2024

Health Workforce in the Africa Region, 2013 – 2022: Implications for the future

Evidence Brief

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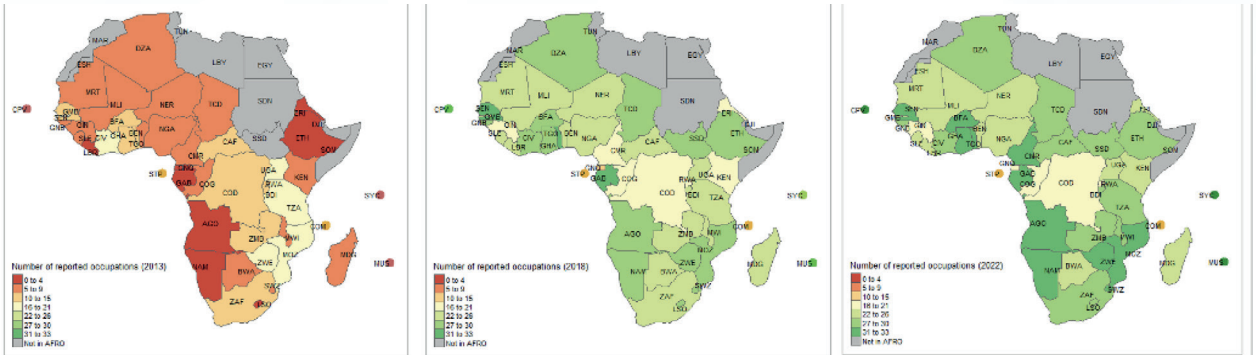
Health Workforce in Africa region, 2013 - 2022

1. **More countries now have clear national strategies that outline their policy priorities and commitments**. The availability of evidence-based national health workforce **strategies increased by 44%, from 27 countries in 2018 to 39 countries in 2022**. This progress sets a positive tone for the future of the health workforce in the African Region.
2. **Many countries can now track their health workforce and use data for decision-making**. In 2013, countries could track and report data for 26% of occupations across all 47 countries. This improved significantly to 75% in 2019 and 81% in 2022, thanks to all countries in the Region adopting to implement the national health workforce account.

Figure 1: Health Workforce Data Availability and Use, 2013 - 2022



3. **Since 2017, 22 countries have been supported in conducting health labour market analyses,** which have informed policy reforms, stimulated job creation for health workers, and unlocked investments from government and partners.

4. **The capacity to train health workers has increased by 70% from** 150,000 graduates in 2018 to more than 255,000 in 2022 **as countries have invested in training health workers from** over 4000 training institutions and programmes. The private sector contributes at least 40% of this capacity. Africa's training output for doctors increased from 6,000 per year in 2005 to almost 39,850 presently, and more than 151,300 nurses and midwives are being produced per year compared to 26,000 in 2005. However, some 26 countries are still having very low capacity to meet their needs in long term and these countries account for 72% of the health workforce shortages facing the Region and are all in the 2023 WHO Safeguard and Support List.

Figure 2: Countries that have conducted health labour market analysis, 2015 - 2022

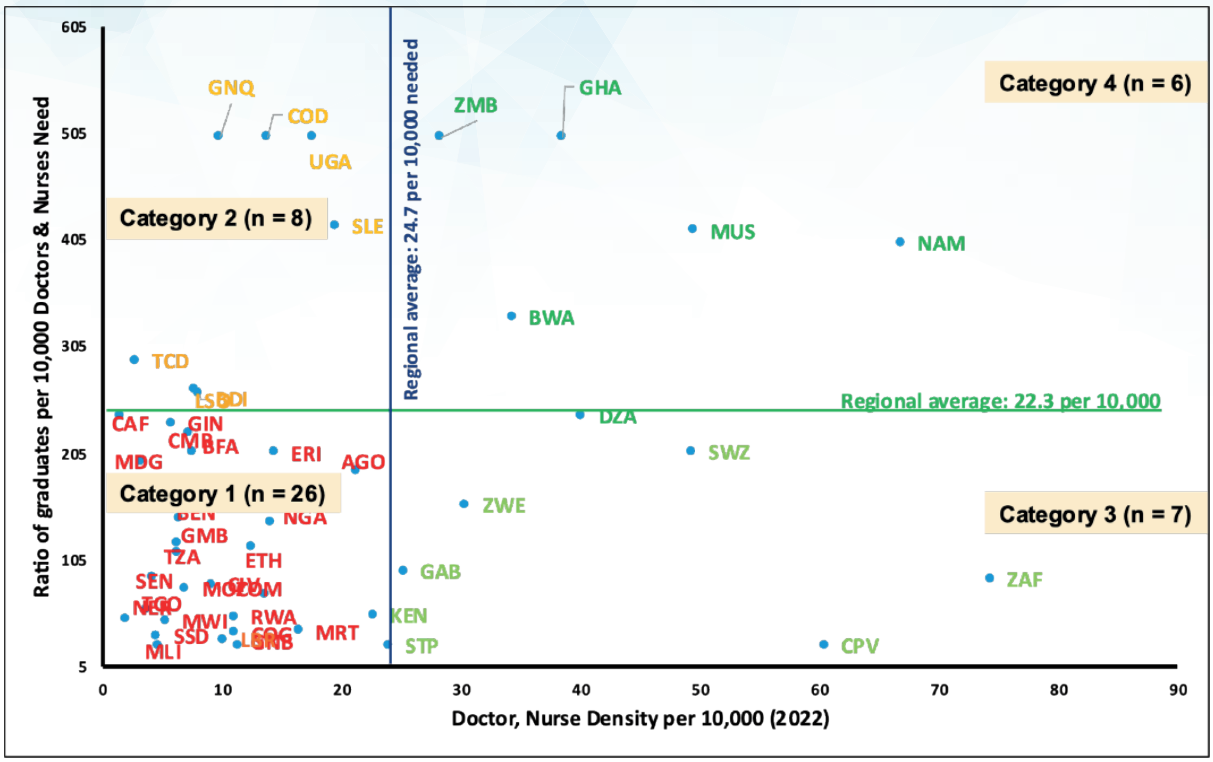


Figure 3: Countries are not on the same path: Education Capacity to Cover Needs over Time vs Latest Density.

5. We are not just training but also paying attention to quality assurance mechanisms. For example, accreditation mechanisms for health training institutions have been established and strengthened in about 32 countries (68% of countries). Countries are also progressively implementing competency-based health worker education, with about 30 countries implementing the WHO prototype curriculum for nursing, midwifery, and eye health.

The increase in the number of health workers trained annually has tripled the Region's headcount from 1.6 million in 2013 to 5.1 million in 2022, including 850,000 community health workers.

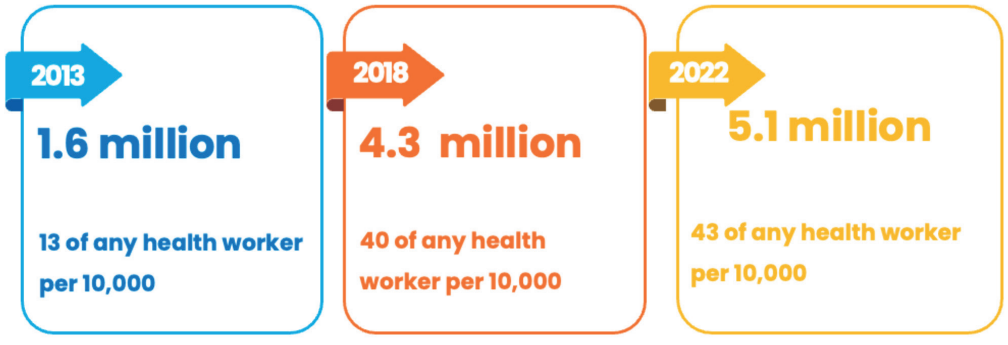
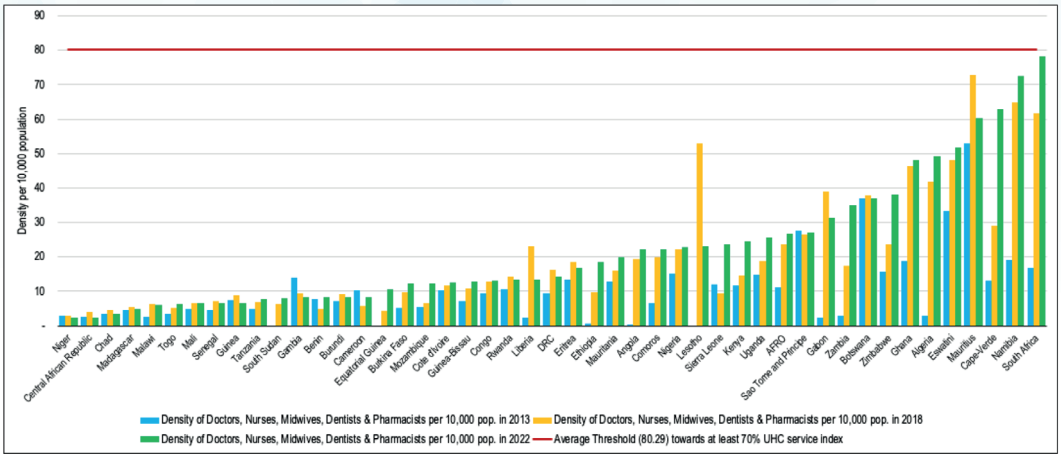


Figure 4: A 3-fold increase in the stock of all health workers in 10 years

6. As of 2022, **the African Region had 27 doctors, nurses, midwives, dentists, and pharmacists per 10,000 people on average**, a more than two-fold increase from 11 per 10,000 people in 2013 and a **14% improvement from 2018**. This highlights the improved availability of qualified and skilled health workers to provide much-needed health services to the population in need, giving us hope for the future.

Figure 5: Density of Doctors, Nurses, Midwives, Dentists & Pharmacists per 10,000 population, 2013 - 2022



**The graph is not shwoing seychelles (an oulier) which had a density of 54.8 in 2013, 195.92 in 2018 and 242.01 in 2022*

7. **The progress being made is different for all countries**. For example, 12 countries[1] that are relatively better off have 12 times more health worker densities than 12 countries[2] with the lowest. Thirty-seven out of 47 countries (79%) increased their number between 2018 and 2022, but 10 countries recorded no improvement. Twenty-nine countries (62%) improved their densities per 10,000 population between 2018 and 2022, while 18 (38%) countries lost momentum. Eight (17%) countries[3] increased their stock, but this improvement was outpaced by population growth.

8. **Women account for 72% of the health workers in the Region,** but these are concentrated among community health workers, midwives and nurses. There is, however, a notable improvement as **35% of the medical doctors in 2022 were female compared to 28% in 2019**. Yet, they still occupy only one in every four top healthcare leadership positions and earn 20% less than their male counterparts. This highlights the need to address inequities and eliminate gender-based discrimination in earnings.

9. **Despite a 13% improvement in efficiency between 2014 and 2019**, African health systems remain only 77% efficient. This means that about US$1 in every US$5 spent on health is lost to technical inefficiencies, including health workforce management. This plays a significant role in the existence of **ghost workers on payrolls, absenteeism and sub-optimal performance, for example.**

10. **Suppose** we want to tackle the disease burden with effective service interventions across health promotion, disease prevention, treatment, rehabilitation, and palliation. In that case, the African Region will face a 6.1 million health workers shortage by 2030. Of the anticipated shortage, about **5.3 million health workers will be doctors, nurses, midwives, pharmacists, and dentists.**

11. Despite the shortages, investments in health worker employment have yet to keep pace with the outputs from training, leading to **a growing paradox where almost 27% of trained health workers fail to find jobs.** Filling this gap requires **a 43% increase in our current funding levels for the health workforce**.

12. **Inadequate remuneration and deficits in decent working conditions remain critical.** In 2022, 14 countries reported having experienced an average of 4 health worker industrial unrest or strikes. This trend has stayed the same since we started tracking it in 2018.

13. With 82% of the African health workforce being young (45 years or younger) and mobile, difficulties in finding jobs and deficits in their working conditions are pushing them to look for jobs in other countries. **One of every ten doctors or nurses working in the African Region is already in another country**.

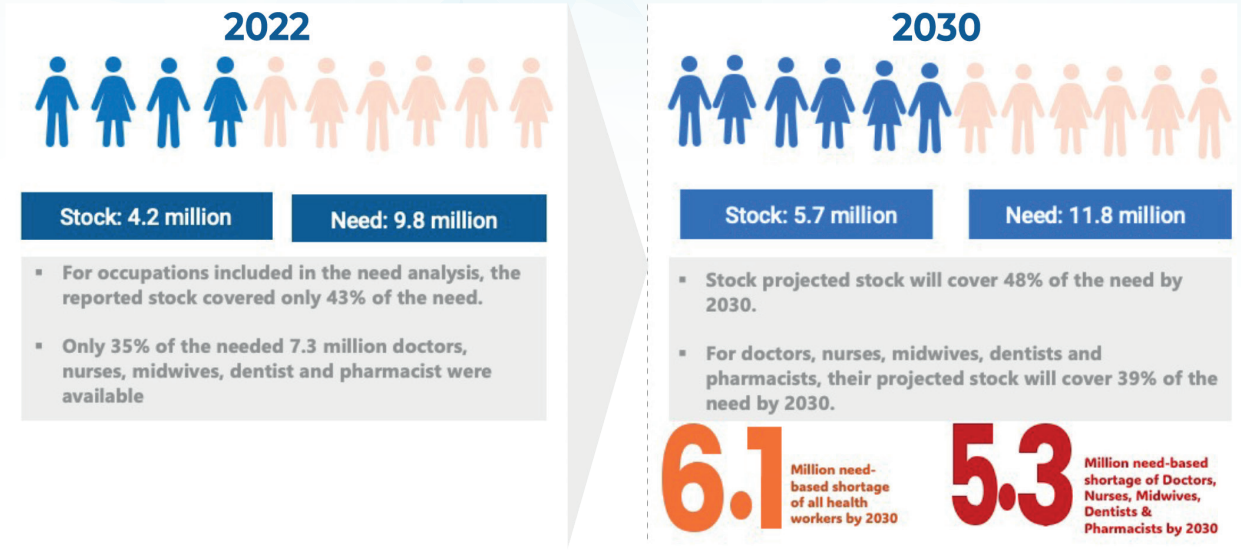
14. ***Recent evidence reveals that as much as 42% of health workers have future intentions to migrate, translating into record levels of health***

1 Gambia, South Sudan, Tanzania, Senegal, Mali, Togo, Malawi, Madagascar, Guinea, Chad, Central African Republic and Niger

2 Seychelles, South Africa, Namibia, Cabo Verde, Mauritius, Eswatini, Algeria, Ghana, Zimbabwe, Botswana, Zambia and Gabon

3 Botswana, Burundi, DRC, Malawi, Mali, Niger, Rwanda, and Senegal

Figure 6: Projected Health Workforce Stock vs Population Health Needs-based Requirements.



worker resignations and job abandonments in countries like the Central African Republic, Nigeria, Ghana, Zimbabwe, and others.

15. ***The economic cost is enormous for African countries[4]:*** For every doctor who emigrates from Africa, the country loses about US$1.85 million in returns from their investment; for every nurse who emigrates, the country loses about US$1.21 million in returns from their investment. ***These lost investments far outweigh the remittance accrued to the source country.[5]We must find pragmatic ways to address this challenge of resource transfer that benefits both the source and destination countries.***

16. ***Ensuring that the existing stock of health workers is employed required US$ 36.3 billion compared with the estimated envelope from all sources of US$ 20.85 billion in 2022. There was a financing deficit of 43% in 2022 if all trained health workers were to be employed***– regardless of whether it was in the public sector, private sector or through overseas development assistance. **This financing gap translates into unemployed health workers, estimated to be 27% (95% CI: 14% - 39%)** based on data from a subset of 10 countries conducting health labour market analyses.

17. With the current levels of funding for HWF, **halving the current health worker shortage requires US$120.41 billion in 8 years.** Of the investment required, US$22.58 billion (18.75%) is needed for training additional health workers, and US$97.83 billion (81.25%) is needed to employ those to be trained and pay the salaries of existing jobs.

18. Despite the seemingly large amount of funds required for HWF, **the needed investment is less than 2% of the GDP of countries in the African Region.**

19. Countries have different fiscal space potentials, and they are grouped into four:

- ***Budget space group 1 countries:*** These countries prioritised less

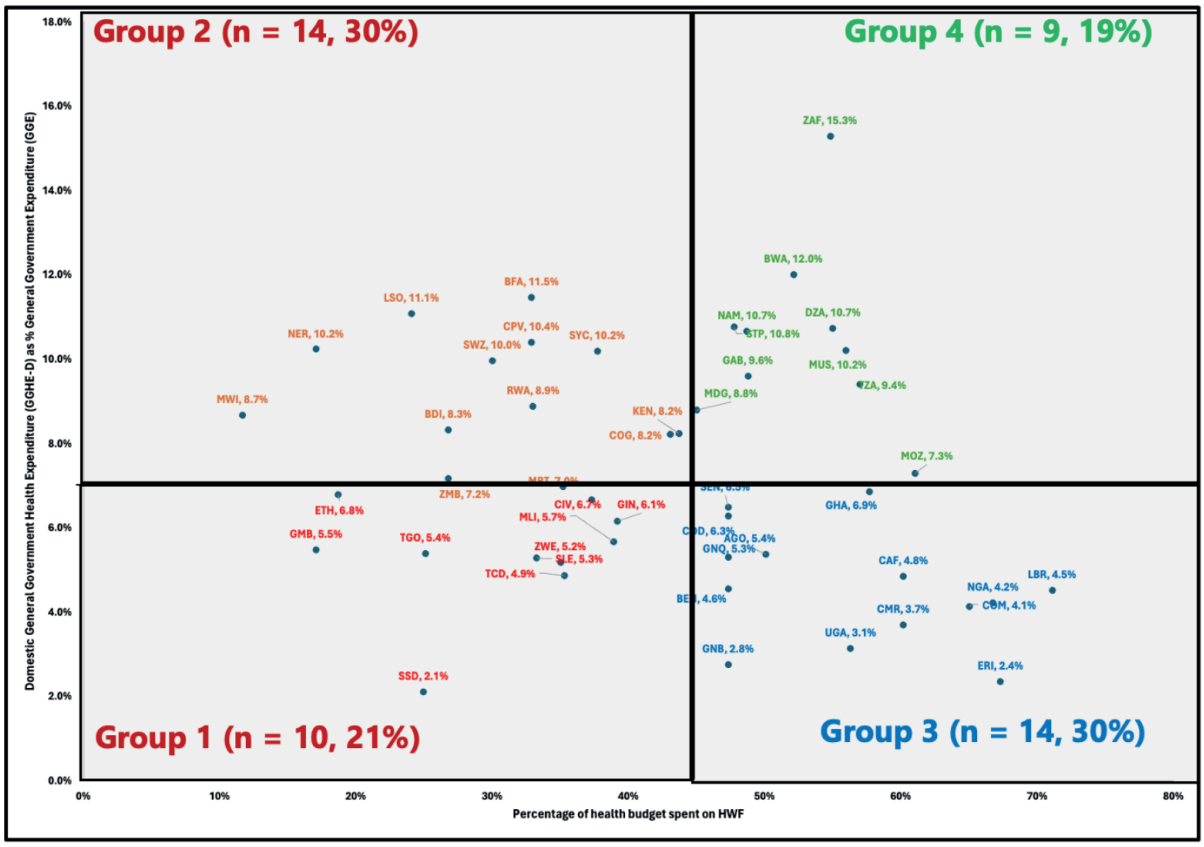
4 J. M. Kirigia and others, 'The Cost of Health-Related Brain Drain to the WHO African Region', African Journal of Health Sciences, 13.3 (2006), 1–12 <https://doi.org/10.4314/ajhs.v13i3.30830>.

5 J. Eaton and others, 'The Negative Impact of Global Health Worker Migration, and How It Can Be Addressed', Public Health, 225 (2023), 254–57 <https://doi.org/10.1016/j.puhe.2023.09.014>.

than the regional government spending on health and less than the regional average of health spending on the HWF. For this group of countries, any investment efforts from partners must integrate donor contributions at the inception of their contribution and consider their long-term impact and transition.

- **Budget space group 2 countries**: These countries prioritised less than the regional government spending on health but more than the regional average of health spending on the HWF. For this group of countries, in addition to advocating for more investment in health generally, efforts should primarily be focused on improving efficiencies in the budget allocation for the HWF, and freed-up resources should be channelled to education, retention mechanisms and equipment needed to deliver quality care.
- **Budget space group 3 countries:** These countries prioritised more than the regional government spending on health but less than the regional average of the expenditure on the HWF. For this group of countries, efforts should be focused on increasing the budget allocated for HWF spending and investment. Efforts should include, among others, employment of health workers to reduce paradoxical unemployment, retention mechanisms, continuous professional development and opportunities for career development.
- **Budget space group 4 countries:** These countries prioritised more than the regional average of government spending on health and more than the regional average of health spending on the HWF. For this group of countries, efforts should be focused on maintaining the budget allocation for both areas.

Figure 7: Prioritisation of health and health workforce spending in countries that inform budget space



1. **Accelerate efforts to halve the 6.1 million HWF shortage by optimising training outputs, especially at the primary healthcare level, where the return on investment is greater.**

Capacity Category 1: Countries with low density and low production capacity require intensified efforts and massive

Looking into the next half of the SDGs, three issues require accelerated investments and policy reforms

expansion in the production of health workforce **(mostly limited budget space)**. These countries constitute the vast majority (72**%) of regional need-based shortages of health workers.**

Countries in capacity category 1: Angola, Benin, Burkina Faso, Cameroon, the Central African Republic, Comoros, Congo, Côte d'Ivoire, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Nigeria, Rwanda, Senegal, South Sudan, Togo and United Republic of Tanzania.

1. For these countries, if appropriate, introduce a shorter period for mid-level training programmes and incorporate career progression pathways commensurate with additional training.
2. Introduce task-sharing mechanisms where appropriate for cadres to optimise service delivery until training programmes deliver outputs.
3. Invest more in education for the HWF by building and expanding infrastructure, training and building the capacity of tutors/lecturers, and making more teaching and learning materials and equipment available.
4. Leverage digital technologies and blended learning approaches to scale up education and training.
5. Countries in this group with high levels of outmigration should invest in retaining their HWF, especially in rural and PHC settings.

Capacity Category 2: Countries with low density but high production capacity. These countries potentially have the capacity to address their needs-based shortfalls if the right investments are made **(mostly limited prioritisation for HWF in health budget space)**. These countries contribute about **16% of the regional need-based shortage of health workers.**

Countries in capacity category 2 are Burundi, Chad, the Democratic Republic of the Congo, Equatorial Guinea, Lesotho, Sierra Leone, and Uganda**.**

1. Invest more in the HWF to employ and retain more trained health workers.
2. Countries should maintain or optimise their momentum of production.
3. Leverage digital technologies and blended learning approaches to enhance efficiencies in education and training investments.
4. When countries have fiscal constraints that prohibit the employment of additional health workers, the possibility of utilising bilateral agreements with developed countries to leverage the dividend of health worker mobility could be explored.
5. The private sector should be stimulated to employ more trained health workers.

Capacity Category 3: Counties with relatively high density but low production capacity. These countries could have a problem replacing retired health workers and meeting their needs, especially for those with high outmigration **(mostly limited prioritisation for health in national government budget space)**. These countries contribute 9% of Regional need-based shortage.

Countries in capacity category 3 are Algeria, Cabo Verde, Eswatini, Gabon, Kenya, Sao Tome and Principe, South Africa, and Zimbabwe.

1. Scale up training and education capacity to adequately replace health worker outflows and match needs-based requirements.
2. Countries with a high rate of outmigration should invest in retention and explore using bilateral agreements to strengthen their production capacity.
3. Invest more in education by building and expanding infrastructure, training and building the capacity of tutors/lecturers, and making more teaching and learning materials and equipment available.
4. Leverage digital technologies and blended learning approaches to scale up education and training.

Capacity Category 4: Countries with relatively high density and high production capacity. If these countries have shortages, they need to maintain their production momentum and invest in their recruitment and retention **(mostly to explore efficiency gains in the budget space)**. These countries contribute only **3% of the regional need-based shortage of health workers.**

Countries in capacity category 4 are Botswana, Ghana, Mauritius, Namibia, Seychelles and Zambia.

1. Countries should maintain their momentum of production and ensure equitable distribution, especially in rural and underserved areas, to optimise service delivery.
2. Where unemployment is rising, explore the use of bilateral agreements to explore dividends to leverage health worker mobility.
3. Workforce planning should ensure an appropriate skill mix for efficient and optimised service delivery.

2. Transforming HWF education to be competency-based to address population health needs better.

1. Develop master's training and education plans that align health sector needs with education sector training policies and plans.
2. Adopt competency-based HWF education and training curriculums to address population health needs and incorporate the global competency framework for UHC, regional/international prototype and/or standardised curriculum.
3. Train all health trainers on appropriate pedagogical approaches in health science/professions education.
4. Establish regional and international partnerships and collaborate to enhance educational resource sharing and maximise education, training, and local capacity-building for health professions.
5. Progressively professionalise CHWs by standardising their training and scope of practice and integrating them into the HWF.

3. Leveraging multisectoral action to implement the principles of the Africa HWF investment charter towards expanding and sustaining adequate investments in the HWF

1. Governments should lead the process of using multisectoral approaches to engage all actors across sectors to build consensus on investment priorities.
2. Leverage the implementation of NHWA to conduct HLMA and other evidence appraisals to inform prioritisation for investment in workforce education, employment, and retention, including addressing issues about youth and gender.
3. Convene regular, preferably annual, workforce policy and investment dialogues to align priorities and efforts among government entities and partners to develop and monitor an HWF investment plan in line with long-term national HWF strategies and health strategies.
4. Where appropriate, develop and sign investment instruments (compacts, memoranda of understanding and bilateral agreements) that outline the contribution of different actors to identified investment priorities.
5. External bilateral and multilateral partners should consider government efforts in workforce employment as part of the overall investment plan. The investment focus should also shift from predominantly short-term investments to long-term ones.
6. Regularly monitor and review progress, adjust as appropriate and include peer-to-peer accountability mechanisms.

4. Sustainably managing HWF migration in the African Region

1. Explore the use of a regional workforce pool to support smooth migration processes.
2. Explore using mutually beneficial bilateral agreements to leverage the dividends of HWF migration.
3. Systematically collect and share data on migration.
4. Optimise the use of return of service arrangements to enhance retention.

Additional Resources:

1. A decade review of the health workforce in the WHO African Region, 2013-2022: implications for aligning investments to accelerate progress towards universal health coverage https://iris.who.int/handle/10665/376643
2. Needs-based health workforce requirements to address Africa's disease burden and demographic evolution: implications for investing in the education and employment of health workers, 2022–2030 https://iris.who.int/handle/10665/376718
3. Africa Health Workforce Investment Charter: enabling sustainable health workforce investments for universal health coverage and health security for the Africa we want. https://iris.who.int/handle/10665/376689
4. Windhoek Statement: investing in Africa's health workforce. https://iris.who.int/handle/10665/376872
5. Online Datasets: https://drive.google.com/drive/folders/1VwoN_t_T0p3rrCiAoOnQqUXJr3auAuZl?usp=sharing

The WHO Regional Office for Africa

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Africa is one of the six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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Eritrea	Sierra Leone
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