understand expected pricing of Lassa fever vaccines, identify affordability risks and define which market shaping mechanisms are suitable, including any advanced purchasing commitments needed.

Demand materialisation for Lassa fever vaccines will depend heavily on the evidence around disease burden, trust, perception of disease risk, and community readiness to adopt new health interventions. Therefore, the interventions identified under other sections such as evidence generation and community engagement & communication strategies will be needed to co-create demand with local populations, health workers, and opinion leaders. Aligning quantitative demand forecasting with social engagement approaches can help ensure more accurate forecasts and supply planning.

From a supply perspective, a manufacturing strategy with a technology transfer in Africa is preferred, as Lassa is a regional vaccine ideally needing regionally accessible supply. As vaccines get more advanced a commercialisation strategy with identification of a Marketing Authorisation Holder will be critical. Both IAVI and University of Oxford are in stages of exploring these commercial partnerships and technology transfers; IAVI and IPD (Institut Pasteur de Dakar) have signed an agreement for a partnership focusing on the rVSV platform[15]. Stakeholders in Nigeria have indicated preference for local manufacturing in Nigeria in the future, but the feasibility and incentives needed for this to be sustainable need to be explored further.

[15] https://www.iavi.org/press-release/iavi-and-ipd-sign-agreement-formalizing-collaboration-to-advance-vaccine-development-manufacturing-and-access-in-africa/?

What is needed to enable equitable access – i.e., key objectives

- Lassa **demand** (unconstrained and constrained) to be clarified early based on regional inputs to inform supply needs
- Lassa vaccines preferably **manufactured regionally in Africa**
- **Marketing Authorization Holder** & commercialization readiness to be identified early

HOW do we get there – i.e., interventions	Known/ anticipated roles
Demand	
★ 1. Regionally led Lassa fever vaccine use case workshop and Demand Forecast conducted to understand **initial demand** (2026 - *ongoing*); periodic updates with constrained scenarios based on new assumptions (2027+)	F: CEPI; L: WAHO, IAVI Updated demand (TBD)
2. **Modelling exercises** to support demand and use cases (2025- *completed*[16]); periodic updates as needed	F: CEPI; L: U. Oxford and UCL; (Updates TBD)
Commercialisation	
★ 3. **Commercialisation strategy developed**, and marketing authorization holder **(MAH) identified for** Lassa vaccine (product dependent - *ongoing*)	F: CEPI +IAVI/VaxSen + other candidates TBD; L: Developers & Commercialisation Partners
Manufacturing	
4. **Technology transfer to African** manufacturer conducted (product dependent – ideally by 2030)	F: TBD; L: IAVI/IPD; Developers & Commercialisation partners for other candidates
★ 5. **Late-stage CMC, Manufacturing scale-up & capacity ready** to meet Lassa demand, including surge capacity to meet unanticipated demand outside of West Africa (product dependent – ideally by 2030)	F: TBD; L: Manufacturing partners
6. Lassa considered for addition to **AVMA priority list** (only if Lassa vaccine is VIS approved; timeline TBD)	F: Gavi; L: Manufacturing partners

[16] https://storymaps.arcgis.com/stories/a87af9084b3242bb837e8602396d07fd

C. Regulatory and Policy needs to enable timely access for target populations

Background & Risks: To support the regulatory pathway, CEPI is coordinating regulatory strengthening efforts in West Africa– e.g., the ECOWAS RegECs Project[17], a collaboration between regulators, ethics committees and the African Vaccine Regulatory Forum (AVAREF) - by exposing National Regulatory Authorities (NRAs) and Ethics Committees (ECs) to the assessment of LF vaccines, the project aims to prepare them for emergency use approval and streamline the regular registration process. Further clarity on the regulatory needs and conditions - especially for emergency or special access – are needed based on risk-benefit assessment by high-risk countries. Consultations have cited some mechanisms for rapid regulatory approvals once clinical data emerges, such as annual regulatory simulation exercises or "regulatory drills" and harmonised regulatory timelines across endemic countries.

In terms of policy recommendations for use of LF vaccines, this will be based on evidence available after licensure. In the meantime, there is a need to ensure that appropriate evidence is generated in a timely manner to support this decision-making. Experience from other regionally focused diseases such as Chikungunya shows that the absence of context-specific, policy-relevant research delays critical decision-making, even when vaccines are available for use. To enable evidence generation, CEPI and WAHO have conducted a Policy Research Agenda in 2025[18], that outlined 13 key research priorities across 4 categories – a) epidemiological questions, b) vaccine clinical trials, c) cost-effectiveness analysis and d) vaccine implementation & uptake. There is now a need to invest in evidence research across these prioritized pillars to avoid costly delays and ensure equitable rollout.

As outlined in other sections, regulatory and policy readiness must be accompanied by clear, transparent, and culturally appropriate communications to maintain public trust. Experience from previous epidemic responses in West Africa has shown that communities are more likely to accept new vaccines when regulatory decisions are communicated openly and when local experts and trusted figures participate in the dialogue. Cross-border disease dynamics also necessitate harmonised policies and coordinated deployment across ECOWAS countries.

[17] https://www.ecowasregecsproject.com/about
[18] https://www.wahooas.org/web-ooas/en/node/2610

What is needed to enable equitable access – i.e., key objectives

- WHO PQ, AMA and African NRAs able to provide timely approvals needed for licensed use (and emergency use if applicable)
- Sufficient evidence available to ensure that RITAGs, NITAGs, SAGE can make appropriate recommendations on Lassa use (including preventive use if evidence supports)

HOW do we get there – i.e., interventions	Expected Roles
Regulatory	
1. **Regulatory pathway** in at-risk countries clarified with Africa Regulatory support and registration support *-ongoing*	F: CEPI; L: Developers & National Regulatory Authorities (NRAs)
2. **Regulatory strengthening** efforts in West Africa to enable timely registration; measure progress via FRPath dashboard *- ongoing*	F: CEPI & EDCTP3; L: WHO, WAHO, PEI, NRAs, AVAREF, AMA
★ 3. **Country-level risk-benefit assessment** and conditions for early access in high-risk countries defined, e.g., via regional workshop/ regulatory simulations, etc (2026)	F: CEPI; L: WAHO, NRAs, MoH, Developers
Policy	
4. **Policy research agenda** agenda to understand key evidence generation priorities to support decision-making on policy - 2025 *(completed[15])*	F: CEPI; L: WAHO Technical Working Group
5. Harmonization of regional evidence generated and progress against the Policy Research Agenda, via an **online dashboard tracker** - 2026 *(ongoing)*	F: CEPI; L: WAHO
★ 6. **Evidence generated** based on the research agenda *(e.g., epi, cost-effectiveness, vaccine implementation, etc) – 2026-2029*	F: TDB; L: WAHO & Developers
7. Lassa added to **priority list for SAGE/RITAG/ NITAGs** and working groups assembled to monitor progress & priorities (2026+); regular policy briefs summarising available evidence provided	F: TBD; L: WHO AFRO/ RITAGs/ NITAGs/ SAGE
8. Rapid regulatory and policy mechanisms for Lassa outside West Africa	AFRO-AMA

D. Financing & Procurement to enable affordability for target populations & equitable allocation

Background & Risks: Once licensed, there are questions around who will ultimately procure and fund a Lassa fever vaccine, and whether it is affordable for countries who need it, as well as sustainable to develop for vaccine commercialization partners without donor funding. The increasing fiscal constraints have made it even more challenging to find a predictable funding pathway, and regionally driven funding solutions are needed.

Gavi has conducted an initial Living Assessment that supports the disease burden and need for a Lassa fever vaccine but emphasizes that further evidence is needed to assess suitability for Gavi funding. A decision on the nature of investment will also need to be made (i.e., outbreaks/ stockpiles only or including preventative use case) by end 2027-2028 for inclusion in the appropriate Vaccine Investment Strategy (VIS) longlist pathway. Based on current estimates, all Lassa endemic countries including Nigeria are expected to be eligible for Gavi support (if Lassa vaccine is VIS approved), but in varying stages of transition. With the increasing pressures on Gavi country vaccine budgets and uncertainties of the VIS pathway, exploring domestic and regional funding sources outside of Gavi is recommended to enable early purchasing signals for high-risk countries and de-risk manufacturing investments with advanced market commitments.

If Lassa vaccine is to be funded via national immunization budgets, country -level willingness to pay will need to be explored. The non-Gavi price estimates for vaccines in AFRO region[19] range between $0.11/ dose (BCG) to $22.8 (HPV2). COGS estimates for Lassa fever vaccines are currently being defined but given fiscal constraints, it is likely that donor-funding to subsidise costs will be important to help ensure broad uptake and ensure affordability. Public and Private financing mechanisms will therefore need to be explored with early signalling to ensure appropriate plans to ensure accessibility, affordability and sustainability can be made.

Stakeholders cite need for a regionally accessible Lassa fever vaccine stockpile, with transparent & equitable allocation rules, replenishment parameters and cross-border emergency dispatch mechanisms.

[19] Market Information for Access (MI4A) vaccine purchase database

What is needed to enable equitable access – i.e., key objectives

- **Funding for licensed Lassa fever vaccines identified,** including a mix of global, regional and domestic funding from public and private donors
- **Lassa vaccine affordability & sustainability strategies identified,** especially if not donor-subsidised, including early purchasing signals
- **Equitable** allocation mechanism identified for licensed stockpile

HOW do we get there – i.e., interventions

Known/ anticipated roles

Regulatory

1. **Continuously assess and articulate** priority for Lassa fever vaccine as a signal to potential funders and governments — WAHO & Countries

★ 2. **Generate needed evidence** to support decision-making needs (e.g., cost-effectiveness, health economic impact[20], etc) – 2026-2029 — F: Unknown/ To be identified; L: WAHO & Developers

2a. COGs and pricing analysis to ensure affordability incorporating **funder-level willingness to pay**; (2026-27) — F: Unknown/ To be identified; L: Developers & Commercialization partners/ Marketing Authorization Holders (MAH)

3. **Full Vaccine Value Assessment (FVVA)** or similar analysis to consolidate evidence and support financing decision-making (2030-2031) — F: Unknown/ To be identified; L: WHO IVB (TBD)

Vx Financing & Affordability

★ 4. **Funding** for licensed Lassa fever vaccine doses identified

5. **Suitable market shaping mechanisms** (e.g., advance contracting/ market commitments, pooled procurement, etc) identified & implemented to enable affordability (2028-2030) — Unknown/ To be identified (Global/ Regional or domestic funding)

Vx Procurement & Allocation

6. Mechanism for **allocation** of licensed stockpile developed (2029-2030) — Unknown/ To be identified

[20] https://www.nature.com/articles/s41591-024-03232-y

E. Sustainable implementation & capacity strengthening to enable uninterrupted reliable access to the vaccine

Ultimately, equitable access is contingent upon vaccines being acceptable in countries and expected demand to be materialised. There is extensive work ongoing in West Africa to understand vaccine hesitancy and this roadmap acknowledges the need to invest in community engagement and social behaviour change approaches for Lassa fever vaccines early, as well as the valuable role community health workers play in increasing demand and access. Such approaches will help ensure that communities are informed, engaged, and prepared to participate actively in the Lassa fever vaccine introduction process. Country-level stakeholders have emphasized need for continuous social listening, participatory planning and inclusion of civil society organizations, community-based groups, and local leaders, to identify and address social determinants of vaccine uptake early-such as trust, misinformation, gender dynamics, and local perception of risk. By institutionalizing communication and community systems, West Africa will not only ensure successful Lassa vaccine introduction but also enhance its broader epidemic preparedness architecture.

The extensive current investments in Lassa are not only in vaccine development but also on overall capacity strengthening efforts in West Africa (e.g., clinical, regulatory, manufacturing, access, etc) that support regional ownership, improve trust and make these investments more sustainable for the region. These investments should be leveraged to respond to other outbreaks and vaccine development efforts in the region to enable rapid equitable response if situations arise. For future vaccine trials, clinical trial capacity building in additional Lassa endemic countries is encouraged for country ownership and supporting rollout. Additionally, both Lassa vaccine platforms build on technologies already applied to other pathogens (**rVSV** for Ebola, Sudan and Marburg, and **ChAdOx** for Nipah, MERS, Covid and Rift Valley Fever). This has the potential to not only accelerate the pathway to licensure but also improve the commercial sustainability to develop and deliver Lassa fever vaccines.

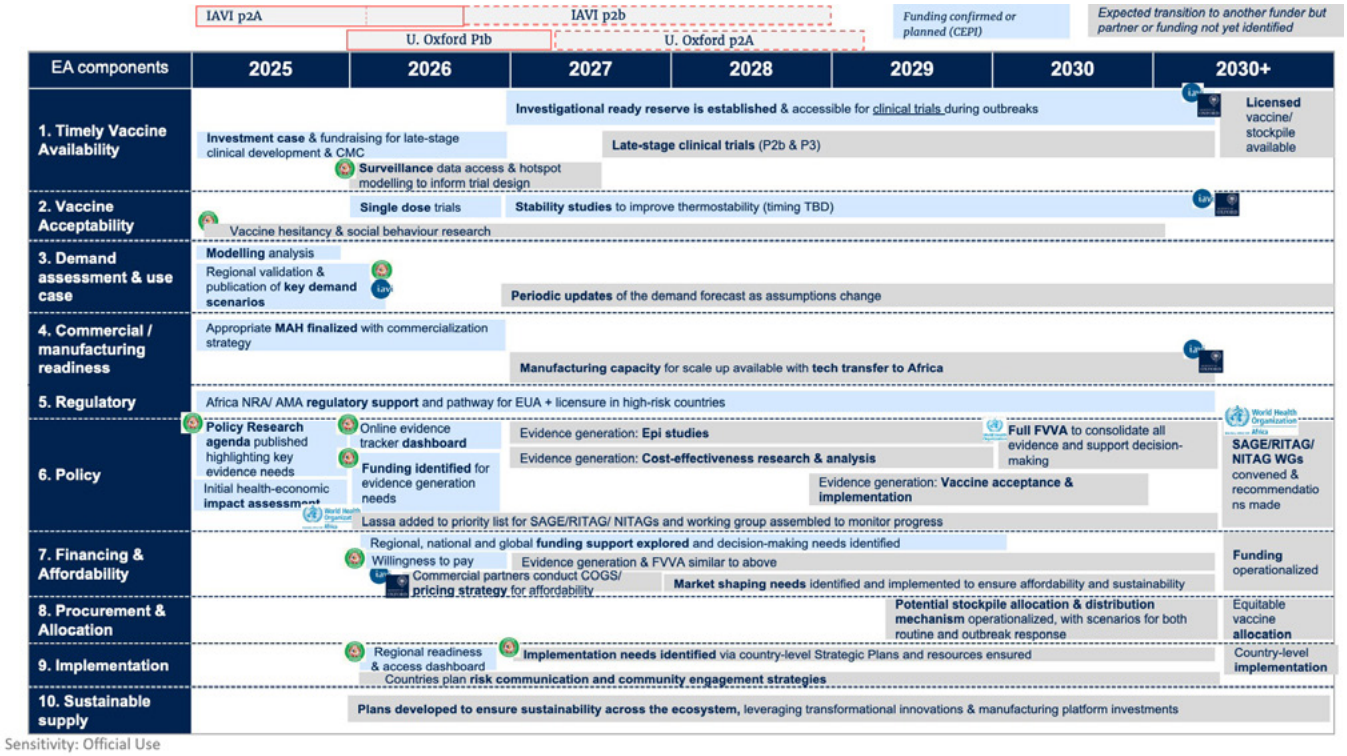
What is needed to enable equitable access – i.e., key objectives

- Lassa vaccine implemented as both **preventive** (routine campaigns) + **reactive** strategies (outbreak response)*
- Country-level Lassa **implementation plans developed** identifying needs and resourcing, including e.g., cold-chain, diagnostics, vaccine demand
- Lassa fever vaccines are sustainable across the ecosystem

*Pending evidence supporting

HOW do we get there – i.e., interventions	Expected roles
1. **Regional Lassa readiness and access dashboard** developed to monitor country-level readiness for LF vaccines via measurable metrics (2026+)	F: CEPI; L: WAHO & Countries
2. **Risk Communication and Community Engagement (RCCE) and Social Behaviour Change (SBC)** activities to engage communities early, improve vaccine trust and prepare for rollout (2026+)	F: Unknown/ To be identified; L: WAHO & Countries
★ 3. **Early detection and surveillance capabilities** established in West Africa & other countries, and to detect potential Lassa spread beyond West Africa (2026+)	F: Unknown/ To be identified; L: WAHO & Countries including beyond West Africa
4. Lassa endemic countries develop initial costed **Lassa implementation & resourcing plans**, including cold chain requirements, logistics, training of healthcare workers, community mobilization and pharmacovigilance (2027+)	F: Unknown/ To be identified; L: WAHO & Countries
★ 5. Plans developed to ensure **sustainability across the ecosystem while balancing low volumes and affordability** *(i.e., reliable supply for countries, affordable for vaccine purchasers & donors, and sustainable for vaccine manufacturers)*, leveraging manufacturing platform investments and other innovations	CEPI+ Funders + Developers + Manufacturers + Countries

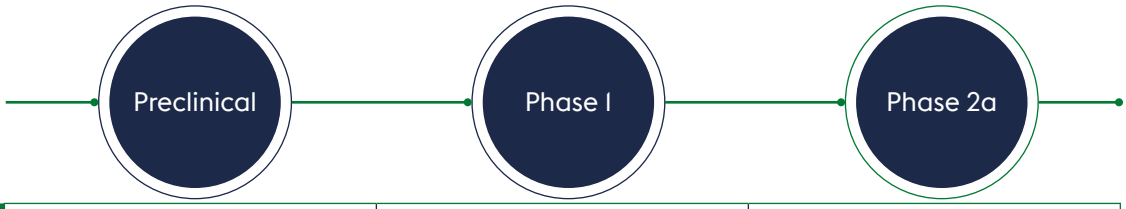
Figure 5: Lassa E2E Access roadmap – timelines are best estimates



Full Lassa E2E Access roadmap with tentative timelines – click here for full image

Annexes

A. Detailed Product Profiles for CEPI-funded vaccines



	SK Bio South Korea	**U. Oxford** United Kingdom	**IAVI** United States
Development phase	**Preclinical**	**Phase 1**	**Phase 2**
Platform	mRNA	ChAdOx1	rVSV
Antigen	Glyco-protein C (Josiah) + Nucleoprotein and Prototype Lassa Ag (DX)	Glyco-protein C (Josiah)	Glyco-protein C (Josiah)
Dose regimen	TBD	2 Doses (D1/D56)	1 Dose
Target indication	Preventative and active immunisation	Preventative and active immunisation	Preventative and active immunisation
Target population	TBD	Children, Adults, exclude pregnant women	Children, Adults, exclude pregnant women
Clinical trial sites	TBD	UK and Ghana (planned)	US, Liberia (Ph 1) Nigeria, Liberia, Ghana (Ph 2)
Storage and presentation (expected)	TBD	2 years at 2-8C Liquid product in mono-dose or multi-dose presentations	Ultra cold-chain (2 years at -70C); or 2 years at 2-8C with lyophlised formulation

B. Equitable Access Provisions in CEPI partnering agreements

CEPI embeds contractual equitable access obligations into each of its vaccine development funding agreements as an important lever to enable equitable access. Each CEPI-supported vaccine candidate is designed to address a specific problem, population or environment, so each funding agreement is tailored to these circumstances rather than taking a one-size-fits all approach. CEPI's approach to tailoring its interventions to address the different equitable access challenges posed by each pathogen is explained in CEPI's Equitable Access Pathogen Archetypes Framework.

Some of the basic elements which feature in a vaccine development funding agreement (but not specific to Lassa vaccine candidates) include:

- Access to data
- Stockpile commitments
- Affordable and sustainable pricing
- Preparedness and response obligations such as manufacturing scale up and tech transfers
- Continuity rights

Specific product-related provisions are not able to be included due to confidentiality but additional details and examples of previous agreements are included in the summary for vaccines in the core portfolio.

C. Insights from Use Case Workshop (2024)

A use case workshop, co-sponsored by CEPI and the Economic Community of West African States Centers for Disease Control (ECOWAS CDC) was conducted in Ghana in 2024 with stakeholders involved in Lassa vaccine development and implementation. Participants represented national health organisations such as WAHO, Ministry of Health Sierra Leone and Guinea, Ghana's National Vaccine Institute, ALIMA (Alliance for International Medical Action) Senegal, NAFDAC (Nigeria National Regulatory Agency) and NPHCDA (National Primary Healthcare Development Agency, Nigeria); regional organisations such as WHO AFRO RITAG, UNICEF Ghana, WHO AFRO, PATH Ghana; global organisations such as WHO VHF and FIND; infectious disease experts from London School of Hygiene and Tropical Medicine, University of Liberia, Virology Laboratory, University of Lagos Nigeria, Irrua Specialist Teaching Hospital, Université Gamal Abdel Nasser de Conakry Guinea and other independent experts.

The workshop was set up to define potential implementation strategies and use cases for a Lassa vaccine and to evaluate product profile refinements and other needs to successfully implement Lassa fever vaccines in endemic countries.

Sub-national, targeted routine immunisation in endemic countries emerged as the most likely strategy by a large margin. This was followed by universal immunisation (i.e., vaccination of all people regardless of age or risk group) in outbreak areas, followed by national, targeted routine immunisation in endemic countries. The targeted immunisation near endemic areas, including ports of entry with an endemic area and near animal reservoirs, was ranked lowest.

Leveraging those inputs and the discussion, four possible implementation strategies were defined as shown in Fig 5. A consensus emerged on the need to better define an endemic area/community to guide future implementation. Defining whether adolescents, adults and/or children will be targeted will benefit from additional information on the disease epidemiology and duration of vaccine protection. Whether the vaccine is given periodically and/or before peak seasonality will also depend on the duration of vaccine protection.

Figure 6: Lassa Use Case workshop – potential implementation strategies

IS #	1	2	3	4
WHAT	Injectable vaccine preventing LF disease			
WHY	Prevent disease and sequalae			
WHERE	Entire endemic country	Endemic sub-national area/community	Adjacent to endemic area (ports of entry with endemic area/near animal reservoirs)	Within a defined distance of outbreak
WITHIN	Rural areas, hard to reach with lower level of health services; socio-economic barriers			
TO WHOM	Targeted: • Health and frontline workers • Pregnant women • Adolescents OR adults OR children		Targeted: • Health workers • Pregnant women • Travellers to/from endemic areas	• All people over a defined age
WHEN/ delivery strategy	Ongoing with routine immunization Periodically, possibly timed with seasonality, by campaign		Ongoing with routine immunization	At time of outbreak by campaign
By WHO	Ministry of Health (EPI with other services and ministries)			
Notes:	Stockpile required for use in outbreaks			

Participants were invited to revisit the working assumptions of the vaccine profile and discuss any misalignments between the assumed profile and use cases. The discussion revealed the need to consider:

- the planned age indications being extended to capture persons from 9 months of age and beyond 65 years and to include pregnant women and women willing to get pregnant;
- that the described thermostability profile will not support several anticipated community outreach use cases and should be "normalized" with other EPI vaccine as much as possible;
- the vaccine should be available in presentations of more than ten doses to facilitate use in outbreak settings;
- the ability to co-administer with other vaccines, especially for adolescents and children and epidemic diseases in the region will be critical specifically MR, yellow fever, malaria and HPV;
- that more information on the duration of protection would aid in planning the priority populations and delivery strategy.
- The idea of a combination vaccine against Lassa and other unspecified diseases to avoid multiple injections was mentioned.

D. Policy Research Agenda (2025)

As promising vaccine candidates approach availability from 2030, the global health community faces a narrow window of opportunity: without robust, context-specific research to inform policy, vaccine deployment may be delayed or less effective. A research agenda, funded by CEPI and chaired by WAHO, aims to guide and mobilise efforts toward generating timely, relevant, and actionable evidence to support Lassa fever vaccine policy- and decision-making on introducing and implementing vaccination. Developed through a rigorous, inclusive process using the Child Health and Nutrition Research Initiative (CHNRI) methodology, it identifies 13 priority research questions across four key domains:

1. Vaccine uptake and acceptance
2. Epidemiological understanding
3. Vaccine clinical parameters
4. Economic impact

The research questions prioritised within each area are shown below:

Figure 7: Prioritised Research Questions of the Policy Research Agenda

Vaccine uptake and Community Engagement

- What are the most effective communication strategies to improve vaccine acceptance and demand?
- Does the community recognise Lassa fever and its sequelae?
- What is the age-specific acceptability of vaccination to prevent Lassa fever?

Improving Epidemiological Understanding

- What are the appropriate factors to identify target groups for vaccination?
- Are there specific co-morbidities that increase the risk of severe diseases, sequelae, and death?
- What, if any, are the risk factors for re-infection of Lassa fever?

Economic and Impact Modelling

- What is the economic impact of Lassa fever and its control strategies in the high-burden countries?
- What is the impact and cost-effectiveness of reactive and preventative vaccination strategies
- What are the health and economic benefits of implementing Lassa fever vaccines in comparison to other preventative and therapeutic interventions?
- What is the balance of risks and benefits of vaccination in different target populations?

Vaccine Clinical Parameters

- What is the efficacy of the vaccine in immunocompromised or malnourished individuals?
- Can the vaccine of co-administered with other vaccines used in routine childhood immunisation or as part of a multi-antigen preventative campaigns?
- What is the age-specific efficacy of the vaccine?

This research agenda was developed by a dedicated Policy Research Working Group (PRWG),convened by WAHO as part of the Lassa vaccine coalition with support from CEPI, and MMGH Consulting. The PRWG included representatives from government agencies, regional health institutions, academia, and immunisation partners, ensuring regional leadership and relevance throughout the process. The detailed methodology and additional information can be found here.

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