

West African Research & Development Ecosystem Scorecards



Expert Perceptions on Vaccines in Nigeria



R&D expenditure (% of GDP): 0.28%¹ | University-Industry R&D Collaboration (GII Rank): 38th²
Public research-industry co-publications (GII Rank): 31st² | FDI Net Inflows (% of GDP) (GII Rank): 10th²

¹World Bank data, accessed on 3 November 2025. <https://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS?locations=NG> / ²WIPO Global Innovation Index 2025: accessed on 28 November 2025. <https://www.wipo.int/gii-ranking/en/nigeria>

 Nigerian experts consider that national health policy –to some extent– prioritises and promotes vaccine research and development (R&D) and manufacturing. Government bodies coordinate a common R&D agenda, and diverse stakeholders can participate in vaccine policy processes, moderately well. The government to some extent adopts financial instruments that support vaccine use in the country, and input procurement and import policies moderately well support vaccine R&D. Moreover, intellectual property law protects domestic vaccine R&D, licensing, collaboration and technology transfer to some extent. The government delivers on a public investment agenda for vaccine R&D to a small extent; however, incentives inadequately leverage private sector investment and transparent budget processes are only slightly developed. Moreover, policies poorly support R&D to rapidly respond to emerging infectious threats.

 Nevertheless, research institutions are moderately able to employ well-trained staff for vaccine R&D. Supported by ICT infrastructure viewed as moderately adequate, research institutions are moderately ready to run their own clinical trials. Yet, physical infrastructure for pre-clinical and clinical vaccine research, such as laboratory facilities (including high-containment laboratories, e.g., BSL-3 or BSL-4, cold chain capacity), is inadequate. Collaborative hubs with shared specialised infrastructural equipment to benefit multiple vaccine R&D institutions are poorly developed. Research institutions are also only slightly able to maintain physical infrastructure independently. Furthermore, in-country capacity for vaccine manufacturing, including the ability to meet international Good Manufacturing Practice (GMP) standards is inadequate and poorly suited to scale up production rapidly in response to infectious disease outbreaks.

 As these emerge, research institutions are only slightly responsive, adjusting their R&D priorities to emerging vaccine needs to a small extent. Quality standards for key aspects of the R&D lifecycle (e.g., trial design, data collection, manufacturing) are moderately well-developed. While national platforms moderately well enable knowledge sharing and information flows between various actors, experts note that overall, processes for coordinating across institutions involved in vaccine R&D (e.g., universities, regulators, ministries) are poorly developed. Civil society and community actors inform R&D agendas to a small extent and are moderately well-recognised as legitimate stakeholders in planning and implementation. Moderately well-developed capacity-building efforts at regional/national level seek to strengthen the R&D human resource base but are held back by poorly developed university curricula.

 While experts consider that the private sector is very important in promoting vaccine R&D in Nigeria, formal mechanisms to enable collaboration between public and private sector actors are poorly developed, and moderately strong barriers to interaction between stakeholders remain. R&D actors are to some extent able to engage in global networks or knowledge platforms; they are moderately well encouraged by political leadership to act strategically, and researchers disseminate vaccine research findings moderately well. However, such networks remain dependent on continued external support and are poorly able to sustain themselves.

 Vaccine research culture is characterised by moderately well-developed systems of interdisciplinary collaboration and research leadership. While researchers adhere well to ethical standards, they are poorly incentivised to deliver world class research.

KEY

● = 0% - 20% | ● = 21% - 40% | ● = 41% - 60% | ● = 61% - 80% | ● = 81% - 100%

POLICIES AND REGULATIONS

Indicator	Score		Rank
 Vaccines a priority in national health R&D policies including manufacturing	49.77%	●	2
 Intra-Government coordination to jointly advance the vaccine R&D agenda	46.14%	●	3
 Deliver on a public investment agenda for vaccine R&D	43.64%	●	2
 Use of financial instruments to support vaccine use	44.77%	●	2
 Supportive national procurement and import policies for vaccine R&D and manufacturing sector	46.14%	●	2
 (Diverse) Stakeholders are able to participate in vaccine policymaking processes	52.27%	●	2
 Accountable and transparent budget allocation, release and spending processes to support vaccine R&D	29.77%	●	3
 Progress towards development of a national vaccine R&D strategy or policy	50.45%	●	2
 Incentives or matching grants by government or international donors to leverage private sector investment in vaccine R&D	33.86%	●	3
 Vaccine R&D protected by enforceable intellectual property laws and regulations (IP)	50.68%	●	2
 IP laws and regulations support collaboration, licensing, and technology transfer—especially with local or regional manufacturers	47.50%	●	2
 National health or vaccine policies/strategies allow for rapid mobilisation of vaccine R&D in response to emerging infectious threats	40.00%	●	3

INFRASTRUCTURE

Indicator	Score		Rank
 Physical infrastructure for pre-clinical and clinical vaccine research	29.32%	●	3
 Collaborative hubs with shared specialised infrastructural equipment to benefit multiple vaccine R&D institutions	31.82%	●	3
 Research institutions and universities able to independently maintain physical infrastructure for vaccine R&D	38.18%	●	3
 Research institutions and universities able to employ well-trained staff to maintain physical infrastructure for vaccine R&D	45.91%	●	3
 ICT infrastructure for vaccine R&D	41.14%	●	3
 In-country capacity for vaccine manufacturing, including ability to meet international Good Manufacturing Practice (GMP) standards	29.55%	●	3
 Manufacturing infrastructure suited to scale up production rapidly in response to outbreaks	24.77%	●	3
 Readiness to set up and run clinical trials through local research institutions	46.36%	●	3

PROCESSES AND MANAGEMENT

Indicator	Score		Rank
 (Diverse) local stakeholder voices inform vaccine R&D agendas	33.41%		3
 Community and civil society actors recognised as legitimate stakeholders in vaccine R&D planning and implementation	40.23%		3
 National platforms enable knowledge-sharing, discussing and debating issues in vaccine R&D among diverse stakeholders	52.27%		2
 Established SOPs and quality standards for key aspects of the vaccine R&D lifecycle	49.77%		3
 Established processes for coordinating across institutions involved in vaccine R&D to enable synergy, facilitate information flow and avoid duplication	37.73%		3
 Regional/national capacity-building strategies or initiatives to strengthen the human resource base for vaccine R&D	42.50%		2
 University curricula to train the next generation of vaccine R&D researchers, scientists and technicians	25.68%		3
 Vaccine R&D priorities updated in a coordinated manner in response to emerging evidence or needs	36.14%		3
 Research institutions/universities responsive/agile to emerging vaccine need, global health emergencies, unexpected challenges or opportunities	32.50%		3

STAKEHOLDERS AND NETWORKS

Indicator	Score		Rank
 Barriers to interaction and communication among stakeholders within the vaccine R&D ecosystem	50.23%		2
 National political leadership motivates strategic action by vaccine R&D networks	51.82%		2
 National vaccine R&D actors able to engage in global networks, alliances, or knowledge platforms	56.82%		2
 Formal mechanisms or frameworks enabling collaboration between public institutions and private-sector actors in vaccine R&D	39.77%		3
 Importance of the private sector in promoting vaccine R&D	82.95%		1
 Vaccine research findings disseminated by researchers to relevant stakeholders	46.59%		2
 Networks or platforms on vaccine R&D able to sustain themselves, without external support	28.41%		3

RESEARCH CULTURE

Indicator	Score		Rank
 Vaccine researchers incentivised to deliver world class research	28.86%		3
 Leadership in research institutions/university champions vaccine R&D	43.64%		3
 Vaccine R&D actors comply with ethical principles and regional guidelines on R&D and manufacturing	70.45%		2
 Vaccine R&D systems promote interdisciplinary collaboration among researchers	49.77%		3

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