

AFRICAN DEVELOPMENT BANK GROUP



STRATEGY FOR QUALITY HEALTH INFRASTRUCTURE IN AFRICA 2021-2030

REVISED VERSION



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Acronyms

AfDB	African Development Bank
ADF	African Development Fund
ADB	Africa Development Bank
AHHD	Human Capital, Youth and Skills Development Department
AIF	Africa Investment Fund
ALSF	Africa Legal Support Facility
AU	African Union
CD	Communicable disease
CDC	Centers for Disease Control and Prevention
CSP	Country Strategy Paper
DALY	Disability-adjusted life year
DFI	Development Finance Institution
ICT	Information and Communication Technologies
ICU	Intensive Care Unit
IFC	International Finance Corporation
HHA	Harmonization for Health in Africa
IsDB	Islamic Development Bank
KPI	Key Performance Indicator
LIC	Low Income Country
M&E	Monitoring and Evaluation
MRI	Magnetic Resonance Imaging
NCD	Non-Communicable Disease
ODA	Official Development Assistance
P4H	Providing for Health
PHC	Primary Healthcare
PPP	Public-Private Partnership
RMC	Regional Member Country
SDG	UN Sustainable Development Goal
SQHIA	Strategy for Quality Health Infrastructure in Africa
TA	Technical assistance
UHC	Universal Health Coverage
UNECA	United Nations Economic Commission for Africa
UNICEF	United Nations International Children's Emergency Fund
USA	United States of America
WASH	Water, sanitation and hygiene
WHO	World Health Organization

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EXECUTIVE SUMMARY

I. This Strategy for Quality Health Infrastructure in Africa 2021-2030 (SQHIA) follows a request from Governors of the African Development Bank (AfDB or Bank) to define its role in addressing Africa’s health infrastructure deficits, drawing on its core expertise in infrastructure development. The request recognises the centrality of health to improving quality of life for Africans and enabling them to achieve their potential. The strategy also responds to growing demand from regional member countries (RMCs) for the Bank’s support in overcoming gaps in national health infrastructure, which have been exposed by COVID-19 and other health crises.

II. Health challenges across Africa are a cause of significant hardship. Despite recent progress, child and maternal mortality remain high in many African countries. With just 15% of the global population, Africa accounts for 50% of global deaths from communicable diseases. Poor health outcomes reflect a lack of access to quality health services: a third of Africans live more than two hours away from health services, and there are severe shortages in hospital beds, medical equipment, and drugs. The economic costs of health challenges are severe. It is estimated that Africa loses \$2.4 trillion in annual output due to poor health.

III. Health crises have emerged as a major source of shocks and fragility in Africa. The COVID-19 pandemic has exposed serious shortcomings in national health systems, overwhelming surveillance and testing capacity. While Africa enjoyed some initial success in containing the pandemic, the social and economic costs have been severe, creating Africa’s first recession in decades and pushing millions of people into poverty. With vaccine distribution slow, the virus is now resurgent, creating the potential for further new variants to emerge – a threat both to Africa and the world.

IV. With its growing population, Africa has large and diverse health infrastructure needs. Poorer countries and fragile states face the highest rates of communicable disease and the highest overall disease burden. Other countries face growing challenges with non-communicable diseases, requiring adaptation of services and infrastructure. Across the continent, health infrastructure is unevenly distributed, with major gaps in the coverage of rural areas, and often of poor quality. Only half of primary health care facilities in sub-Saharan Africa have access to clean water and adequate sanitation and only a third have access to reliable electricity.

V. Africa faces major deficits in financing for health infrastructure. The \$4.5 billion in capital expenditure currently made by Africa governments each year is far below the estimated \$26 billion in annual investment needed to meet evolving health needs over the next decade. While COVID-19 has highlighted the need for greater investment, the crisis has also left African countries with severely constrained resources and rising indebtedness. Donor support for health infrastructure has been declining steadily in recent years, and there are major gaps in the support available for new secondary and tertiary infrastructure. African countries will therefore need additional support to meet their health infrastructure, as well as assistance with mobilising funding from private investments, including from diaspora communities.

VI. The AfDB has the potential to fill an important niche as a health infrastructure financier, drawing on its core expertise in infrastructure development and working in partnership with other development partners in support of national health system strengthening plans. The Bank has a long history of support in health and has scaled up its assistance in response to recent health crises. It has the capacity to deploy a range of financing instruments, including private-sector operations and public-private partnerships, to help overcome the barriers to private investment in the health sector and address the overall financing gap. The Bank can offer mixed infrastructure investments that connect health facilities to energy, water and ICT connections, to enable better quality and more innovative health service delivery.

The strategy also sets out how the Bank will build up and consolidate its comparative advantage in health infrastructure.

VII. Goal. The goal of this strategy is to secure increased access to quality health services for the people of Africa by 2030, so as to improve their quality of life and promote the achievement of SDG3 and the African Union’s Agenda 2063 goal on health.

VIII. Objective. The objective of this strategy is to support RMCs in their efforts to accelerate the development of quality health infrastructure in Africa, and to ensure that individuals and communities receive the health services they need without financial hardship.

IX. Pillars. The strategy is tightly focused on four categories of health infrastructure that match the Bank’s comparative advantage, while providing the flexibility to respond to the diverse needs of RMCs.

- 1) **Primary health care infrastructure** for under-served populations, with supporting infrastructure investment to ensure that facilities are connected to water and sanitation, energy, transport and communications services.
- 2) **Secondary and tertiary healthcare facilities**, involving developing new secondary and tertiary health care facilities, alongside specialist facilities for cancer, dialysis and pain management. These investments will be particularly relevant in countries where the burden of non-communicable diseases is growing rapidly.
- 3) **Diagnostic infrastructure**, utilising a range of delivery models, including public-private collaborations to address serious bottlenecks in efficient and effective diagnosis of diseases across the continent.
- 4) **Connectivity for innovative health solutions**, to expand ICT links and facilitate innovations in health service delivery, including mobile services and telemedicine, and improvements in health information systems.

X. The Bank’s investments in health infrastructure will be packaged with knowledge work, policy dialogue and technical assistance, in partnerships with other health sector actors. This support will focus on effective health financing strategies, including the expansion of health insurance to ensure access for low-income households. This support will ensure that the Bank’s investments are utilised effectively and are sustainable and accessible on an equitable basis.

XI. The Bank will apply strict selectively criteria and clear principles to guide its health infrastructure investments. Proposed investments will be screened to ensure they are focused on the Bank’s areas of comparative advantage and anchored in credible national health system strengthening strategies, with a clear division of labour with other development partners. The investments must be tailored to the needs of RMCs, with a clear focus on strengthening resilience to future health emergencies and promoting sustainable and equitable health financing solutions.

XII. The Bank will aim to increase its investments in health infrastructure to support this strategy, using a range of instruments and involving diverse partnerships. The portfolio will include investment projects, results-based financing, risk-sharing instruments to leverage private sector resources, debt and equity investments in private companies, and the promotion of innovative sources of finance, such as diaspora funds.

XIII. The Bank will undertake a mid-term evaluation of the SQHIA in 2025 to inform an updated delivery plan for the remaining period of the strategy. This mid-term evaluation will explore progress with implementing the strategy, challenges that have emerged and lessons learnt from implementation. Based on this analysis, it will also set out any adjustments required for delivery until the end of the strategy in 2030 in order to secure maximum development impact.

1. INTRODUCTION

1.1 In the Final Communiqué from the 2020 Annual Meetings of the Bank Group, the Governors recognised the critical role of quality healthcare infrastructure for the African continent. They therefore called on the Bank to articulate its evolving role in this area, in accordance with its comparative advantage alongside other development partners. In response to that request, the Bank has developed this Strategy for Quality Health Infrastructure in Africa 2021-2030 (SQHIA).

1.2 The importance of quality health services, both as a development goal in its own right and a foundation for achieving inclusive growth and other development goals, is widely recognised. As set out in the Bank's proposed Strategy to Improve the Quality of Life for the People of Africa, access to quality healthcare is essential to the ability of Africa's population to thrive and reach their full potential. The Bank is committed to promoting access to quality health services, in accordance with aspiration 1.3 of the African Union's Agenda 2063 for a healthy and well-nourished citizenry, and the UN Sustainable Development Goal No. 3 on good health and well-being. Addressing health challenges can also make a vital contribution to progress across the High 5s,¹ given that poor health undermines economic productivity across all sectors and that disease has been estimated to cost Africa \$2.4 trillion annually.² It has been estimated that if known health interventions were applied across Africa in order to reduce the disease burden, GDP growth could be increased by 0.5 percentage points per annum across the continent over the next 20 years.³ Furthermore, outflows of resources from Africa due to medical tourism are growing, with Nigerians spending at least \$1 billion on the pursuit of healthcare outside of the continent,⁴ among other countries. These are resources that could be channelled back into developing Africa's health services.

1.3 The COVID-19 pandemic and other epidemics in recent years have highlighted major deficits in national health systems and related infrastructure across Africa. Only 51% of primary health facilities in sub-Saharan Africa have access to basic water and sanitation services,⁵ and Africa has only 1.3 hospital beds per 1,000 people (compared to 2.1 in Latin America and 6.1 in Europe).⁶ These gaps underlie Africa's vulnerability to repeated health crises and consequent development reversals. The severity of the pandemic and the economic crisis it has triggered have created a unique opportunity to address longstanding deficits in health infrastructure and services. However, in the wake of the pandemic, African countries also face sharply constrained fiscal resources and rising debt levels. Access to finance for health infrastructure will be a significant constraint on the development of the health system in the coming years.

1.4 Building on a long history of health support, the AfDB has responded to recent health crises by deepening its support for health infrastructure. The Bank directly invested over \$3.6 billion in health operations over the period 1975 to 2020, with the rate of investment peaking in the 1990s. However, after 2000 the Bank's strategic focus changed and its investments in health were scaled back. In recent years, the Bank has faced a strong demand for health support from RMCs, particularly during health crises. As a result, it has approved \$436 million in funding for health since 2017, including for new health infrastructure to support the COVID-19 response. However, this engagement has taken place in an *ad hoc* way, without a clear strategic plan or a tight enough focus on the Bank's areas of comparative advantage, such as health infrastructure.

1.5 The SQHIA sets out a strategic framework for the Bank's engagement in the development of health infrastructure. The Bank defines health infrastructure as physical structures and supporting systems, particularly finance, that are needed to deliver a

continuum of health promotion, preventative, curative, rehabilitative and palliative services appropriate to the needs of the target population. It includes healthcare facilities at all levels, diagnostic facilities, equipment and technologies, and non-clinical infrastructure that is vital to the effective operation of healthcare services (i.e., water and sanitation services, access to electricity and digital connectivity). However, it does not include other infrastructure supportive of the health sector, including workforce training institutions, logistics infrastructure, research & development facilities and manufacturing facilities (which are a focus of the pharmaceutical sector strategy currently being developed by the Bank).

1.6 The SQHIA is based firmly on the Bank’s comparative advantage – in particular, its role as an infrastructure financier – working alongside other development partners specialised in other aspects of health system strengthening. It defines a specific niche for the Bank in addressing infrastructure bottlenecks within national health system strengthening plans. It sets out clear criteria for identifying strategic projects that match both the Bank’s comparative advantage and the diverse needs of RMCs. The criteria specify that the Bank’s investments in health infrastructure must form part of credible national health systems strengthening strategies, to ensure that other aspects of developing quality health services, including health policies, financing arrangements and workforce development, are pursued in parallel. This will minimize the risk of the Bank investing in non-functional health facilities. The strategy sets out the range of financing instruments that the Bank will employ, including non-sovereign operations and risk-sharing instruments to promote public-private partnerships (PPPs). The strategy provides that the Bank’s investments in health infrastructure will be accompanied by policy dialogue and technical and knowledge advisory assistance to help RMCs address health financing challenges, develop innovative strategies for expanding services, make good use of emerging technologies, and promote regional harmonization in relation to health technologies and workforce qualifications. It sets out an action plan for building the Bank’s comparative advantage in health infrastructure over the life of the strategy, taking a ‘One Bank’ approach to delivery.

1.7 The objective of the strategy is to support RMCs to accelerate the development of quality health infrastructure and ensure that all individuals and communities receive the health services they need without financial hardship. The strategy is closely aligned with the Bank’s Ten-Year Strategy and other High 5 priority areas, in particular ‘Improving the Quality of Life for the People of Africa’. It sets out how quality infrastructure investments can contribute to other High 5 priorities, and how investments in other infrastructure areas, including water and sanitation, energy, transport and ICT, can contribute to strengthening national health systems.

2. THE CASE FOR INVESTING IN HEALTH INFRASTRUCTURE IN AFRICA

Significant and diversifying health needs across Africa

2.1 The disease burden in Africa remains high, with significant unmet health needs. While Africa accounts for just 15% of the world’s population, it bears 24% of the global disease burden and experiences 50% of global deaths from communicable diseases.⁷ Despite recent progress, under-5 mortality (82/1,000 live births) and maternal mortality (533/100,000) remain high in sub-Saharan Africa and average life expectancy is just 62 years.⁸ In 2016, 600 million life-years were lost due to disability and poor health across Africa.⁹

2.2 African countries face growing and increasingly diverse health challenges over the next decade. Generally, as countries develop, the burden of communicable diseases declines while non-communicable diseases (NCDs) increase. Health services and

infrastructure need to adapt accordingly. African countries are at different points on this trajectory, giving them diverse health needs (see Figure 1). Over the decade to 2030, 17 African countries (Archetype A, see figure 1 below) – mostly fragile states and Least Developed Countries – will face the highest overall disease burden. This will be driven by a dual burden of continuing high levels of communicable disease – especially maternal and neonatal disorders and childhood-cluster diseases – and growing rates of NCDs. In contrast, 13 African countries (Archetype C, see figure 1 below) – a mix of Lower and Upper Middle-Income Countries – will face a lower overall disease burden, but must adapt their health services to new challenges, related predominantly to non-communicable diseases (NCDs). These include cardiovascular diseases (17% of the total disease burden), mental and substance use disorders (12%), and musculoskeletal disorders (9%). In addition, a group of 24 African countries (Archetype B countries, see figure 1 below) – a mix of Low and Middle Income Countries, nine of which are in situations of fragility – will face a medium disease burden, characterised by falling levels of communicable disease and growing levels of NCDs. During the period 2021-30, overall health needs across Africa are expected to grow by 23%.

Figure 1: Africa’s diverse health needs

African Countries can be classified into three disease-burden groups or archetypes, based on projected trends. ¹⁰ These archetypes each face different health challenges and infrastructural needs: 97% of ADF countries fall into Archetypes A and B, while most ADB countries are in Archetype C.		
Archetype A	Archetype B	Archetype C
<p>Communicable Diseases (CD) account for largest share of burden in 2030 (>50%)</p> <p>Simultaneous rapid growth in NCDs and injuries (+24% and +46% by 2030)</p> <p>Highest total disease burden at 68,667 DALYs/100k people by 2030</p>	<p>NCDs steadily increase (46% vs 42% of projected overall burden in 2030 and 2016 respectively)</p> <p>Steady decline in CDs (-51% by 2030) and decrease in injuries (-8% by 2030)</p> <p>Total disease burden of 32,462 DALYs/100k people by 2030</p>	<p>NCDs dominate overall burden (74%) and CDs decrease (-45%)</p> <p>Decrease in injuries (-8%)</p> <p>Total disease burden of 24,045 DALYs/100k people by 2030</p>
<p>Angola, Burkina Faso, Chad, Central African Republic, Côte d’Ivoire, D.R. Congo, Eritrea, Guinea, Guinea-Bissau, Lesotho, Liberia, Mali, Mozambique, Nigeria, Sierra Leone, South Sudan and Zimbabwe</p> <p>Population: 660 million by 2030</p>	<p>Benin, Burundi, Cameroon, Comoros, Congo, Eswatini, Ethiopia, Equatorial Guinea, Gambia, Ghana, Kenya, Madagascar, Malawi, Mauritania, Niger, Rwanda, Sao Tome & Principe, Senegal, Somalia, Sudan, Tanzania, Togo, Uganda, Zambia</p> <p>Population: 718 million by 2030</p>	<p>Algeria, Botswana, Cape Verde, Djibouti, Egypt, Gabon, Libya, Mauritius, Morocco, Namibia, Seychelles, South Africa and Tunisia</p> <p>Population: 310 million by 2030</p>

Demographic changes and health crises drive growing health challenges across Africa

2.3 Africa’s evolving demand for health services is driven by multiple interconnected trends. Growing and ageing populations will increase the overall number of people seeking healthcare, as by 2030 Africa’s population is projected to grow to 1.68 billion (a 42% increase compared to 2015), with the population over 60 years of age growing to 105 million (a 64% increase compared to 2015).¹¹ Income growth, which has been interrupted by the COVID-19 pandemic but which is expected to resume in the coming years,¹² will make healthcare services more affordable. Furthermore, Africa’s urban population is expected to grow to 770 million by 2030 (an increase of almost 300 million compared to 2015)¹³, resulting in a greater need for health-service delivery infrastructure in urban areas, as well as higher NCD risk factors such as poor diet and exposure to air pollution.

2.4 Health crises have emerged as a major source of shocks and fragility in Africa. Over the recent decades, the frequency of health crises, such as the Ebola Virus Disease, has

increased. Dengue, cholera, Lassa fever, yellow fever and bacterial meningitis, amongst other diseases, are resurgent across the continent.¹⁴ Since 2000, multiple outbreaks of yellow fever, Marburg haemorrhagic fever, bubonic plague, measles, cholera and Ebola have been reported. Since 2012, Ebola outbreaks have become yearly episodes in the Democratic Republic of Congo (DRC). In 2014, the World Bank estimated foregone economic growth from the West African Ebola epidemic at \$33 billion across the three worst-affected countries.¹⁵

COVID-19 has created new challenges

2.5 Most recently, the COVID-19 pandemic has exposed serious weaknesses in Africa's health systems and access to vaccines, which may have global implications. While African countries enjoyed early successes in containing the pandemic, it has illustrated how quickly Africa's surveillance capacity and diagnostic infrastructure can be overwhelmed by a health crisis. Although the direct health impact of COVID-19 across Africa to date has been relatively modest, the emergence of new strains of the virus creates significant risks that these impacts will grow in the coming months. The limited access that African countries have had to global vaccine supplies heightens these risks and means that Africa could become a source of new viral strains. The COVID-19 pandemic is also having significant indirect health impacts, due to disruption to health services and emerging comorbidities. Interruptions in bed net distribution and related services may increase malaria cases by a third across high-burden low- and middle-income countries over the period to 2025.¹⁶ Mass immunisation programmes for childhood diseases have been put on hold in at least 25 African countries, leaving millions of children unprotected from diseases such as measles, polio, yellow fever and diphtheria.¹⁷ There are also concerns that conditions such as HIV/AIDS, tuberculosis, malnutrition and bacterial and respiratory infections, which are a major challenge in Africa, may create comorbidities that increase the risks from COVID-19 infection.¹⁸ These cases illustrate that, as COVID-19 becomes endemic, it will increasingly combine with the biological and social challenges around other communicable diseases, giving rise to potent 'syndemics' which increase the overall burden of these diseases.¹⁹

2.6 The COVID-19 pandemic has also further illustrated the economic and social shocks that can result from health crises. Measures taken to control the COVID-19 pandemic have caused Africa's first recession in more than two decades, reduced the incomes of 150 million workers and may push 30 million additional people into extreme poverty. Although Africa's economy is predicted to return to growth in 2021,²⁰ this recovery is expected to be fragile, due to recurrent waves of the pandemic and limited access to vaccines, which is expected to suppress investment in key sectors.²¹ The pandemic has also caused significant disruption to education and skills development across Africa, creating what the World Bank has called "the worst crisis to education and learning globally in a century".²² The people most affected by the economic and social impacts of the pandemic are those with lower levels of education, fewer assets and who depend in informal jobs.²³ This suggests that the pandemic has led to worsening levels of inequality and marginalisation for large numbers of people across Africa.

A range of factors are constraining health systems development

2.7 A wide range of factors are acting as constraints on health development, including weak health infrastructure. Effective national health systems incorporate a range of 'building-blocks', including a health workforce, access to essential medicines, service delivery capacity, health information systems, financing, and leadership and governance.²⁴ Many African countries face constraints across all these areas: Archetype A and B countries have only have a fifth of the minimum required number of physicians,²⁵ and many countries have limited availability of priority medicines for women and children.²⁶ Constraints

relating to physical health infrastructure capacity are also significant. Africa currently has only 1.3 hospital beds per 1,000 people (compared to 6.1 in Europe)²⁷ and only one intensive care bed for every 100,000 people²⁸ (compared to seven in India²⁹). Around 30% of Africans live more than two hours from essential health services.³⁰ Only half of the primary health facilities in sub-Saharan Africa have basic water and sanitation services³¹ and only one third have access to reliable electricity.³² As revealed during the COVID-19 pandemic, diagnostic equipment is in short supply and poorly maintained across the continent, with only two countries able to perform COVID-19 laboratory diagnostic at the beginning of the pandemic.³³ Wider constraints related to diagnostic capacity are illustrated by the fact that Africa has only 0.7 Magnetic Resonance Imaging (MRI) scanners for every 1,000,000 of its population (compared to 4.8 in China and 37 in the USA),³⁴ demonstrating the limited readiness of many African laboratories to carry out basic diagnostic tests³⁵ and the low density of laboratory health workers in Africa.³⁶

Health infrastructure constraints are significant and will worsen

2.8 Over the next decade, as health challenges grow and evolve, these infrastructural constraints will become even more pronounced and diverse across Africa. Based on current investments trajectories and projected health needs to 2030, the Archetype A countries (see Figure 1) are likely to have adequate numbers of primary healthcare facilities (albeit with accessibility an ongoing challenge), but only just over half of the required number of beds in secondary health facilities and MRI scanners, and only 15% of the required intensive care unit (ICU) capacity. Archetype B countries will face constraints across all levels of health services, with just under three quarters of required primary care capacity, less than half of the required number of beds in secondary health facilities, just 15% of the required ICU capacity and 60% of required MRI scanners. Archetype C countries are expected to have adequate primary care capacity, but just 70% of the required number of beds in secondary health facilities, only a quarter of required ICU capacity and a little over 40% of required MRI scanners.³⁷ There is also underutilisation of health infrastructure across many African countries, due to accessibility issues and limited health insurance coverage. As a result, the risk of death after surgery in Africa is double the global average³⁸ and accuracy in applying essential diagnostic tests is less than 50%.³⁹

2.9 Investment in critical health infrastructure is falling well behind projected needs.

Current expenditure on health in sub-Saharan African countries averaged 5.1% of GDP in 2018 (compared to 6.7% in East Asia and the Pacific, and 8% in Latin America and the Caribbean), a figure which has barely changed over the last two decades.⁴⁰ Government health expenditures represent only 1.9% of GDP in Sub-Saharan Africa, far below the target of 5% suggested by UNECA and low compared to East Asia and the Pacific (4.4%) and Latin America and the Caribbean (4.1%). For the Archetype A and B countries, public spending on health is currently just \$24 and \$22 per capita respectively,⁴¹ compared to the \$70 minimum level⁴² required for universal coverage of basic health services. As a result of these shortfalls, out-of-pocket expenditure constitutes around 40% of health expenditure on average across these countries,⁴³ creating a significant drain on family incomes and making catastrophic health expenditures a major cause of hardship. Furthermore, only around 6% of total public health spending in Africa goes towards developing health infrastructure. By comparison, many Asian and Latin American countries allocate more than 20% of government health expenditure to infrastructure.⁴⁴ The combination of underinvestment, high and increasing disease burdens and high population growth means that infrastructure shortages are acute. The \$4.5 billion⁴⁵ that African governments currently invest in public health capital expenditure is far below the estimated \$26 billion⁴⁶ annual investment in new health infrastructure needed to meet evolving health needs over the next decade. This is in addition to the significant investment required for the maintenance and upgrading of existing health infrastructure.

Financing gaps are growing, and new sources of finance will be required

2.10 Weak public finances in Africa will make mobilizing investments for health infrastructure challenging in the coming years. The economic impacts and spending demands resulting from the pandemic have led to a doubling in fiscal deficits, while the average debt-to-GDP has climbed by 10 to 15 percentage points (to 70%) across Africa.⁴⁷ Many African countries will continue to face economic uncertainty for some time, given the ongoing effects of the pandemic. As a result, African governments now have significantly lower capacity to address health infrastructure deficits in the short to medium term.

Box 1 : Use of incentives to stimulate diaspora investment in the Indian health sector

Since the late 1980s, the Indian diaspora has been critical to the growth of India's healthcare infrastructure through foreign direct investments.⁴⁸ The diaspora has supported the establishment of some of India's top private hospitals, the development of high-quality specialty healthcare and the procurement of modern medical equipment and technology.⁴⁹

The Government of India has utilised a number of policy incentives in order to attract investment from the diaspora, including:

- Automatic approval for hospitals and diagnostic centres to receive up to 100% foreign equity participation from diaspora investors
- Removal of restrictions on equity shares held by diaspora investors in Small-Scale Industries in the health sector
- Exemption from import duties for products imported by diaspora operators of health facilities if at least 25% of patients are offered free treatment.

In addition, investments from the Indian diaspora have been promoted by a wider set of incentives applicable to all private investors in the health sector, including exempting healthcare education and training services from service tax, tax holidays for investors in hospitals with more than 50 beds and tax reductions for investors in large facilities in rural areas.

2.11 Filling the financing gap for health infrastructure will require mobilizing finances from the private sector, development finance institutions and diaspora groups. Across Africa, only 10-20%⁵⁰ of investment in health service delivery infrastructure is currently mobilized by the private sector, due largely to high levels of investment risk. The limited coverage of health insurance and the dominance of out-of-pocket expenditure in health financing also makes it more difficult for investors to secure a financial return. As a result, private sector investments in health infrastructure have been concentrated in brownfield investment to expand existing hospitals. Development partners, including private foundations, also contribute to the financing of health infrastructure, although grant aid for health-related capital investment from OECD countries has fallen by 6% annually since 2014.⁵¹ This has focused predominantly on greenfield investments in primary healthcare. External investments in new secondary and tertiary health facilities have been led mainly by Development Finance Institutions (DFIs), especially the IFC and bilateral DFIs. Foundations such as the Bill and Melinda Gates are projected to play a growing role in the financing of health services in Africa, and will be key partners for the Bank.

2.12 There is also potential for mobilizing funding from diaspora communities and associations, either directly or through instruments such as diaspora bonds. Since the late 1980s, India has used fiscal and non-fiscal incentives (see box 1 below) to stimulate diaspora investment in health services, and nine of the top fifteen hospitals in India have been set up through such investments. The Ethiopia Diaspora Trust Fund has to date raised nearly \$8 million and has supported healthcare projects, including most recently in response

to the COVID-19 pandemic. Social bonds – which pay out to investors on the basis of social impacts – could also provide a mechanism for attracting health sector investment, although evidence of their potential in developing countries is so far limited.⁵² So far, such instruments in Africa have been small in scale, but the Bank will explore whether they offer a basis for replication at a larger scale.

Expanding access to quality health services

2.13 To ensure that health services are affordable and accessible, including to poorer communities, and that health infrastructure is utilised effectively, African countries will need to invest in health insurance and innovations in health service delivery.

Health insurance is emerging as a key tool on the African continent for promoting inclusive access to health services, with support from governments and development partners. However, national health insurance schemes remain in their infancy in most countries, with only 30% of archetype A countries and half of archetype B and C countries having coverage rates above 10%.⁵³ Poor and marginalised groups are often excluded from health insurance schemes, with a recent study finding that women in sub-Saharan Africa with no formal education were 78% less likely to be covered by health insurance than those with higher levels of education.⁵⁴ An example of a health insurance scheme that has succeeded in widening access to health services is Rwanda's subsidized health insurance scheme, *Mutuelle*, launched in 2004. This scheme was reformed in 2011 to introduce stratified premiums linked to income, with the poorest households receiving free coverage, a model that other African countries can learn from and customise to their needs. Firms such as MicroEnsure are also demonstrating the potential for health insurance services for people living on less than \$4 a day, with premiums paid through mobile phone-based banking. The AfDB's work in this area has included providing more than \$450 million in support over the last 15 years to a social health insurance scheme in Morocco, as well as support for other social protection schemes in Côte d'Ivoire and Senegal. In addition to helping widen access to healthcare, health insurance schemes also stimulate demand for health services, which in turn can improve the utilisation of health infrastructure.

2.14 Ensuring all individuals and communities receive health services will also require innovations in health service delivery, with the private sector playing an important role.

A wide range of actors currently provide health services in Africa, including commercial, not-for-profit and faith-based providers. While government is indispensable as regulator and coordinator of the sector, private actors will be key to the expansion of coverage. Diverse models of public-private partnership are emerging, from commercial providers offering health services directly to the public, to governments purchasing specialized services, such as diagnostics, transport, or medical waste disposal, from private firms.⁵⁵ The private sector will also be key to expanding the last-mile delivery of health services through digital infrastructure such as mobile telephone facilities and telemedicine, and for helping to finance efforts to achieve health access for all over the long-term. For example, ThinkMD is a company that provides health advice utilizing physician-based artificial intelligence technology, which can be accessed through mobile phones. Another example is M-SCAN, in Uganda, who manufacture, sell and maintain mobile ultrasound probes which can be used in resource-limited and remote settings to support early detection and management of risk factors of maternal and neonatal mortality.

Regional cooperation in specialist health services will be important

2.15 Expanding access to specialist health services will be an important element in building robust national health systems. Specialist tertiary facilities will increase the supply of highly skilled health professionals and promote excellence in service delivery.

Increasingly, such specialist services will be organised on a sub-regional basis, drawing on telemedicine and mobile service to expand reach.

2.16 Investing in regional centres of excellence can also help to reduce medical tourism outside of Africa. Currently, Africans spend more than \$1 billion on medical services in other continents. Regional centres of excellence have the potential to capture a share of the revenues from medical tourism, protecting foreign exchange reserves and channelling the resources back into African health systems. South Africa is an example of a country that has developed health facilities able to attract medical tourists from across Africa. For example, the Netcare Group provides a range of specialist healthcare services, and 85% of its patients are from other African countries.

2.17 Regional approaches to health policy and regulation will help to promote collaborative and coordinated responses to Africa's health challenges. Differences in health policy and regulation across African countries is hindering the movement of health workers, the spread of health technologies and efforts to develop common solution to health challenges across the region. It is therefore vital that efforts are made to improve the harmonization of health policy and regulation across Africa, and to further develop collaboration in addressing common challenges.

2.18 The Bank is already supporting the development of centres of excellence for specialist health services, and this will be a continuing focus. An example of our work in this area is our support for the first phase of the Centre of Excellence for Skills and Tertiary Education in Biomedical Sciences Project. This project supports the creation of a network of Centres of Excellence across East Africa, including a focus on nephrology and urology in Kenya, oncology in Uganda, cardiovascular health in Tanzania, and biomedical engineering and eHealth in Rwanda. This project aims to contribute to the development of a skilled workforce in biomedical sciences to meet East African Community (EAC) labour market needs and support the implementation of regional labour market protocols. It also supports the standardisation of medical qualifications across the region, in support of labour mobility.

3. AFDB'S COMPARATIVE ADVANTAGE ON HEALTH INFRASTRUCTURE

3.1 The Bank's comparative advantage on health infrastructure rests on its wider expertise in infrastructure development. Over the past decade, the Bank has dedicated around half of its resources to infrastructure development, with \$40 billion in commitments, making it the second-largest financier of infrastructure in Africa. Through these operations, the Bank has built up extensive expertise in developing infrastructure projects, together with technical assistance to facilitate all stages of the investment process, which is directly applicable to investing in the health sector. As regards clinical health infrastructure, the Bank has particular expertise in setting up mono-speciality secondary and tertiary hospitals.

3.2 The Bank has the expertise to help RMCs attract private investment into infrastructure development. The Bank offers expertise in infrastructure PPPs and the ability to deploy a mix of financing instruments, including non-sovereign operations and de-risking instruments to leverage private sector investments. As of September 2019, the Bank had a portfolio of \$1.5 billion in investments into infrastructure PPPs, through which it has built up considerable expertise in PPP regulatory frameworks and investment design. Through its non-sovereign operations, it can invest in private health service provision, in areas such as diagnostics, transport and waste disposal that are often outsourced. The Bank's experience in SME financing is also an important factor, given the role of SMEs in delivering private healthcare. The Bank can also harness the experience of its Industrialization team in incorporating new technology into its infrastructure investments, to enable new ways of delivering health services.

3.3 The Bank is uniquely placed to deliver health infrastructure in a package with other supporting infrastructure investments. At present, only half of the primary healthcare facilities in sub-Saharan Africa have clean water and only a third have reliable access to electricity. This presents a major constraint on the quality of healthcare that can be provided through these facilities. It also inhibits the distribution of vaccines and medicines that require cold chain storage. The Bank can package its health infrastructure investments to include support for water and sanitation, energy, transport, and digital connectivity infrastructure – all areas where the Bank already has substantial portfolios. WASH infrastructure is particularly important in the context of the COVID-19 pandemic, to reduce the risk of health facilities becoming vectors of transmission. Mixed infrastructure investments will be essential to ensuring ‘last-mile’ delivery of health services in remote and low-income areas. The Bank is also in a position to support digital connectivity for existing health facilities, in support of improved health information systems and telemedicine.

3.4 The Bank can play a valuable role in reducing health infrastructure bottlenecks, working alongside other development partners to provide niche support for national health system strengthening strategies. Health system strengthening is a multi-dimensional challenge, and investments in infrastructure must be accompanied by investment and capacity development across a range of fronts, including a health workforce, essential medicines, service delivery capacity, financing, leadership and governance.⁵⁶ The Bank will only invest in health infrastructure projects that form part of credible national health system strengthening strategies, and where it supports interventions that complement those of other development partners. This will be an explicit criterion for project selection, to minimize the risk of investing in facilities that remain unused for lack of equipment, personnel or recurrent budgets. This will be an explicit criterion for project selection, to minimize the risk of investing in facilities that remain unused for lack of equipment, personnel or recurrent budgets. This criterion will also ensure the sustainability of Bank investments.

Figure 2: Focus areas for development partners in African health infrastructure

		Development aid commitments to health infrastructure ¹ , Total 2010-2018, \$ Mn	Primary care	Secondary and tertiary care	Diagnostics	Connectivity in innovative healthcare solutions	Comments
Public sector-oriented DFIs	THE WORLD BANK	~1,000	✓	⊗ Mainly maternal and child health	⊗	⊗	Mainly focus on primary bricks and mortar
	ISDB Islamic Development Bank	~200	⊗	✓	⊗	⊗	Loans and equity to public and private stakeholders
	ADB	~200	⊗	✓	⊗	⊗	Mainly financing public facilities, while private sector support is increasing ²
Bilateral agencies	~\$260 Mn	~3,000	✓	⊗	⊗	⊗	Grants to NGOs
	~\$240 Mn						
	~\$200 Mn						
Multilateral agencies	UNICEF	N.A.	✓	⊗	⊗	⊗	Main focus is on supply chain equipment
	World Health Organization						
	GAVI		Primary health with few components incl. health infrastructure				
Private donors	BILL & MELINDA GATES FOUNDATION	~30	✓	⊗	✓	⊗	Grants to universities and NGOs
	IFC International Finance Corporation	~300	⊗	✓	⊗	⊗	Loans and equity mainly to brownfield projects
Private equity funds	Broad landscape, with TPG having the largest healthcare portfolio (~\$ 1 Bn for Asia and Africa)		⊗	✓	⊗	⊗	High-end facilities targeting populations with high ability to pay

Note:

- This assessment is mainly based on CRS Aid Activity database (OECD). It compiles ODA, Other Official Flows and Private Development Finance. Data is not exhaustive.
- Health worker training is often included as a component of health infrastructure projects

1. Basic health infrastructure (district-level hospitals, clinics, dispensaries and medical equipment) and medical services (laboratories, specialized clinics and hospitals (inc. equipment and supplies), ambulances, dental services, and medical rehabilitation)
2. Since 2010, AfDB has invested in 2 PE funds and supported private facilities through non-sovereign loans
3. Support has been significant, but has not managed to bridge the healthcare worker gap, and is focused on traditional models

Source: Press search, Pitchbook, Expert interviews, OECD Database

Main focus
 Moderate focus
 Limited focus

3.5 The Bank’s offer on quality health infrastructure is complementary to the efforts of other development partners in the health sector. Our mapping of the development finance flows into African health infrastructure during 2010-2018 (see figure 2 above, and annex 5) reveals a significant emphasis on bricks and mortar infrastructure in support of primary healthcare facilities (from bilateral and multilateral development agencies) and brownfield secondary healthcare facilities (from private investors and the likes of the IFC). In contrast, there are fewer actors engaged on investing in greenfield secondary and tertiary healthcare facilities, brownfield investments to upgrade or expand infrastructure in the public sector and on connectivity and innovative healthcare solutions. There has also been a limited emphasis on delivering complimentary support to develop health systems strengthening and financing strategies, and to ensuring alignment with these strategies. These are all areas in which the Bank has extensive or emergent comparative advantage, and in which it can add significant value. In addition, the Bank is a leading actor in providing infrastructure and other forms of support to countries in fragile environments, as illustrated by its recent support to construct South Sudan’s first oxygen manufacturing plant and the rehabilitation of 4 health facilities in response to demands emerging as a result of the COVID-19 pandemic (see Annex 4 for more information).

3.6 . The Bank will leverage its extensive experience of combining infrastructure financing with complementary support to promote the sustainability of investments and equitable access. The Bank’s project infrastructure investments are accompanied by a package of complimentary support measures (typically utilising 15%-25% of financing⁵⁷), such as policy dialogue, technical assistance and knowledge products. This complimentary support aims to help create an enabling environment for successful project delivery, to promote effective and equitable utilisation of the infrastructure, and to ensure that impacts are sustained into the future. For example, Bank policy dialogue can help to mobilise domestic finance to sustain infrastructure, its knowledge support can help to identify and promote approaches for expanding access to health services, and its technical assistance can help to strengthen capacity for managing PPPs. In recent years, the Bank has provided financing and technical assistance to help expand social protection in Côte d'Ivoire, Morocco and Senegal, and the Bank-hosted African Legal Support Facility has been providing advice to African governments in negotiating complex commercial transactions and to structure PPP contracts.

4. LESSONS LEARNED

4.1 The strategy is informed by a number of lessons learned from the Bank’s previous experience in the sector. Firstly, it is important to note that the Bank’s experience is that projects integrating transport, education, health, water & sanitation and economic infrastructure tend to bring better results for beneficiaries, by ensuring the full spectrum of needs and drivers of sustainable impact are addressed. Secondly, a key challenge with previous Bank health projects has been their quality at entry, and therefore particular emphasis needs to be placed on the preparatory phase, including undertaking feasibility studies and robust economic and sector analysis. Thirdly, analysis of the Bank’s operations has illustrated the importance of reducing negative environmental impacts, by undertaking and integrating the design requirements emerging from in-depth environmental and social impact assessments. Finally, it is clear that securing the ownership, commitment and involvement of partner governments is particularly important, and this should include an emphasis on ensuring that counterparts commit maintenance and recurrent funding so as to promote the sustainability of projects.

4.2 A range of important lessons are also apparent from the experiences of other financiers of health infrastructure. These experiences suggest that it is important to ensure that adequate resources and partnerships are leveraged in order to secure sustainable impact at scale. This will be helped by financing a smaller number of larger projects, developing co-financing and knowledge partnerships with multilateral institutions, leveraging financing from the private sector and ensuring that governments play the role of regulators, licensers and quality controllers across the health sector. Past experience points to the importance of strengthening project execution and monitoring through promoting improved governance in the health sector. This can be promoted through facilitating the efforts of member countries to leverage sector financing, shape health reforms and lead policy dialogue, promoting the participation of all relevant stakeholders in the design of programs, and developing robust results-based management, monitoring and evaluation systems in the health sector. Finally, learning from other financiers emphasises the importance of ensuring efforts are made to strengthen the enablers of effective utilisation of health infrastructure, especially human resource capacity and finance for recurrent expenditures.

4.3 It is also useful to draw on learning from global innovations in health service delivery, which can be adapted to the African context in order to improve the efficiency and effectiveness of infrastructure investments. A key lesson here is that digital technologies

have begun to alter how healthcare is delivered and have the potential for disruptive change. For example, enhanced connectivity between patients and providers can ensure better and more affordable access to care for larger numbers of patients, especially those living in remote areas. Advances in medical technology are delivering better quality and outcomes of care and offering a wider range of treatment options. New provider payment mechanisms can help to promote equitable access to healthcare by creating incentives to improve health service delivery, quality and efficiency. Finally, it is relevant to highlight how new service delivery models – such as e-health services and the aggregation of patient procedures – are emerging which can help to improve value for money and efficiency.

5. OBJECTIVES AND STRATEGIC APPROACH

Goal and objective

5.1 Goal. The goal of the SQHIA is to secure increased access to quality health services for the people of Africa by 2030, in order to improve the quality of life for the people of Africa and promote the achievement of SDG3 (to ensure health lives and promote well-being for all at all ages) and the African Union’s Agenda 2063 goal on health (to ensure Africa’s citizens are healthy and well-nourished). Good health is indispensable to the quality of life and a foundation for improving labour productivity, inclusive growth and many other development goals.

5.2 Objective. The objective of this strategy is to support regional member countries in their efforts to accelerate the development of quality health infrastructure in Africa, and to contribute to their efforts to ensure that all individuals and communities receive the health services they need without suffering financial hardship. Achieving this objective will be vital to efforts achieve the overall goal of this strategy.

Pillars

5.3 Pillars. The SQHIA is tightly focused on four categories of health infrastructure that will help to deliver the overall objective of this strategy and match the Bank’s comparative advantage, while providing the flexibility to respond to the diverse needs of RMCs across the three archetypes (see Figure 1). Details of the content of each pillar are provided in Section 6.

- i) **Pillar 1: Primary health care infrastructure.** Under this pillar, the Bank will address last-mile infrastructure gaps and undertake mixed infrastructure investments. This will involve constructing health facilities for under-served populations, with supporting infrastructure investment to ensure that facilities have access to clean water and sanitation, energy, and IT connections, for quality health services.
- ii) **Pillar 2: Secondary and tertiary healthcare facilities.** The Bank will invest in developing secondary and tertiary health care facilities, alongside specialist facilities for cancer, dialysis, and pain management. These investments will be particularly relevant in countries where the burden of non-communicable diseases is growing rapidly. The flagship projects may include regional centres of excellence, designed to attract health tourists within Africa. This pillar addresses a clear gap in current health finance flows in respect of greenfield investments in new health facilities.
- iii) **Pillar 3: Diagnostic infrastructure.** This pillar will help to address major deficits in Africa’s diagnostic infrastructure and may include a range of delivery models, including outsourcing to the private sector.
- iv) **Pillar 4: Connectivity for innovative health solutions.** The Bank will invest in ICT connectivity, to support innovations in health service delivery, including for instance

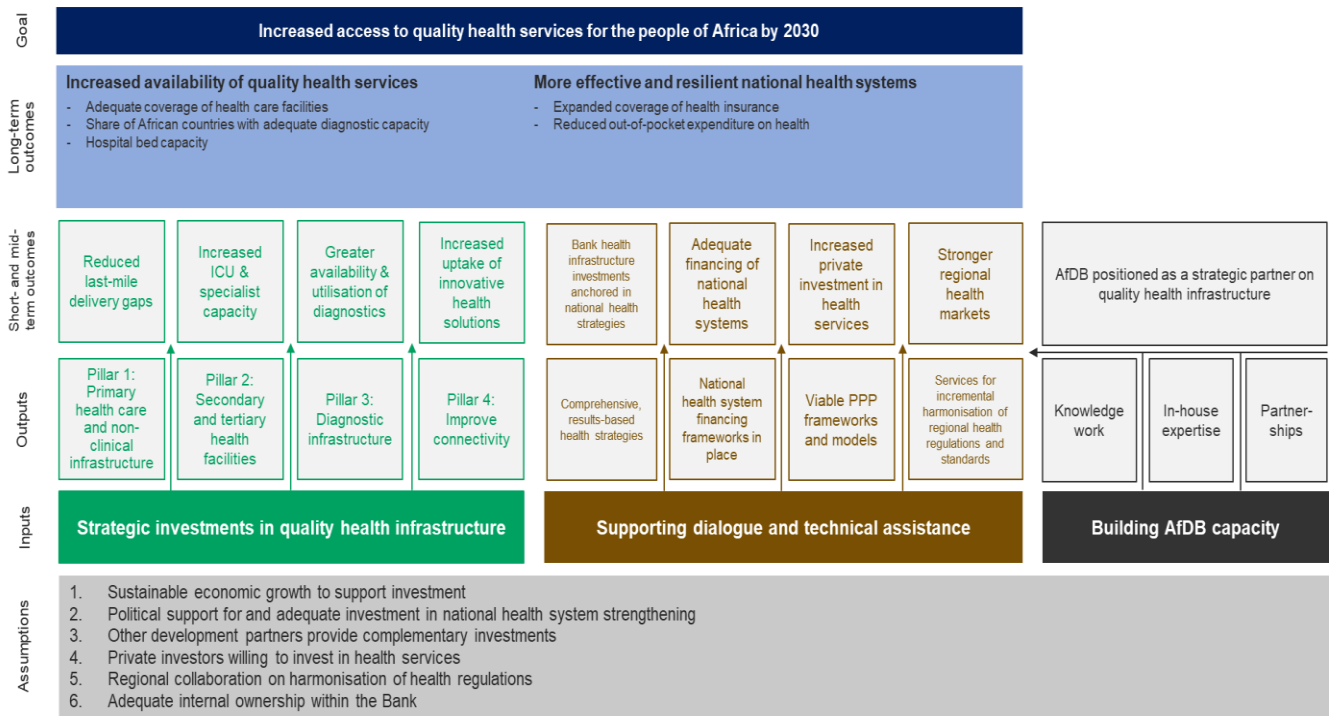
mobile services, tele-medicine and other digital health solutions, as well as improvements in health information systems.

5.4 Knowledge work, policy dialogue, and technical assistance. All investments in health infrastructure will be packaged with policy dialogue and technical assistance (TA), to help RMCs ensure that the capital investments are anchored in clear strategies and financing frameworks and contribute to equitable and sustainable health services. The Bank will develop a programme of knowledge work to inform its policy dialogue and cultivate relationships with external partners able to offer specialized technical support.

5.5 Promoting regional collaboration on health challenges. This strategy will also support efforts to deepen the harmonization of health policies and regulations across Africa and promote common approaches to addressing the regions’ health challenges.

5.6 Historical track record. During the 1990s, the Bank invested approximately \$75 million annually. Adjusted for inflation, this would be equivalent to \$300 million per year at current prices, 5% of the Bank’s current lending portfolio. However, no financial targets are included in the SQHIA, given the demand-driven nature of the portfolio.

Figure 3: Theory of Change



6. PRIORITIES UNDER THE STRATEGIC PILLARS

6.1 This section of the strategy sets out in more detail how the Bank will identify strategic investments within each of its four strategic pillars, and how it will combine investment projects with policy dialogue and technical support.

Pillar 1: Primary health care infrastructure

6.2 The Bank will finance primary healthcare infrastructure expansion, particularly in fragile states and some LICs, to reduce the last-mile access gap. These facilities will increase equitable access to health services among remote populations and vulnerable groups, and also promote gender equity. The Bank’s diagnostic work shows that, while on average the ratio of primary health care (PHC) facilities to population is overall adequate, there are

major discrepancies between and within countries. Around 30% of the African population still lives more than two hours travel away from basic health services.⁵⁸ Countries in Archetype A have the lowest access rates, despite adequate overall PHC facility density, due to sub-optimal geographical distribution.

6.3 The Bank will combine brick-and-mortar investments in primary healthcare (PHC) with a significant emphasis on supporting non-clinical infrastructure. Alongside support for building new primary healthcare facilities, the Bank will support both new and existing health facilities to connect to water and sanitation services, electricity connections, and digital services. This is an area where the Bank has a clear comparative advantage with a demonstrated track record including in countries in fragile environments. It will also promote effective utilization of PHC facilities and enable them to provide high-quality services. Improvements in facility hygiene will make them safer. Power connections will enable them to use a wide range of diagnostic and treatment technologies and offer more continuous services. Digital connections will support health information flows and data collection, for improved disease surveillance, and allow for digital solutions to be implemented.

6.4 Offering mixed infrastructure investments in support of last-mile delivery will require deep and effective collaboration across the Bank's operational units. The team leading on the SQHIA will need to develop strong collaborations – including potentially joint delivery strategies and cross-functional teams – with the departments leading on energy, water and sanitation, and digital connectivity.

6.5 The Bank will provide targeted support for health insurance and other social protection schemes to help support access of the poorest and most marginalised to health services. For these groups of people financial barriers to accessing health services - such as transport, cost of drugs and user fees - are significant and pose major challenges to ensuring these services are available to all without creating financial hardship. The Bank will therefore work to promote the expansion of these schemes, with an emphasis on ensuring the hardest to reach can utilise them.

6.6 The Bank will explore the potential for cost-effective innovation in PHC last-mile delivery. There may be scope to package PHC with mini-pharmacies and small retail spaces, for financial sustainability. PHC facilities could be supported by call centres and virtual solutions, to access specialist expertise. The Bank will also explore options to support mobile health services as well as the use of drone technology to supply PHCs with blood supplies and other health inputs. The private sector is viewed as an important partner to achieve this.

Pillar 2: Secondary and tertiary healthcare facilities

6.7 The Bank will utilise its extensive and niche experience in convening financing partners to bring together private and public actors together to develop and finance innovative secondary and tertiary healthcare infrastructure and catalyse replications across Africa. Potential investments under this pillar include:

- i) **Cross-country hospital franchises:** Financing the construction or expansion of high-volume, low-cost secondary and tertiary private health service delivery infrastructure franchises that leverage economies of scale and manage the growing NCD burden.
- ii) **Highly efficient mono-specialty hospitals:** Co-financing the building of high volume, low-cost mono-specialty hospitals focused on a single health challenge such as maternity or cardiovascular disease. The Bank's support would include TA to develop viable projects and financing models, including PPPs, and identify private-sector partners.

- iii) **State-of-the-art reference hospitals:** Co-financing the establishment of regional multi-specialty research and teaching hospitals that provide high-quality of care, support clinical trials, and healthcare worker training. The Bank will help RMCs access global expertise in the development of high-end health facilities, and advocate for supporting policies (e.g., regional-level patient referrals, regional harmonization of qualifications to facilitate mobility of skilled personnel).
- iv) **Multi-specialty secondary and tertiary hospitals:** Financing the construction of multi-specialty secondary and tertiary public health and supporting infrastructure, focused on providing high-quality treatment to manage rising NCD burdens.

6.8 The Bank will deploy a wide range of financing instruments under this pillar. Alongside traditional investment projects, it may offer result-based financing to support enhanced policy dialogue and accompany government reform. Private-sector operations, including debt and equity investments and risk-sharing instruments, may be used to support PPPs, alongside TA to support viable PPP frameworks and models, and use of the Bank’s convening power to support matchmaking with potential investors. Knowledge products and TA will also be important to optimize the location and design of investments.

Pillar 3: Diagnostic infrastructure

6.9 The Bank will provide finance to governments to set up and/or upgrade diagnostic infrastructure. This support will help close financing gaps in expanding diagnostic capacity to ensure that more of Africa’s population access diagnostic services and improve the accuracy of diagnostic work across RMCs, for improved treatment and disease surveillance. Currently, only 15% of the African population have access to diagnostic services and up to 50% of essential diagnostics are inaccurate. To meet the projected demand in 2030, the availability of diagnostic equipment and facilities such as MRI must increase by over 100%.

6.10 Sample initiatives will include under Pillar 3 will include:

- i) **High-volume outpatient diagnostics.** Financing the expansion of high-volume outpatient diagnostics by partnering with the existing Africa Health Diagnostics Platform.
- ii) **Equipment upgrade .** The Bank will provide financing to governments to upgrade diagnostic equipment .

6.11 Diagnostics is an area that lends itself to private-sector involvement. This may include basic outsourcing models or more complex PPPs. The Bank may provide a combination of sovereign and non-sovereign financing together with technical support for PPP development and matchmaking services. TA for regional alignment of standards will potentially allow private investors to achieve economies of scale.

Pillar 4: Connectivity for innovative health services

6.12 The Bank will provide ICT infrastructure to enable RMCs to introduce innovative approaches to health service delivery. This may include ICT connectivity for existing health facilities and investments to set up national or subnational digital health platforms. These can significantly expand access to outpatient care while reducing the need for new brick-and-mortar facilities. It may also include non-sovereign investments in companies offering innovations in health service delivery.

6.13 Potential investments could include:

- i) **A virtual outpatient platform** – The Bank will identify partners to co-finance/franchise a “virtual-first, in-person only when necessary” ecosystem for

outpatient (primary and specialist) care to help re-design outpatient care on the continent. The platform would provide an end-to-end patient experience supported with digital technology and portable devices, complemented by a reference network of general practitioners, secondary and tertiary hospitals, and community health-worker networks.

- ii) **Support to virtual outpatient platforms.** These might include platforms established by health professionals in the diaspora, as well as in-country.

Knowledge work, policy dialogue, and technical assistance

6.14 The Bank will ensure that all its health infrastructure investments are accompanied by policy dialogue, technical assistance and capacity building. This will enhance the prospects of strategic impact while minimizing the risks of investing in ‘white elephant’ infrastructure projects that are poorly utilized due to shortages of finance or personnel. The selectivity criteria in this strategy stipulate that the Bank will only invest in health infrastructure that is anchored in credible national health system strengthening plans and financing frameworks. This clear precondition creates a platform for the Bank to engage RMCs in policy dialogue on health system strengthening in advance of project approval, starting at Country Strategy Paper (CSP) and project identification stage. The Bank will also package its investments where possible with complementary TA support. This may take the form of including health finance-related measures in PBOs or using results-based finance that combine investment finance with platforms for policy dialogue.

6.15 The focus of the Bank’s policy dialogue and TA will be supporting RMCs to put in place the policy and institutional frameworks needed to secure sustainable financing and social protection, provide effective oversight of the health sector, set standards for PPPs and ensure that infrastructure investments result in sustainable improvements in quality health services. Health finance will be a strong focus. The Bank will support RMCs to develop strategies for financing their national health systems and efforts to make the case for prioritizing health in national plans. It will include efforts to expand social protection and national health insurance schemes through support for designing and expanding these schemes, setting and planning delivery to meet targets for expanding coverage, and improving the targeting of these schemes to poor and marginalized groups. It will also include creating an enabling policy environment for private sector investment, including outsourcing of specialized services (e.g., diagnostics, cold chain management, and medical waste disposal) and the development of PPPs for service delivery, as appropriate to each national context. With regard to PPPs, we will support RMCs in developing PPP laws, policies and regulations, establish of PPP institutions, and strengthen the public sector capacity to identify, develop and implement PPPs. Regional integration will be another key theme, to facilitate the regional movement of skilled health personnel and create larger and more efficient regional health markets.

6.16 Knowledge-based activities to support the health infrastructure portfolio will include:

- i) **Analytical work.** The Bank will undertake a programme of targeted analytical sector work, to assess emerging health challenges and infrastructure needs, explore innovative service-delivery options and approaches to expanding service access to poor and marginalized groups, and identify solutions to health financing challenges.
- ii) **Policy dialogue on health financing, broadening service access and related challenges.** The Bank will work with RMCs to develop and implement policies that help to address critical challenges such as how to sustainably finance health services, improving the effectiveness of spending and ensuring that poor and marginalized groups are reached, in accordance with the ‘leave no one behind’ principle. In particular, the Bank expects to engage with RMCs on social protection and health

insurance schemes, to ensure that the poorest benefit from expansions in health services. This will in turn also help to promote full utilization of health infrastructure supported by the Bank and value for money from these operations.

- iii) **Technical support for innovative financing solutions and project preparation.** The Bank will draw on its extensive experience in infrastructure financing to help RMCs develop innovative methods for financing health infrastructure. This will include developing policy frameworks for PPPs and providing technical support for PPP project preparation. A related challenge is the harmonization of health standards at the continental or subregional level, to make it possible for private investors to supply medical equipment and health services more cost-effectively across regional markets.

6.17 The Bank will strategically cultivate partnerships and networks (Annex 3)– While the Bank can offer expertise in some areas of health infrastructure development and financing, there are also many other sources of technical support for RMCs. The Bank’s approach will include cultivating links with other partners and networks – such as Harmonization for Health in Africa (HHA) and the Global Network for Health Financing and Social Protection (P4H) network – and helping RMCs to identify the right sources of technical support for their needs. The Bank will also develop funding and programme partnerships with other financiers of health in Africa, including development finance institutions and private foundations, such as the Bill and Melinda Gates Foundation, Mastercard Foundation, Aliko Dangote Foundation and others.

Promoting regional harmonisation and collaboration **6.18** The Bank will help to promote regional harmonisation on health policy and regulation in areas such as health worker qualifications, treatment protocols and licensing of health technologies. This activity will help to promote the sharing of health technologies across the region to promote cross border healthcare investments and the movement of health workers in pursuit of common approaches to responding to health challenges such as maternal health and the evolving COVID-19 pandemic. In order to promote regional collaboration on health including during emergencies, the Bank will deepen its partnerships with Africa CDC, WHO and UN agencies and continue to engage with all key partners within the platform of the Harmonization for Health in Africa Programme.

7. IMPLEMENTATION OF THE STRATEGY

The implementation of the strategy plan is articulated around the achievement of targeted output, outcomes and results indicators as defined by the Result Management Framework (RMF). The RMF captures all activities from sectoral interventions across the defined pillars. Within the “One Bank” approach, joint accountability for the achievement of targets and results pertaining to departments interventions will be defined. This Strategy serves as unifying platform that ensures optimal synergies between the various departments for a maximum impact.

Guiding Principles

7.1 The Bank will also ensure that its health infrastructure operations are guided by the following set of principles:

7.2 Selectivity: The Bank will apply strict selectivity criteria to its investments, through an emphasis on providing support in areas where Bank has:

- **i) Comparative advantage** – The Bank will only provide support that fits with its existing and emerging comparative advantage (set out in section 3), including: developing deep partnerships with governments to help strengthen and deliver national priorities; support for primary care facilities, setting up mono-speciality hospitals and non-clinical infrastructure vital to health services; support for the design, mobilisation

and delivery of financing packages, convening diverse partners, developing PPPs, de-risking private investments, and complementary capacity building and knowledge support.

- **ii) Identified clear local demand and ownership** – The Bank will only provide support for health infrastructure interventions where these are clearly identified in national health system strengthening strategies, and where health is agreed as a priority in Country Strategy Papers.
- **iii) Identified a clear gap in existing financing** – The Bank will support interventions that have been identified as gaps in the financing available from the Government and other development partners, thereby helping to maximise the value for money of the Bank’s support.

7.3 Ownership: Interventions must be anchored in credible national health system strengthening strategies and the Country Strategy Papers agreed with the Bank. Where national strategies need strengthening, the Bank will provide support for this strengthening before decisions about Bank support are made. Working in this way will help to ensure there is full ownership of health infrastructure interventions by public and private sector stakeholders at the country level, which will in turn help to secure continued local financing for infrastructure maintenance to promote resilience and sustainability.

7.4 Flexibility and customization: The implementation will embed enough flexibility to accommodate a tailored support for each RMC, reflecting their diverse health needs. The Bank’s support will be locally driven, responsive to the specific health challenges each country faces. It will invest in diagnostic studies, where appropriate, and ensure flexibility in adapting to diverse national contexts.

7.5 Partnerships: The Bank will continue to strengthen its partnership and alliances with all key stakeholders involved in the health systems development. It will strive to be a catalyst of the design and application of innovative solutions to address the most challenging situations faced by RMCs, particularly Transition States through a clear division of labour with other partners.

7.6 Inclusivity: Bank’s interventions will aim to create conditions that promote equitable health solutions and access for the poorest communities and households. In accordance with the ‘leaving no one behind’ principle, the Bank will work with RMCs to ensure that health services are available to low-income groups on an equitable basis.

Implementation Plan

7.7 The Bank already has a pipeline of projects to fund and will immediately but gradually begin to increase its investments in health infrastructure. The Bank has been receiving proposals for new health infrastructure projects, stimulated by its increased emphasis on this area in recent years. An initial modest scale-up in our financing will be delivered by supporting these projects and be overseen mainly by health experts who have successfully delivered the Bank’s response to COVID-19 pandemic. It is also likely that in the early years of implementing this strategy, further demand will only increase gradually, given that - the prioritization of health infrastructure in RMCs will depend on the preparation of new CSPs in the pipeline.

7.8 To support this gradual scale up in investment and the delivery of this strategy, the Bank has developed an action plan. This action plan (see Annex 2) specifies actions to be carried out across the lifetime of this strategy to deliver each pillar and the complementary priorities in knowledge work, policy dialogue and technical assistance. It

also identifies the lead and partner departments responsible for undertaking these actions in the spirit of delivering as ‘One Bank’.

7.9 A key element of the action plan are the actions we will undertake to lay the foundation for and to begin implementing this strategy. These actions are presented below and are also detailed in section 6 – ‘Supporting internal processes’ - of the action plan in Annex 2):

- i) **Progressive development of in-house capacity.** The Bank has sufficient capacity to manage the scaling up of its health infrastructure portfolio anticipated in the coming years. This capacity revolves around existing health experts - that have successfully managed the responses to COVID-19 pandemic and recent Ebola outbreaks. The health team will work in close collaboration with other infrastructure investment and ecosystem experts under the ‘One Bank’ delivery model. The existing country team framework will provide a reliable cross departmental platform for planning and implementing the SQHIA work program within the context of the CSP. The annual Work Program Agreements with the regions will help secure commitment to deliver as ‘One Bank’ with the new co-efficient budgeting and joint Key Performance Indicators promoting shared accountability. In-house expertise on health infrastructure will be gradually consolidated as part of the Bank’s ‘right sizing’ exercise, as human resources are matched to emerging priorities. An assessment will be carried out as part of the mid-term evaluation to determine whether additional human resources are required to manage the portfolio from that point.
- ii) **Strengthen networks and coordination within the Bank.** The Bank will take a ‘One Bank’ approach to delivering the SQHIA, to ensure that all the Bank’s expertise is available to support RMCs. It will identify sources of expertise in different aspects of infrastructure development and project finance across departments and within existing project preparation facilities. It will convene cross-departmental teams and establish a regular cadence for joint working and collaboration on project origination and design. NSO staff with the experience needed to process quality health infrastructure projects will be made available to support implementation of the strategy.
- iii) **Cultivating external networks and partnerships.** The Bank will follow a partnership model to delivering the SQHIA. The Bank’s health infrastructure portfolio is a niche within the larger health ecosystem that requires the cultivation of strong relationships and networks. The SQHIA delivery team will build its links to key development partners, including Africa CDC, UNICEF and WHO, the World Bank, Development Finance Institutions (such as the IFC and CDC) and private foundations (such as the Bill and Melinda Gates Foundation), in order to facilitate the exchange of technical and country-specific knowledge. This may include undertaking joint analytical work. Partnerships will also be sought to ensure support in identifying private investors and supporting project development. During project appraisal and design, the Bank will consult closely with development partners active in-country, utilizing existing forums such as health sector HHA for Health in Africa and the P4H network. The World Bank will be a key partner to engage in securing effective division of labour in supporting primary healthcare facilities, and in designing climate friendly healthcare investments.
- iv) **Designing a structured programme of knowledge work.** During the early phase of strategy implementation, the Bank will design a structured programme of analytical work, based on the available data on Africa’s evolving health needs and service gaps, to inform identified priorities for evidence collection. It will synthesize the available knowledge and evidence on effective strategies for filling health service gaps, across different African country contexts, and collect lessons and experience. It will develop a programme of analytical work to fill the identified knowledge and evidence gaps. This work will build on the scoping analysis already undertaken to inform this strategy, assessing

evolving needs as a result of the COVID-19 pandemic and provide a foundation for the Bank’s policy dialogue and TA.



- v) **Identifying technical assistance providers.** To strengthen its capacity to provide TA, building on its existing networks, the Bank will develop partnerships with institutions offering technical expertise in key areas and develop a range of options to meet the technical needs of RMCs.
- vi) **Strategy dissemination.** The implementation team will identify opportunities through existing events and processes to present the strategy and the Bank’s health infrastructure offer to African governments, regional economic communities, other development partners, health service delivery companies, financial institutions, and other stakeholders. To support the communications plan, the team will conduct a mapping of stakeholders. The focus of communication will be on promoting awareness of the opportunities provided by this strategy while being very clear about the Bank’s focus and selectivity criteria.

7.10 Financing instruments. The Bank will use a range of financing tools to support RMCs with health infrastructure development, as follows.

- i) **Traditional investment projects,** with the focus on larger projects, with flexibility retained to support ADF countries with last-mile delivery in primary health care.
- ii) **Results-based financing,** which combines investment projects with programme-based operations (PBOs), for enhanced policy dialogue on health system financing challenges, including social protection and health insurance.
- iii) **Public-private partnerships (PPPs),** combining technical support for the development of PPP frameworks and models, together with risk-sharing instruments to help mobilize private investment.
- iv) **Non-sovereign operations,** including debt and equity investments in private firms, with a particular focus on firms able to offer regional investments in health services and medical equipment. The Bank’s technical assistance will include support on regional harmonization of health standards, to help viable health businesses achieve efficiency through scale.
- v) **Innovative finance options, including diaspora investment funds.** This could include a dedicated funding mechanism to provide Viability Gap Funding for a portion of the capital costs of health infrastructure projects, or the issue of a diaspora bond for health infrastructure, to attract diaspora savings. This would be accompanied by policy dialogue and TA to RMCs on policy measures and initiatives to attract diaspora funding.

7.11 The SQHIA will be accompanied by a robust monitoring plan. A monitoring framework for the strategy is attached in Annex 1, and extensive work will be undertaken to monitor delivery through data collection from projects and through close engagement with national institutions in order to track the status on health service delivery infrastructure. An annual report will be prepared on implementation of the strategy. This will cover pipeline development, knowledge work, approvals, and output indicators. A mid-term review in 2025 will assess emerging results to inform a review of the strategy.

Figure 4: Linkages to other Bank strategies

Other relevant strategies	Potential synergies with SQHIA
 Pharmaceutical Action Plan*	<ul style="list-style-type: none"> ▪ Strengthening Africa’s capacity to prevent and treat medical conditions in a cost-effective and timely manner
 Gender Strategy*	<ul style="list-style-type: none"> ▪ Overcoming gender disparities in access to health (e.g., finance, technology, quality of care)

 Feed Africa Strategy	<ul style="list-style-type: none"> Improving nutritional health and grey matter infrastructure
 Fragility Strategy	<ul style="list-style-type: none"> Support the development of resilient and efficient health service delivery infrastructure in fragile states
 Governance Strategy	<ul style="list-style-type: none"> Developing health service delivery infrastructure projects which find the right balance between economy, efficiency and effectiveness
 Climate change action plan	<ul style="list-style-type: none"> Champion climate-resilient and low-carbon health service delivery infrastructure development in order to mitigate and adapt to climate change
 WASH strategy	<ul style="list-style-type: none"> Integrating health KPIs in WASH projects Increasing connectivity of health service delivery infrastructures to WASH utilities
 Infrastructure strategies (e.g., energy, IT, urbanisation)	<ul style="list-style-type: none"> Integrating health KPIs in infrastructure projects Increasing connectivity of health service delivery infrastructures to utilities Investing in off-grid solutions to connect PHCs to power
 Designing the AfDB's PPP framework	<ul style="list-style-type: none"> Strengthening of PPPs for health service delivery infrastructure development Leveraging knowledge on project preparation set-up
 Private Sector Development	<ul style="list-style-type: none"> Driving demand of private sector players to develop partnerships with national governments (i.e., for PPPs)
 Action Plan for skills development	<ul style="list-style-type: none"> Investing in training infrastructure for health personnel
 Industrialization Strategy	<ul style="list-style-type: none"> Support health serviced delivery infrastructure development with necessary manufacturing implicated within the value chain (e.g., equipment)
 Capacity development strategy	<ul style="list-style-type: none"> Develop capabilities of national authorities to manage health service delivery infrastructure projects funded by the Bank
 Strategic Framework for Regional Integration	<ul style="list-style-type: none"> Developing cross-border policies and frameworks to develop virtual outpatient platforms; set-up regional COEs and diagnostic centres, establish medical referrals; elaborate data sharing protocols; align on health workforce qualifications
 Jobs for Youth in Africa Strategy	<ul style="list-style-type: none"> Support access and training of youth to medical value chain workforce to address gap in both employment and staffing of these resources
 Knowledge Management Strategy*	<ul style="list-style-type: none"> Support knowledge generation on the challenges and opportunities of financing of health service delivery infrastructure

* Under development or pending approval

8. RISKS AND MITIGATION

8.1 This strategy aims to deliver high impact results for the people of Africa and improve their welfare on a sustainable basis and for the long term. Seven major risks have been identified which require monitoring and mitigation as set out below.

Figure 5: Risk and Mitigation Measures

Risk	Mitigations
Slow economic recovery after the pandemic and rising indebtedness result in RMCs lacking the resources to invest in health system development	<ul style="list-style-type: none"> Bank financial support to facilitate investments in health infrastructure Bank technical assistance on health system financing options Innovate financing solution to help mobilise private investment in health care including from the African diaspora
Lack of political support for investment in health system strengthening , resulting in a lack of credible policies and strategies, and low prioritisation of health in government budgets and a failure to fill	<ul style="list-style-type: none"> Credible national health system strengthening plans and financing arrangements set as preconditions for Bank support Use the CSP dialogue and ongoing high-level political dialogue to leverage increased budget commitments and strengthen mobilisation of co-financing from DFIs, bilateral donors, private foundations and others

the \$26 billion financing gap on health infrastructure.	<ul style="list-style-type: none"> ▪ Invest in knowledge work, to support policy dialogue and encourage policy change (in particular, leverage existing work on value for money, financing gaps, innovative financing mechanisms and public-private collaboration in health) ▪ Provide technical advisory services to RMCs to strengthen revenue mobilisation and health spending prioritisation, and showcase innovations in health services ▪ Deploy relevant Bank instruments and platforms (e.g ALSF, AIF) to support RMCs in mobilising private capital for health infrastructure
Limited buy-in from other development partners , resulting in limited opportunities for harmonised approaches and co-financing	<ul style="list-style-type: none"> ▪ Consultation at strategy design stage ▪ Active communication around the Bank’s health offer ▪ Proactive exploration of co-financing opportunities in CSPs and at all stages of project cycle ▪ Mentor RMCs for enhanced coordination and collaboration
Insufficient buy-in from private sector due to a perception of high investment risk , resulting in low appetite to invest and hampering innovation	<ul style="list-style-type: none"> ▪ Support regulatory developments at country and regional level to catalyse and facilitate investment ▪ Invest in model projects to demonstrate results, and communicate on results ▪ Develop innovative PPP models ▪ Promote innovative instruments and risk-sharing, to facilitate viability gap financing
Lack of regional ownership and capacity result in non-prioritisation of health regulation harmonization initiatives	<ul style="list-style-type: none"> ▪ Increase coordination with the support of the AU, national governments and RECs, also using partnerships with HHA, P4H and Africa-CDC ▪ Build on Bank collaboration with RECs in responding to the COVID pandemic, and use lessons learned from the Regional Integration strategy ▪ Strengthen capacities of RMCs and RECs on harmonisation of health regulations
Lack of internal ownership of the health portfolio within the Bank , resulted in underinvestment and a lack of synergy with other portfolios	<ul style="list-style-type: none"> ▪ Observe strategy selectivity and the Bank’s selectivity guidelines ▪ Document, report and disseminate results from health infrastructure projects ▪ Develop working arrangement for strategy implementation in accordance with the One-Bank approach ▪ Develop shared KPIs and accountability processes

9. CONCLUSION

9.1 The SQHIA provides a clear strategic framework for better Bank engagement in the field of health infrastructure. It follows high demand from RMCs for the Bank’s support, made more urgent by the COVID-19 pandemic. While recent investments have been made without a clear strategy, SQHIA is a tightly focused strategy based firmly on the Bank’s comparative advantage, with clear selectivity criteria for identifying which projects to support. In this way, the strategy ensures that the Bank’s support on health infrastructure remains within its areas of expertise. To ensure that the Bank’s infrastructure investments lead to sustainable improvements in health services, the strategy provides that investments must be anchored in credible national health system strengthening plans and financing frameworks, working alongside other development partners. The Bank will make use of its full range of financing instruments, including NSOs, to encourage private investment in health infrastructure. All investments will be accompanied by policy dialogue and technical assistance, focused on health financing, PPP development, and regional integration, to help promote an enabling environment for effective use of infrastructure.

Annex 1: SQHIA Results Framework

Monitoring and evaluation

To measure the impact of the healthcare infrastructure projects, the strategy will make use of existing Bank systems and will promote increased monitoring at the Bank-wide, department, and project-specific level. While M&E for this strategy will be led by the health team, effective collaboration is required across key Bank departments for success. The M&E cycle includes data-collection mechanisms for primary and secondary sources. The process is supported by a detailed results-measurement framework (RMF). The framework details metrics and targets at three levels; impact, outcome and outputs designed to assess the contribution of the Bank to the results. In addition, a mid-term review is planned to be undertaken in 2025, to assess the implementation of the strategy and inform any changes that may be necessary.

All SQHIA health projects will strictly follow new best practice standards with regards to project results frameworks, monitoring plans and theory of change; as well as consistent use of mandatory monitoring reports and robust PCRs and XSRs, which will greatly enable aggregation of project results at strategy level. In-depth training on effective application of these tools is planned for existing and new health sector staff. Secondary sources will include data bases like the UN SDG database, World Development Indicators (WDI) and the WHO Global Health Observatory. Primary data sources will include AfDB analytical studies and AfDB project reports. For indicators that measure results in AfDB-supported countries, the baselines and targets in the RMF use continental figure which will be revised through analytical work in the relevant countries as the pipeline of operations is developed and will be updated as required over the life of the strategy. The 2022 indicative pipeline of analytical work includes analysis of selected health financing strategies in RMCs. The analysis of CSPs and Health System Strengthening Strategies/Plans will initially be for countries that have already expressed interest for health infrastructure lending. Then this will subsequently be a norm for all countries that express interest.

In order to strengthen its internal capacity to implement its M&E framework, AHHD will closely collaborate with ECST to source relevant statistics, and SNOQ2 and BDEV3 to enhance a successful implementation of the M&E system.

Results framework

Results chain and indicator description	UNIT OF MEASUREMENT	BASELINE (date)	TARGET AT COMPLETION (2030)	MEANS OF VERIFICATION	FREQUENCY OF DATA COLLECTION
I IMPACT STATEMENT: Increased access to quality health services for the people of Africa by 2030					
<i>SDG 3.8.1 Universal Health Coverage index of service coverage</i>	%	48.9 (2015)	100	UN SDG data; WDI	Every 5 years
<i>SDG 3.8.2 Proportion of population with >10% of household expenditure on health as a share of total household expenditure</i>	%	71.06 (2015)	No internationally agreed target	WHO Global Health Observatory	Every 5 years
I OUTCOME STATEMENT 1: Increased availability of quality health services					

1.1 Share of population with access to essential health services within two hours from home ¹	% in AfDB-supported countries	70	80	WHO UHC Global Monitoring Report/The Global Health Observatory	Every 2 years
1.2 Hospital bed capacity	# beds per 1,000 people in AfDB-supported countries	1.2	2.0	WHO UHC Global Monitoring Report/The Global Health Observatory	Every 2 years
I OUTCOME STATEMENT 2: More effective and resilient national health systems					
2.1 Increased coverage of national health insurance	% of population in AfDB-supported countries	0	10	AfDB analytical study	Every 2 years
2.2 Out-of-pocket expenditure as % of recurrent health expenditure	%	38	35	WHO Global Health Laboratory	Every 2 years
2.3 Private investment mobilised into health	\$ value of private sector contributions to AfDB-support PPPs	0	TBD *	AfDB project reports	Every 2 years
I OUTPUT STATEMENT 1: Health infrastructure supported by AfDB					
1.1 Countries supported with PHC infrastructure	# countries	0	20	AfDB project reports	Annual
1.2 Diagnostic infrastructure supported	# diagnostic facilities	0	10	AfDB project reports	Annual
1.3 Hospital beds delivered	# beds	0	23,000	AfDB project reports	Annual
1.4 Countries supported with mobile, tele-medicine and other innovative health services	# countries	0	10	AfDB project reports	Annual
I OUTPUT STATEMENT 2: Policy dialogue, knowledge work and technical assistance					
1.1 Number of health-related knowledge products published	Number	0	15	AfDB reports	Annual
1.2 Number of countries supported to strengthen health system strengthening plans, financing framework or develop PPP frameworks and models	Number	0	10	AfDB reports	Annual
1.3 Number of countries supported to align with regional health standards	Number	0	5	AfDB reports	Annual

* For indicators that measure results in AfDB-supported countries, the baselines and targets will be calculated through analytical work in the relevant countries as the pipeline of operations is developed, and will be updated as required over the life of the strategy.

¹ Low coverage Archetype A countries

Annex 2: SQHIA Action Plan

	Deliverables	Actions	Lead department & partner departments	Time -frame
Pillar 1: Primary Health Care Infrastructure				
1.1	Finance primary healthcare infrastructure expansion, particularly in fragile states and some LICs, to reduce the last-mile access gap.	<ul style="list-style-type: none"> • Identification of projects; pipeline development • Verification of health sector strategic plans and financing plans, engagement with health sector development partner fora. • Support both new and existing health facilities to connect to water and sanitation services, electricity connections, and digital services. 	AHHD RDVP departments, PEVP, AHWS, PITD.3 PICU, RDTS, SNSC, AHGC, SNFI	2022-2030
1.2	Support cost-effective innovation in PHC last-mile delivery, to facilitate equitable access	<ul style="list-style-type: none"> • Support PHC facilities with call centres and virtual solutions, to access specialist expertise. • Support mobile health services as well as the use of drone technology to supply PHCs with blood supplies and other health inputs. 	AHHD, PICU, PITD.3, RDVP departments	2023-2030
Pillar 2: Secondary and Tertiary Healthcare Facilities				
2	Development of secondary and tertiary health care facilities, alongside specialist facilities for cancer, dialysis, and pain management.	<ul style="list-style-type: none"> • Financing the construction or expansion of high-volume, low-cost secondary and tertiary private health service delivery infrastructure franchises. • Co-financing the building of high volume, low-cost mono-specialty hospitals focused on a single health challenge such as maternity or cardiovascular disease. • Co-financing the establishment of regional multi-specialty research and teaching hospitals that provide high-quality of care, support clinical trials, and healthcare worker training. • Financing the construction of multi-specialty secondary and tertiary public health and supporting infrastructure, focused on providing high-quality treatment to manage rising NCD burdens. 	AHHD, PINS, PICU, SNSC, RDVP departments, AHGC, SNFI	2023-2030

		<ul style="list-style-type: none"> • Business development to identify private sector partners and investors at country level. • Development of instruments to enhance private sector participation. • Development of Advisory services and TA for private sector investors 		
Pillar 3: Diagnostic Infrastructure				
3	Greater availability and utilisation of diagnostics.	<ul style="list-style-type: none"> • Financing the expansion of high-volume outpatient diagnostics by partnering with the existing Africa Health Diagnostics Platform. • Provide financing to governments to upgrade diagnostic equipment. • Provision of a combination of sovereign and non-sovereign financing together with technical support for PPP development and matchmaking services. 	AHHD, PINS, PICU, RDVP departments, SNSC, AHGC, SNFI	2023-2030
Pillar 4: Connectivity for Innovative Health Services				
4	Increasing uptake of innovative health solutions.	<ul style="list-style-type: none"> • Support the provision of ICT infrastructure to enable RMCs to introduce innovative approaches to health service delivery. 	AHHD, PICU, PITD.3, SNSC, SNFI, RDVP departments	2024-2030
Knowledge work, policy dialogue and technical assistance				
5.1	<u>Knowledge work</u> - Support the generation of knowledge products to facilitate evidence-based policy making on health infrastructure	<ul style="list-style-type: none"> • Preparation of sector diagnostic notes • Knowledge work on Public-Private Collaboration in health, to explore successful and equitable approaches • Knowledge work on health insurance approaches tailored to poor and marginalized groups • Knowledge work on Value for Money in health and related evidenced based policy dialogue and technical assistance. 	AHHD, ECVP, SNSP	2021-2030
5.2	<u>Policy dialogue</u> - Undertake high level policy dialogue to promote effective resourcing, utilisation and functioning of health infrastructure	<ul style="list-style-type: none"> • Facilitate dialogue through the CSP mission to explore health challenges and identify relevant priorities • Policy dialogue to support the development of comprehensive health financing strategies, including measures to expand public finance, to leverage private sector investment and to collaborate with other actors 	AHHD, ECGF, RDVP departments, SNSP	2022-2030

		<ul style="list-style-type: none"> • Policy dialogue to support the development and implementation of social protection schemes, with a particular emphasis on poor and marginalized groups • Policy dialogue to provide regional responses to health challenges, including on health worker regulations, treatment protocols and licensing health technologies 		
5.3	Technical assistance (TA) – Support demand-led and tailored TA to build capacity of local institutions to manage an effective and equitable health sector	<ul style="list-style-type: none"> • Support technical assistance to assist the strengthening of national health system and health financing strategies • Support technical assistance to assist the development and implementation of social protection schemes, with a particular emphasis on poor and marginalized groups • Support technical assistance to assist the exploration, design and implementation of effective and equitable PPP projects 	AHHD, ECAD, PICU	2022-2030
Supporting Internal Processes				
6.1	Progressive development of in-house capacity	<ul style="list-style-type: none"> • Set up the health-service delivery infrastructure strategy implementation team, by assigning roles, identifying any additional skills required, applying an established governance system to implement the strategy, and setting up a working cadence with other divisions. • The team will leverage infrastructure, PPP and investment experts to deliver the strategy. 	AHVP front office, SQHIA Coordination Taskforce Members, PICU PPP Unit, African Legal Support Facility (ALSF)	2021-2023
6.2	Enhancing networks and coordination within the Bank	<ul style="list-style-type: none"> • Ensuring cooperation with other AfDB departments, and relevant internal strategies, to ensure that the health-service delivery infrastructure strategy’s cross-cutting objectives are met. 	AHVP front office	2021-2030
6.3	Cultivating effective external networks and partnerships.	<ul style="list-style-type: none"> • Use of the Bank’s unique convening power to mobilize a wide range of stakeholders. These include private-sector players such as international and local health-service providers, health start-ups, faith-based organizations, and universities and research centers; co-financiers such as DFIs, commercial banks, and investment funds; public institutions such as government bodies and NGOs; and multilateral institutions such as the WHO or UNIDO. 	AHHD	2021-2030

6.4	Designing a structured programme of knowledge work	<ul style="list-style-type: none"> • Mapping and scoping of existing data sources and knowledge resources around health sector strengthening and financing, PPPs and other issues • Design of a structured programme of knowledge work 	AHHD, ECVP	2022-2030
6.5	Identifying technical assistance providers	<ul style="list-style-type: none"> • Scoping to identify organisations to partner with technical assistance providers, and initiating the development of partnerships with them 	AHHD	2022-2030
6.6	Strategy dissemination	<ul style="list-style-type: none"> • Communicate and mobilize external stakeholders to raise demand by championing the strategy internally through a defined communication plan, presenting the strategy to international and local stakeholders, identifying the possible positioning of each player in the strategy, and defining partnership opportunities. 	AHHD, PESC	2021-2023
Review and evaluation				
7.1	Mid-term Evaluation of the strategy implementation	<ul style="list-style-type: none"> • Conduct a mid-term review of goals and results, • Adjust the strategy accordingly, • Request approval for additional financing as appropriate, • Scale-up of the strategy through steering investments into successful projects. 	AHHD, SNOQ, BDEV	2026
7.2	End of strategy implementation	<ul style="list-style-type: none"> • Conduct a full-term review of goals and results • Adjust the strategy based on lessons learned and the existing context. 	AHHD, SNOQ, BDEV	2030

Annex 3: Strategic Approach to Partnerships in Support of Africa's Health Infrastructure

This annex presents an overview of the processes and approaches that will be used to ensure that the Bank pursues a targeted agenda for developing strategic partnerships required to fulfil the ambitions of the SQHIA.

A smart and disciplined strategic focus

Health infrastructure financing needs across Africa are enormous, with capital investment in the sector currently running at \$5-\$6 billion and a \$26 billion financing gap facing the continent.

Given this financing gap, it is imperative that AfDB – as the continent's premier infrastructure DFI – play a more significant and catalytic role going forward. Whilst the huge financing needs reduce the risks of duplication, it is vital that the Bank identifies areas in which it can best add value to the efforts of its RMCs and other development partners so as to maximize the value for money and impact of its support. Building on lessons learned and informed by the Scoping Study outcomes, the Bank has therefore been working intensively to identify its niche roles in supporting health infrastructure in Africa. These niches are presented below:

- **Effective and broadly utilized primary healthcare infrastructure** - While the current primary health care infrastructure could, theoretically, address expected demand, facilities lack accessibility particularly in fragile countries where, the Bank's deep government connections could be leveraged to advocate for fit for purpose primary infrastructure. It also has extensive experience of providing mixed infrastructure support – including for electricity, WASH and digital connectivity – to primary care facilities.
- **Greenfield and mono-specialty hospitals** - There are significant gaps in greenfield secondary and tertiary health care infrastructure, especially in innovative institutions like mono-specialty hospitals; AfDB has an advantage of already having experience in setting up such infrastructure and the ability to mobilize public viability gap funding to de-risk such high capital investments.
- **Diagnostic infrastructure** - Diagnostic infrastructure has one of the largest gaps that cannot be narrowed without the private sector and PPP mechanisms. AfDB can leverage its strong government relationship and its new PPP framework to support member states both in setting up the right PPP frameworks and mechanisms, as well as to facilitate engagement between the public and private sector.
- **Connectivity** - There has traditionally been very limited investment in connectivity for innovative healthcare solutions partially due to the need of private sector involvement and the need for stakeholder facilitation that are strengths of AfDB. AfDB is well placed to respond to this need as a historical infrastructure Bank, with a unique understanding on Africa as well as investor needs, a range of financing instruments and expertise, relevant to infrastructure, significant convening power and being a trusted partner among private and public stakeholders. AfDB can take an important role in bridging the gap between the private innovators, governments and the DFIs by providing

catalytic concessional financing and even equity investment in pilot projects and proof of concepts, therefore de-risking further investments.

Building effective strategic partnerships

Central to our approach to developing strategic partnerships will be the process for developing and agreeing Country Strategy Papers (CSPs) with RMCs. The CSP will be a key instrument for first level engagement with national stakeholders to identify any health infrastructure priorities and develop the analytical, policy and strategic foundations of our health operations.

The Bank will use the CSP country diagnostic and dialogue mission to establish the existence of a credible National Health Systems Strengthening Plan (NHSSP) and its financing framework, assess Government ownership, and map national institutions and organisations vital to the functioning of the health system. This will help the Bank to prioritise which of these institutions and organisations it should emphasise in developing partnerships and to tailor its engagement with each.

The CSP dialogue mission will also allow the Bank to map other development partners and international actors active in the health sector, and to engage them in dialogue on how the Bank can best add value to their work within the constraints of its core strategic priorities on health infrastructure. This will include understanding where the existing gap in support lies in the context of the Bank's niche, both in terms of the specific infrastructure areas it supports and the types of finance and complimentary support (in terms of knowledge work, policy dialogue and technical assistance) it provides. It will position its funding to play a catalytic role to mobilise additional financing for infrastructure from other DFIs, bilateral donors, private sector, private foundations, African diaspora and others.

Key elements of the dialogue and diagnostic work on financing in each RMC will relate to increasing and more efficiently utilising budget allocations for health and exploring the potential for direct private sector investment and public private partnerships (PPP) to add value. Support on government budgets will be guided by political economy analysis, to identify the partnership approaches with government which can strengthen its support and leadership. Exploring opportunities for PPPs will involve understanding the distinct roles of the public and private sectors, where PPPs can add most value and the role of Bank in facilitating them.

Once the Bank has identified its niche area of health infrastructure support in an RMC, it will also look to identify and explore partnerships with the full range of advisory and expert organisations active on these health infrastructure issues regionally and globally including WHO Afro, Africa CDC, UNICEF, HHA partners, academia and others. This will help the Bank to efficiently and effectively leverage in their ideas to the knowledge work, policy dialogue and technical assistance the Bank will support. Partnerships harnessed during design and implementation of COVID-19 response operations provides good lessons for the Bank.

Annex 4: Bank's Support for COVID-19 Response in South Sudan



The African Development Bank, through a 3 million UA (\$4.14 million) ADF grant, is financing the “Emergency Assistance to Support the Covid-19 Response in the Republic of South Sudan”. The World Health Organization (WHO) is implementing the project, executed by South Sudan’s Ministry of Health.

Working with the Ministry and WHO, the project covers 3 broad components aiming to boost South Sudan’s pandemic emergency preparedness:

- Supporting emergency response for COVID-19 prevention and case management
- Building health systems capacity for emergency preparedness
- Project management and coordination.

To date, Bank financing has supported the renovation or upgrade of four health facilities in the cities of Yei, Nimule, Aweil, and Wau. Funding has also supported the procurement of 51 oxygen concentrators, 13 patient monitors, 122 pulse oximeters, 71 blood pressure machines and 9,240 nasal cannulas that have been distributed to 17 facilities, along with essential medicines, supplies for triage and enough personal protective equipment (PPE) to outfit an estimated 3,900 health workers.

In addition, 406 health care workers – approximately 25% of them women - across the country completed Covid-19 case management training. Surveillance and case management tools were developed to facilitate reporting at facility levels. Eighty- health care workers in sentinel sites received training and incentives to adopt and use the pandemic surveillance tools.

The Bank assistance helped establish ten sentinel sites outside of Juba to scale-up surveillance capacities at sub-national level. Two vehicles to support Covid-19 surveillance activities were procured. A second floor was built at an Emergency Operation Center to support coordination activities. Project implementing and executing partners also report that additional laboratory

supplies now available are supporting the ability for authorities to decentralization testing for Covid-19 and other priority diseases.

The project has procured, an oxygen generation plant Juba teaching hospital – the first of its kind in South Sudan. The plant has an oxygen generation capacity of 2,500 litres per day and the ability to refill approximately 72 D-type oxygen cylinders per day and will act as a centralized production and supply hub for remote locations. The procurement includes 240 oxygen cylinders for use, as well as spare parts and repair service agreement for four years.



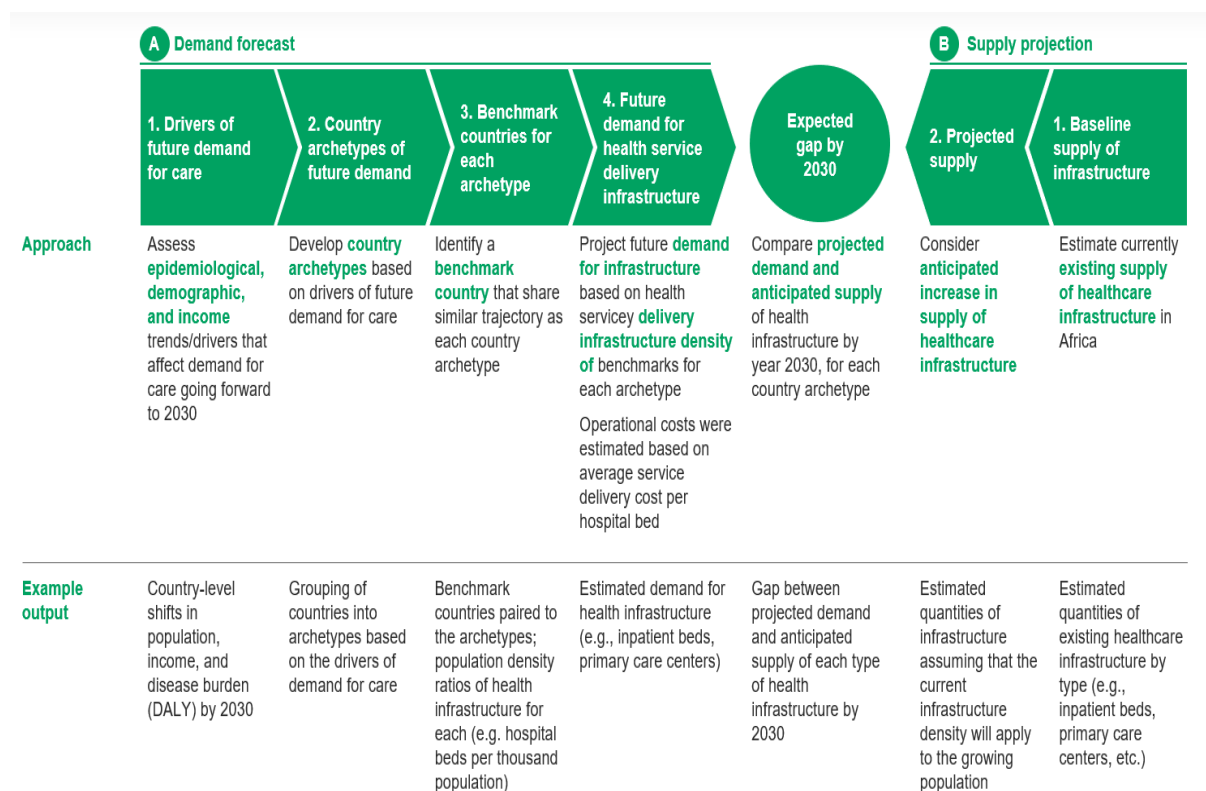
“The installation of the oxygen generation plant is good news to our population and marked the beginning of the country’s preparedness for oxygen in anticipation of the third wave of Covid-19. South Sudan will no longer be importing oxygen from the neighboring

countries, and this means oxygen will be supplied to the facilities on time and more lives will be saved,” said Honourable Elizabeth Acuei, South Sudan’s Minister of Health. The Minister said that South Sudan authorities earmarked budget for the oxygen plant’s sustained operation and maintenance. African Development Bank Country Manager for South Sudan, Benedict Kanu, said that providing the oxygen plant is part of joint efforts to build a robust and well-functioning health system in South Sudan.

“The Covid-19 pandemic remains a major threat to South Sudan’s population and elsewhere in Africa. The Bank will continue to work with the government of South Sudan and its development partners like the WHO to ensure a timely response to the pandemic and future public health emergencies to save lives and livelihoods,” Kanu said.

Annex 5: Methodology for Assessing Health Infrastructure Deficits

The methodology applied to estimate demand for health services in 2030 is based on (a) country archetypes defined by epidemiologic and demographic trends that drive demand for care² and (b) infrastructure population density of benchmark countries that have gone through similar disease burden trajectories to serve as proxies for each country archetype. The methodology to estimate supply is based on the current existing supply of healthcare infrastructure, projected forward to 2030, assuming that the current infrastructure density will apply to the growing population. The exhibit below provides further detail on each of the steps taken to estimate infrastructure demand and supply, and the resulting expected gap by 2030.



Obtaining data across the countries was a challenge and adaptations were made to get the most robust answers possible. The largest data gaps were in current existing healthcare infrastructure across countries. Despite these data limitations and adjustments, the resulting estimates are directionally found to be aligned with other leading organizations' publications, including UNECA's findings and WHO's benchmark.⁵⁹

This analysis was carried out during the ongoing COVID-19 pandemic. While the pandemic has had and will continue to have wide-reaching effects on disease burden, there is not yet published data on country-level disease burden that considers the shocks from COVID-19. We do however recognize that COVID-19 will likely impact the health infrastructure needs going forward and has highlighted the need for developing more resilient and adaptable infrastructure.

The translation of the infrastructure gaps in terms of quantity (e.g., number of beds) into capital expenditures (capex) is based on unit costs. The assumption for capex per bed was determined based on benchmark data in Africa, where data was available (Algeria, Tunisia, Morocco, Kenya and South Africa), as well as countries with comparable economies. Even within the same

² Data on disease burden and epidemiologic evolution is from Fitch solutions

country, capex per bed would be highly variable, driven by market dynamics such as the amount of imported equipment and devices used, the manufacturer, and the type of facility (public or private). Therefore, more accurate capex estimates would only be possible at the project level, when assessing specific infrastructure projects as the Bank implements the strategy.

Annex 6 : Analysis of Financial Flows into Africa’s Health Infrastructure

Methodology


















As part of the scoping study to develop this strategy, an effort was made to estimate the historic financing flows into Africa’s health infrastructure. The primary data source used is the CRS (creditor reporting system) Aid Activity database from OECD. This database aggregates data on official development assistance (ODA), other official flows and private development finance flows towards basic health infrastructure (district-level hospitals, clinics, dispensaries and medical equipment) and medical services (laboratories, specialized clinics and hospitals, ambulances, dental services, and medical rehabilitation). Data is likely not exhaustive of each institution’s total financing for health infrastructure, depending on the nature of the financing and how it is reported. Other sources of data used include WHO, IFC and World Bank to estimate the annual investments for health service delivery infrastructure in Africa, and the split between public and private financing. There were data limitations on financing flows for health infrastructure into the continent, with a need to triangulate estimations from multiple sources. There is need to improve data and tracking of financing flows as a public health good and to enable this strategy.

Findings

African governments’ capital expenditure in health is at a low level compared to other regions and showing signs of a gradual decline. Overall, financing for health infrastructure in Africa has been low, at approximately \$5 billion to \$6 billion in annual Capex investment. The bulk (>80%) of this has been in public sector infrastructure, developed by governments and financed mainly through borrowing. While there is no WHO target, many countries in Asia and Latin America (e.g., Laos, Vietnam, India or Bolivia) spend more than 20 percent of government health expenditure on infrastructure, compared to only 6 percent to 7 percent in Africa.⁶⁰ This level of funding has also gradually declined in recent years in Africa. Given the size of additional investments needed going forward, there will need to be an increasing focus on leveraging innovations (See Appendix 4) to develop cost-effective, high quality infrastructure.

Private sector investment is limited but increasing. Private sector projects have accounted for less than 20 percent of overall investment in health service delivery infrastructure. However, they are steadily growing.

Investments have historically targeted a narrow set of projects, particularly greenfield primary care infrastructure in the public sector; and brownfield hospital expansions in the private sector.³ Consequently, considerable funding gaps remain: greenfield secondary and tertiary hospitals; brownfield upgrades of public sector infrastructure; and critical enablers such as financing, regulatory framework, data/digital, and health worker training. The exhibit below summarizes the financial flows from investors into Africa’s health service delivery infrastructure.

		Development aid commitments to health infrastructure ¹ , Total 2010-2018, \$ Mn		Primary care	Secondary and tertiary care	Diagnostics	Connectivity in innovative healthcare solutions	Comments
Public sector-oriented DFIs	 THE WORLD BANK		~1,000	✓	⚠ Mainly maternal and child health	⚠	⚠	Mainly focus on primary bricks and mortar
	 ISDB Islamic Development Bank		~200	⚠	✓	⚠	⚠	Loans and equity to public and private stakeholders
			~200	⚠	✓	✗	⚠	Mainly financing public facilities, while private sector support is increasing ²
Bilateral agencies	 ~\$260 Mn		~3,000	✓	✗	⚠	⚠	Grants to NGOs
	 ~\$240 Mn			✗	✗	⚠	⚠	
 ~\$200 Mn	✓			✗	⚠	⚠		
Multilateral agencies	 UNICEF		N.A.	✓	✗	⚠	⚠	Main focus is on supply chain equipment
	 Gavi			Primary health with few components incl. health infrastructure				
Private donors			~30	✓	✗	✓	⚠	Grants to universities and NGOs
			~300	✗	✓	⚠	⚠	Loans and equity mainly to brownfield projects
Private equity funds	Broad landscape, with TPG having the largest healthcare portfolio (~\$ 1 Bn for Asia and Africa)			✗	✓	✗	⚠	High-end facilities targeting populations with high ability to pay

Note:

- This assessment is mainly based on CRS Aid Activity database (OECD). It compiles ODA, Other Official Flows and Private Development Finance. Data is not exhaustive.
- Health worker training is often included as a component of health infrastructure projects

1. Basic health infrastructure (district-level hospitals, clinics, dispensaries and medical equipment) and medical services (laboratories, specialized clinics and hospitals (inc. equipment and supplies), ambulances, dental services, and medical rehabilitation)
2. Since 2010, AfDB has invested in 2 PE funds and supported private facilities through non-sovereign loans
3. Support has been significant, but has not managed to bridge the healthcare worker gap, and is focused on traditional models

Source: Press search, Pitchbook, Expert interviews, OECD Database

Most of the financing for public sector infrastructure has been provided by DFIs (especially World Bank, Islamic Development Bank, and AfDB) and bilateral aid agencies (especially Japan, France and South Korea). Multilateral agencies, including UNICEF, WHO, Gavi and The Global Fund, also fund health infrastructure projects, mainly focusing on primary level infrastructure and enablers, through the specific investment amounts are not reported. The Bill and Melinda Gates Foundation has also financed health infrastructure through grants, with a strong focus on primary level infrastructure.

Most of the financing of private sector infrastructure has been commercial private investors (especially private equity funds) and DFIs that have a strong private sector focus. The International Finance Corporation (IFC) holds the largest portfolio. IFC mainly finances brownfield project for secondary hospitals and clinics, through loans and equity to private sector developers. Private equity firms mainly finance high-end facilities that target populations with greater ability to pay, and brownfield investments as greenfield investments demand more capital and are perceived to have a longer return profile.

Annex 7: Lessons on Telemedicine from the Bank's Medical centre

Telemedicine has been available in some institutions in North, East and Southern Africa for quite a few years now, but the uptake is very poor.

There are a few issues that are common across the continent.

- 1) Awareness – this is low. Our citizens are “not aware” or “non-acceptant” of the concept of telemedicine.
- 2) Perception – the gross majority of our citizens, including those who are highly educated do not feel that telemedicine is a form of practicing medicine or an adequate alternative. They feel the need to be physically clinically touched by medical personnel, in order to have an accurate diagnosis and subsequent treatment
- 3) Education and training; There is the need to educate and train both, the recipients of the services (patients), as well as the providers (medical personnel) and institutions that provide such services.
- 4) Infrastructure; Medical, Security and IT infrastructure go hand in hand for this to succeed. Large parts of our populace either do not have access to smart phones, or do not have network coverage or do not have the bandwidth necessary for video consultations. This complicated by high costs for telecommunication services has been a major stumbling block.
- 5) Privacy and confidentiality; This is critical for a successful telemedicine. Both the patient and the doctor need to be assured and acceptable to the privacy / confidentiality issues raised by this. The US HIPPA rules and the EU GDPR rules are but guidelines, we need to be able to comply with in order to successfully use this approach. In this day and age of Social Media – a single misdirected message / communication can have serious negative implications.
- 6) Financial aspects: Though initial investments in medical, IT and Security may be high, in the long run they tend to pay off. This however requires the involvement of other players, such as insurance companies as well
- 7) Legal issues: Medicolegal issues are a major issue that needs to be considered. Both the negative and positive outcomes of telemedicine need to be justifiable – by medical as well as legal teams.
- 8) Focus on Basics: Whilst the general idea behind SQHIA is the way to go, a solid foundation is crucial. We need to learn from the health outcomes in countries with robust primary health care systems, rather than focus on tertiary systems straight away. For instance – there is no need to develop the ability to perform cardiothoracic surgery – if we lack the systems to monitor blood pressure and other basic Cardiovascular parameters. After all, patients who undergo cardiothoracic surgery will need a robust system to manage them postoperatively.

When resources are limited, we need to focus on doing the ‘most we can for most of the population’.

Hence, from an SQHIA perspective – if we initially focus on the building blocks for a strong foundation (Primary Healthcare / quality General Practice), so that we can manage the fundamental health needs of our people, this would provide a good basis to proceed to the next level (tertiary services) – we cannot build a skyscraper on quicksand.

Notes

¹ Namely *Power Africa, Feed Africa, Industrialise Africa, Integrate Africa and Improve the Quality of life for the People of Africa*

² *A heavy burden: the productivity cost of illness in Africa*. Brazzaville: WHO Regional Office for Africa; 2019.

³ *Prioritizing Health: A Prescription for Prosperity*, McKinsey Global Institute, July 8th 2020.

⁴ *Implications of Outbound Medical Tourism on Public Health Care Development in Nigeria*. Orekoya, I.O. and Oduyoye, O. O. 2018.

⁵ *WASH in health care facilities: Global Baseline Report 2019*, WHO and UNICEF, Geneva, 2019.

⁶ Data from WHO Global Health Observatory.

⁷ Infectious and parasitic diseases include tuberculosis, STDs (including HIV/AIDS), diarrheal diseases, meningitis, encephalitis, hepatitis, parasitic and vector diseases (including malaria), intestinal nematode infections, and leprosy. WHO: A Heavy Burden; WHO: State of Health in Africa, ISS Africa, WHO Global Health Observatory.

⁸ Data based on World Development Indicators, World Bank

⁹ Data from WHO Global Health Observatory.

¹⁰ Fitch Solutions proprietary DALY projections, AfDB.

¹¹ *Population 2030 Demographic challenges and opportunities for sustainable development planning*, United Nations, 2015.

¹² *Africa Economic Outlook 2021* projects that Africa's GDP will grow by 3.4 percent in 2021 and 4.6% in 2022. after shrinking by 2.1 percent in 2020 because of the COVID-19 pandemic.

¹³ *Population 2030 Demographic challenges and opportunities for sustainable development planning*, United Nations, 2015.

¹⁴ CDC Africa, 2020.

¹⁵ *The economic impact of the 2014 Ebola epidemic: short- and medium-term estimates for West Africa*, World Bank Working Paper, October 2014.

¹⁶ "Potential impact of the COVID-19 pandemic on HIV, tuberculosis, and malaria in low-income and middle-income countries: a modelling study", Hogan, AB. et al, *The Lancet*, July 2020.

¹⁷ *Second round of the national pulse survey on continuity of essential health services during the COVID-19 pandemic*, World Health Organisation, April 2021.

¹⁸ *Comorbidities and the COVID-19 pandemic dynamics in Africa*, Anjorin, A.A. et al, *Tropical Medicine and International Health*, October 2020.

¹⁹ *The COVID-19 syndemic is not global: context matters*", Mendenhall, E, "The Lancet, vol. 396, November 2020.

²⁰ *The African Economic Outlook 2021* predicts that Africa's GDP will grow by 3.4% in 2021.

²¹ *Global Economic Prospects*, World Bank Group, June 2021.

²² *Urgent, effective action required to quell the impact of COVID-19 on education worldwide*, World Bank, January 2021.

²³ *The Impact of COVID-19 on African Economies: An Introduction*, Anyanwu, J.C. and Salami, A.O. African Development Review, 2021.

²⁴ This based on a framework published by the World Health Organization in 2014.

²⁵ Data from WHO Global Health Observatory.

²⁶ *Poor availability of essential medicines for women and children threatens progress towards Sustainable Development Goal 3 in Africa*, Droti, B. et al, *BMJ Global Health*.

²⁷ Data from WHO Global Health Observatory.

²⁸ According to a recent research ("*National estimates of critical care capacity in 54 African countries*", Craig, J., Kalanxhi, E. and Hauck, S., 2020) The average number of ICU beds per 100,000 people ranges from 0.53 in low-income countries to 8.59 in upper-middle countries.

²⁹ *International cancer control portal, India country report*, International Cancer Control Partnership, 2020.

³⁰ "Access to emergency hospital care provided by the public sector in sub-Saharan Africa in 2015: a geocoded inventory and spatial analysis", Ouma, P.O et al, *The Lancet*, January 2018.

³¹ *WASH in health care facilities: Global Baseline Report 2019*, World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), 2019.

³² *WHO/World Bank report "Access to Modern Energy Services for Health Facilities in Resource-Constrained Settings"*. One in 4 health facilities was found without access to electricity.

³³ *COVID-19 testing in Africa: Lessons learnt*, Ondo, P. et al, *The Lancet*, July 2020.

³⁴ Data sourced from WHO Country Reports.

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- ³⁵ A 2017 study (*Service readiness of health facilities in Bangladesh, Haiti, Kenya, Malawi, Namibia, Nepal, Rwanda, Senegal, Uganda and the United Republic of Tanzania*, Leslie, H.H. et al) found that in 10 countries - including 7 in Africa - only 14% of hospitals and 1% of health centres/clinics were attaining 100% readiness for basic diagnostic capacity.
- ³⁶ The WHO reports (in *The state of health in the WHO African Region, 2018*) that the density of laboratory health workers in the WHO African Region ranges from 0.002 per 1,000 people in Sierra Leone to 0.341 in Sao Tome & Principe.
- ³⁷ These are estimates calculated by the African Development Bank.
- ³⁸ *Delivering quality health services – A global imperative for universal health coverage*, WHO, 2018.
- ³⁹ This data is from the *Primary Healthcare Performance Initiative 2020*.
- ⁴⁰ World Development Indicators (Current health expenditure, % of GDP).
- ⁴¹ These aggregates were calculated by the African Development Bank.
- ⁴² This is based on the original figure of \$44, calculated in 2010 by the Taskforce on Innovative International Financing for Health Systems, adjusted for inflation.
- ⁴³ These aggregates were calculated by the African Development Bank.
- ⁴⁴ This data is sourced from the WHO Global Health Observatory.
- ⁴⁵ This data is sourced from the WHO Global Health Observatory.
- ⁴⁶ This is an estimate calculated by the African Development Bank.
- ⁴⁷ *African Economic Outlook 2021*, African Development Bank, 2021.
- ⁴⁸ *Comparing the role of Diaspora in expansion of marketed healthcare in China and India: 1950s to present*, Zafar, S, Jawaharlal Nehru University, 2014.
- ⁴⁹ *South Asia Migration Report 2017: Recruitment, Remittances and Reintegration*, Rajan, S.I, Taylor and Francis, November 2016.
- ⁵⁰ Estimate based on a combination of multiple sources: media reports, expert interviews, World Bank data on capital health expenditure and the WHO Global Health Observatory.
- ⁵¹ OECD Stat CRS Aid Activity database.
- ⁵² *Use of social impact bonds in financing health systems responses to non-communicable diseases: scoping review*, Hulse, E. et al. BMJ Global Health, 2021. However, note that in the context of COVID-19, AfDB launched the largest social bond ever in February 2020, for a value of \$3 Billion.
- ⁵³ Data compiled by the Bank.
- ⁵⁴ *Mixed effects analysis of factors associated with health insurance coverage among women in sub-Saharan Africa*, Amu, H. et al, PLOS ONE, March 2021.
- ⁵⁵ *The Business of Health in Africa: Partnering with the private sector to improve people's lives*, World Bank IFC, 2008.
- ⁵⁶ This is based on the WHO's conceptualisation of health systems having six building blocks.
- ⁵⁷ The proportion of Bank finance for infrastructure which is focussed on such complimentary support such as policy reform, technical assistance and knowledge work varies from an average of 10% in the transport sector, to 15% in the energy sector, and 25% in water and sanitation sector.
- ⁵⁸ "Access to emergency hospital care provided by the public sector in sub-Saharan Africa in 2015: a geocoded inventory and spatial analysis", Ouma, P.O et al, *The Lancet*, January 2018.
- ⁵⁹ WHO (State of health in Africa report 2018) benchmarked that 33% of public health expenditure should go to infrastructure, while UNECA (Healthcare and economic growth in Africa 2019) sized the public health expenditure gap at \$66 Bn, 33% of which is \$220 Bn for the next 10 years. This does not consider the need to close the existing infrastructure gap hence the higher estimate of \$260Bn.
- ⁶⁰ Based on press search, expert interviews, IFC, World Bank, WHO Global Observatory Database, and WHO State of Health.