



# STRATEGIC PLAN 2023-2027



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# Foreword



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Africa stands at a critical juncture, where the lessons learned from the COVID-19 pandemic as well as Ebola and Monkeypox outbreaks underlined the need for increased self-reliance in our continent's health systems. There is a shared recognition that Africa can and must do more to safeguard its health security.

Established in January 2017 as the specialised technical agency of the African Union, the Africa Centres for Disease Control and Prevention (Africa CDC) has been entrusted with the primary mandate of safeguarding Africa's health security. Despite facing resource constraints and a limited workforce, Africa CDC has demonstrated the power of regional coordination in responding to public health emergencies. Consequently, Africa CDC was elevated to an autonomous health agency of the Africa Union during the 26<sup>th</sup> Ordinary Assembly of Heads of State and Government in February 2022, granting it the agility and empowerment to effectively respond to Member States' needs.

Africa CDC has been championing the New Public Health Order calling for a fundamental shift towards an equitable and just public health landscape and ensuring the presence of strong and resilient health systems prior to, during, and after a crisis. The vision is for Africa to take control of its health security through strong local leadership, innovation, and investment in public health infrastructure and systems.

As Africa transitions from the acute phase to the recovery phase of the COVID-19 pandemic, it is crucial to recognise the ongoing health threats and increasing occurrence of climate-change related emergencies faced by the continent. To address these challenges, multi-sectoral response mechanisms need to be established, ensuring adaptability, interoperability between Member States, and a One Health approach. This requires innovative approaches in health financing, digitalisation, science and technology, and stronger partnerships with a vision of fostering Africa's reliance on local resources and homegrown solutions.

Looking ahead, Africa's population is projected to nearly double to 2.5 billion by 2050, accounting for more than 60% of global population growth. The working age population (15-64) is expected to triple, posing both challenges and opportunities. We must ensure that African Member States can provide adequate health care and have agile systems in place to safeguard the health security of this growing younger population. Simultaneously, it also presents an opportunity promising a demographic dividend for economic growth and development.

The strategic plan (2023-2027) builds upon the lessons learned and insights gained from implementing the first strategic plan (2017-2021), including organisational assessment and practical lessons derived from successful regional health initiatives on the continent. It reflects a health agenda for Africa anchored on our bold vision of a safe, healthy, and prosperous Africa; supported by a world-class, self-sustaining, and agile Africa CDC, and most importantly driven by empowered African Member States as change drivers.

I invite all our national, regional, and global partners to join us as we work towards realising this strategic vision and building the Africa we want..

**I thank you.**

## Acronyms and Abbreviations

AFCAD	Africa Collaborative Initiative to Advance Diagnostics
AfCFTA	African Continental Free Trade Area
AfEF	Africa Epidemic Fund
Africa CDC	Africa Centres for Disease Control and Prevention
AMA	African Medicines Agency
AMR	Antimicrobial resistance
AU	African Union
AUC	African Union Commission
AUDA-NEPAD	African Union Development Agency – New Partnership for Africa's Development
AVoHC	African Volunteers Health Corps
CHW	Community health worker
CoEs	Centres of excellence
COVID-19	Coronavirus disease 2019
EVD	Ebola virus disease
EBS	Event-based surveillance
HAMAP	Harmonised Africa Health Manufacturing and Market Platform
HIV/AIDS	Human immunodeficiency virus/acquired immunodeficiency syndrome
IBS	Indicator-based surveillance
IHR	International Health Regulations
IP	Intellectual property
IPC	Infection prevention and control
NCD	Non-communicable diseases
NPHI	National public health institute
NTD	Neglected tropical diseases
PAVM	Partnership for African Vaccine Manufacturing
Africa PGI	Africa Pathogen Genomics Initiative
PHEOC	Public health emergency operation centre
RCC	Regional Coordination Centre
RISLNET	Regional Integrated Surveillance and Laboratory Network
SLL	Saving Lives and Livelihoods
TB	Tuberculosis
UN	United Nations
WHO	World Health Organization



**Life expectancy in Africa increased from 46 to 56 between 2000 and 2019.**

**Under-5 mortality rate in Africa has remained at 74 deaths per 1,000 live births since 2020.**



## Chapter 1:

# Background and context

### 1.1. Current and future disease outlook in Africa

As of 2021, the total population of Africa is estimated to be close to 1.37 billion people.<sup>1</sup> The African continent has the highest fertility rate in the world, and its population growth is projected to almost double to reach 2.5 billion by 2050, accounting for more than 60% of the projected global population growth over the same period.<sup>2</sup> The expansion of health system infrastructure and services will be more and more critical to cater to the needs of Africa's population in the future. Moreover, 40% of Africa's population is under 15 years of age, while the population of those above 65 years has grown from 3% in 2006 to 4% in 2017.<sup>3</sup> Although it is currently relatively small in comparison to other continents, Africa will have to deal with the long-term physical and mental disabilities and chronic conditions of an aging population that will require greater personal care.

Africa still has the lowest life expectancy and the highest mortality rates for women, children and newborns compared to all other regions in the world. Life expectancy in Africa increased from 46 to 56 between 2000 and 2019 but is still below the global average of 64.<sup>4</sup> It is estimated that in sub-Saharan Africa, 390 women will die in childbirth for every 100,000 live births by 2030, over five times the Sustainable Development Goals target of less than 70 per 100,000). The infant mortality rate is projected to be 54 deaths per 1,000 live births by 2030 (over double the Sustainable Development Goals target of fewer than 25 per 1000).<sup>5</sup>

In addition, Africa is undergoing an epidemiological transition characterised by a shift from disease-burden profiles dominated by communicable diseases to profiles featuring an increasing predominance of non-communicable diseases (NCDs). Adult, child and infant deaths caused by communicable diseases, especially HIV/AIDS, tuberculosis (TB), malaria, diarrheal diseases and vaccine-preventable infectious diseases, have been declining because of the extensive curative and preventative measures

1 World Bank Data. Last accessed 1 October 2021.

2 Population Reference Bureau. African Overview. Africa – Population Reference Bureau (prb.org). Last accessed 17 August 2021.

3 Second Session of the Specialised Technical Committee on Health, Population and Drug Control, Addis Ababa, Ethiopia 20-24 March 2017, state of Africa's population 2017.

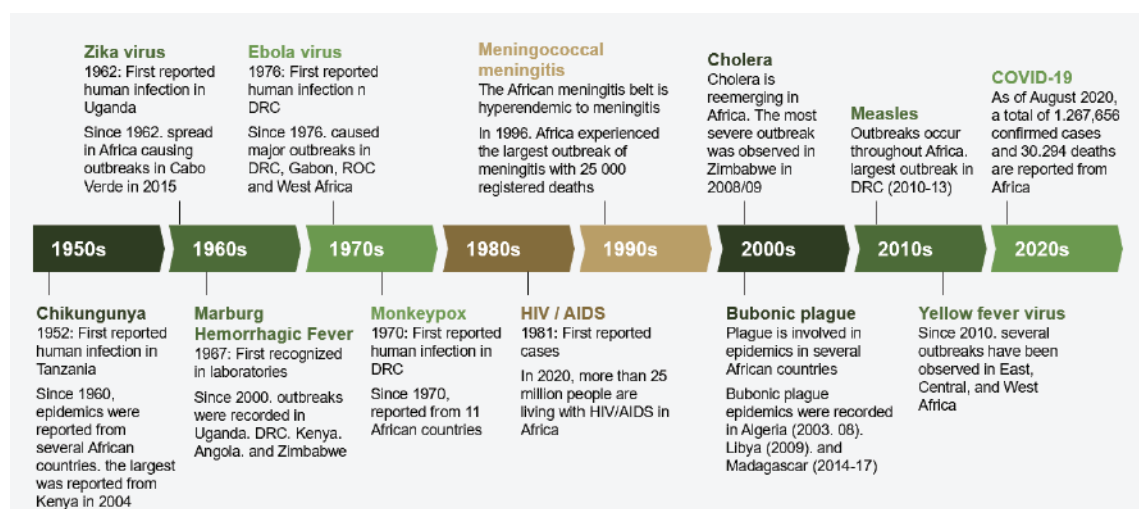
4 World Health Organization (WHO) African Region. Tracking Universal Health Coverage in the WHO African Region, 2022.

5 Atlas of African Health Statistics, WHO Africa Region, 2022.

employed by Member States.<sup>6</sup> Nevertheless, infectious diseases still have a severe impact on the continent, accounting for over 239 million healthy years of life lost every year and producing an annual productivity loss of over US \$800 billion. At the same time, mortality, and morbidity due to NCDs, injuries and mental health conditions have risen sharply over the last decade, making up over 40% of the total disease burden in 2021.<sup>7</sup>

Infectious diseases are emerging and re-emerging at higher rates. This is due to several interrelated factors, including population growth, poverty, climate change, increasing cross-border movements and weak health systems. The exhibit below highlights some of the emerging and re-emerging diseases in Africa from 1950 to 2020.<sup>8</sup>

*Exhibit 1: Major emerging and re-emerging diseases in Africa, 1950 to 2020<sup>9</sup>*



The adverse effects of COVID-19, the disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), have reversed hard-won gains in poverty reduction in Africa. According to the African Development Bank (AfDB) African Economic Outlook 2021, about 30 million Africans were pushed into extreme poverty in 2020 because of the pandemic and it is estimated that about 39 million Africans could have fallen into extreme poverty in 2021.<sup>10</sup> The economic impact will limit the investments of African countries in health, nutrition, and education services. Indirectly, the impact of COVID-19 has disrupted the routines of essential health systems, such as malaria prevention and treatment, childhood vaccinations and maternal and child health services, resulting in a secondary health crisis.<sup>11</sup>

COVID-19 is not the only serious infectious challenge the continent has faced recently. In Africa, more than 100 disease outbreaks and other health events are reported annually.<sup>12</sup> In 2022, this included outbreaks of Sudan ebola virus disease, EVD, and mpox.

Looking forward, with the recent agreements for the establishment of the African Continental Free Trade Area (AfCFTA) and the Protocol on Free Movement of Persons and the launch of the Single African Air Transport Market, the movement of people across geographic areas and borders is

6 John N. Nkengasong and Sofonias K. Tessema, 2020, Africa Needs a New Public Health Order to Tackle Infectious Disease Threats, Cell Press, volume 183, Issue 2, p. 296-300.

7 Africa CDC Non-Communicable Diseases, Injuries Prevention and Control and Mental Health Promotion Strategy (2022-26).

8 John N. Nkengasong and Sofonias K. Tessema, 2020, Africa Needs a New Public Health Order to Tackle Infectious Disease Threats, Cell Press, volume 183, Issue 2.

9 John N. Nkengasong and Sofonias K. Tessema, 2020, Africa Needs a New Public Health Order to Tackle Infectious Disease Threats, Cell Press volume 183, Issue 2.

10 AfDB. African Economic Outlook 2021.

11 Ibid.

12 Mboussou F, Ndumbi P, Ngom R, Kamassali Z, Ogundiran O, Van Beek J, et al. Infectious disease outbreaks in the African region: overview of events reported to the WHO in 2018. *Epidemiol Infect.* 11 November 2019; 147: e299.



expected to increase significantly in the coming years. Moreover, increasing trends of urbanisation, economic integration, environmental degradation, climate change, natural disasters, and conflict will continue to contribute to the increasing movement of people,<sup>13</sup> creating even more risks of future outbreaks and public health events.

Furthermore, the spread of novel human pathogens originating from animal reservoirs has increased in the past decade. The majority of emerging infectious diseases are caused by zoonotic pathogens.<sup>14</sup> Recent outbreaks of EVD and the COVID-19 pandemic demonstrate that animal-sourced viruses are a considerable threat to public health.<sup>15</sup> Dealing with these challenges in an integrated multi-sectoral system, linked with the animal (agriculture and wildlife), environmental, public health and other relevant sectors through the One Health approach, is required to effectively detect, prevent and respond to emerging and endemic zoonotic diseases and related health threats.

## 1.2. The state of public health systems and institutions in Africa

The social, economic, environmental, and health-related trends call for coordinated and robust public health systems at the national, regional and continental levels.

Although notable progress has been made over the past decades – including during the COVID-19 pandemic – to build and strengthen Africa’s public health systems, significant gaps remain across Member States in preventing and controlling diseases, promoting health and detecting and responding quickly and effectively to disease threats.

**NPHIs** play a vital role in public health as they own and operate the core public health functions (including surveillance, emergency preparedness and response, laboratory diagnosis and systems, public health research, public health workforce development and health information systems) of Member States and provide a coordination mechanism for collaborative public health projects and programmes. Currently, there are only a few fully established, operationalised and functioning NPHIs in Africa, which hinders the strengthening of public health systems and compromises the effectiveness of crucial public health activities, particularly during outbreaks. As of June 2023, only 19 Member States have established NPHIs while another 21 are in the process of establishing one. The greatest gaps in NPHI establishment are found in Central and West Africa. The 19 established NPHIs have distinct levels of autonomy depending on the status of their legal structure. Only nine of them have publicly accessible strategic plans that clarify priorities and resource needs, and most have limited sources of sustainable and predictable funding to perform core functions.<sup>16</sup>

**Surveillance and early warning** systems are vital for detecting and monitoring disease outbreaks and facilitating timely responses. Many Member States still rely on indicator-based surveillance (IBS) systems, with limited implementation of EBS or advanced surveillance processes, such as epidemic intelligence from open source (EIOS) predictive analytics and deployment of artificial intelligence in early warning, alert and response. The absence of harmonised health information exchange guidelines and standards across Member States has also impeded information sharing on the continent. Limited integration of human, animal and environmental health data into surveillance data and infrequent sharing of surveillance data between Member States significantly restrict accurate risk mapping and preparedness efforts.

**Emergency preparedness and response** systems are critical for effective and timely management of public health emergencies, as they minimise the subsequent social, economic and security impacts. Public health emergencies attributable to emerging and re-emerging infectious diseases have increased nearly fourfold over the past 60 years. In Africa, more than 100 disease outbreaks and other health events are reported in the continent annually. Public health emergencies, such as the COVID-19 pandemic and the EVD outbreak in West Africa from 2014 to 2016, revealed gaps in Member States’ abilities to prepare for and respond to public health emergencies.

13 United Nations (UN) Conference on Trade and Development. Economic Development in Africa, 2018 Report.

14 Judson SD, Rabinowitz PM. Zoonoses and global epidemics. *Curr Opin Infect Dis.* 2021 Oct 1;34(5):385-392. doi: 10.1097/QCO.0000000000000749. PMID: 34310453.

15 Ranking the risk of animal-to-human spill over for newly discovered viruses, *Proceedings of the National Academy of Science of USA.* 13 April 2021.

16 National Public Health Institutes (NPHIs) Development in Africa, Assessment Report.

**Laboratory systems and networks** have significant gaps that contribute to the underdiagnosis of priority diseases and hamper effective disease surveillance and outbreak response. Less than 5% of African laboratories have fully developed and sustainable capacity for diagnosing their country's priority diseases, transporting specimens and adhering to international standards or best practice regulatory requirements.<sup>17</sup> Compared to other regions, laboratory systems in Africa also lag behind in biosafety, biosecurity, genomic capabilities and the supply chain of consumables. Efforts to improve laboratory capacity in response to the COVID-19 pandemic have led to the overall strengthening of laboratory systems in Africa, including upgraded infrastructure, improved testing capabilities, expanded diagnostic services and enhanced genomic capabilities.

**Regional health product manufacturing** is still in its nascent phase. Africa is still heavily reliant on imports for most health products. As of 2019, Africa consumed about 25% of the world's vaccines and represented around 17% of the world's population but produced less than 1% of total continental demand. African manufacturing of therapeutics covers only 30-40% of total continental demand, compared to 60-80% for advanced and other emerging economies. There are efforts underway to grow regional manufacturing, but these require several challenges to be addressed. Challenges include limited technology and manufacturing capacity, cross-border trade barriers, limited integration across the manufacturing value chain and cost competitiveness for African manufacturers. Political interest and investment have accelerated in the past two years, driven by the COVID-19 pandemic and calls to expand vaccine, diagnostics, and therapeutics manufacturing. Efforts to scale up regional manufacturing, particularly for vaccines, have made notable progress through PAVM, including the signing of a Memorandum of Understanding between the African Union Commission and Gavi to increase access and accelerate the uptake of life-saving vaccines across African Union Member States towards supporting immunisation, providing technical and learning assistance and health systems strengthening.

**Africa's public health landscape faces challenges and opportunities.** The continent's growing population, shifting disease profiles, economic and health systems disruptions caused by COVID-19 and new and ongoing threats of outbreaks call for strong surveillance, emergency preparedness and response, laboratory and other public health functions in all Member States, led by high-functioning NPHIs. In addition, Africa's health product manufacturing sector offers potential for growth and innovation. With targeted investment, coordinated efforts and resilient health systems, Africa can pave the way for a healthier and more prosperous future.

## 1.3. About Africa CDC

### 1.3.1. Establishing Africa CDC

The journey to establish Africa CDC began prior to its official launch in 2017. The ongoing and expected health challenges in the continent at the time underscored the need to collaboratively develop health programmes that are based on accurate information and evidence-based solutions adapted to the local context. Considering these challenges, during the AU Special Summit on HIV/AIDS, TB and malaria in Abuja in July 2013, the Assembly of Heads of State and Government recognised the urgent need to put in place a structure to support African countries in their efforts to effectively respond to endemic diseases, address complex health challenges and conduct life-saving research.<sup>18</sup>

The 2014 to 2015 EVD outbreak in West Africa accelerated the commitments that led to the establishment of a continental public health agency,<sup>19</sup> as it exposed the weakness of health systems in affected countries and the potential economic and social costs of outbreaks in the future and weaknesses in continental coordination of effective responses. It also indicated that African countries require a regional and continental approach to effectively preventing and controlling contemporary public health events, especially outbreaks of animal-sourced infectious diseases like EVD. Additionally, the response of the private sector in addition to public-sector and philanthropic efforts further illustrated the impact of a multi-sectoral approach. The AU Assembly of Heads of State and Government adopted the Statute of Africa CDC in January 2016, and the institution was

<sup>17</sup> Preparing national tiered laboratory systems and networks to advance diagnostics in Africa and meet the continent's health agenda: Insights into priority areas for improvement. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7565058/>.

<sup>18</sup> AU Special Summit on HIV and Aids, Tuberculosis and Malaria, July 2013, Abuja Nigeria.

<sup>19</sup> Executive Council 16th Extra Ordinary Session, 8 September 2014, Addis Ababa, Ethiopia.

formally launched on 31 January 2017<sup>20</sup> with the mandate of strengthening the capacity of public health institutions to detect, prevent, control and respond quickly and effectively to disease threats.

### *Legal and policy perspective*

Africa CDC follows the guidance of policy-making organs of the AU, which adopt and endorse various legal and regulatory frameworks through the Permanent Representatives Committee, Executive Council, and Assembly.

### *Continental and international frameworks*

The AU Heads of State and Government have adopted various global and continental frameworks to elevate health as a development priority for the continent. Among such frameworks are the Sustainable Development Goal - adoption of declaration on accelerated implementation of [International Health Regulations \(IHR\) 2005](#), Agenda 2063: The Africa We Want, Africa Health Strategy 2016-2030 and Catalytic Framework to End AIDS, TB and Eliminate Malaria in Africa by 2030 which are all relevant to Africa CDC's mandate. Africa CDC's activities will be aligned with the programmes and activities under each of these frameworks and specific strategic activities for Africa CDC may evolve over time as these frameworks and accord come into being during the time horizon of the strategic plan.

- **Agenda 2063: The Africa We Want.** One of the goals of Agenda 2063 is that citizens are 'healthy, well and nourished and have long life spans'. It plans for an Africa in which all neglected tropical diseases (NTDs) are eliminated and communicable and infectious disease are brought under control.<sup>21</sup>
- **Africa Health Strategy 2016-2030.** Provides strategic direction on the creation of better performing health sectors, recognises existing continental commitments, and addresses key challenges to reducing Africa's burden of disease.<sup>22</sup>
- **Catalytic Framework to End AIDS, TB and Eliminate Malaria by 2030.** Aims to eliminate AIDS, TB and malaria in Africa by 2030 and sets out to intensify the implementation of the commitments made through the Abuja declaration.<sup>23</sup>

20 26th Ordinary Session of Assembly, Statute of Africa Centres for Disease Control and Prevention, January 2016, Addis Ababa, Ethiopia.

21 AU. Agenda 2063: The Africa We Want. Framework Document. 2015. p. 2-5.

22 AU. Africa Health Strategy. 2016-2030.

23 AU. Catalytic Framework to End AIDS, TB and Eliminate Malaria in Africa by 2030.



- **Pharmaceutical Manufacturing Plan for Africa.** Catalyses local pharmaceutical production, which, in turn, should contribute to improved public health outcomes through improved access, quality, availability and affordability of vaccines, therapeutics and diagnostics.
- **African Common Position on Antimicrobial Resistance Control.** The AU Heads of State and Government announced a strong political commitment to control antimicrobial resistance (AMR) in Africa through the African Common Position on Antimicrobial Resistance Control and AU Framework for Antimicrobial Resistance Control 2020-2025, officially adopted at the 33rd AU Summit in February 2020.
- **Animal Health Strategy for Africa 2018-2035.** Aims at improving the health and productivity of animal population to enhance the economic and social welfare of Africans.
- **Health Research and Innovation Strategy for Africa.** Enables Africa to design and lead research and enables active participation of African researchers and innovators in local and international health, health system and medical health technology innovation ecosystems.
- **Sustainable Development Goals.** Of the 17 goals, goal 3 encompasses healthy lives for all and promotes well-being for all persons with disabilities.
- **IHR 2005.** During the 29th Ordinary Session of the Assembly in 2017, the Declaration on Accelerating Implementation of [International Health Regulations](#) in Africa was adopted.
- **4D Framework.** AU Ministers launched the 4D Partnership Tech Strategy – which is an agenda to boost synergies and break siloes within the AU community and across the AU, Member States, pan-African civil society, private sector and other strategic stakeholders of Agenda 2063.<sup>24</sup> It is a platform for multi-disciplinary, multi-dimensional, multi-departmental and multi-directional collaboration in Africa, powered by artificial intelligence, machine learning, big data and homegrown innovation.
- **Science, Technology, and Innovation Strategy for Africa 2024.** This strategy is the first of the ten-year strategies developed to respond to the demand for science, technology, and innovation to impact across critical sectors such as agriculture, energy, environment, health, infrastructure development, mining, security and water among others.<sup>25</sup>

### *Transformed status of Africa CDC*

The Statute of Africa CDC initially envisioned the organisation to be a special technical institution of the AU, from which it derives its legal personality.<sup>26</sup> During the 35th Ordinary Session of the AU Assembly, the Heads of State and Government made the decision to elevate Africa CDC's status to an autonomous health institution of the AU. This decision will enable Africa CDC to have operational flexibility.

The Statute of Africa CDC sets up three governing structures: the Governing Board, Advisory and Technical Council, and Secretariat.<sup>27</sup>

### **1.3.2 Milestones of Africa CDC**

**Major milestones for 2017.** Africa CDC's first year was marked by activities cementing its launch, including the development of its inaugural five-year Strategic Plan (2017-2021), Governance Manual and various other frameworks; recruitment of leadership and staff; and negotiations with designated Member States for setting up RCCs. In addition, Africa CDC responded to nine disease outbreaks in six countries and received around US \$14.5 million (in kind and cash) for system-strengthening and workforce-development activities.<sup>28</sup>

24 Africa CDC press release: African Ministers of Health Back AU's New PMT and 4D Partnership Tech Strategies to fight COVID-19.

25 <https://au.int/en/documents/20200625/science-technology-and-innovation-strategy-africa-2024>. Accessed 7 July 2023.

26 Africa CDC Statute. Article 2 (1).

27 Ibid. Article 8.

28 Africa CDC. Annual Progress Report. 2017.

**Major milestones for 2018.** In 2018, Africa CDC accomplished several activities across key functions. It secured approval of its organisational structure from the AU, developed NPHI and EBS frameworks and conceptualised and operationalised RISLNET. Africa CDC also facilitated and supported response efforts for six disease outbreaks across nine Member States and supported Member States with training and deploying healthcare workers in disease preparedness and response. Furthermore, it secured a US \$2.6 million grant for a mortality surveillance programme.<sup>29</sup>

**Major milestones for 2019.** Africa CDC's priorities for 2019 included providing strategic direction, building capacity of Member States and promoting best practices for public health. The organisation reviewed strategic activities and accelerated operational improvements. It was able to fill key positions, significantly increasing staffing at its headquarters and RCCs while securing commitment from the AUC to provide land for the construction of the Africa CDC Secretariat. In addition, it launched AFCAD to improve access to quality diagnostics across the continent. In May 2019, Africa CDC launched the Africa biosafety and biosecurity initiative at the occasion of Global biosecurity dialogue co-hosted at Africa Union. In October 2019, Africa CDC launched the framework of collaboration on cross-border collaboration and coordination in public health emergency responses in the Central and East Africa regions, following the EVD outbreak in North Kivu, Democratic Republic of Congo, and facilitated outbreak response support for seven disease outbreaks across the continent. This year also ushered in new partnerships with multiple memorandums of understanding signed and funding of US \$300 million secured to strengthen health systems and respond to EVD.<sup>30</sup>

**Major milestones for 2020.** With the onset of the COVID-19 pandemic in 2020, Africa CDC rapidly deployed responders and implemented various strategic initiatives, such as the Africa Joint Continental Strategy for COVID-19 Outbreak, Africa Task Force for Novel Coronavirus, and Partnership to Accelerate COVID-19 Testing in Africa. It also launched the Africa Pathogen Genomics Initiative (Africa PGI) to support the surveillance of new variants of COVID-19 across the continent. Beyond this virus, the organisation signed a hosting agreement for the East Africa RCC, supported Member-State-based trainings and collaborated with more than 40 partners to secure more than US \$300 million in funding.<sup>24</sup> Moreover, Africa CDC led the endorsement of the African Common Position on Antimicrobial Resistance in February 2020 and launched a continental technical guide for strengthening One Health, the Framework for One Health Practice in National Public Health Institutes in October 2020.

**Major milestones for 2021.** Africa CDC continued its role of coordinating the continental response by supporting the first ever acquisition of vaccines involving all Member States through the Africa Vaccine Acquisition Trust<sup>31</sup>, launched a US \$1.5 billion initiative in partnership with Mastercard Foundation (the SLL Initiative)<sup>32</sup>, introduced the Trusted Travel Initiative in partnership with the AU and other partners to support AU Member States in harmonising and enhancing verification and authentication of COVID-19 test results, and launched PAVM to expand Africa's vaccine manufacturing and health security.<sup>33</sup> Africa CDC also hosted the first international Conference on Public Health in Africa virtually under the theme of 'A New Public Health Order in the 21st century'.<sup>34</sup>

**Major milestones for 2022.** In February 2022, the AU Assembly granted operational autonomy to Africa CDC. The SLL Initiative began implementation in 19 AU Member States, administering more than 20 million COVID-19 vaccine doses across Africa. In July 2022, Africa CDC launched a call to action on public health emergency operation centres (PHEOCs) to recognise, prioritise and accelerate the establishment and/or strengthening of PHEOCs as a critical pillar of the health security agenda of the continent. In the same month, Africa CDC released the first [pathogen ranking and prioritisation document](#), which lists high-impact and recurrent epidemic-prone diseases for the continent. Africa CDC launched a [Regulatory and Certification Framework for Institutions Handling High Risk Pathogens](#) in August, and in September, they issued a call to action for Africa's New Public Health Order and launched the [Continental Framework for Strengthening Mortality Surveillance in Africa](#) in Zambia. The institution also established the Africa biobanking network to facilitate research and development. Africa CDC also revised the [EBS](#) to reflect a One Health multi-sectoral approach

29 Africa CDC. Annual Progress Report. 2018.

30 Africa CDC. Annual Progress Report. 2019.

31 Africa CDC Website. News Items. Africa Vaccine Acquisition Trust delivers 12,000 doses of COVID-19 vaccine to the African Union. <https://africacdc.org/news-item/>. Accessed 22 June 2023.

32 Africa CDC Website. News Items. Mastercard Foundation and Africa CDCs Saving Lives and Livelihoods Initiatives Delivers First Tranche of over 15 million Vaccines. <https://africacdc.org/news-item/>. Accessed 22 June 2023.

33 Africa CDC Website. News Items. Statement on the remarkable progress made by several African countries as part of the Partnerships for African Vaccine Manufacturing (PAVM). <https://africacdc.org/news-item/>. Accessed 22 June 2023.

34 Africa CDC Website. News Items. First International Conference on Public Health in Africa Closes with Urgent Call for a New Public Health Order. 16 December 2021. <https://africacdc.org/news-item/>. Accessed 22 June 2023.

and developed the AU [Health Information Exchange Guidelines and Standards for Digital Health Systems](#). Africa CDC continued to support Member States in pandemic responses, including through the distribution of medical countermeasures worth over US \$400 million. Africa CDC launched regional AMR and antimicrobial use data from 14 AU Member States and hosted the second in-person International Conference on Public Health in Africa with the theme 'Preparedness for future pandemics and post-pandemic recovery: Africa at a crossroads.'<sup>35</sup>

### 1.3.3 Learnings to inform the way forward for 2023 to 2027

Africa CDC is uniquely positioned to access the highest levels of leadership of African governments. However, the AU is not set up in a way that can accommodate a public health institute mandated to respond to emergencies. In the past five years, the operational context of the AU as a political institution has not enabled Africa CDC to operate to its fullest capability and potential.

Overall, Africa CDC has performed well and has managed to guide and provide support to AU Member States during three public health emergencies of international concern – the 2018 to 2019 EVD outbreak, the COVID-19 pandemic and the mpox outbreak. There is consensus among the public health community that Africa CDC is contributing to the continent's health security and has performed very well in its first five years. This is despite the lack of adequate human and financial resources and capacity and despite having to use systems, policies and procedures that were not tailored to its unique needs.

Based on the review of Africa CDC's performance from 2017 to 2021, the following lessons were identified:

- Africa CDC's governance and management structures at inception guided the institution's work during its early days. The constraints faced in handling emergency operations under the earlier arrangements have been addressed via the authority delegated by the chairperson of the AUC. The amended Statute of Africa CDC has strengthened the governance structures and operational mandate of Africa CDC.
- Given its unique operational needs, Africa CDC has prioritised setting up systems and procedures suitable to its operations. Among these systems is the need to set up its own performance management system and transition from ad hoc planning and performance management to more systematic planning, monitoring and evaluation of teams, divisions, and objectives. This will enhance the capacity of Africa CDC's leadership to guide the organisation's activities and instil Africa CDC's culture and values throughout the organisation.
- In line with Agenda 2063, integrating and aligning the AU's initiatives into the public health architecture of the continent is a vital strategic direction for Africa CDC. To this end, engagement with the AUC and the AU's policy organs will be strengthened to capitalise on Africa CDC's unique value proposition and ease its operational bottlenecks. Furthermore, in line with the vision of the New Public Health Order, Africa CDC will form clear and action-oriented engagements with partners and donors to secure the resources and facilities required to reach all Member States.

### 1.3.4 Opportunities to build on

The COVID-19 pandemic has highlighted the resources, operational flexibility and capabilities that are required to effectively deliver on its mandate and objectives. At the 35th Ordinary Session on 6 February 2022, the Assembly of Heads of State and Government of the AU elevated Africa CDC's status to allow it to operate as an autonomous institution of the AU. This would provide Africa CDC with the legal, institutional and operational capabilities to respond to urgent disease outbreaks. Africa CDC will also be better positioned to build and strengthen national health systems in Africa in line with its mandate.

The COVID-19 pandemic has shown why the global community must be serious about pandemic

<sup>35</sup> <https://cphia2022.com/>. Accessed 8 July 2023.

and epidemic preparedness, global health security and the need to redesign and strengthen health systems. During this pandemic, Africa has learnt how fragile international cooperation can be when the world is collectively threatened and challenged by a common disease threat. For instance, the ease with which Africa was side-lined from the COVID-19 diagnostics market exposed how easily global cooperation and international solidarity can collapse. Similarly, Africa has found itself at the end of the queue for access to any available vaccines against COVID-19 due to the rise of global protectionism and vaccine nationalism.

The pandemic has also revealed opportunities for AU Member States to build back better, stronger and more resilient health systems that can prevent, detect and efficiently respond to infectious disease threats that may occur on the continent. One of the biggest lessons for Africa is the urgent need to invest in health systems as a critical instrument to secure its socioeconomic development. Africa needs a New Public Health Order that centres on the key mid- to long-term health security needs of the continent, namely, strengthened public health institutions; local production of vaccines, therapeutics and diagnostics; stronger health workforce; trusted partnerships; and enhanced private-sector engagements.<sup>36</sup>

Africa CDC has become a strong and respected partner in the global health architecture. Most recently, Africa CDC became an observer to the Gavi Board in June 2023 and has contributed to the global discussions on [International Health Regulations](#) and the Pandemic Fund, and is represented on several global technical working groups including Future of Health and Economic Resiliency in Africa (FHRA) and the Future of Global Health Initiative (FGHI). There is further opportunity for Africa CDC to continue to promote fair representation of the continent in global panels, boards, and leadership groups in global health.

36 Africa CDC. First International Conference on Public Health in Africa closes with an urgent call for a New Public Health Order. December 2021. <https://africacdc.org/news-item/first-international-conference-on-public-health-in-africa-closes-with-urgent-call-for-a-new-public-health-order/>. Accessed 20 June 2023.



## Chapter 2:

# Vision, mission and aspiration of Africa CDC

The previous vision and mission statements were developed by Africa CDC's Multinational Task Force, endorsed in the Africa CDC concept note and modified through the inaugural Strategic Plan (2017-2021) development process.

The following vision, mission and aspiration have been refined with a stronger link to the proposed priorities, goals and strategic objectives of the new Strategic Plan (2023-2027) and will guide Africa beyond 2027.

### *Vision statement<sup>37</sup>*

A safer, healthier, and prosperous Africa, in which Member States are prepared to timely prevent, detect, and respond effectively to public health threats and outbreaks.

### *Mission statement<sup>38</sup>*

Strengthen Africa's public health institutions and systems' capacities, capabilities, and partnerships to timely prevent, detect, and respond effectively to public health threats and outbreaks based on evidence-based policies, programs, and interventions.

### *Aspiration statement*

To become a world-class, self-sustaining, and agile institution that champions African health security, sets the African public health agenda, and leads and coordinates continental efforts driven by a One Health approach.

37 Previous vision statement: A safer, healthier, integrated and prosperous Africa, in which Member States can efficiently prevent disease transmission, implement surveillance and detection and always be prepared to respond effectively to health threats and outbreaks.

38 Previous mission statement: Strengthen Africa's public health institutions' capacities, capabilities and partnerships to detect and respond quickly and effectively to disease threats and outbreaks based on science, policy and data-driven interventions and programmes.







**A safer, healthier, and prosperous Africa, in which Member States are prepared to timely prevent, detect, and respond effectively to public health threats and outbreaks**

Africa CDC will provide strategic direction and support to Member States as well as regional and continental public health institutions and programmes through six programmatic priorities and seven enablers





## Chapter 3:

# Programmatic priorities and strategic goals for 2023 to 2027

During this strategic period, Africa CDC will provide strategic direction and support to Member States as well as regional and continental public health institutions and programmes through six programmatic priorities and seven enablers<sup>39</sup>. Each programmatic priority and enabler has a goal (outlining what Africa CDC seeks to achieve in the strategic period), strategic objectives, and actions Africa CDC intends on fulfilling to achieve the objective.

### *Programmatic priorities*

- Priority 1: Strengthen integrated health systems to prevent and control high-burden diseases.
- Priority 2: Build up proactive surveillance, intelligence gathering and early warning systems.
- Priority 3: Ensure robust emergency preparedness and response capabilities for all public health emergencies.
- Priority 4: Strengthen NPHIs.
- Priority 5: Expand clinical and public health laboratory systems and networks.
- Priority 6: Expand health product and technology innovation and manufacturing.

### *Enablers*

- Enabler A: Enhanced and integrated digital and analytics approaches to public health in Africa
- Enabler B: Scaled up and best-in-class African public health workforce
- Enabler C: Secured and sustainable financing for public health in Africa
- Enabler D: Strengthened public health research and innovation to improve public health decision-making and practice

- Enabler E: Coordinated, respectful and action-oriented public health partnerships and strengthened engagement with communities on public health needs
- Enabler F: Strengthened engagement and support of Member States through RCCs and in-country presence
- Enabler G: Strengthened governance, internal structures, processes and capacity to enable Africa CDC to deliver on its mandate

### 3.1. Programmatic priorities

Africa CDC's six programmatic priorities are interconnected and interdependent. Progress on one area is often dependent upon and can catalyse and complement progress in others. Further, Africa CDC will continue to be conscious in ensuring that the goals, objectives, and actions in this Strategic Plan are complementary, value-adding, and not duplicative to ongoing initiatives in the public health ecosystem regionally and globally.

#### Vision

A safer, healthier, and prosperous Africa, in which Member States are prepared to timely prevent, detect, and respond effectively to public health threats and outbreaks

#### Mission

Strengthen Africa's public health institutions and systems' capacities, capabilities, and partnerships to timely prevent, detect, and respond effectively to public health threats and outbreaks based on evidence-based policies, programmes, and interventions

#### Aspiration

To become a world-class, self-sustaining, and agile institution that champions African health security, sets the African public health agenda, and leads and coordinates continental efforts driven by a One Health approach

#### Priorities for 2023-2027

Strengthen integrated health systems to prevent and control high-burden diseases

1

Build up proactive surveillance, intelligence gathering, and early warning systems

2

Ensure robust emergency preparedness and response capabilities for all public health emergencies

3

Strengthen National Public Health Institutes

4

Expand clinical and public health laboratory systems and networks

5

Expand health product and technology innovation and manufacturing

6

#### Enablers for 2023-2027

- Enhanced and integrated digital & analytics approaches to public health in Africa
- Scaled and best-in-class African public health workforce
- Secured and sustainable financing for public health in Africa
- Strengthened public health research and innovation to improve public health decision-making and practice
- Coordinated, respectful and action-oriented public health partnerships and strengthened engagements with communities on public health needs
- Strengthened engagement and support of Member States through RCCs and in-country presence
- Strengthened governance, internal structures, processes, and capacity, enabling Africa CDC to deliver on its mandate

### 3.1.1 Priority 1: Strengthen integrated health systems to prevent and control high burden diseases

#### *Context and situational analysis*

Africa is undergoing an epidemiological transition characterised by a shift from disease-burden profiles dominated by communicable diseases to profiles featuring an increasing predominance of NCDs.

Deaths caused by communicable diseases, especially HIV/AIDS, TB, malaria, diarrheal diseases, and vaccine-preventable infectious diseases, have been declining because of extensive preventative and curative measures employed by Member States. However, communicable diseases remain a critical threat, accounting for over 40% of Africa's disease burden and around 239 million healthy life years lost.<sup>40</sup> In particular, the pace of reduction of the incidence of malaria and certain NTDs have stalled in recent years. Additionally, disruptions to routine childhood vaccinations and other essential health services during the COVID-19 pandemic is likely to increase the incidence of vaccine-preventable diseases, such as measles, and lead to more frequent outbreaks.

Mortality and morbidity due to NCDs (excluding mental health conditions) has risen sharply over the last decade. Cardiovascular diseases; neoplasms; digestive diseases, including diabetes; and kidney diseases are the four largest groups of NCDs, accounting for over 50% of the NCD burden. Yet, only about two-thirds of Member States have a specialised unit for NCDs in their ministry of health and less than 20% of Member States include NCDs in disease surveillance.<sup>41</sup>

While progress in reducing mortality and morbidity due to maternal and neonatal disorders has been made, their share of Africa's overall disease burden remain constant and significant, accounting for about 14% of total disability-adjusted life years lost. Preventable maternal deaths, stillbirths and newborn deaths remain unacceptably high.

Women in Africa are more likely to die from communicable diseases, maternal and perinatal conditions, and nutritional deficiencies than women in other regions. This is driven in part by gender inequity across the continent, higher rates of poverty among women and unequal distribution of resources to address health issues between men and women.<sup>42</sup>

Moreover, the historic focus on younger people in addressing diseases has resulted in relatively fewer resources being placed to support the health needs of older age groups. Health systems services for the elderly across the continent face multiple issues including inadequate healthcare workers, insufficient funding by Member States and limited access.<sup>43</sup>

Mental, neurological and substance use disorders represent 6% of the total disease burden. Although recorded mental health condition rates are increasing in Africa (even when accounting for population growth), only 44% of Member States have standalone mental health laws, which risks mental health issues not being addressed adequately by Member States.<sup>44</sup> Further, Africa has 1.4 mental health workers per 100,000 people, compared to the global average of 9 workers per 100,000 people.<sup>45</sup>

To effectively prevent and control these high-burden diseases and manage evolving disease profiles with limited resources, Member States need to build integrated and high-functioning health systems, especially in primary health care, which entails being able to use the same health resources to address multiple diseases and avoid working in silos. Currently, most Member States face gaps in many aspects of their health systems, including leadership and governance, financing, workforce, service delivery, community engagements, access to medical products and technologies, and health information systems.

Even with strong, integrated health systems, there is still the need for Member States to have evidence-based and contextually relevant approaches to guide the scale-up of disease-specific interventions, as well as appropriate levels of political prioritisation and resourcing to do so. Relative

40 Institute for Health Metrics and Evaluation.

41 Africa CDC. Non-Communicable Diseases, Injuries Prevention and Control and Mental Health Promotion Strategy (2022-26).

42 WHO, African Region.

43 Africa Ageing: 2020. U.S. Census Bureau. 2020.

44 Africa CDC. Non-Communicable Diseases, Injuries Prevention and Control and Mental Health Promotion Strategy (2022-26).

45 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9387063/>. Accessed 19 June 2023.

to certain communicable diseases, there are significant gaps in these aspects for reproductive, maternal, newborn and child health (RMNCH), NTDs, NCDs, and mental health.

Health threats are increasingly affecting Member States at the human–animal–environment interface, including through zoonotic diseases (which are diseases that are shared between humans and animals), emerging infectious and vector-borne diseases, AMR, food-borne diseases, and climate-change-related health events. As such, the One Health approach is necessary to deliver effective and efficient disease prevention and control strategies.

Africa CDC formally established its Division of Disease Control and Prevention in 2020. Since then, it has developed Africa's first [Non-Communicable Diseases, Injuries Prevention and Control and Mental Health Promotion Strategy \(2022-2026\)](#) through an evidence-based and highly consultative process with Member States and other stakeholders. A similar process is being followed to develop a reproductive health priority strategy (near finalisation) and a HIV/AIDS, TB, viral hepatitis, malaria and NTDs strategy. Africa CDC has also focused on building and strengthening the capacity of Member States for integrated and sustainable community health worker (CHW) programmes, as a key strategy for achieving universal health coverage. Africa CDC's efforts are complementary to ongoing initiatives and programmes being led by regional and international organisations to address high-burden diseases.

### Goal

Strengthen Member States' and regional health systems to adequately prevent and control high-burden diseases, incorporating One Health and health equity principles to achieve positive health outcomes.

### Objectives

1. Support Member States to implement integrated and contextualised national strategies aligned to continental frameworks and policies for the prevention and control of high-burden communicable diseases (including NTDs), NCDs (including mental health and injuries), and RMNCH.
2. Align Member States and Regional Economic Communities to establish, strengthen and coordinate multi-sectoral actions and One Health approaches to preventing and controlling high-burden diseases.
3. Support the scale-up of mechanisms to secure access to the affordable technologies, medicines, and diagnostics required to address all high-burden diseases.

### Actions per objective

*Objective 1: Support Member States to implement integrated and contextualised national strategies aligned to continental frameworks and policies for the prevention and control of high-burden communicable diseases (including NTDs), NCDs (including mental health and injuries), and RMNCH.*

- **Strengthen strategies, frameworks, and policies for integration.** Provide technical support to Member States to strengthen strategies, frameworks and policies that integrate the prevention and control of all high-burden diseases into primary and secondary health care.
- **Strengthen primary health care, including community health systems:** Support the strengthening and financing of primary health care in Member States through advocacy and technical support to establish and operationalize strong PHC networks grounded in community engagement and responsive to community needs and strengthen the community-based PHC workforce in line with the AU assembly decision, **Assembly/AU/Dec.649 (XXIX)** of 2017 to deploy two million CHWs across the continent.
- **Strengthen responses to NTDs:** Provide technical support to Member States to strengthen strategies, frameworks, and policies to achieve global and continental targets to prevent, control, eliminate or eradicate NTDs.



*Launch of the Continental Framework for Mortality surveillance (EBS) Resources in Lusaka, Zambia, November 2022*



- **Support efforts to address RMNCH:** Support Member States Implement the [Maputo Plan of Action 2016 – 2030](#) to address sexual and reproductive health as well as strengthen strategies, frameworks and policies to improve maternal, newborn and child health outcomes and accelerate progress towards the SDG targets on maternal, newborn and child mortality.
- **Support strengthening of mental health legislation and policies.** Strengthen Member States' capacities to develop, implement and evaluate national mental health policy and legislation, in line with continental and global human rights standards, and to review and reform laws criminalising or discriminating against people with psychosocial disabilities.
- **Support integration of mental health and psychosocial services into emergency preparedness and response.** Support the integration of mental health and psychosocial services into pre-implementation, implementation and post-implementation activities for emergency preparedness and response to public health and humanitarian emergencies.
- **Strengthen Infection Prevention and Control (IPC):** Provide technical support to Member States to develop and implement IPC strategies and national action plans and strengthen national and facility level IPC programmes and committees.

*Objective 2: Align Member States and Regional Economic Communities to establish, strengthen and coordinate multi-sectoral actions and One Health approaches to preventing and controlling high-burden diseases.*

- **Expand multi-sectoral strategies.** Strengthen Member States' capacities and capabilities to embed disease prevention and control priorities and approaches into wider multi-sectoral strategies (for example, among public institutions related to trade, finance and education).
- **Adopt One Health approaches.** Build or strengthen Member States' capacities to adopt One Health approaches to address social and environmental determinants of high-burden diseases in addition to conventional risk factors.
- **Promote targeting initiatives.** Promote local and regional initiatives targeting risk factors for NCDs and mental health in schools, workplaces and communities to promote healthy lifestyles early in life.
- **Set up a continental coordination mechanism.** Set up a continental multi-sectoral coordination mechanism for the prevention and control of high-burden diseases.

*Objective 3: Advocate for mechanisms to be established to secure access to the affordable technologies, medicines and diagnostics required to address all high-burden diseases.*

- **Support Member States to develop essential medicines and technologies lists.** Provide technical support – in alignment and collaboration with WHO and other relevant UN agencies – to Member States to ensure that essential medicines and technologies lists are inclusive of all critical supplies to address high-burden diseases and ensure national policies enable equitable access.<sup>46</sup>
- **Support Member States to strengthen supply chain capabilities.** Build Member States' capabilities and capacities in supply chain management, including procurement, distribution and quality.

<sup>46</sup> Africa CDC will work to complement ongoing efforts to assist Member States in developing essential medicines lists.



### 3.1.2 Priority 2: Build up proactive surveillance, intelligence gathering and early warning systems

#### Context and situational analysis

Surveillance and early warning systems are critical to the detection and monitoring of disease outbreaks and timely response to public health emergencies. Currently, there are several surveillance-related challenges:

#### Limited systems to gather surveillance inputs

- Although a 2021 report indicates that almost all Member States are leveraging the Integrated Disease Surveillance and Response (IDSR) framework, quality implementation is still a challenge (especially around data challenges and human resource constraints), and most countries have not fully integrated their surveillance systems.<sup>47</sup>
- Most Member States are dependent on IBS<sup>48</sup> systems – which routinely monitor and routinely report on trends in the cases of disease – for real-time surveillance and reporting. However, IBS in most Member States does not cover all priority pathogens, and most IBS systems have substantial time lags between identification at the facility or field level and reporting to national and continental levels.
- There remains inadequate implementation of EBS,<sup>49</sup> which is especially critical in Member States where IBS is limited, as EBS includes more varied sources of information relating to public health events and has more immediate reporting. 20 Member States have started adopting the event management system, including linking hotline<sup>50</sup> systems to facilitate surveillance data collection, analysis and visualisation, but work remains in these Member States to fully operationalise EBS and leverage IBS and EBS sources using epidemic intelligence to improve early warning and response. The majority of Member States have yet to introduce EBS in a meaningful way.
- There is limited integration of human, animal and environmental health data into surveillance data to enable a multi-sectoral approach to surveillance and early warning of zoonotic diseases.
- There is limited AMR surveillance on the continent. In 2019, the sub-Saharan Africa mortality rate attributable to AMR (23.5 deaths per 100,000) was the highest compared to other regions.<sup>51</sup> Yet, only 1.3% of biology laboratories across 14 Member States assessed under the Mapping Antimicrobial Resistance and Antimicrobial Use Partnership project could perform bacteriological testing for five priority AMR pathogens.<sup>52</sup>
- Member States also have limited case-based investigation capabilities. Case-based surveillance is required, especially when the goal is to start eliminating diseases. As a result, Member States may spend more time controlling diseases instead of working to eliminate them.
- Most of the Member States have nascent or non-existent pharmacovigilance systems to monitor the safety of medicines, vaccines and other health products. These systems have numerous challenges, including limited integration, high patient-to-healthcare worker ratios, scarce pharmacovigilance personnel and inadequate funding, limited awareness of pharmacovigilance needs, low reporting rates with poor quality spontaneous reports and limited collaboration between public health programmes and national regulatory authorities.<sup>53</sup>

47 <https://onehealthoutlook.biomedcentral.com/articles/10.1186/s42522-021-00052-9>. Accessed 8 July 2023.

48 Defined by WHO as the systematic (regular) collection, monitoring, analysis and interpretation of structured data, namely, of indicators produced by a number of well-identified, mostly health-based, formal sources.

49 The organised collection, monitoring, assessment and interpretation of mainly unstructured ad hoc information regarding health events or risks that may represent an acute risk to health.

50 Division of Surveillance and Disease Intelligence update.

51 Antimicrobial Resistance Rates and Surveillance in Sub-Saharan Africa: Where Are We Now? Accessed here: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9273632/>.

52 Priority AMR pathogens include: carbapenem-resistant *Pseudomonas aeruginosa*, carbapenem-resistant Enterobacterales, methicillin-resistant *Staphylococcus aureus*, third-generation cephalosporin-resistant Enterobacterales and fluoroquinolone-resistant *Salmonella* species. Division of Surveillance and Disease Intelligence.

53 Kiguba R, Olsson S, Waitt C. Pharmacovigilance in low- and middle-income countries: A review with particular focus on Africa. 2021;89(2):491-509.

### Insufficient surveillance data sharing and transparency

- Across Member States, there is limited transparency and sharing of surveillance data to help develop intelligence on diseases at a regional or continental level. This is due to a lack of frameworks for data access and exchange and weak data infrastructure to support the collection, storage, protection and use of Member State surveillance data at the regional and continental levels.
- Cross-border data challenges affect the continent's ability to accurately define and map at-risk zones, coordinate support efforts between NPHIs and allocate resources adequately to address public health issues.

### Lack of prediction capabilities

- There are limited prediction capabilities on the continent that would aggregate a variety of new data sources to estimate where threats may exist. Member States have yet to fully leverage advanced surveillance processes, such as weather forecasting, mobility tracking and big data, in surveillance activities.

Over the past years, Africa CDC has been strengthening integrated surveillance systems in Member States through:

- The Africa CDC established and strengthened Regional Integrated Surveillance and Laboratory networks (RISLNET) in Central, Western and Southern Africa regions.<sup>54</sup>
- To strengthen early warning surveillance and response systems, the [Event Based Surveillance framework](#) was developed and 22 Member States were supported to adopt the framework. In addition, to promote and facilitate experience sharing and implementation of best practices, Africa CDC established regional EBS communities of practices in three Africa Union regions. To digitalize data collection process, an event management system (EMS) has been developed and is currently being implemented by Africa CDC and a few Member States.
- The continental [Framework for One Health Practice in National Public Health Institutes](#) has been developed and 15 Member States and two Regional Economic Communities were supported to implement the framework. The framework also emphasizes One Health surveillance approaches.
- To facilitate routine collection of data on cause and age specific mortality for better health programming, Africa CDC developed the [Continental Framework for Strengthening Mortality Surveillance in Africa](#), which has been endorsed by the Member States and is being implemented in 21 Member States.<sup>55</sup> This framework aims to standardise and harmonise data collection practices and facilitate the integration of mortality data from fragmented sources into a central repository using a proactive surveillance approach.
- Antimicrobial resistance also known as "silent pandemic" is a major issue in the African Continent. Africa CDC Developed and supported the implementation of the [Framework for Antimicrobial Resistance 2018-2023](#) in 18 Member States, supporting Member States on AMR surveillance and publishing three-year regional AMR data from 14 Member States.<sup>56</sup>
- To address cross border health threats, Africa CDC is working with partners in establishing the Cross-Border Disease Surveillance programme, which aims to strengthen cross-border surveillance, coordination, collaboration and timely information sharing among Member States.

54 RISLNET was established by Africa CDC to coordinate and integrate all public health laboratory, surveillance and emergency response assets, including public health data, to effectively support prevention, rapid detection and response to current and emerging public health threats within defined geographic regions of Africa.

55 Africa CDC, Strengthening Mortality Surveillance in Africa.

56 Africa CDC, Africa CDC Framework for Antimicrobial Resistance 2018-2023.

## Goal

Strengthen integrated surveillance and early warning systems across the continent to detect public health threats and emergencies early, enabling timely response.

## Objectives

1. Establish and strengthen real-time disease and public health event surveillance and reporting systems in Member States.
2. Support Member States to implement One Health approaches in disease surveillance, outbreak response and disease control and prevention.
3. Support Member States to implement comprehensive strategies to control AMR, including strengthening AMR surveillance.
4. Collect comprehensive sets of surveillance data and enable predictive analytics and forecasting of public health threats.
5. Build and operate information systems and interfaces that support secure surveillance data exchange, storage and use at the regional and continental levels.

## Actions per objective

### *Objective 1: Establish and strengthen real-time disease and public health events surveillance and reporting systems in Member States.*

- **Strengthen overarching surveillance approaches.** Support Member States to expand the implementation of the Integrated Disease Surveillance and Response strategy that makes surveillance and laboratory data more usable, helping public health managers and decision-makers improve detection and response.
- **Establish and expand EBS systems.**
  - Support the continued establishment and strengthening of EBS through providing technical assistance to and coordinating across Member States, leveraging Africa CDC's revised [Event-Based Surveillance Framework](#). This includes supporting the implementation of event management systems and helping Member States leverage Epidemic Intelligence from Open Sources (EIOS) technology.<sup>57</sup>
  - Establish an epidemic intelligence situation room at Africa CDC, leveraging skillsets from the EBS community.
- **Strengthen integrated, routine, all-cause mortality surveillance.**
  - Support Member State adoption of Africa CDC's Framework for Mortality Surveillance.
  - Enhance Member States' capacity to develop, integrate and implement national and other continental frameworks and policies for mortality surveillance.
  - Help Member States and Regional Economic Communities establish, strengthen and coordinate multi-sectoral actions on mortality surveillance, including integrating mortality data into a national repository (strengthen civil registration and vital statistics) and aligning efforts across existing national, continental and global initiatives.
- **Strengthen surveillance at borders.** Strengthen cross-border disease surveillance, coordination, collaboration and timely information sharing among AU Member States through stronger stakeholder engagement, technical capacity at points of entry, and risk communication and community engagement among border communities in AU Member States.
- **Improve active case search and case investigations.** Provide technical support

<sup>57</sup> EIOS is a web-based system that collates a vast array of sources (including online media, social media, government web sites, news sources, blogs and expert groups), runs analytics and helps flag potential public health threats.

and training to Member States to improve the capabilities of public health workforce in conducting enhanced case investigation, contact tracing, disease-specific surveys and surveillance.

- **Strengthen environmental surveillance.** Establish environmental surveillance systems for the early detection of epidemic-prone infection trends.
- **Improve surveillance quality and timeliness.** Provide guidance and technical support to Member States to build real-time monitoring and reporting capabilities by leveraging technology and data analytics and meeting quality standards.<sup>58</sup>
- **Strengthen pharmacovigilance:** Support Member States in ensuring the safety of countermeasures distributed during outbreaks by providing guidelines and frameworks to strengthen their pharmacovigilance systems, including the development of comprehensive pharmacovigilance data management systems.

*Objective 2: Support Member States to implement One Health approaches in disease surveillance, outbreak response and disease control and prevention.*

- **Facilitate an intersectoral and multi-disciplinary collaboration** at the national level (for example, among ministries of health) and continental level to integrate human, animal, and environmental (including climate change-related) data into real-time surveillance and improve early detection of zoonotic diseases and environmental risk factors.
- **Support One Health surveillance for priority zoonotic diseases.** Provide technical assistance and capacity building to Member States to incorporate One Health approaches into the surveillance of zoonotic diseases.

*Objective 3: Support Member States to implement comprehensive strategies to control AMR, including strengthening AMR surveillance.*

- **Advocate for AMR and antimicrobial use capabilities.** Advocate for Member States to implement the AU Framework on Antimicrobial Resistance Control and invest in AMR surveillance capabilities, including improving bacteriology laboratory infrastructure and quality management systems for AMR sentinel surveillance.
- **Implement national action plans.** Support Member States in the development and implementation of national action plans for AMR control.
- **Adopt stewardship and infection prevention and control (IPC) guidelines.** Help Member States adopt [the Africa CDC IPC policy guidelines](#) and stewardship guidelines as a core strategy for AMR control<sup>59</sup> as well as strengthen ongoing national and facility level AMR programmes and committees.

*Objective 4: Collect comprehensive sets of surveillance data and enable predictive analytics and forecasting of public health threats.*

- **Collect input for predictive analytics.** Assess needed data inputs for predictive analytics and deploy strategies to aggregate those inputs (including weather patterns, mobility events, and demographic, climate, economic, and social factors) and perform advanced analytics including artificial intelligence ([this is a focus of Programmatic Priority 3](#)).
- **Build Member State capabilities.** Leverage RCCs to support Member States to build capacity in surveillance-related data triangulation, in-depth data analytics, data visualisation, and using data for action.
- **Support planning:** Provide support to Member States in planning for future surveillance needs (e.g., horizon planning for new approaches or investment needs).

58 Three basic characteristics of high-quality data in public health surveillance are completeness, accuracy and timeliness.

59 Africa CDC, 'Policy Brief on the Legal Framework on Infection Prevention and Control'



*The Africa CDC EOC facility,  
Addis Ababa*

*Objective 5: Build and operate information systems and interfaces that support secure surveillance data exchange, storage and use at the regional and continental levels.*

- **Coordinate consistent sharing of surveillance data across Member States and with Africa CDC.** Establish and operationalise formal data access and exchange frameworks between Member States and Africa CDC and the RCCs. This includes support for implementation of health information exchange standards and policies.
- **Support health information exchange.** Support AU Member States in domesticating the AU health information exchange guidelines and standards for digital health systems.
- **Establish epidemic intelligence networks for information and knowledge exchange.** Establish interactive mechanisms, such as regional communities of practices for public health experts from Member States and partners to exchange technical information to improve early detection and verification of acute public health threats in the region.
- **Build digital infrastructure and systems for surveillance data.** Establish continental digital infrastructure and data systems to securely store, protect and analyse large disease surveillance datasets from Member States at Africa CDC.

### 3.1.3 Priority 3: Ensure robust emergency preparedness and response capabilities for all public health emergencies

#### *Context and situational analysis*

Public health emergencies attributable to emerging and re-emerging infectious diseases have increased nearly fourfold over the past 60 years. In Africa, more than 100 disease outbreaks and other health events are reported on the continent annually.<sup>60</sup>

The unprecedented size, frequency and scope of health emergencies have also increased due to various factors, including unplanned urbanisation, population increases and movement, and climate-change-related events such as floods, droughts and cyclones.<sup>61</sup> The increasing and protracted humanitarian crises, including mass refugee migration, internal population displacements and cross-border movements, have created opportunities for the spread of infectious diseases and disrupted access to health services.<sup>62</sup> Infectious diseases have a huge impact on the health and economy of the continent – nearly 50% of deaths and disability-adjusted life years caused by infectious diseases occur in Africa<sup>63</sup> and over US \$2.4 billion is spent annually to manage diseases.<sup>64</sup>

Robust emergency preparedness and response is critical for effective and timely management of public health emergencies and minimising the subsequent social, economic and security impacts. Public health emergencies, such as the COVID-19 pandemic and the EVD outbreak in West Africa from 2014 to 2016, revealed gaps in Member States' abilities to prepare for and respond to public health emergencies. There are multiple challenges to emergency preparedness and response in Africa, including:

- There is limited access to healthcare services and little resilience in health systems. Only **about 42% of the population in Africa can access healthcare services.**<sup>65</sup>

60 Mboussou F, Ndumbi P, Ngom R, Kamassali Z, Ogundiran O, Van Beek J, et al. Infectious disease outbreaks in the African region: overview of events reported to the World Health Organization in 2018. *Epidemiol Infect.* 11 November 2019; 147: e299.

61 Lee ACK, Booth A, Challen K, Gardois P, Goodacre S. Disaster management in low- and middle-income countries: scoping review of the evidence base. *Emerg Med J.* 1 October 2014;31(e1): e78–83.

62 Mboussou F, Ndumbi P, Ngom R, Kamassali Z, Ogundiran O, Van Beek J, et al. Infectious disease outbreaks in the African region: overview of events reported to the World Health Organization in 2018. *Epidemiol Infect.* 11 November 2019;147: e299.

63 Boutayeb A. The Impact of Infectious Diseases on the Development of Africa. *Handb Dis Burd Qual Life Meas.* 2010;1171–88.

64 Diseases cost Africa US \$2.4 trillion per year, WHO reports – Fogarty International Center @ NIH [Internet]. Fogarty International Center. [cited 14 June 2023].

65 Tessema ZT, Worku MG, Tesema GA, Alamneh TS, Teshale AB, Yeshaw Y, et al. Determinants of accessing healthcare in Sub-Saharan Africa: a mixed-effect analysis of recent Demographic and Health Surveys from 36 countries. *BMJ*

- Joint External Evaluations<sup>66</sup> have shown major gaps in preparedness and response operations. Only about 10% of Member States had national multi-hazard public health emergency preparedness and response plans in 2019.<sup>67</sup>
- Preparedness and response planning at Member State levels lags behind other regions. Of the few Member States that have preparedness and response plans, only a handful have implemented them, and there is minimal engagement with the private sector in response planning.
- Although 41 Member States in Africa are at various stages of implementing PHEOCs, only 12 Member States scored more than 80% on the functionality of their PHEOC. The majority of PHEOCs do not have legal mandates to operate, communication platforms, software to manage data during emergency responses or surge personnel to assist in unforeseen public health emergencies.
- Only about 10% of Member States have a workforce with the technical emergency know-how to prepare, detect and respond to public health emergencies.<sup>68</sup>
- Africa has limited access to medical countermeasures for quick provision of emergency medical supplies and commodities during public health emergencies.
- There is limited cross-border coordination, collaboration and sharing of critical information, assets and expertise.
- There is limited funding for adequate preparedness and swift response to public health emergencies.

There are already ongoing initiatives to strengthen emergency preparedness and response, however, Africa still requires further strengthening to ensure the effectiveness and resilience of emergency preparedness and response on the continent.

To increase continental capacity to manage health emergencies, Africa CDC has provided capability-building support to 12 PHEOCs and responded to over 52 public health events occurring in the continent, with an average deployment of 54,000 person-days per year in the last five years. In addition, life-saving emergency commodities, including vaccines, IPC, diagnostics, therapeutics and equipment worth over US \$540 million, have been procured and distributed across Africa. The organisation has also collaborated with various partners to develop joint action plans that aim to strengthen capacities and capabilities of Member States to prepare for, detect and respond to health emergencies. These include, but are not limited to, World Health Organization (WHO), United Nations Children's Emergency Fund (UNICEF), World Food Programme, US Centers for Disease Prevention and Control (US CDC), European Centre for Disease Prevention and Control (ECDC), United Kingdom Public Health Rapid Support Team, United Kingdom Health Security Agency, AfDB, World Bank, Bill and Melinda Gates Foundation (BMGF) and Resolves to Save Lives, among others. This strategic plan aims to complement and reinforce existing work and plans, including those where Africa CDC plays a leading role today (for example, the Africa CDC and WHO Joint EPR Action Plan).<sup>69</sup>

### Goal

Ensure that Member States' health systems are sufficiently resilient to prepare for, prevent and respond timely and effectively to all public health emergencies.

### Objectives

1. Strengthen prevention and preparedness capacities and capabilities for public health emergencies at the continental, regional and Member State levels.
2. Strengthen robust emergency response and recovery capacities and capabilities to address

Open. 31 January 2022; 12(1): e054397.

66 A Joint External Evaluation is a voluntary, collaborative, multi-sectoral process to assess countries' capacity to prevent, detect and rapidly respond to public health risks, whether occurring naturally or due to deliberate or accidental events.

67 Talisuna A, Yahaya AA, Rajatonirina SC, Stephen M, Oke A, Mpairwe A, et al. Joint external evaluation of the International Health Regulation (2005) capacities: current status and lessons learnt in the WHO African region. *BMJ Glob Health*. 1 November 2019; 4(6): e001312.

68 WHO Health Emergency Programme, Joint external evaluation of the International Health Regulation (2005) capacities: current status and lessons learnt in the WHO African region, 2019.

69 Africa CDC and WHO have engaged in an unprecedented collaboration to strengthen the capacity of countries in Africa to prepare for, detect and respond to health emergencies. developed the 2023-27 Joint EPR Action Plan outlining the joint activities, and the structure that organisations will take to align on EPR objectives, harmonise efforts and address long-standing systemic challenges in EPR across the African continent.

- public health emergencies at the continental, regional and Member State levels.
3. Build cross-border collaboration and coordination mechanisms for emergency preparedness and response.

### *Actions per objective*

#### *Objective 1: Strengthen prevention and preparedness capacities and capabilities for public health emergencies at the continental, regional and Member State levels.*

- **Conduct threat, risk and readiness analysis.** Conduct regular analyses to identify likely threats and risks and assess Member States' readiness to prevent, mitigate and respond to the identified health threats and risks.
- **Respond to threat, risk and readiness assessments.** Develop and disseminate regular threat, risk and readiness assessments; ensure Member States are fully aware of implications on their readiness; support their plans for addressing gaps; and advocate for strategies to address major risks and gaps identified at all levels, including in AU policy organs.
- **Map hazards and threats.** Conduct continental hazard and threat mapping and develop an interactive atlas that shows real-time information on the high-priority risks, threats and hazards in Africa. The atlas will ultimately allow for predictive capabilities to forecast threats, drawing on new data sources (leveraging input from [Programmatic Priority 2](#)).
- **Support implementation of the IHR.** Support Member States with IHR core capacity development and strengthen the use of the revised IHR Monitoring and Evaluation Framework (MEF), including Joint External Evaluations, State-Party Annual Reporting tool, simulation exercises, After-Action Reviews and evaluation mechanisms outside of the IHR MEF such as the Universal Health and Preparedness Review (UHPR).
- **Prepare for access to medical countermeasures.**
  - **Plan for countermeasure needs.** Support Member States to identify, quantify and prioritise their countermeasure needs based on their disease burden and risks.
  - **Strengthen value chains.** Develop policy guidance for Member States on building and strengthening agile, lean and effective mechanisms to procure, test, approve and deploy medical countermeasures during public health emergencies.
  - **Stockpile for emergencies.** Stockpile essential medical supplies, medical equipment, and investigational medical products against outbreak/epidemic priority diseases. Establish Africa CDC logistic hubs to house stockpiles ([this is a focus of Programmatic Priority 6](#)).
  - **End-to-end logistics.** Ensure capacity for adequate logistical support including operations support as well as staffing.
- **Support the development and testing of multi-hazard and multi-sectoral preparedness and response plans for public health emergencies.**
  - **Support the National Action Plan for Health Security process.** Provide technical assistance to Member States in developing and implementing national action plans for health security, multi-hazard and multi-sectoral preparedness and response plans, and disease-specific contingency plans.
  - **Develop contingency plans.** Develop Africa CDC multi-hazard, multi-sectoral contingency plans to support Member States' preparedness for public health emergencies under a One Health approach.
  - **Assist with simulation exercises.** Provide technical assistance to Member States to conduct public health simulation exercises and intra- and after-action reviews under a multi-sectoral and One Health approach.
  - **Plan cross-country collaboration.** Leverage RCCs to facilitate planning



and coordination across Member States to allow Member States to assist each other during emergency responses when required.

- **Integrate health responses.** Work with Member States to provide guidelines on establishing mechanisms to incorporate health responses to natural disasters and biological and chemical threats.

*Objective 2: Strengthen robust emergency response and recovery capacities and capabilities to address public health emergencies at the continental, regional and Member State levels.*

- **Strengthen emergency response coordination mechanisms.**
  - **Support Member States' PHEOCs.** Support Member States to establish functional PHEOCs in NPHIs, including developing, approving, and implementing core PHEOC policies, plans and procedures.
  - **Assist in complementary response.** Strengthen Africa CDC's PHEOCs at the continental level and at RCCs to be able to provide complementary support to Member States' emergency response efforts.
  - **Support Member States.** Provide Member States timely guidance to respond to specific public health emergencies.
  - **Build leaders.** Develop African public health emergency leaders through training courses, internships and fellowships, including the Public Health Emergency Management fellowship programme.
  - **Support recovery and health system strengthening.** Work with Member States to support post-event recovery and health system strengthening, addressing the major gaps and vulnerabilities of the system to better manage outbreaks.
- **Strengthen African Volunteer Health Corps (AVoHC) technical assistance.**
  - **Identify required skills.** Support Member States and RCCs to identify required skill sets for emergency preparedness and response and facilitate capability-building support for surge capacity workforces.
  - **Develop emergency teams.** Expand AVoHC to include emergency medical teams that meet WHO minimum standards and work more efficiently.
  - **Maintain an expert roster.** Build and maintain a multi-disciplinary roster of well-trained experts that are readily available for deployment.
  - **Support rapid response.**
    - Develop and implement a deployment management system for delivery of timely and high-quality technical assistance.
    - Continue to deploy rapid responders to support Member States in their health emergency responses.
- **Protect healthcare workers and provide essential health services during outbreaks (IPC).**
  - **Provide and distribute equipment.** Provide protective equipment, including personal protective equipment, sanitisers and other medical supplies to healthcare workers responding to health emergencies.
  - **Support vaccination of workers.** Develop and implement (working with Member States) a continental healthcare worker vaccination programme to ensure that healthcare workers are vaccinated from diseases that commonly break out in their regions.
  - **Provide resources.** Ensure continuity of essential healthcare services while responding to disease outbreaks by providing resources, including healthcare workers and medical supplies.
  - **Train workforce on IPC.** Train healthcare workers on IPC and patient triaging.
  - **Safety and security of the responders when deployed for humanitarian response.** Ensure adequate systems and mechanisms for safety and

- security checks, as well clearance for operation from the respective authority in AU and/ or Africa CDC.
- **Ensure provision of medical countermeasures during public health emergencies.**
    - **Support medical countermeasure approval.** Establish processes to work with National Regulatory Authorities, regional regulatory bodies and the African Medicines Agency (AMA) to facilitate the approval of medical countermeasures, and collaborate with those conducting clinical trials to ensure the most critical products are being prioritised for testing and regulatory review during emergencies.
    - **Distribute medical products from stockpiles.** Distribute stockpiles to Member States during emergencies.
  - **Develop risk communication and community engagement.**
    - **Gather insights.** Conduct rapid anthropological assessments of behaviours and beliefs related to public health events.
    - **Manage messaging.** Develop timely and tailored risk communication messages before and during public health emergencies.
    - **Strengthen community engagement and risk communication:** Enhance community engagement and risk communication strategies to empower communities to actively participate in emergency preparedness and response efforts. This includes raising awareness, promoting health education, and facilitating community involvement in planning, decision-making, and response activities.
  - **Expand scientific evidence base for effective response to public health emergencies.**
    - **Support research.** Provide technical assistance and support to Member States to carry out quick research during emergencies to accelerate scientific evidence for decision-making.
    - **Develop technical documents for emergency preparedness and response.** Develop, review, adapt, adopt and pre-test technical documents for use in emergency preparedness and response.
    - **Expand knowledge.** Expand the scientific knowledge base on emergency preparedness and response through knowledge management, data and research.

*Objective 3: Bolster cross-border collaboration and coordination mechanisms for emergency preparedness and response.*

- **Strengthen cross-border multi-sectoral collaboration, cooperation and coordination of all relevant stakeholders.**
  - **Enhance collaboration.** Strengthen multi-sectoral collaboration and coordination, including political engagement and high-level advocacy, including framework agreements for emergency preparedness and response.
  - **Strengthen cross-border strategies.** Bolster joint actions plans for prevention and response to public health emergencies between cross-border Member States.
- **Establish an emergency declaration mechanism.**
  - **Define structures and roles.** Develop a robust architecture for declaring and responding to regional and continental public health emergencies, clearly laying out Member States and other stakeholders' roles.
- **Foster collaboration across regions and Member States.**
  - **Facilitate resource sharing.** Work through Africa CDC, RCCs and Regional Economic Communities to facilitate collaboration and sharing of information, expertise and resources in responding to emergencies impacting Member States or regions.
  - **Collaborate across Member States.** Establish a structured mechanism

- for Member States' collaboration in emergency preparedness and response activities.
- **Share best practices.** Establish platforms for sharing best practices and foster exchange programmes for emergency preparedness and response among Member States.
- **Bolster continental communication systems and engagement mechanism.**
  - **Build risk communication platforms.** Build continental risk communication platforms and integrated information management systems that will receive, analyse, display and monitor incident information during responses.
  - **Strengthen information-sharing platforms.** Strengthen available communication platforms to allow for timely sharing of critical information, assets and expertise among Member States.

### 3.1.4 Priority 4: Strengthen NPHIs

#### *Context and situational analysis*

NPHIs play a vital role in public health as they own and operate the core public health functions (including surveillance, emergency preparedness and response, laboratory diagnosis and systems, public health research, public health workforce development and health information systems) of Member States and provide a coordination mechanism for collaborative public health projects and programmes.<sup>70</sup> To perform these programmatic functions, NPHIs need to be empowered by effective legal and management structures and have robust internal functions, such as strategic planning, partnership management, resource mobilisation, communication infrastructure and workforce development.

Currently, approximately a third of Member States have established NPHIs as of June 2023, while another third are in the process of establishing one. Among the 19 established NPHIs (Burundi, Ethiopia, Rwanda, Somalia, Uganda, Kenya, Zambia, South Africa, Angola, Mozambique, Nigeria, Liberia, Cape Verde, Guinea-Bissau, Guinea, Burkina Faso, Morocco, Libya, Algeria)<sup>71</sup>, eight perform all six core public health functions, eight others perform some functions jointly with the ministries of health or other institutions. Public health research is the function that is predominantly led by NPHIs in all 19 countries. The established NPHIs have distinct levels of autonomy, depending on the status of their legal structure. Only nine of them have accessible strategic plans that clarify priorities and resource needs, and most have limited sources of sustainable and predictable funding.<sup>72</sup>

Africa CDC has seen the development of NPHIs as the foundation to strengthening public health at the national level. Africa CDC published the [Framework for Development of National Public Health Institutes in Africa](#)<sup>73</sup> in 2019 to serve as guidance for Member States to create more robust and effective NPHIs. Africa CDC has supported Member States in establishing NPHIs through technical assistance and coordination to develop outlines of NPHI models with road maps and legal frameworks. Working with partners such as the International Association of National Public Health Institutes, Africa CDC has been supporting Member States with established NPHIs through workforce training, infrastructure development, resource mobilisation and facilitation of stronger coordination between ministries of health and NPHIs. Across NPHIs and their partners, Africa CDC fosters knowledge generation and experience sharing through its convening and coordinating role.

70 Statistics on NPHIs were obtained from the Framework for Development of National Public Health Institutes in Africa Assessment Report.

71 These comprise Burundi, Ethiopia, Rwanda, Somalia, Uganda, Kenya, Zambia, South Africa, Angola, Mozambique, Nigeria, Liberia, Cape Verde, Guinea-Bissau, Guinea, Burkina Faso, Morocco, Libya, Algeria.

72 Statistics on NPHIs were obtained from the Framework for Development of National Public Health Institutes in Africa Assessment Report.

73 Africa CDC NPHI Development Framework, September 2019.

## Goal

Empower NPHIs in Member States to lead core public health functions.

## Objectives

1. Support the legal establishment of NPHIs.
2. Bolster the operational and programmatic functionality of NPHIs to a common and high standard.
3. Drive collaboration and communication between NPHIs and other critical public health players.
4. Establish NPHI centres of excellence (CoEs) in each geographic region of Africa.

## Actions per objective

*Objective 1: Support the legal establishment of NPHIs.*

- **Support the establishment of NPHIs.** Leverage the Framework for Development of National Public Health Institutes in Africa to develop business cases to advocate for the establishment of NPHIs in Member States without NPHIs.
- **Support the finalisation of the establishment of NPHIs.** Advocate and provide technical assistance for the finalisation of the establishment of NPHIs in Member States that have initiated the process, including through engaging with ministries of health and sharing best practices with Member States.
- **Support legal mandates.** Support Member States in the development of legal instruments to describe the mandate, core functions and authority of NPHIs.

*Objective 2: Bolster the operational and programmatic functionality of NPHIs to a common and high standard.*

- **Develop NPHI strategic plans.** Develop guidance on NPHI strategic planning and provide technical assistance to Member States to develop strong strategic plans for NPHIs.
- **Monitor and improve NPHI performance.** Monitor NPHIs' performance by publishing an annual scorecard and using it to guide and coordinate the actions of Africa CDC, Member States and partners to further strengthen NPHIs.
- **Strengthen NPHI programmatic functions.** Support the strengthening of NPHIs' programmatic functions through the actions under Programmatic Priorities 2 (build up proactive surveillance, intelligence gathering and early warning systems), 3 (ensure robust emergency preparedness and responses for all public health emergencies) and 5 (expand clinical and public health laboratory systems and networks), and Enablers D (public health research and innovation) and B (public health workforce development).<sup>74</sup>

*Objective 3: Drive collaboration and communication between NPHIs and other critical public health players.*

- **Foster mutual reliance among NPHIs.** Collaborate with NPHIs to establish networks that will allow NPHIs to access and rely on one another's programmatic functions when needed and share public health intelligence and learnings.
- **Coordinate partner support to NPHIs.** Host an annual convention between NPHIs and partners to coordinate and streamline initiatives and funding to support NPHIs regionally and continent wide.

<sup>74</sup> Where programmatic functions are not being carried out by NPHIs, support will be provided to the institutions that own the equivalent functions in Member States.



*Objective 4: Establish NPHI CoEs in each geographic region of Africa.*

- **Build regional CoEs for prioritised NPHI functions.** Identify potential CoEs among NPHIs in each geographic region on topics such as public health workforce development, national data management and analytics, public health research and emergency response coordination and build their capabilities.
- **Create a platform for sustainable cooperation and knowledge transfer.** Strengthen collaboration and networking between the CoEs and among the NPHIs in each region to build national capacity for early detection and prompt response to public health emergencies.

**3.1.5 Priority 5: Expand clinical and public health laboratory systems and networks**

*Context and situational analysis*

Strong laboratory systems and networks are required to advance diagnoses to enable early detection of diseases. Laboratory systems in Africa vary in terms of infrastructure and capabilities across different Member States, with very meaningful gaps. Currently, laboratory CoEs in Africa serve as key institutions that promote excellence in laboratory services, research and capacity building, contributing significantly to improving healthcare delivery and disease control on the continent.

As of 2020:<sup>75</sup>

- Less than 60% of tier 3 and 4 labs with diagnostic capabilities<sup>76</sup> had fully developed capacity for diagnosis of their country's priority diseases (and less than 3% had sustainable capacity). For instance, only a subset of labs could diagnose EVD (less than 15%), cholera (just over 50%) and measles (18%), with few or no labs capable of diagnosing other priority diseases.<sup>77</sup>
- Less than 5% of tier 3 and 4 laboratories had fully developed or sustainable capacity to adhere to international standards or best-practice regulatory requirements, and approximately 30% had no recorded capacity to do so.
- Only about 25% of tier 3 and 4 labs had fully developed capacity to transfer specimens securely and efficiently from facilities or field settings to laboratories (only 2% had sustainable capacity), and 20% had no recorded capacity to do so.
- Less than 5% of Member States had well-coordinated systems or networks of diagnostic facilities, laboratories and healthcare institutions.

Major challenges include weak laboratory governance with unclear mandates, insufficient capability to detect priority diseases (and in some cases, conflicting guidance on what constitutes priority diseases), a lack of monitoring and evaluation or quality management systems, fragmented and inefficient transport systems for lab specimens, a shortage of skilled workforce and regulatory obstacles. Further, Member States' laboratories rank below peers in other regions in terms of biosafety, biosecurity, molecular, genomics and bioinformatics capabilities and the supply chain of consumables. As a result of these gaps, priority diseases are gravely underdiagnosed (for example, approximately 30% of HIV-infected people in Africa have not been diagnosed, and 90% of people with hepatitis B or C are not diagnosed) and even where diagnostic capabilities exist, they are often slow and of poor quality. This further restricts effective disease surveillance and outbreak response.

In recent years, there has been a concerted focus on enhancing laboratory capability and capacity in Africa, driven by the challenges posed by the COVID-19 pandemic. Taking a leading role, Africa CDC collaborates with partners to support laboratory systems and networks on the continent. These efforts include mapping laboratory capabilities, establishing quality management systems, strengthening biosafety and biosecurity capabilities, enhancing workforce skills and developing genomics capabilities. Currently, some level of genomics capability has been established in 39 Member States, with the aim of extending these capabilities to cover all 55 Member States. Additionally, Africa CDC released guidance document on diagnostic capability building for Africa's priority diseases is underway in 15 Member States, with a specific emphasis on assessing needs and providing targeted support to address existing gaps.

In addressing the impact of poor laboratory systems in Africa, Africa CDC programmes such as RISLNET and Africa PGI have been crucial. RISLNET, a collaborative initiative, aims to enhance disease surveillance and laboratory capacity across the African continent. By fostering collaboration, information sharing, and resource mobilisation, RISLNET plays a pivotal role in strengthening laboratory networks and improving disease detection and response capabilities. Similarly, Africa PGI is a comprehensive programme aimed at leveraging genomic sequencing and analysis to enhance the understanding, monitoring and control of pathogens in Africa. Other notable Africa CDC initiatives include AfCAD, the Partnership to Accelerate COVID-19 Testing, and the Africa CDC biosafety and biosecurity initiative that was launched in 2019.

Other global health partners provide laboratory equipment, reagents and supplies; conduct trainings and capacity building; and support the development of guidelines and standards. For example, the WHO Global Laboratory Leadership Programme aims to develop laboratory leaders and empower national laboratory systems across the globe using a One Health approach to strengthen health security.<sup>78</sup> These combined efforts have resulted in progress, including increased

75 African Journal of Laboratory Medicine.

76 Tier 3: These are laboratories in second-level hospitals that receive specimens from their own patients and receive referrals from tier 1 and 2 facilities. They have significant numbers of pathology staff and cover all routine testing in the major pathology disciplines. Tier 4: These are laboratories in national or teaching hospitals that receive specimens from their own patients and receive referrals from tier 1, 2 and 3 facilities. They provide routine tests and highly specialised tests. In small countries, these facilities may be regional and shared by more than one Member State.

77 For example, Crimean-Congo haemorrhagic fever, yellow fever, Marburg virus disease, meningococcal meningitis, Rift Valley fever, dengue fever, polio, rabies, mpox and Chikungunya.

78 <https://www.who.int/initiatives/global-laboratory-leadership-programme>. Accessed 8 July 2023.

investment in laboratories for upgraded infrastructure, improved testing capabilities and expanded diagnostic services – yet challenges remain, as many Member States still do not have fully robust lab systems.

### Goal

Expand clinical and public health laboratory systems and networks for clinical services, disease surveillance and outbreak detection.

### Objectives

1. Strengthen laboratory infrastructure, systems and governance in Member States to detect priority diseases quickly and effectively.
2. Improve Member State access to diagnostics for effective disease detection, management and control.
3. Enhance molecular, genomics and bioinformatics capacity and capabilities of Member State laboratories to advance disease surveillance, clinical care and outbreak response.
4. Support mapping and optimising laboratory networks and sharing information between networks for effective and efficient laboratory services for surveillance, early detection and response to public health threats.

### Actions per objective

*Objective 1: Strengthen laboratory infrastructure, systems and governance in Member States to detect priority diseases quickly and effectively.*

- **Support strategic planning.** Provide guidance, technical expertise and support to develop comprehensive plans that align with national and regional priorities, promote standardised practices and enhance the overall efficiency and effectiveness of laboratory operations.
- **Strengthen laboratory infrastructure.** Support Member States to enhance the physical infrastructure of laboratories, ensuring that they have the necessary equipment, facilities and supplies.
- **Establish quality management systems.** Support the establishment and implementation of quality management systems in laboratories to ensure consistent and reliable results.
- **Develop policies and conduct advocacy.** Develop policies and guidelines that promote the integration of laboratory systems into national and regional health strategies, advocating for the importance of accurate and timely disease diagnosis.
- **Implement biosafety and biosecurity frameworks.** Support the implementation of biosafety and biosecurity frameworks to enable Member States to meet human resource, biosafety and legislative requirements. This includes strengthening national and regional technical working groups, enhancing regulatory and certification frameworks for institutions handling high-risk pathogen and toxins, providing training on biosafety and biosecurity and implementing the Africa CDC policy guidelines on biosafety and biosecurity.

*Objective 2: Improve Member States' access to diagnostics for effective disease detection, management and control.*

- **Promote local manufacturing of diagnostics.** Encourage local manufacturing of diagnostics through technology transfer, fostering the transfer of knowledge and expertise to enable the production of diagnostic tools within the continent.
- **Support regulatory streamlining.** Promote regulatory best practices for diagnostics in partnership with AMA and the African Medicines Regulatory

Harmonisation initiative. Advocate for capacity building in national regulatory authorities.

- **Increase diagnostic R&D.** Incorporate diagnostic research on priority diseases in the continental research agenda.
- **Expand access to biobanks.**<sup>79</sup> Strengthen the Africa biobanking network and selected CoEs. This includes leveraging existing capacities, e.g., with H3Africa, to improve infrastructure for biobanking, modernising data management systems, standardising processes and procedures and implementing strong biosafety and biosecurity measures.

*Objective 3: Enhance molecular, genomics and bioinformatics capacity and capabilities of Member State laboratories to advance disease surveillance, clinical care and outbreak response.*

- **Expand the network.** Promote the development and expansion of a continent-wide network comprised of CoEs for molecular<sup>80</sup> and genomic<sup>81</sup> laboratories, bioinformatics<sup>82</sup> and data systems.
- **Expand pathogen genomics capacity across Member States.** Facilitate the integration of genomics surveillance for priority diseases by expanding pathogen genomics capacity in Member States. This involves developing capacity, capabilities, comprehensive strategies, guidelines and policies to support genomic sequencing efforts.
- **Create enabling environment.** Advocate for stronger policies and governance structures in Member States to establish effective mechanisms for implementing and integrating genomic sequencing, including the utilisation of Africa PGI.
- **Promote genomic data sharing.** Establish a continental genomic data-sharing platform with a comprehensive strategy, governance framework (including data-sharing agreements) and guidelines. This platform aims to facilitate timely and secure sharing of genomic data across Member States, thus fostering collaboration and data-driven decision-making and advancing genomics research and surveillance efforts within Africa.

*Objective 4: Support mapping and optimising laboratory networks and sharing information between networks for effective and efficient laboratory services for surveillance, early detection and responses to public health threats.*

- **Optimise laboratory networks.** Strengthen RISLNET and the Geo-Mapping of Laboratory Capacity initiative to support the optimisation of laboratory systems within and across Member States.
- **Strengthen quality:** Promote and support the creation of laboratory networks that include public sector, academia and private sector laboratory service providers to drive quality improvements across the whole laboratory and diagnostics ecosystem.
- **Strengthen systems.** Strengthen continental specimen referral systems to allow easy and safe movement of specimens across borders, following international rules and regulations.

79 Biobanks are facilities that store and manage biological samples for research purposes, allowing for timely, high-quality, standardised and evaluated diagnostics.

80 Molecular is the analysis of biological substances at the molecular level; it aids in pathogen identification, genetic analysis and the development of targeted interventions.

81 Genomics refers to the study and analysis of an organism's complete set of DNA, including genes and their interactions; it provides insights into genetic variations, hereditary traits, and disease susceptibility.

82 Bioinformatics involves the application of computational methods and tools to analyse and interpret biological data, such as DNA sequences and protein structures, for insight into biological processes, genetic variations and disease mechanisms.



- **Integrate the One Health approach.** Highlight the need for interdisciplinary interconnectedness between human, animal and environmental laboratory systems to better identify potential health threats caused by human-animal-environmental interactions.
- **Connect assets.** Develop guidance and provide technical assistance to Member States on connecting their laboratory networks to surveillance assets.
- **Strengthen laboratory information systems and networks.** Provide technical assistance to strengthen laboratory information-sharing systems. Support data-sharing agreements.

### 3.1.6 Priority 6: Expand health product and technology innovation and manufacturing

#### *Context and situational analysis*

The New Public Health Order calls for expanded African manufacturing of health products and technologies in order to ensure that Member States have sustainable access to health products and technologies at all times, including for pandemic preparedness and response.

Africa is still heavily reliant on imports for most health products. As of 2019, Africa consumed about 25% of the world's vaccines and represented around 17% of the world's population but produced less than 1% of total continental demand. African manufacturing of therapeutics covers only 30-40% of total continental demand, compared to 60-80% for advanced and other emerging economies.<sup>83</sup>

For several years, there has been a significant effort to expand regional manufacturing of health products and technologies. This has been further motivated by the recent COVID-19 pandemic and explicitly encouraged by the New Public Health Order. Another motivation to grow regional manufacturing is to ensure that healthcare workers and other vulnerable groups can have quicker access to the health products needed to protect themselves from disease outbreaks.

Africa CDC has played a leading role in coordinating these efforts, notably through the establishment of PAVM<sup>84</sup> and the Harmonised Africa Health Manufacturing Platform (HAHMP)<sup>85</sup> – and by setting a 2040 target of having regional manufacturers supply at least 60% of vaccines used by Member States and establishing mechanisms to ensure certainty of demand for African-manufactured vaccines and other relevant pharmaceutical products.<sup>86</sup>

Despite notable recent momentum (including a substantial increase in investment in new manufacturing facilities and partnerships), an acceleration of progress is required to achieve this goal. This includes scaling up regional R&D activities, growing the talent pipeline, supporting national, regional and continental regulatory bodies and enabling easier trade of health products across the continent. Evolving African institutions are also expected to contribute to the strengthening of this ecosystem (including the African Medicines Agency (AMA) on regulatory oversight, clinical trials site inspections, GMP inspections and the AfCFTA on trade matters) – Africa CDC's role is complementary to these institutions.

#### *Goal*

Coordinate, build awareness and guide Member States on harmonised initiatives and policies across the continent to increase regional manufacturing and innovation of health products (as well as intermediates and raw material sourcing).

83 Export Inspection Council of India (2016), INSEE (2018), U.S. Commerce Department (2017), National Strategy and Plan of Action for Pharmaceutical Manufacturing in Ethiopia (2015), FEAPM (2018), UNIDO Kenya report(2011), Flanders Brazil (2018), Japanese Ministry of Health, Labour and Welfare (2019), Oxford Business Group – Egypt regulating pharmaceuticals production (2012) and Tunisian pharmaceutical industry is looking to export more (2016), Fitch African country reports

84 PAVM has been mandated by the AU to foster the emergence of a local vaccine manufacturing industry in Africa that can produce 60% of routine and outbreak immunisation vaccines sustainably and locally, up from less than 1% today.

85 HAHMP was established in response to the AU mandate set by the Assembly of the Heads of State and Government to expand regional manufacturing of health products.

86 <https://africacdc.org/download/communique-of-the-video-teleconference-vtc-meeting-of-the-bureau-of-the-assembly-of-the-african-union-au-heads-of-state-and-government-extended-to-african-vaccine-manufacturing-countries-held-on-1/> . Accessed 8 July 2023.

## Objectives

1. Provide support to enable scaling up capacity and infrastructure for local manufacturing and supply chain needs.
2. Provide support to inform the market design and demand intelligence, thus driving healthy markets for locally produced health products.
3. Strengthen the local R&D ecosystem through facilitating intellectual property (IP) and technology transfer and increasing R&D capabilities and capacities.
4. Attract investments to drive delivery of regional manufacturing initiatives through catalysing strategic partnerships and resources.

## Actions per objective

### *Objective 1: Provide support to enable scaling up capacity and infrastructure for local manufacturing and supply chain needs.*

- **Support Member States:** Engage health product and technology manufacturing Member States to accelerate and ensure demand of health products and technologies through financial or technical support, data sharing and facilitating connections to relevant stakeholders.
- **Scale up HAHMP.** Develop an evidence-based business case for the industrialisation and harmonisation of regional health product and technology manufacturing to establish and scale up HAHMP as the platform that will coordinate efforts to drive sustainable manufacturing across all priority health products in Africa to achieve the 2040 targets.
- **Address perception issues.** Advocate for proudly buying African-produced health products, working with partners to resolve existing challenges on the low reputation of African-produced products and facilitate technical support to regional manufactures to strengthen quality control processes.
- **Support regulatory harmonisation.** Support African Medicines Regulatory Harmonisation (AMHR) initiative under the African Union Development Agency – New Partnership for Africa's Development (AUDA-NEPAD) and AMA to drive the harmonisation of regulatory systems across the continent and accelerate the establishment of Regional Centres of Regulatory Excellence by providing technical support and resources to drive implementation and by supporting the operationalisation of AMA.
- **Strengthen the raw material and intermediates supply chain.** Implement strategies to enhance uninterrupted access to supply chain needs and ensure on-time delivery of raw materials and intermediates by: (1) building strong supplier partnerships, (2) fostering institutional facilitation of supply-securing measures, (3) developing a continent-wide buying consortium and (4) localising production of critical raw materials and intermediates.
- **Incorporate carbon reduction and green manufacturing principles.** Work with Member States to support regional health product manufacturing plans and provide technical assistance where required, including through mobilising technical assistance to support reducing carbon emissions in the supply chain.
- **Strengthen cross-border trade.** Work with AfCFTA to support strengthening cross-border trade in Africa, leveraging the benefits of the continental free trade agreements to ensure the low-cost cross-border movement of health products across the countries participating in the pooled procurement mechanism.



**Providing support to inform the market design and demand intelligence, will drive healthy markets for locally produced health products.**

*Objective 2: Provide support to inform the market design and demand intelligence, thus driving healthy markets for locally produced health products.*

- **Shape the market.**
  - Build an overarching market-shaping framework to identify and address current market challenges and manufacturing bottlenecks to be addressed through ecosystem solutions, including the lack of cost competitiveness versus foreign health product production and limited manufacturing coverage of the value chain.
  - Develop harmonised procurement and other market shaping continental policies through defining existing continental manufacturing bottlenecks to be addressed and engaging the ecosystem (including partners) around solutions to address these challenges.
  - Engage stakeholders and Member States to establish buy-in and collectively drive market shaping activities.
- **Secure demand.** Secure reliable demand for regionally manufactured health products and technologies by supporting the development of enabling procurement policies, as well as the design of a legal instrument (for example, a pooling mechanism, potentially with RECs) that will facilitate the aggregation of demand for regionally manufactured health products and technologies. Engage stakeholders and Member States to establish buy-in and collectively shape the pooled procurement mechanism as well as other market-shaping activities.

*Objective 3: Strengthen the local product R&D ecosystem through facilitating IP and technology transfer and increasing R&D capabilities and capacities.*

- **Support local product R&D efforts.** Advocate for additional resources to support local R&D activities to ensure that the outputs support a sustainable manufacturing ecosystem. Partner with stakeholders – including the private sector and stakeholders with knowledge of indigenous medicines – focusing on discovery, animal or clinical activities that will develop African-owned IP for regional-specific health products (designed with a gender-inclusive and child-inclusive lens) while building bidirectional partnerships for Africa to contribute to and draw from the global R&D ecosystem.
- **Facilitate technology transfers, IP and knowledge.** Facilitate technology transfer partnerships, expand access to IP by providing the necessary support and resources and establish a resource centre to institutionalise and expand the technology and IP knowledge across the continent. Ensure focus on transfers of IP for health products for priority diseases on the continent.

*Objective 4: Attract investments to drive delivery of regional manufacturing initiatives through catalysing strategic partnerships and resources.*

- **Serve as a connecting hub.** Build and coordinate respectful and action-oriented strategic partnerships (including with the private sector) and engagement with communities around regional health product and technology manufacturing.
- **Support evidence-based policy guidance development:** Support the acceleration of continental manufacturing initiatives and platforms by providing data and insights<sup>87</sup> to support the development of evidence-based policy guidance to enable regional health product and technology manufacturing.
- **Operationalise the PAVM Framework for Action<sup>88</sup>:** Drive the operationalisation of the PAVM Framework for Action by leveraging networks across all stakeholders, including identifying financing gaps and catalysing investments for manufacturing of health products and technologies on the continent.

<sup>87</sup> For example, value chain raw material assessment diagnostic to identify supply chain bottlenecks.

<sup>88</sup> The Framework for Action sets forth findings on the current vaccine manufacturing environment in Africa and recommends eight bold programmes to unlock Africa's potential to grow and scale vaccine development and manufacturing over the next two decades.

## 3.2 Enablers

### 3.2.1 Enabler A: Enhanced and integrated digital and analytics approaches to public health in Africa

#### *Context and situational analysis*

Globally, digital technology is a critical tool for enhancing healthcare delivery and improving health outcomes as well as catalyst for a proactive health system, shifting from illness response to prevention and wellness promotion. Digital technologies are a new frontier in healthcare and public health, serving as a canvas for innovation. Over the past decade, they have redefined care delivery, transcending geographical barriers with telemedicine, providing real-time health monitoring, and offering personalised treatment plans through data analytics and artificial intelligence. The COVID-19 pandemic has accelerated the adoption of digital solutions to meet new health challenges, extending quality care beyond health facility settings. This includes the implementation of innovative solutions, such as contact tracing apps, as well as the widespread scaling up of existing technologies, such as telemedicine and digital payments.

In Africa, digital infrastructure and technologies are carving a landscape in healthcare and public health, offering immense opportunities for innovation and pathways towards achieving the Universal Health Coverage objectives and aspirations by 2030. Numerous initiatives already implemented throughout the continent are positively impacting the way health services are delivered by enhancing access, improving care quality, promoting accountability, and reducing costs. In remote and underserved communities, digital approaches often hold the potential to become vital lifelines, with the capacity to bridge healthcare gaps, facilitate access to essential medical services, enhance health literacy and empower individuals towards better self-care. Accelerated adoption of digital and analytics approaches – in an integrated and coordinated manner – presents a unique opportunity for a transformative impact on Africa's health systems through alleviating significant challenges, such as insufficient funding, inadequate infrastructure and shortages of skilled healthcare workers, thereby improving health outcomes for millions of people on the continent.

Several factors underscore the importance of the potential of digital and analytical approaches to healthcare in Africa:

- Digital solutions, such as telemedicine and mobile health applications, can play a crucial role in improving accessibility, particularly in remote and underserved areas with low digital and internet penetration.
- Digital solutions can mitigate workforce shortages by enabling more effective training, task shifting, remote consultations and decision support systems.
- Digital solutions, such as health information exchange, remote patient monitoring and electronic health records, enhance data collection, analysis and reporting, enabling informed decision-making and improving system performance.
- Digital tools and analytics, such as syndromic surveillance systems, predictive analytics, machine learning and mobile health applications and wearable devices equipped with health monitoring capabilities, aid in disease surveillance, early detection and proactive response strategies.
- Digital tools and analytics, such as personal health applications, health education websites, online portals and data analytics with personalised insights, enhance health literacy and enable individuals to effectively manage their own health. They provide convenient access to health information, reliable resources and personalised recommendations, empowering individuals to make informed decisions and adopt healthier behaviours.
- Analytical tools allow for evidence-based policy making and efficient resource allocation, optimising health outcomes.
- Digital technologies promote local innovation, potentially driving new, context specific solutions to healthcare challenges while creating job opportunities for the young people involved.

However, there are challenges that have hindered the full realisation of the potential of digital solutions and analytics in Africa. They include:

- **Infrastructure limitations.** Inadequate infrastructure and limited connectivity significantly hinder the widespread adoption of digital solutions and analytics across Member States.
- **Digital divide.** Disparities in digital literacy and access to technology have created a divide within communities and Member States. Bridging this gap requires promoting digital literacy and providing equitable access to digital tools and services.
- **Data quality and interoperability.** Ensuring the quality and interoperability of data collected from various sources can be a challenge for Member States. Data standardisation, harmonisation and integration are essential for effective analysis and decision-making.
- **Data privacy and security.** Weak data privacy and security policies hinder the successful implementation of digital healthcare solutions. Robust policies and regulations are needed to safeguard sensitive health data, protect against cybersecurity threats and ensure compliance with data protection regulations to maintain public trust in digital interventions.
- **Financial constraints.** The limited availability of financial resources has hindered the implementation of robust digital infrastructure, data analytics platforms, digital health solutions and capacity-building programmes.
- **Digital skills gaps.** Inadequate training and capacity-building programmes have failed to equip healthcare professionals, public health policy-makers and individuals with the necessary skills to utilise digital tools and leverage analytics effectively.
- **Resistance to change:** There can be resistance from traditional health systems due to concerns about changing roles and responsibilities, job security, or perceived threats to the patient-provider relationship. Clear transformation roadmaps and effective change management are required to effectively drive adoption of digital health systems at scale.
- **Fragmentation of efforts:** A lack of coordination among different stakeholders has led to fragmented and inefficient efforts, reducing the overall impact of digital health initiatives.

Addressing these challenges and harnessing the full potential of digital solutions and analytics can significantly improve health outcomes in Africa.

Africa CDC has been actively engaged in bolstering digital health capabilities throughout the continent in areas such as digital surveillance systems, e-health and SMS-based platforms for healthcare. This Strategic Plan highlights the need for enhanced and integrated digital and analytics approaches and capabilities in Africa to achieve the goals of most programmatic priorities, including:

- Adoption of a person-centric approach to digitising healthcare services at primary care level
- Provision of digital tools for CHWs to support their work (for example, to collect and transmit data, access relevant health information, communicate with other healthcare providers, and provide remote support to individuals and communities)
- Further digitisation of surveillance systems across IBS, EBS and One Health
- Digitisation of laboratory systems and networks
- Digital platforms, technologies and resources for PHEOCs to enhance their operational capabilities to facilitate efficient data management, communication, coordination and decision-making during public health emergencies
- Digitised medical supply chain and logistics to improve the production, safety and delivery of medical products
- Interactive digital platforms, such as Atlas, as predictive engines to forecast public health threats
- Capacity to make use of latest artificial intelligence capabilities while mitigating potential risks
- Definition and harmonisation of data governance policies and regulations that promote data sovereignty, safety, security, privacy, access and use.



Recognising the importance of digital transformation of public health in Africa, Africa CDC published the [Digital Transformation Strategy](#) in March 2023<sup>89</sup>. This strategy, developed through a consultative process with Member States and other stakeholders, demonstrates the commitment to leveraging the power of digital solutions and analytics to improve healthcare delivery and health outcomes for the population.

#### *Goal*

Digital, analytical and innovative health approaches are incorporated into Member States' public health systems to make them more efficient and effective, enabling them to contribute to the public health objectives outlined in Agenda 2063 through the enabling of a continental innovation ecosystem.

#### *Objectives*

1. Support Member States to define and implement digital, analytical and innovative health strategies and solutions specific to their needs.
2. Develop data governance, interoperability and infrastructure guidance and support Member State adoption.
3. Support the development of health informatics leadership throughout the continent and foster digital health innovations that meet Africa-specific challenges.

#### *Actions per objective*

*Objective 1: Support Member States to define and implement digital, analytical and innovative health strategies and solutions specific to their needs.*

- **Perform actionable system assessments on digital maturity.** Work with Member States and partners to develop and execute a collaborative process to assess the maturity of Member States' digital health systems to provide a shared view on maturity levels, areas to strengthen and incentives to act.

<sup>89</sup> Africa CDC's Digital Transformation Strategy is accessible at <https://africacdc.org/download/digital-transformation-strategy/>. Accessed 7 July 2023.

- **Develop national digital health strategies.** Provide technical assistance to Member States in the development of national digital health strategies, action plans and regulatory frameworks for digital health.
- **Map and assess existing solutions for health system digitisation.** Work with partners to support Member States' efforts to map and assess existing digital solutions for public health and to recommend specific tools that support digitisation of the health system in areas such as clinics, hospitals, labs, pharmacies and the supply chain
- **Digitise surveillance and emergency preparedness and response systems.** Leverage modern digital approaches to strengthen continental, regional and Member State infrastructure for disease surveillance and other public health emergency preparedness and response activities, with clear data governance and incentives for Member States to share information.
- **Digitise medical product supply chains:** Work with Member States to leverage digital technologies to enhance supply chain management at the continental, regional and Member State levels to improve efficiency, traceability, and accountability in the delivery of medical supplies and services, and ensuring timely access to essential healthcare commodities, and responses to public health emergencies.
- **Develop point of care diagnostic tools:** Support the establishment and adoption of robust regulatory frameworks that ensure the data privacy and security, including for medical devices (e.g. diagnostic tools).

*Objective 2: Develop data governance, interoperability and infrastructure guidance and support Member State adoption.*

- **Provide guidance on interoperability.** Provide guidance to Member States on approaches to make their digital health solutions interoperable across functions and between Member States and the broader public health ecosystem.
- **Strengthen data governance.** Establish a continental digital health data governance mechanism encompassing digital public infrastructure<sup>90</sup> and digital public goods<sup>91</sup> to facilitate the adoption of open, African strategic standards and streamline public health data sharing across the continent, including sharing of comprehensive and high-quality genomic, surveillance and diagnostic data.
- **Support policy development for security, protection and standardisation.** Support Member States in developing policies and regulations that ensure that health data is collected and shared in a secure and standardised way. Support Member States in establishing data protection laws that protect the privacy and confidentiality of health data.
- **Support regulation of data markets.** Advocate for the regulation of health data markets within and across Member States to allow NPHIs, researchers and the private sector to use health data in a trusted and secure way.
- **Provide digital healthcare infrastructure guidance.** Work with Member States to establish technical guidance on operating infrastructure, equipment and core digital public infrastructure elements and build business cases to support investments therein, leveraging African digital solutions.

*Objective 3: Support the development of health informatics leadership and digital health innovations that address Africa-specific challenges.*

- **Establish network of professionals:** Establish networks of health informatics and digital health professionals on the continent to foster collaboration, knowledge exchange, and capacity building. Build these networks to be critical

<sup>90</sup> Digital public infrastructure refers to the interconnected systems, technologies and services that support the delivery of digital services and enable the efficient functioning of public institutions and services.

<sup>91</sup> Digital public goods are digital resources, tools or technologies that are freely available to the public, designed to enhance societal well-being, promote inclusivity and facilitate the delivery of public services.



catalysts, instrumental in driving digital transformation in healthcare, ensuring the development and implementation of effective, contextually relevant digital health solutions, and fostering a culture of innovation and continual learning.

- **Develop a digital workforce:** Support Member States' efforts to develop digital skills trainings and education for healthcare professionals and revise human resource frameworks to support the digital professional development of the professionals.
- **Support establishing innovation sandboxes.** Support the establishment of digital health innovation sandboxes<sup>92</sup> in Member States by providing guidance, expertise and support. This includes addressing public health issues through digital solutions.

### 3.2.2 Enabler B: Scaled up and best-in-class African public health workforce

#### *Context and situational analysis*

Strengthening the public health workforce in Member States is critical for increasing the capacity of public health systems and service delivery across Africa. However, Africa is facing a critical healthcare workforce shortage with the lowest regional healthcare worker to population ratio in the world (13.4 health workers per 1,000 people according to WHO).<sup>93</sup> Despite having over 20% of the world's disease burden, Africa only has 3% of healthcare workers globally (80% of the Sub-Saharan population are without a physician and 60% without a nurse or midwife)<sup>94</sup>.

This workforce shortage is particularly acute among essential public health cadres, such as field epidemiologists, frontline epidemiologists, emergency medical technicians, lab technicians, emergency supply chain logisticians and public health data scientists. For example, there are around 1 million CHWs in Sub-Sahara Africa against the estimated need of about 2 million, only 1,900 field epidemiologists out of the 6,000 required and only 5,000 of the needed 25,000 frontline epidemiologists.<sup>95,96,97</sup> Additionally, Africa has only 1.4 mental health workers per 100,000 people, compared to the global average of 9 workers per 100,000 people, further illustrating workforce constraints in growing areas.<sup>98</sup>

These public health workforce gaps are driven by:

- Limited public health workforce data, which hinders Member States' ability to effectively identify and plan for talent needs
- Low attraction and retention of public health talent, with some of the most qualified workers emigrating from the continent due to issues that include poor working conditions, limited remuneration and incentives and limited career pathways
- Insufficient and non-standardised public health workforce development programmes, due to:
  - Limited public health training schools and inadequate human and financial resources for training the workforce
  - Lack of standardised and harmonised public health training programmes, which limits knowledge and talent exchange
  - Poor cross-sectoral alignment, leading to educational programmes that are not always fit for purpose for health system needs

92 Sandboxes refer to controlled environments or platforms where innovators can experiment, test and develop new ideas and technologies. It allows them to access relevant data, tools and resources in a secure and supportive setting.

93 The states of health workforce report in the WHO Africa Region, 2022.

94 Asamani JA, Akogun OB, Nyoni J, et al. Towards a regional strategy for resolving the human resources for health challenges in Africa. *BMJ Global Health* 2019;4:e001533. doi:10.1136/bmjgh-2019-001533.

95 UN.

96 Nkengasong JN, Tessema SK. Africa Needs a New Public Health Order to Tackle Infectious Disease Threats. *Cell*. 15 October 2020;183(2):296-300. doi: 10.1016/j.cell.2020.09.041. PMID: 33064983; PMCID: PMC7560261.

97 UN, '2 million African community Health Workers: Harnessing the Demographic Dividend, Ending AIDS and Ensuring Sustainable Health for all in Africa.'

98 Sankoh O, Sevalie S, Weston M. Mental Health in Africa. *Lancet Global Health*. Volume 6, Issue 9, E954-E955, September 2018. Accessed at [https://www.thelancet.com/journals/langlo/article/PIIS2214-109X\(18\)30303-6/fulltext#seccesti-tle10](https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(18)30303-6/fulltext#seccesti-tle10).

Africa CDC has already launched several workforce development initiatives to address some of these gaps, including:

- Core public health workforce development programmes, including those focused on epidemiology and biostatistics, laboratory leadership and management, and public health informatics
- Several new public health capacity development programmes, such as the Field Epidemiology and Laboratory Training Programme<sup>99</sup> and the Kofi Annan Global Leadership Programme<sup>100</sup>
- Trainings delivered by the Africa CDC Institute for Workforce Development, in partnership with Rollings School of Public Health at Emory University

### Goal

Attract and grow a best-in-class African public health workforce across Member States.

### Objectives

1. Support Member States to identify and align public health workforce needs.
2. Support the development of Africa's public health workforce across Member States.
3. Scale up sustainable and institutionalised CHW programmes in Member States to address high-burden diseases and move towards achieving health equity.
4. Promote the creation of regional CoEs and capability networks.
5. Support Member States to strengthen the attraction and retention of Africa's public health workforce.

### Actions per objective

*Objective 1: Support Member States to identify and align public health workforce needs.*

- **Develop insights on workforce needs.**
  - Collaborate with Member States and academic institutions to develop agreed definitions of cadres that constitute the public health workforce in Africa.
  - Build evidence-based insight on talent needs across public health priorities and set a continental talent development agenda that serves as a basis for curriculum and pathway development (for example, in manufacturing, digital public health and research).
- **Align public health workforce employers, academia, civil society, Ministries of Health, NPHIs and other policy-makers on priority workforce needs.** Convene civil society, academia, employers and policy-makers to review current skill gaps and emerging public health workforce needs and create standardised, fit-for-purpose, competency-based education curricula and pathways across public health priorities that include:
  - Integrated health systems
  - Surveillance, intelligence gathering and early warning systems
  - Emergency preparedness and response
  - NPHIs
  - Laboratory systems and networks
  - Health product and technology innovation and manufacturing
  - Digital public health
  - Research and innovation

<sup>99</sup> Field Epidemiology and Laboratory Training Programme supports workforce capacity through three stages: advanced (a two-year course), intermediate and frontline.

<sup>100</sup> Supports public health leaders to acquire advanced skills and competencies to strategise, manage and lead public health programmes that will transform public health in Africa.



- **Promote gender-intentional strategies:** Develop strategies and programmes to enable women to develop and lead within the African public health workforce.
- **Support harmonisation and standardisation of public health education.** Advocate for continent-wide harmonisation and standardisation of public health workforce education programmes across public health priorities (for example, creating consistent standards for educational programming and certification to enable greater mobility of workforce).

*Objective 2: Support the development of Africa's public health workforce across Member States.*

- **Develop and support rollout of targeted workforce training programmes.** Partner with NPHIs, Ministries of Health and other relevant public health institutions to develop and implement online and in-person trainings for all levels of cadres relevant to core public health priorities (see Table 1 for examples).
- **Provide scholarships and fellowships.** Provide scholarships and fellowships to ensure that incoming trainees in high priority areas have access to the funding required to develop their skills (see Table 1 for examples).

*Objective 3: Scale up sustainable and institutionalised CHW programmes in Member States to address high-burden diseases and move towards achieving health equity.*

- **Drive coordination.** Advocate for and lead a continental coordination mechanism for scaling up institutionalised and sustainable community health systems with professional CHWs.
- **Support task shifting.** Guide and support Member States to build the capacity for designing and implementing task-shifting and task-sharing policies for integration of service delivery in primary health care.
- **Support integrated service delivery.** Provide technical support to Member States to develop and implement strategies, frameworks and policies for integrated service delivery in primary health care through CHWs.

*Objective 4: Promote the creation of regional CoEs and Regional Capacity and Capability Networks (RCCNs).*

- **Partner with NPHIs to develop regional COEs.**
  - Support identification and capability building of NPHIs to become regional CoEs, providing guidance and trainings to other NPHIs' staff and leadership once they are established.
  - Work with the NPHIs to develop core workforce development functions, including developing and rolling out trainings.
- **Launch RCCNs for regional manufacturing.** Establish adequate regional networks to meet the training needs of the manufacturing ecosystem.

*Objective 5: Support Member States to strengthen the attraction and retention of Africa's public health workforce.*

- **Develop guidance on incentives to attract public health workers and support workforce placement and retention.**
  - Provide policy guidance with Member States to develop incentives to improve the attraction and retention of the public health workforce (for example, career pathing and remuneration models).
  - Support Member States to increase their ability to attract African talent globally (including from the diaspora), better link talent to opportunities based on experience and skills and improve retention through targeted strategies (for example, clear career paths for in-demand professions).



**Table 1: Example workforce development activities across core public health priorities**

	<b>Example focus areas</b>	<b>Example of activities</b>
<b>Workforce trainings</b>	Surveillance, intelligence gathering and early warning signs ( <i>Programmatic Priority 2</i> )	<ul style="list-style-type: none"> <li>Work with Member States to strengthen workforces for surveillance functions, including EBS, AMR, and predictive surveillance.</li> </ul>
	Emergency preparedness and response capabilities ( <i>Programmatic Priority 3</i> )	<ul style="list-style-type: none"> <li>Develop African public health emergency leaders through training courses.</li> </ul>
	NPHIs ( <i>Programmatic Priority 4</i> )	<ul style="list-style-type: none"> <li>Expand programmes to deliver trainings to the NPHI workforce (for example, on epidemiology, biostatistics, clinical research, laboratory leadership and management, public health informatics, and evidence-based decision making).</li> </ul>
	Laboratory systems and networks ( <i>Programmatic Priority 5</i> )	<ul style="list-style-type: none"> <li>Provide training to laboratory personnel on core laboratory disciplines and technologies (for example, on advanced laboratory diagnostics, genomic sequencing, laboratory medicine, mass spectrometry and bioinformatics) to enhance the skills and performance of laboratory workforce.</li> <li>Support laboratory management and leadership trainings to advance the role of laboratory in clinical services, surveillance and outbreak response.</li> </ul>
	Digital and analytics ( <i>Enabler A</i> )	<ul style="list-style-type: none"> <li>Facilitate trainings and digital leadership development programmes to support Member States to address digital skills gaps in healthcare workers, including through providing online courses.</li> </ul>
<b>Fellowships and scholarships</b>	Emergency preparedness and response ( <i>Programmatic Priority 3</i> )	<ul style="list-style-type: none"> <li>Develop and expand internships and fellowships, including the Public Health Emergency Management fellowship programme.</li> </ul>
	NPHIs ( <i>Programmatic Priority 4</i> )	<ul style="list-style-type: none"> <li>Expand provision of scholarships for public health degree and certification programmes (for example, public health informatics and public health scholar fellowship programmes).</li> </ul>
	Digital and analytics ( <i>Enabler A</i> )	<ul style="list-style-type: none"> <li>Launch a health informatics fellowship.</li> </ul>

### 3.2.3 Enabler C: Secured and sustainable financing for public health in Africa

#### *Context and situational analysis*

Realising the goals of universal health coverage and achieving Africa's New Public Health Order will require significant financial resources and commitment. Member States will need to avail funding for programmatic priorities such as developing integrated health systems, implementing robust emergency preparedness, growing prevention and recovery capacities, ensuring suitable functionality and capacity of NPHIs, catalysing health product local manufacturing, supporting digitisation of public health and scaling up research and clinical trials activities.

However, financing for health in Africa has faced significant constraints, including:

- **Low total health expenditure.** In 2020, the average health expenditure per capita in Africa was US \$120, significantly lower than the global average of US \$1,100.<sup>101</sup> Additionally, for 18 Member States,<sup>102</sup> health expenditure per capita in 2020 was below the minimal level of US \$44 defined by the High-Level Task Force on Innovative International Financing for Health Systems.<sup>103</sup>
- **Low government health expenditure.** At least 19 Member States spent less than 5% of their annual public budget on health in 2020. Between 2018 and 2020, only South Africa has met the Abuja declaration target of spending 15% of total government expenditure on health.<sup>104</sup>
- **High out-of-pocket (OOP) costs.** Share of OOP spend in total health expenditure remains high, with an average of OOP share of 37% in Africa (compared to a global average of 18%), placing significant financial burden on individuals and households.<sup>105,106</sup>
- **High reliance on donor funding.** Donor funding increased to over 60% of total health expenditure in 2020, signifying a high degree of dependency on donors to fund public health priorities in many Member States and has often led to verticalised funding into disease-specific programmes and under-investment in integrated health systems.<sup>107</sup>
- Inefficient and inequitable use of the limited resources available.

These health financing challenges are partially driven by economic factors such as low GDP, uneven economic growth, limited government revenues and insufficient budget allocation to health because of competing priorities. An equally important challenge ad-hoc resources allocation practices and lack of systematic and evidence-informed priority setting mechanism to ensure maximum value is obtained from the limited resources available.

Africa CDC has several efforts underway to support Member States to develop robust public health funding, including convening African leaders on domestic financing strategies and establishing the Africa Epidemic Fund (AfEF) to allow for rapid deployment of resources during a health emergency. Further, the AUC and AUDA-NEPAD are working closely with Regional Economic Communities and Member States to provide strategic and technical support with the aim of improving domestic health financing.<sup>108</sup>

### Goal

Support Member States to expand and secure sustainable financial resources as well as institutionalize evidence-informed resource allocation practices to achieve public health priorities.

### Objectives

1. Support Member States to analyse and project their financing needs and gaps.
2. Encourage and support Member States to adopt sustainable approaches to domestic health financing.
3. Support Member States with coordination of external funding partners to address country-driven priorities.
4. Support Member States to effectively implement and institutionalize evidence-informed priority setting of healthcare resources

101 WHO, Global health expenditure database, AU data on Current Health Expenditure (CHE) per Capita in US\$, 2020.

102 WHO, Global health expenditure database, AU data on Current Health Expenditure (CHE) per Capita in US\$, 2020.

103 WHO, State of financing in the African Region.

104 WHO, Global health expenditure database, AU data on Domestic General Government Health Expenditure (GGHE-D) as % General Government Expenditure (GGE), 2020.

105 Africa CDC digital transformation study.

106 WHO, Global health expenditure database, AU data, OOP as % of Current Health Expenditure (CHE), 2020.

107 WHO, Global health expenditure database, AU data, External Health Expenditure (EXT) as % of Current Health Expenditure (CHE), 2020.

108 <https://www.nepad.org/news/alm-regional-health-financing-hubs-strengthening-health-systems-southern-africa>. Accessed 7 July 2023.

5. Design and facilitate fit-for-purpose continental financing mechanisms to meet the needs of Member States.

#### *Actions per objective*

##### *Objective 1: Support Member States to analyse and project their financing needs and gaps.*

- **Analyse and align on public health funding needs.** Proactively engage Member States and provide technical support to review financing needs for health into 2030, based on existing national strategic plans and road maps and considering evolving disease burden profiles, emerging opportunities (such as digitalisation) and threats (such as climate change) that are relevant for the local contexts.
- **Assess financing gaps.** Support Member States in developing a comprehensive view of potential financing gaps based on assessing current and prospective domestic and external sources of funding into 2030.
- **Track financing:** Provide support to Member States to track both donor and domestic health financing through the Health Economics Programme.
- **Ensure efficient use of funds:** Support Member States to identify and implement approaches that improve the efficient use health funding, through resource optimisation and evidence-informed priority setting and health technology assessments.

##### *Objective 2: Encourage and support Member States to adopt sustainable approaches to domestic health financing.*

- **Advocate for increased government expenditure in health.** Support Member States to develop evidence-based investment cases for their respective public health priorities and advocate for commitment and increased allocation of government budgets.
- **Improve sustainability of domestic funding.** Support Member States to identify new and improve existing sources and approaches of domestic health financing, including innovative financing solutions.

##### *Objective 3: Support Member States with coordination of external funding partners to address country-driven priorities.*

- **Develop tailored approaches to mobilising external funding.** Support Member States to develop evidence-based approaches, including investment cases, for mobilising external funding to fill the gaps beyond domestic resources in the short and medium term.
- **Coordinate and support resource mobilisation efforts.** Lend Africa CDC's voice and convening power to Member States, as required, to mobilise and coordinate external funders to address country-driven priorities; support Member States in developing strong platforms and capabilities to coordinate the resources and efforts of external funding partners.

##### *Objective 4: Support Member States to effectively implement and institutionalize evidence-informed priority setting of healthcare resources*

- *Develop and deploy a continental framework to guide institutionalization of evidence-informed priority setting to ensure efficient and equitable use of healthcare resources*
- *Build Member States' capacity to generate and synthesize evidence to support the implementation and institutionalization of evidence-informed priority setting mechanisms*
- *Engage with high level policy and decision makers to advocate for evidence-informed priority setting*

*Objective 5: Design and facilitate fit-for-purpose continental financing mechanisms to meet the needs of Member States.*

- **Design and operationalise AfEF.** Operationalise AfEF as a fund to support public health security in Member States by helping build reserves for emergency prevention, preparedness and response capabilities. These funds will have several sources (for example, donors, voluntary Member State contributions) and the potential to be rapidly deployed to respond to emergency situations.
- **Explore the need for and establish additional continental financing mechanisms.** Continuously assess the need for any new financing mechanisms or approaches based on a pressing yet unaddressed financing need of Member States. Focus on designing to complement domestic funding sources, and with sustainability built in from the start.

### **3.2.4 Enabler D: Strengthened public health research and innovation to improve public health decision-making and practice**

#### *Context and situational analysis*

Strengthening public health requires that ethically generated evidence on priority health problems in Africa can effectively inform public health decision-making and practices to achieve positive health outcomes. This requires:

1. A research agenda focused on Africa's health priorities that can guide and coordinate health research activities on the continent
2. A coordinated research and clinical trial ecosystem that facilitates better alignment of the clinical trial pipeline with African health priorities
3. Guidelines and policies that are informed by African-generated evidence (including research data generated from clinical trials and other research outputs)

#### **African health research agenda**

Africa CDC aims to support the public health research agenda definition and stakeholder coordination, in line with the core functions of CDCs globally.<sup>109,110</sup> These efforts would focus on addressing the following challenges faced by Member States across the continent:

- Lack of health research priorities in many Member States
- Lack of domestic funding for health research given competing Member States' priorities
- Lack of adequately coordinated research activities (for example, not aligned to a broader research agenda, duplication of efforts)

Africa CDC has already made strides towards engaging Member States in a consultative process to develop a health research agenda for Africa. Africa CDC aims to further support Member States to align stakeholders on the health research agenda and coordinate Africa's public health research ecosystem. An African health research agenda will also help direct efforts on research for priority health conditions including the use of indigenous medicines in collaboration with existing research networks and NPHIs.

<sup>109</sup> Research functions of CDCs can be grouped into 9 categories: agenda definition, stakeholder coordination, securing funding, capability building, translation and implementation, evaluation of impact and quality, basic and applied research, data collection and analysis, knowledge synthesis. These can be carried out either directly or indirectly with partners.

<sup>110</sup> Africa CDC aims to focus on agenda definition, stakeholder coordination, securing funding, capability building, translation and implementation, evaluation of impact and quality, knowledge synthesis.





Strengthened public health research and innovation to improve public health decision-making and practice

## Research ecosystem

Research is an important tool in solving Africa's health needs. However, the continent currently has a low health research capacity. Taking clinical research as an example, relatively few clinical trials are conducted in Africa overall. By 2022, there had been over 16,000 clinical trials ever conducted in Africa.<sup>111</sup> These clinical trials have been highly concentrated in two countries (over 50% of trials in Egypt and over 20% in South Africa), with most trials in phases 3 and 4, where product efficacy and effectiveness are being tested at a large scale.<sup>112</sup> These African clinical trials represented only an estimated 2-4% of global clinical trials<sup>113</sup> despite the continent having approximately 15% of the world's population.<sup>114</sup>

In addition to the previous challenges outlined, Africa's research ecosystem is constrained by the following challenges:

- Priorities are frequently mismatched between external funders, outside of Africa, and local public health needs. In the case of clinical trials, this has led to limited investment in the discovery phase and phase 1.<sup>115</sup>
- Clinical research capacity and capabilities remain concentrated within a few countries and institutions, while other research centres and countries struggle to retain talent and build capacity.

Africa CDC, in collaboration with AUDA-NEPAD as well as with support from other AU agencies such as AMA and AfCFTA, aims to coordinate clinical research at a continental level. To achieve this goal, Africa CDC has already launched several activities including building world-class facilities, developing a workforce for clinical research, and establishing a coordinated framework to increase efficiency. However, evolving health priorities point to a growing need for greater research capacity and innovations on the continent. There is need for relevant research activities beyond product R&D (focus area for programmatic priority 6), such as health systems research, social research (e.g., social factors in uptake of health products in local populations) and basic research (e.g., epidemiological studies).

## Health policy guidance

A core function of Africa CDC is to provide guidance to Member States on their public health policies, by gathering and analysing evidence, developing and publishing guidance documents, and helping Member States translate guidance into effective health policies.

Africa CDC is already providing Member States with guidance on health policy development and technical assistance on how to translate gathered evidence into tangible health policies. However, these activities face the following challenges:

- African-context-specific research outputs that could inform health policy development are insufficiently generated (for example, as of 2018, less than 1% of scientific articles published worldwide each year included at least one author based at an African institution).<sup>116</sup> This results in reliance on international scientific evidence that may not always be applicable to the African context.
- Capacity constraints within Africa CDC hinder developing and providing Member States with technical assistance on policy guidance at the desired frequency.

### Goal

Establish an Africa centred health research agenda, coordinate the African health research ecosystem and strengthen evidence-driven policy guidance and innovation.

111 Clinicaltrials.gov.

112 Clinicaltrials.gov.

113 Clinicaltrials.gov.

114 Bairu M, Chin R. Global Clinical Trials Playbook (ed 1) Amsterdam, the Netherlands, Elsevier, 2020.

115 Clinical trials generally have four phases: discovery phase, phase 1 (preclinical research), phase 2 (clinical research) and phase 3.

116 Duermeijer, C., Amir, M., & Schoombee, L. Africa generates less than 1% of the world's research; data analytics can change that. Elsevier Connect, 2018.

## Objectives

1. Develop a comprehensive African health research agenda.
2. Improve and coordinate the health research ecosystem.
3. Strengthen evidence-driven health policy guidance and innovation.

## Actions per objective

### *Objective 1: Develop a comprehensive African health research agenda.*

- **Develop a research prioritisation framework.** Outline a framework which Member States can use to identify and prioritise public health priorities for research.
- **Work with Member States to develop public health research priorities.** Engage Member States to outline their national public health research priorities and consolidate these into regional research priorities.
- **Set Africa's health research agenda.** Outline and regularly update an African public health research agenda based on Member State and regional priorities, gaps identified within policy frameworks and the status of evidence across the continent, ensuring that the agenda is bidirectional (i.e. Africa can contribute to and draw from the wider R&D ecosystem).
- **Identify gaps in research on effectiveness of existing public health interventions on priority health conditions.** Evaluate the effectiveness of existing public health interventions for priority health conditions as determined by health policy instruments of the AU.
- **Apply cross-sectoral One Health strategies to the Africa CDC health research agenda.** Convene cross-sectoral players to identify and prioritise research topics focused on the current and emerging linkages between the health of humans, animals and the environment in Africa. Ensure that these priorities are incorporated into the health research agenda.
- **Align stakeholders across Africa through a coordinated plan of action.** Convene and align Member States and other public health stakeholders on the research agenda, overall plan of action, milestones as well as roles and responsibilities.
- **Increase coordinated health research funding.** Develop and implement a strategy to support the African continental research agenda including:
  - Advocating for Member States to commit and allocate budget to health research.
  - Mobilising funds in a coordinated manner from external funders to support research on Africa's health priorities.

### *Objective 2: Improve and coordinate the health research ecosystem.*

- **Identify existing research capacity.** Engage with Member States to outline and map existing research capacity across the continent.
- **Promote collaboration and coordination among existing networks to conduct research on priority issues of public health importance.**
  - Advocate for clinical research to be guided by the Africa health research agenda to ensure that priority public health issues are addressed and well-funded, and priority health products are being developed and tested, including supporting research during outbreaks and emergencies.

- Set up research coordination mechanisms, particularly a clinical trial coordination team in collaboration with AUDA-NEPAD, to drive and increase collaboration across the ecosystem.
- Establish a digital coordination platform for the African clinical trial ecosystem.
- Develop and implement a 10-year clinical trials road map to coordinate the activities of stakeholders, including outlining core research activities and milestones for stakeholders across the ecosystem, based on Africa's health priorities.
- **Strengthen research capacity.** Identify research capacity needs (infrastructure, financial and non-financial resources) and drive investment in strengthening research capacity to carry out world-class research in a collaborative cross-sectorial manner across the continent.

*Objective 3: Strengthen evidence-driven policy guidance and innovation.*

- **Strengthen translation of research into policy and practice.**
  - Proactively identify where new guidance is needed to support Member States in policy development (both for emergency and non-emergency contexts) and analyse evidence to develop guidance materials for Member States.
  - Promote frameworks guiding Member States' public health policy development and regularly assess gaps within existing policy frameworks.
  - Regularly publish African scientific findings and capacitate researchers in Member States to also publish in Africa CDC's Journal of Public Health in Africa and other scientific journals.
  - Proactively engage Member States on relevant public health policy guidance and recommendations and provide technical assistance to support Member States in the translation of policies to practice, including adoption of innovations.

### **3.2.5 Enabler E: Coordinated, respectful and action-oriented public health partnerships and strengthened engagement with communities on public health needs**

#### *Context and situational analysis*

Member States could benefit from greater coordination among partners to focus resources and efforts on the highest priority areas, minimise duplication of efforts, and identify impactful opportunities for collaboration. However, there are currently limited partner coordination platforms led by African institutions, creating an opportunity for Africa CDC to take this lead role within the public health ecosystem.

Africa CDC has already formed a robust network of partnerships, including global health peers, funders, research organisations and implementing partners. These partnerships have contributed to Africa CDC's ability to fulfil its vision and mission in the past six years. By collaborating with partners, Africa CDC secures funding, facilitates collaboration and coordination on crucial programmes, receives political support for its initiatives and ensures effective implementation of its programmes.

Currently, Africa CDC's partnerships are in varying stages of maturity across organisational categories:

- **Funders/donors.** Africa CDC has several well-established, multi-year partnerships with donors that cover a range of priorities, as well as with funders of specific programmes.

- **Global health peers.** Africa CDC has many collaborative efforts with global and regional public health institutions, including through joint action plans.
- **Implementing partners.** Africa CDC engages with and deploys local implementing partners to deliver some of its programmes; in many cases, donors fund the implementing partners directly with Africa CDC's guidance.
- **Academic institutions.** Africa CDC collaborates with academic partners on research, guidance development and the delivery of leadership and training programmes.
- **Civil society organisations and communities.** Africa CDC has had some initiatives targeted at civil society organisations and communities; however, a more robust community engagement strategy is required.
- **Private sector.** Africa CDC's partnerships with the private sector are in a nascent stage.

The New Public Health Order for Africa calls for Africa CDC to broaden its impact by bolstering collaborations within the public health ecosystem and establishing enduring partnerships centred around respect that are action oriented.

### Goal

Support Member States to attract and retain partners, foster respectful and action-oriented public health partnerships and strengthen engagements with communities and the public on their health needs.

### Objectives

1. Attract and onboard partners aligned to Africa CDC's vision and mission.
2. Strengthen respectful and action-oriented partnerships between Africa CDC and its partners.
3. Support effective engagement with communities and the public to understand and respond to their health needs.

### Actions per objective

*Objective 1: Attract and onboard partners aligned to Africa CDC's vision and mission.*

- **Strengthen Africa CDC's capabilities to attract and onboard new partners.**
  - Develop and socialize a partnership strategy aligned to Africa CDC's goals
  - Engage potential partners through forums and high-level engagements.

*Objective 2: Strengthen respectful and action-oriented partnerships between Africa CDC and institutions in the public health ecosystem.*

- **Deepen goal-oriented partnerships.**
  - Guide partners on where they can invest in the African public health ecosystem in ways that align with partner mandates and Africa CDC's priorities.
  - Regularly engage with partners on goal-alignment exercises to identify new opportunities for collective impact.
- **Improve partnership operations and accountability.**
  - Develop programme performance feedback mechanisms to engage donor partners on the performance of collaborative programmes.
  - Strengthen monitoring and evaluation systems that will allow Africa CDC to track, report and engage implementing partners and establish mechanisms to increase efficiency of grant management.

*Objective 3: Support effective engagement with communities and the public to understand and respond to their health needs.*

- **Develop and implement a comprehensive strategy for community engagement.** Actively involve communities in public health initiatives by fostering two-way communication channels, promoting community participation in decision-making processes and tailoring interventions to meet their specific needs. The strategy will outline how various arms of Africa CDC (RCCs, centres and divisions) and partners can prioritise community involvement, tailor and direct public health interventions to respond to the unique requirements of each community.
- **Support communication and engagement with the public.** Share evidence-backed public health information with a focus on reinforcing positive behaviours, increasing risk perception, and empowering individuals to make healthier choices. Additionally, regularly engage the public on their health needs through various channels and implement targeted interventions based on identified needs.

### 3.2.6 Enabler F: Strengthened engagement and support of Member States through RCCs and in-country presence

#### *Context and situational analysis*

To effectively deliver on its objectives, Africa CDC needs to have regional and in-country presences to support programmatic execution and engagement with Member States. These activities are ideally coordinated through Africa CDC's five RCCs.

Africa CDC aims for RCCs to support the following:

- **Engagement and coordination.** Ensuring alignment between Member States, Regional Economic Communities and Regional Health Organisations, NPHIs and Africa CDC – particularly coordinating response capabilities during public health emergencies.
- **Linkage of public health assets.** Supporting Member States and NPHIs to ensure that core public health capabilities are established and strengthened leveraging public health networks and assets.
- **Knowledge exchange.** Enabling public health information exchange and knowledge creation across Member States, Africa CDC and other relevant stakeholders.
- **Implementation of Africa CDC's strategy.** Providing technical assistance to Member States and their public health institutions, coordinating institutions and monitoring progress on Africa CDC's strategic priorities. This includes implementation of the Regional Integrated Surveillance and Laboratory Network (RISLNET), focused on ensuring that Member States have adequate laboratory and surveillance capacity and capabilities to rapidly identify outbreaks.<sup>117</sup>

As of June 2023, three of the five RCCs (in East, Central and Southern Africa) were fully operational. These three RCCs have launched several programmatic activities<sup>118</sup> and established governing structures such as Regional Ministerial Steering Committees and Regional Technical Advisory Committees. Additionally, RISLNET has been launched in Central and West Africa and is going to be launched in Southern and East Africa.

Although progress is being made, RCCs still face various challenges that prevent full operationalisation:

- **Slow progress towards establishing a presence in some regions.** The West and North Africa RCC are in the early stages of operationalisation although an RCC focal point has been appointed for North Africa. Additionally, the North and West Africa RCCs do not yet have the required regional governing structures.

<sup>117</sup> The RCCs will serve as a secretariat of RISLNET and shall be responsible for coordinating the activities of all working groups as well as the other organs.

<sup>118</sup> Activities include: 1) launching the SLL Initiative, 2) capability building of CHWs through ECHO session and 3) engagement of Member States, Regional Economic Organisations and Regional Health Organisations.

- **Lack of decentralised funding mechanisms.** RCCs do not currently have a decentralised funding mechanism for core operations and programmes (namely, surveillance, emergency preparedness and response, laboratory), impeding the RCCs' ability to independently drive progress on Africa CDC's strategic focus areas.
- **Limited capacity at the regional level.** While RCCs have developed a hiring plan, there remains a need to identify and onboard additional workforce.

In addition, Africa CDC has the intention to build stronger in-country presence to provide technical and advisory support directly to Member States, furthering implementation of Africa CDC's strategy. Africa CDC has already started to build this presence through the National Coordinators that are being deployed under the SLL Initiative across all 55 Member States.<sup>119</sup>

In light of this, Africa CDC's focus during this period will be on setting up and fully operationalising all RCCs and strengthening its in-country presence, equipping them with adequate staff to support the functions of the RCC (15 staff) and Country Teams (5 staff).

### Goal

Strengthen RCCs to deliver on their core functions and have deep, trust-based, mutually respectful relationships in their regions and Member States, and in-country presence is strengthened.

### Objectives

1. Establish and operationalise RCCs in all five regions.
2. Implement activities, based on Member State priorities and Africa CDC's guidance, through RCCs.
3. Strengthen Africa CDC's in-country presence.

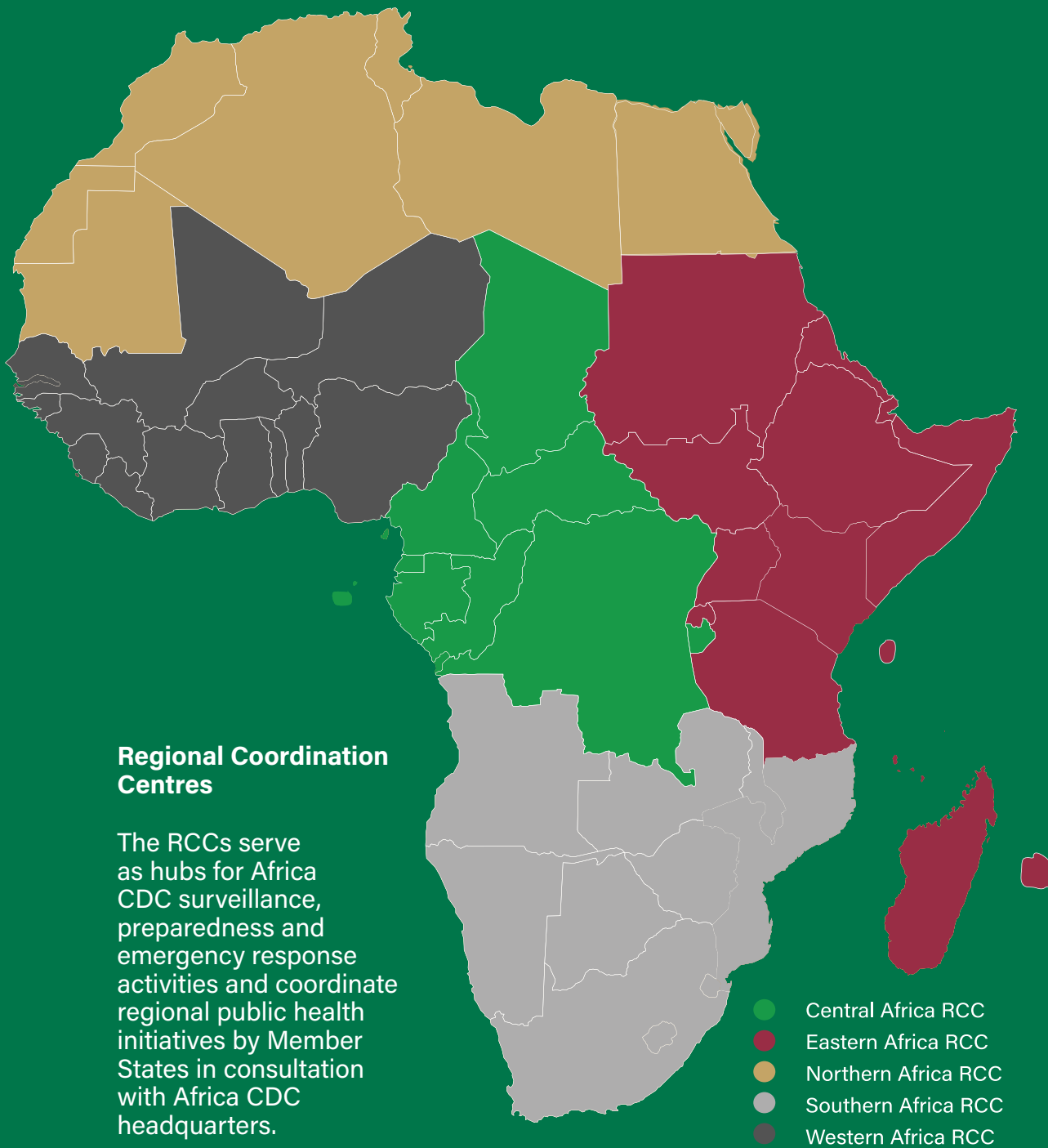
### Actions per objective

#### Objective 1: Establish and operationalise RCCs in all five regions

- **Establish RCCs.** Identify a host Member State and sign an RCC host agreement in North Africa
- **Operationalise RCCs.**
  - Develop a clear operating model and roles and responsibilities between Africa CDC headquarters and RCCs, programmatic country-facing staff (e.g., National Coordinators hired as a part of the Saving Lives and Livelihoods Programme) and other deployed technical assistance staff<sup>120</sup> with a clear decision-making framework and performance management mechanisms to enable oversight and optimal operating models across RCCs.
  - Identify and provide required resources (financial and non-financial) to RCCs to enable a decentralised approach to implementation.
  - Localise dedicated RCC leadership and staff in the regions to be able to deliver support to Member States more easily.

<sup>119</sup> As of June 2023, 49 of the 55 National Coordinators had already been hired.

<sup>120</sup> Staffing needs of each RCC will be dependent on regional needs but each RCC is expected to require approximately 15 staff



**Regional Coordination Centres**

The RCCs serve as hubs for Africa CDC surveillance, preparedness and emergency response activities and coordinate regional public health initiatives by Member States in consultation with Africa CDC headquarters.

- Central Africa RCC
- Eastern Africa RCC
- Northern Africa RCC
- Southern Africa RCC
- Western Africa RCC



*Objective 2: Implement activities, based on Member States' priorities and Africa CDC's guidance, through RCCs.*

- **Align on main priority areas for RCCs to provide support.** Develop concrete plans for RCCs to support Member States based on a combination of NPFI (or ministry of health, in countries without an NPFI) plans and region-specific priorities from Africa CDC divisions and centres.
- **Develop an effective implementation model.** Develop and institute an RCC operational framework that will define an implementation model that ensures synergy, alignment and harmony in priority health strategies under the Africa CDC programmatic areas, Regional Economic Communities, Regional Health Organisations, other health stakeholders present within the regions and the Member States.

*Objective 3: Strengthen Africa CDC's in-country presence.*

- **Develop in-country models based on learnings from SLL Initiative National Coordinators.**
  - Assess Member States' needs and outline potential models for Africa CDC's in-country presence.<sup>121</sup>
  - Partner with Member States to appropriately evolve Africa CDC's in-country presence (including activities such as developing in-country support model and identifying priority focus areas).
  - Strengthen collaborations with Regional Economic Communities to enhance public health programmes in Member States.

### **3.2.7 Enabler G: Strengthened governance, internal structures, processes and capacity to enable Africa CDC to deliver on its mandate**

#### *Context and situational analysis*

Africa CDC is undergoing a moment of significant change and expansion of responsibilities, driving the need for strengthened governance, internal structures, processes and capacity. This shift is driven by a few factors including:

- Africa CDC's recent elevation to an autonomous body of the AU from a specialised technical institution of the AU has given Africa CDC control over functions previously managed under the supportive departments of the AUC.
- Member States and other stakeholders have increased expectations of Africa CDC's leadership of the New Public Health Order because of the greater role the organisation has taken in recent years.
- Africa CDC is experiencing increased operational complexity and diversity of programmes.

Africa CDC's recent elevation to an autonomous agency of the AU provides the organisation an opportunity to implement organisational systems and approaches.

#### **Governance and internal structures**

Africa CDC is implementing the operationalisation of its new status as an autonomous body of the AU by ensuring proper procedures are in place for reporting to the Committee of Heads of State and Government as its highest decision-making body. However, owing to the uniqueness of its mandate as an autonomous health agency of the AU, Africa CDC governing bodies (primarily the Governing Board and Advisory and Technical Council) will need to have the right contextual knowledge, information and evidence to enable them to govern the agency well.

<sup>121</sup> Staffing needs to enable Africa CDC's country presence will be dependent on Member States' needs but is expected to require approximately 5 staff for each Member State



*Africa CDC staff at the Africa CDC headquarters in Addis Ababa, August 2023*

### **Africa CDC's processes and internal operating model**

Africa CDC's broadened responsibilities are driving a need for meaningful operational process strengthening. In order to deliver on its mandate effectively and efficiently, there is a need for Africa CDC to:

- Expand the breadth and depth of core functions and processes: Africa CDC's recent elevation to an autonomous body of the AU, giving Africa CDC additional operational responsibilities and thus requiring redesign of some processes.
- Address inefficiencies caused by processes today, especially those that require new digital systems or tools to improve efficiency and information flows: Currently few of Africa CDCs are digitised, resulting in manual and time-consuming processes that have limited tracking and management mechanisms. For example:
  - Africa CDC has not historically had access to an internal recruiting platform, limiting the organisation's ability to effectively track and have oversight of the recruiting process.
  - Africa CDC does not have strong systems to capture information on external funding flows in real time (meaning funds that flow directly from funders to implementing partners), limiting the organisation's ability to identify emerging issues and develop interventions to address them.
  - Africa CDC needs to increase efficiency of its partnerships by ensuring that partnership management processes and systems are clearly outlined and shared with all Africa CDC divisions.

To address these challenges, Africa CDC has already begun improving its processes by developing a high-level Framework of Operations for an autonomous Africa CDC and commencing the redesign process for select functions including:

- Developing operational tools, systems and training packages to support the redesign of the operational processes
- Identifying digitisation opportunities to improve the efficiency of its operational processes

Africa CDC will undertake its tasks and responsibilities ethically by upholding core principles and values of Africa CDC as well as relevant AU rules and regulations.

### **Africa CDC's workforce and leadership capacity**

Africa CDC's effectiveness in driving this strategy forward will in part be determined by its internal workforce. Thus, Africa CDC is working to increase its internal capacity.

Africa CDC needs more than 900 staff members to effectively implement its operations and deliver programmes across the continent.<sup>122</sup> In the past, Africa CDC has seen some challenges with managing its workforce, including:

- Need for more diverse talent attraction and a systematic recruiting system: Roughly 70% of people who apply for roles at Africa CDC are from five Member States. Additionally, 60% of Africa CDC's workforce are men (despite 70% of the healthcare sector workforce being women).
- Need to improve the effectiveness of workforce performance management: Africa CDC's performance management approach does currently not allow for effective management of its workforce, thus there is a need to improve the effectiveness of workforce performance management to ensure that staff have adequate professional development opportunities and are held accountable for performance.
- Professional development opportunities for Africa CDC's staff that can be strengthened: Currently, Africa CDC does not have processes to effectively identify or track internal capability-building needs, with staff learning predominantly provided through one-off training modules. This presents an opportunity to establish comprehensive, learner-centric programmes that support development and advancements cross career pathways.

<sup>122</sup> Africa CDC Management and Administration Division.



## Africa CDC's financial capacity

As Africa CDC's mandate has broadened in recent years, the organisation has required and received increased internal and external funding.

**Internal funding:** Internal funds flow through AU accounts. In 2022, Africa CDC had an internal budget envelope of US \$53 million, representing a 40% increase from 2020, across three categories as follows:

- Operational budget (8% of the 2022 budget) – funded primarily by Member States for Africa CDC's fixed costs (for example, regular staff, rent, utilities, office space)
- Programmatic budget (18% of the 2022 budget) – mainly funded by donors to cover Africa CDC's programmatic priorities (for example, technical assistance, programme delivery)
- Emergency budget/COVID-19-specific budget (75% of the 2022 budget) – funded by donors and Member States in the wake of the pandemic, highlighting the organisation's increased ability to mobilise resources in support of public health emergencies

Between 2020 and 2022, Africa CDC improved its internal budget utilisation from 50% to 70%, all while dealing with the impacts of COVID-19 on its programmes. Although there is room for continued improvement, this is a positive trajectory. Africa CDC achieved this progress while facing financial capacity challenges such as the following:

- Operational budgets that do not always fully support the capacity required to execute the strategy
- Budgets that are tied to AU financial cycles and budget approval processes, limiting flexibility

**External funding:** External funds pertain to funds directed by Africa CDC to support its programmes that do not pass-through AU accounts. Between 2021 and 2022, US \$200 million in external funds were disbursed from donors to Africa CDC's grant management partners, with Africa CDC having greater control and oversight over these funds. Additionally, over a three-year period starting in 2021, over US \$1.4 billion is being disbursed directly to implementing partners through the SLL Initiative, in partnership with Mastercard Foundation.<sup>123</sup>

While Africa CDC has been able to increasingly mobilise external funds, there is an opportunity to work with partners to improve the utilisation of funds and scale up the impact of programmes. To that end, Africa CDC is exploring resource mobilisation initiatives that include the creation of sustainable financing mechanisms and identification of more diverse and innovative sources of funding.

### Goal

Strengthen Africa CDC's governance, processes, workforce and leadership and finances to allow the institution to deliver its public health mission more effectively and efficiently and with accountability.

### Objectives

1. Streamline Africa CDC's governance to enable effective decision-making and ensure clear accountability and transparency measures.
2. Streamline and digitise Africa CDC's operational functions and processes to improve efficiency and effectiveness.
3. Scale up an adequate, capable, diverse and collaborative workforce and leadership team within Africa CDC's organisation.
4. Ensure Africa CDC has the financial capacity to execute against the strategy, including more diversified funding sources.

<sup>123</sup> The total budget envelope for the SLL Initiative is US \$1.5 billion; however, some of these funds are being disbursed through Africa CDC's grant management partners.

### Actions per objective

*Objective 1: Streamline Africa CDC's governance to enable effective decision-making and ensure clear accountability and transparency measures.*

- **Fully operationalise Africa CDC's governance bodies.** Ensure Africa CDC's Technical Advisory Committee and Governing Board have sufficient capabilities and flexibility to oversee Africa CDC's mandate and objectives as an autonomous agency.
- **Clarify roles and responsibilities across the organisation to improve decision-making.**
  - Clearly define and communicate roles and responsibilities, especially for tasks or deliverables that are complex, cross-functional and involve many parties.
  - Increase quality and speed of decision-making by widely implementing best practices (for example, clarifying decision-making rights and increasing usage of data-backed inputs).
- **Develop and institute clear accountability frameworks.** Develop and train staff on Africa-CDC-specific accountability frameworks (including staff code of conduct, AU and public health ethical principles) and implement feedback.

*Objective 2: Streamline and digitise Africa CDC's operational functions and processes to improve efficiency and effectiveness.*

- **Strengthen existing processes.** Where necessary, redesign and improve existing process to ensure Africa CDC has the capabilities to deliver on a broader mandate (for example, partnership management processes).
- **Develop and institute processes for new, Africa-CDC-specific functions.** Map, design and implement processes to account for Africa CDC's expanded responsibilities as an autonomous agency (for example, performance management, procurement).
- **Digitise Africa CDC's internal processes to make its operations and execution of programmes more efficient.** Evaluate various models of digital service delivery that may be implemented to increase the efficiency and cost effectiveness of Africa CDC's processes and select the most appropriate for Africa CDC. This may include:
  - Building internal digital systems to regularly monitor technical indicators (for example, for programmatic priorities) for effective and efficient organisational decision-making.
  - Implementing digital systems for workforce management (for example, to monitor recruiting, facilitate onboarding and conduct staff performance management).
  - Implementing a digitised, end-to-end financial management system to enable transparent reporting on funds and help inform interventions to increase financial performance of all budgets, including the operational budget:

- **Define and implement financial management policies.** Clarify approaches to mobilise, disburse, track and report on incoming and outgoing funds.
- **Define and implement a digitised, end-to-end financial management system.** Implement a digital, integrated system that supports transparent reporting on funds and helps inform interventions to increase financial performance of all budgets, including the operational budget.
- **Implement transparent systems for tracking and reporting on external funds.** Develop a system that allows Africa CDC to have real-time visibility on the budgets, draw downs and expenditures of partners implementing programmes using external funding and develop a system that allows Africa CDC to generate regular financial reports on external funds.
- **Institutionalise change management as a capability.** Develop an institutional change management programme to support Africa CDC staff with the transition to an autonomous body of the AU and increase the organisation’s capacity for change.

*Objective 3: Scale up an adequate, capable, diverse and collaborative workforce and leadership team within Africa CDC’s organisation.*

- **Strengthen recruitment and onboarding.**
  - Solidify Africa CDC’s value proposition as a global health employer of choice to attract both local talent and talent from the diaspora.
  - Develop an expanded recruiting strategy including new outreach channels and partnerships that explicitly target more diverse profiles (for example, leveraging a broader array of sourcing firms, media channels, partnerships with academia and public health organisations).
- **Develop programmes to continuously build the capabilities and retention of Africa CDC staff.**
  - Define and roll out a competency framework outlining the expectations and actions of leaders and managers at all levels across Africa CDC.
  - Establish dedicated, tailored learning and development programmes to enable on-the-job training at all stages across roles (for example, a hands-on leadership capability programme that enables continuous improvement of leaders across core competencies).
  - Develop clear career pathways to increase access to growth opportunities and retention of high-performing staff.
  - Expand access to funding for advanced degrees programmes to Africa CDC’s staff (for example, Masters, PhD).
- **Establish efficient and effective performance management systems.**
  - Set up a tailored performance management system with a streamlined approach to target setting, performance and evaluation and consequence management for staff and management.

- **Improve communications and sharing of information.** Strengthen regular formal and informal channels for staff interactions to bolster collaboration across the organisation.

*Objective 4: Ensure Africa CDC has the financial capacity to execute against the strategy, including more diversified funding sources.*

- **Grow and diversify sustainable funding sources for Africa CDC operations, including innovative funding mechanisms.**
  - Develop an investment case for Africa CDC that can be leveraged for fundraising efforts, engage and coordinate with donors to secure and diversify funding and agree on transparent reporting methods.
  - Develop innovative funding sources. Identify and secure new, innovative sources of funding best suited for Africa CDC.
- **Increase ability to deploy funds in a timely manner.** Work towards setting up and institutionalising a facility to house sustainable funds, further enabling functional autonomy. These funds would be used to support emergencies as well as predictable public health priorities in line with Africa CDC's expanded operations.



**The successful delivery of Africa CDC's ambitious objectives, defined in this strategic period, relies on a robust implementation framework**







## Chapter 4: Implementation framework

The successful delivery of Africa CDC's ambitious objectives, defined in this strategic period, relies on a robust implementation framework. This framework encompasses (1) policies and legal frameworks positioning Africa CDC as a leader in the continental public health agenda and a significant contributor to the global health architecture, (2) a secretariat that administers and supports organisational operations, managing logistics, communication and decision-making, (3) the operationalisation and strengthening of RCCs to coordinate implementation and ensure proximity to Member States, (4) the strengthening of country presence to enhance coordination, collaboration and response capacity for public health emergencies across Africa through operational offices in different countries and (5) systems and structures that ensure sustainable stakeholder coordination and engagement.

### 4.1 Structure of Africa CDC

#### 4.1.1. Committee of Heads of State and Government

The Committee of Heads of State and Government will support the implementation of the strategy by:

- Providing political leadership and strategic guidance and oversight to Africa CDC.
- Providing guidance, in the event of a public health emergency of continental security or public health emergency of international concern, on specific strategic decisions and actions that Africa CDC could take in preparedness and response to any health emergency or disease threat on the continent.
- Serving as an advocacy and accountability platform for disease threats, health emergencies and epidemic and pandemic control.

#### 4.1.2. Governing Board

The Africa CDC Governing Board will support the implementation of the strategy by:

- Providing strategic guidance to the Secretariat, in accordance with AU policies and procedures.
- Ensuring that the Africa CDC strategic agenda of disease surveillance, detection and response are integrated into continental development strategy.
- Approving the designation and redesignation of the RCCs.
- Assisting the Secretariat with resource mobilisation.
- Providing briefings to the Committee of Heads of State and Government on the continent's readiness in preparing and responding to health emergencies.
- Examining the Africa CDC action plan, budgets, activity and reports, and recommending the same for approval.

#### 4.1.3. Advisory and Technical Council

The Advisory and Technical Council will support the implementation of the strategy by advising on:

- Emerging issues and other related matters of disease control and prevention
- Different aspects of disease surveillance, detection and response on the African continent
- Opinions on advocacy and resources mobilisation
- The strategic plans and activities of Africa CDC
- Research and study areas and merits of the scientific work of Africa CDC

#### 4.1.4. Secretariat

The Secretariat will support the implementation of the strategy by:

- Establishing and strengthening RCCs to facilitate the implementation of Africa CDC's strategy
- Assisting and supporting Member States to develop appropriate disease surveillance, detection and response policies, programmes, systems and structures.
- Preparing a health map of Africa for communicable diseases and NCDs.
- Providing technical support and capacity building to Member States for disease control and prevention.
- Developing and implementing strategic advocacy programmes and stakeholder communication plans.
- Networking with Member States, WHO, Regional Health Organisations, Regional Economic Communities, private-sector organisations, Regional Health Networks, Partner CDCs and other relevant stakeholders to achieve the objectives of Africa CDC.
- Serving as the focal point in all matters of Africa CDC.
- Establishing an information centre and thereby guiding the Member States and other stakeholders by being one of the main sources of information on disease control and prevention on the continent.
- Undertaking research and studies in all the relevant areas of competence of Africa CDC.
- Promoting activities undertaken by Africa CDC and disseminating the findings of the studies to Member states and other stakeholders.
- Develop a business case to advocate to Heads of State and Government, the resources required in order to support Africa CDC to function optimally and successfully implement.

Africa CDC will work alongside the Department of Health, Humanitarian Affairs and Social Development of the AUC and other AU organs including AUDA-NEPAD, AMA, AfCFTA, and the AU-InterAfrican Bureau for Animal Resources, as needed on matters of mutual interest, more specifically on development and infrastructure, regulation of health products, trade and investments, and One Health programmes.

#### 4.1.5. RCCs

The RCCs are responsible for coordinating activities of Africa CDC and supporting implementation of all programmatic priorities including strengthening surveillance and laboratory systems, enhancing NPHIs and research, emergency preparedness and response, strengthening prevention and control of communicable and NCDs, public health communications and others. Since the launching of Africa CDC in 2017, four RCCs have been established with the following core functions:

- **Engagement and coordination:** Leverage existing capacities within the regions and ensure alignment within Member States, Regional Economic Communities and NPHIs, and strengthen coordination during emergencies, disease outbreaks and other public health emergencies.
- **Linkage of public health assets:** Engage with Member States and NPHIs to ensure that core capacities in surveillance and disease intelligence, laboratory systems and networks, information systems, emergency preparedness and response and public health research networks are in place and strengthened (for example, RISLNET).
- **Knowledge hub:** Serve as pathways for information exchange, facilitate knowledge sharing and foster information flow across Africa CDC, Member States and other public health stakeholders.
- **Implementation support of Africa CDC's strategy:** Work closely with Regional Economic Communities and other Regional Health Organisations to facilitate implementation of the strategic objectives of Africa CDC across the continent.

The RCCs will undertake the functions above in line with the regional health and geographical context, availability of required resources and existing capabilities. Each region will have its own unique context and health priorities, thus calling for each RCC to balance the needs and priorities of its region and enhance collaboration within and among Member States.

RCCs could function through two different operating models depending on their states of maturity:

- **The first is the facilitation model:** This is where the RCCs will play a facilitation and coordination role.
- **The second is the decentralisation model:** This is where the RCCs will serve as the implementation arm.

Regardless of the modalities pursued, RCCs will need to: (1) institute a governance structure and platforms that provide oversight and guidance on their activities and (2) collaborate with other stakeholders such as the Regional Economic Communities in their respective regions to optimise impact and efficiency.

#### 4.1.6. Country presence

Africa CDC's presence in Member States will help coordinate activities between Member States, RCCs and Africa CDC HQ. The presence in Member States will be led by the National Coordinator and Technical Experts in the areas of disease control and prevention, disease surveillance, emergency preparedness and response, laboratory, public health research and M&E.

Africa CDC Country Teams will preferably be embedded in the NPHIs where these have been established and are functional. Alternatively, they will be located at the Ministry of Health, at the AU offices or elsewhere depending on the Member State context.

These staff will support Member States to translate the Africa CDC Strategic Plan and other global, continental, or regional instruments and integrate them into their national health development and health security plans.

## 4.2 Stakeholder management

Stakeholders influence the pace and success of Africa CDC's full operationalisation and jointly drive coordinated implementation of key activities. During the first strategic period (2017 to 2021), Africa CDC recorded encouraging progress in establishing a large network of partners that have been key to achieving its objectives and mandate. Currently, Africa CDC maintains working relationships with a broad range of stakeholders in pursuit of achieving its strategic objectives and mandate, including:

- The AU: AU policy organs, AU organs and institutions, AUC Departments and Regional Economic Communities
- Member States' Institutions: ministries of health, NPHIs and other line ministries and agencies
- United Nations (UN) agencies
- Donors: Foundations, bilateral and multilateral institutions
- Strategic/implementing partners
- Media partners: Local, national, regional and international media
- Private-sector partners
- Academia, research and think tank groups
- Civil society: Local groups, youth women groups, associations, local and international
- NGOs

In the new strategic period (2023-2027), Africa CDC will continue forming respectful and action-oriented partnerships that are aligned with continental priorities, well-coordinated, effective and driven by the New Public Health Order. To this end, Africa CDC fully recognises the need for building a more coordinated and sustainable stakeholder engagement approach that can adapt to demands of public-health emergencies and will dedicate resources to implement appropriate stakeholder management systems, strategies and structures.

*Africa Union Member State Ministers during the inaugural MELP meeting, February 18th 2023 on the margins of 36th Ordinary session of the African Union/ Heads of States Summit*





### 4.3 Role of policy, health diplomacy and communication

Africa CDC as a continental public health institution is cognisant of how national, regional and international policies and legal frameworks influence and determine the governance of public health. Africa CDC's diplomatic engagements will be critical to steer the governance of public health in Africa, and the proximity of Africa CDC to the AU's policy organs, institutions and agencies serve as unique platforms in advocating for and communicating on public health outcomes in this Strategic Plan and drive critical continental and regional public health frameworks. Successful initiatives of Africa CDC in collaborating, coordinating and communicating public health responses to EVD, the COVID-19 pandemic and other public health emergencies across the continent have strengthened its visibility as a lead public health institution on the continent.

Thus, building on the past successes, additional initiatives have been identified across the six programmatic priorities that require engagements at local, national, regional and continental levels. These engagements will be carried out with various institutions, agencies and bodies that govern public health policies and frameworks at multiple levels.

- **AU decision-making structures:** These are policy organs of the AU that pass decisions on various public-health-related matters. The organs include the Specialised Technical Committee on Health, Population and Drug Control, Permanent Representatives Committee, Executive Council and AU Assembly.
- **Implementing structures:** Organisations/institutions that will implement the decisions passed by the AU policy organs. These include the various AU technical agencies and institution, and technical and implementing partners such as Regional Economic Communities or Regional Health Organisations, UN bodies that assist in the development of policy documents and policy briefs and other partners that provide the required finance, private entities, or public private partnerships.
- **Guidance and monitoring and evaluation structures:** Organisations/institutions that provide guidance on the implementation process and provide reports and proposals to AU decision-making structures. These include Member States (ministries of foreign affairs, ministries of health, NPHIs, agencies and other line ministries), Regional Economic Communities, AU-NEPAD, the AUC and the Department of Health, Humanitarian Affairs and Social Development.
- **Support of the adoption and analytical approaches to executing programmatic priorities** (for example, genomics surveillance).



## Chapter 5: Monitoring and evaluation

The monitoring and evaluation framework of this Strategic Plan uses a results matrix to ensure strategic activities are on track to achieve the planned objectives. The results matrix (being developed) will consist of outcomes and outputs, each of which has a set of indicators and targets. Attainment of the intended outcomes and outputs depends on successful implementation of the activities at continental, regional and Member State levels. In addition to the outcome, output and activities defined in the results matrix, Africa CDC will design and plan for a set of interventions pertaining to public health emergencies that may arise during this Strategic Plan period. In such events, it will be critical to have targeted and tailored planning, monitoring and evaluation systems and structures for Africa CDC to carry out its support.

Monitoring of progress will be conducted through continuous analysis of information on the indicators for example, through a continental scorecard/dashboard for periodic reports to the AU Summit. Data collection, analysis and reporting will be conducted on a regular basis and provide key insights that are relevant for strategic as well as management decision-making at multiple levels (Figure 1).

Mid-term and end-of-strategy evaluations will be carried out and consistently communicated internally, and with relevant external stakeholders of Africa CDC. Recommendations of the mid-term evaluation will be used to inform and, where necessary, adjust plans for subsequent years. In addition, there will be end-of-year progress reviews to assess accomplishment of targets. The evaluations will include gender considerations to ensure that Africa CDC works with Member States to build their capacities to mainstream gender concerns into their health programmes and develop gender-inclusive policies.

Institutionalising a robust performance management system will help Africa CDC systematically ensure prioritised plans are being delivered and monitored and allow it to identify challenges and implement corrective actions.

Figure 1 – Roles and responsibilities of stakeholders

Stakeholder Levels	Roles and Responsibilities
<p style="text-align: center;"><b>CONTINENTAL LEVEL</b></p>	<ul style="list-style-type: none"> <li>• Track and update progress on Strategic Plan implementation</li> <li>• Lead continental level performance reviews</li> <li>• Collect and consolidate data from RCCs and Member States</li> <li>• Monitor compliance with Africa CDC M&amp;E standards and procedures</li> <li>• Develop standardised data management tools and reporting platforms</li> <li>• Develop annual implementation plans and performance reports</li> <li>• Consolidate continental level data</li> <li>• Conduct mid-term and end of strategy evaluation</li> </ul>
<p style="text-align: center;"><b>REGIONAL LEVEL</b></p>	<ul style="list-style-type: none"> <li>• Contextualisation and prioritisation of activities identified in the Strategic Plan</li> <li>• Regional level implementation plan preparation</li> <li>• Regular data tracking and consolidation on indicators</li> <li>• Regional performance reviews and develop short term plans</li> <li>• Support Member States on indicator progress tracking</li> <li>• Regional performance reviews and annual report</li> </ul>
<p style="text-align: center;"><b>MEMBER STATE LEVEL</b></p>	<ul style="list-style-type: none"> <li>• Regular tracking of progress towards the attainment of targets</li> <li>• Utilize existing structures for the facilitation and coordination of semi-annual and annual monitoring and reporting</li> </ul>






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