



FROM POLICY TO PRACTICE

EXPANDING AFRICA'S MULTIDISCIPLINARY
SURGICAL WORKFORCE

ADDIS ABABA, ETHIOPIA
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Compiled Proceedings





PASHeF 2025 Proceedings: Day 1

Introduction

PASHeF III was convened from 3–5 November in Addis Ababa, Ethiopia, under the theme “*From National Surgical Healthcare Policy to Practice: Expanding Africa’s Multidisciplinary Surgical Workforce: What Works in Africa?*”. The forum was held in partnership with the Ethiopian Ministry of Health and brought together delegates from more than 44 African countries. The meeting provided a continental platform to examine the current state of the surgical workforce in Africa, with a particular focus on workforce availability, distribution, and multidisciplinary team development.

Deliberations also explored financial mechanisms for strengthening and sustaining the surgical workforce, recognizing financing as a critical enabler of policy implementation. In addition, PASHeF III marked an important strategic milestone by opening discussions on the institutional integration of PASHeF within continental bodies, including the Africa Centres for Disease Control and Prevention (Africa CDC), to enhance coordination, policy alignment, and long-term impact among member states.

PASHeF 2025 was a landmark continental convening, drawing broad and high-level representation from across Africa. The forum received official delegations from 44 African countries, with participants from more than 45 countries overall. In total, the meeting convened over 80 delegates, supported by 15 PASHeF Fellows and 29 observers, reflecting a diverse mix of policy, technical, and implementation expertise.



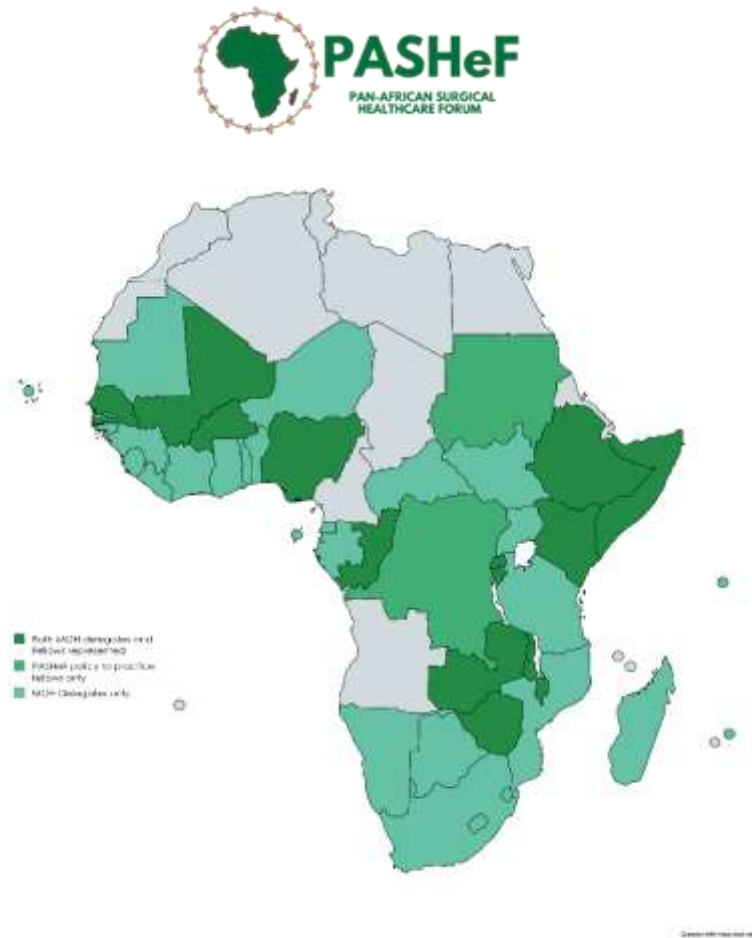


Figure. 1.1. PASHeF 2025 Delegates and Fellows representation by country

The delegation structure was deliberately designed to promote cross-sectoral dialogue, with representation primarily from Ministries of Health and Ministries of Finance, recognizing the central role of financing in translating surgical policy into practice. This ministerial composition enabled substantive discussions on governance, workforce planning, and sustainable financing of surgical systems.

The meeting further benefited from strong participation by observers drawn from prominent regional and continental organizations. Professional colleges and associations such as COSECSA, WACS, CANECSA, PAACS, ECSACON, and other regional bodies, academic institutions, and partner organizations were actively engaged in the global surgery ecosystem. Their participation enriched technical discussions and enabled alignment between policy, training, and service delivery.

In addition, PASHeF 2025 hosted 24 exhibitors representing both public and private hospitals providing surgical care at primary, district, and tertiary levels. This included participation from Ethiopian institutions actively engaged in surgical service delivery and workforce development. The exhibition component offered a practical platform for the host country to share its own experience in service delivery models, innovations, and partnerships relevant to strengthening surgical systems across the continent. Furthermore, the opening ceremony of PASHeF 2025 brought together a



broader range of stakeholders, including state ambassadors from six African countries. A total of 274 participants, of which 144 were international guests, attended the opening ceremony. This highlighted the forum's expanded continental engagement and enhanced the collective commitment to advancing equitable access to surgical care in Africa.





Proceedings

PASHeF 2025 – Opening Remarks

The opening ceremony of Pan African Surgical Healthcare forum (PASHeF) 2025 in Addis Ababa set a deliberate tone of African unity, ownership, and action. The event began with the African Union anthem, “Let us stand and celebrate together,” followed by a reflection on Kwame Nkrumah’s words: *“Divided, we are weak. United, Africa can be one of the greatest forces for good in the world.”* Delegates were reminded that Addis Ababa, home to both the African Union and Africa CDC, is a symbolic and strategic location for aligning surgical care with continental political and health agendas.

Distinguished guests included H.E. Dr. Mekdes Daba, Minister of Health of Ethiopia; Hon. Selibe Mochoboroane, Minister of Health of Lesotho; Hon. Sabin Sanzimana (represented), Minister of Health of Rwanda; representatives of the African Union Commission, WHO AFRO, Africa CDC, and other key partners; as well as leaders from Smile Train, Mercy Ships, the University of Global Health Equity (UGHE), the East Africa Healthcare Federation, and the PASHeF Executive Committee. Ethiopia was acknowledged for hosting this third continental session, following two successful editions in Rwanda, and for reaffirming its aspiration to lead efforts toward surgical self-sufficiency in Africa.

The forum’s theme and cross-cutting focus on workforce and financing were framed as a move from policy to practice taking forward the Kigali Consensus and the PASHeF Act 2024 toward concrete implementation.

Opening Address – Prof. Abebe Bekele, Chair, Pan-African Surgical Healthcare Forum

Prof. Abebe Bekele, Chair of the PASHeF executive committee, formally opened the fifth PASHeF conference by warmly welcoming delegates and thanking Ethiopia’s Minister of Health, H.E. Dr. Mekdes Daba, for her leadership and hospitality. He acknowledged the local organizing committee and core partner Smile Train, Mercy Ships, UGHE, Ethiopian Airlines, and others for making the forum possible.

He emphasized on the significance of holding PASHeF 2025 in Addis Ababa, close to the African Union and Africa CDC, as a signal that surgical health must be embedded in continental policy and governance. Building on the Kigali Consensus, he called for a shift “from commitment to action”: moving beyond discussion to implementation, with clear priorities in policy, human resources, and financing.

Prof. Abebe Bekele laid out the scale of Africa’s surgical challenge. The continent carries roughly 24% of the global disease burden but has only 3–4% of the world’s health workforce and faces an eight-million-worker deficit, 90% of it in Africa. Most African countries have fewer than one surgeon per 100,000–20,000 people, compared to more than 45 per 100,000 in the United States. Surgical conditions account for about one-third of the global burden of disease, and Africa needs an estimated 143 million additional procedures annually to meet demand. Yet access remains





especially constrained for the rural and poor. Surgical mortality is two to three times higher than the global average; mortality following major complications can reach 20–50%, compared with 1 in 21 globally.

He argued that these data make it clear that surgery is not a luxury but a necessity, fundamental to universal health coverage and sustainable development. Despite this, three-quarters of Africans still live in countries without a fully implemented national surgical plan, and workforce densities remain far below recommended levels.

Prof. Abebe Bekele then traced the evolution of PASHeF as an African-led response: inspired by the spirit of the former Organization of African Unity and by a determination to address “African issues by Africans for Africans.” Since its launch in 2023, PASHeF has brought together ministers, policymakers, clinicians, and partners to identify shared challenges and co-create solutions. Key milestones include:

- The Kigali forums, which produced a 50-point consensus statement and a roadmap to equitable surgical and maternal care, with participation of 44 African countries.
- Establishment of a PASHeF Board of Governors to guide the forum’s agenda and ensure continental ownership.
- Launch of a Policy-to-Practice Fellowship, training 15 fellows from 15 countries to work directly with their governments on implementing surgical policies.
- Partnership with UGHE to create a Master’s in Global Surgery, building a cadre of African surgical leaders.

Looking forward, he announced the ambition to formalize PASHeF as a permanent continental body under government leadership, fully aligned with the AU health agenda. Such institutionalization, he said, would ensure sustainability, policy coherence, and accountability beyond individual projects or donor cycles. He called for pooled African funding, resource-sharing, and cross-border training hubs and centres of excellence. Partnerships with organizations like Mercy Ships and Smile Train were warmly acknowledged, but he stressed that these must support, rather than substitute for, African ownership: *“We appreciate our partners, but Africa’s future must be shaped by Africans, for Africans.”*

Quoting President Paul Kagame, Prof. Abebe Bekele concluded: *“Africa’s story has been written by others. It’s time we write our own—own our problems and find our solutions together.”* His address framed the forum as a turning point from dialogue to collective, African-led action.

Remarks – Dr. Walt Johnson, Director of Strategic Partnerships at Mercy Ships, Mercy Ships

Dr. Walt Johnson, Director of Strategic Partnerships at Mercy Ships, welcomed delegates on behalf of Mercy Ships, expressing gratitude to Ethiopia and acknowledging the presence of WHO Africa, Africa CDC, the African Union, and for the first time a Minister of Finance. He reiterated Mercy Ships’ commitment to supporting PASHeF alongside Smile Train and other partners, united by a shared goal ensuring that all Africans have access to safe, timely, and affordable surgical, obstetric and anaesthesia (SOA) care.





He commended the PASHeF Secretariat, UGHE, and the leadership team for their coordination and invited participants to use the forum to network, exchange ideas, and forge partnerships. He underlined that, through collaboration and shared purpose, what once seemed impossible in surgical access can become achievable, and pledged Mercy Ships' ongoing support to African-led solutions.

Remarks – Smile Train, CEO Dr. Susannah Schaefer

Speaking on behalf of Smile Train CEO Dr. Susannah Schaefer, Mrs. Nkeiruka Obi, the Vice President and Regional Director for Africa at Smile Train greeted ministers, delegates, and partners and emphasised PASHeF as a uniquely African-led, African-driven platform. She introduced Smile Train as the world's largest cleft-focused organisation, founded in 1999 and guided by the philosophy of *“teaching a person to fish”*. To date, Smile Train has transformed over two million lives in more than 90 countries, including over 40 nations in Africa.

She explained that Smile Train's model extends well beyond surgery, providing comprehensive, patient-centred cleft care, nutrition, speech therapy, orthodontics, ENT and oral health, and psychosocial support. The organisation invests in people, platforms, and policies, working closely with ministries of health, medical colleges, and professional associations to build a sustainable pipeline of skilled providers. Growing investments in virtual learning, simulation-based cleft training, and digital innovation, as well as infrastructure upgrades, were highlighted as examples of how partners can help strengthen local systems.

Reflecting on PASHeF's trajectory since the 2022 Kigali Consensus, where 32 ministries of health endorsed a 50-point roadmap, she praised the shift to a “policy-to-practice” framework that is now cultivating Africa's next generation of surgical leaders. She applauded African innovations such as Ethiopia's SaLT programme, Rwanda's 4x4 initiative, and the implementation of national surgical policies and NSOAPs/NSOANPs in countries like Nigeria, Zimbabwe, Zambia and Sierra Leone.

Mrs. Obi, identifying herself as a committed Pan-Africanist, stressed that surgery is not a luxury but an economic investment and a pillar of universal health coverage. She noted that five billion people worldwide lack access to safe, timely surgical care and that every three seconds someone dies from treatable conditions that, she emphasized, represent real human lives. Africa, she said, combines the greatest need with immense promise, especially given the momentum around African-led solutions.

She called for embedding PASHeF within the African Union's health governance agenda, so that no child, mother, or citizen is left behind. Concluding with the proverb, *“If you want to go fast, go alone. If you want to go far, go together,”* she reaffirmed Smile Train's commitment: *“Together, let us build an Africa where every person can smile, thrive, and live with dignity.”*

Remarks – Dr. Markos Feleke Haile, President, East Africa Healthcare Federation

Dr. Markos Feleke Haile, President of the East Africa Healthcare Federation (EAHF) and board member of the Africa Healthcare Federation, underscored the central role of the private sector and regional collaboration in advancing surgical care. He noted that in many East African countries, the





private sector provides 40–60% of healthcare services and that the region hosts more than 50 medical schools, which can anchor workforce training and continuous professional development.

He called for regulatory harmonization and free movement of health professionals across borders to better share expertise and match skills with need, echoing earlier remarks about current regulatory barriers. EAHF, established with support from Ethiopia’s Ministry of Health, offers a governmental anchor for such efforts and seeks to partner with PASHeF on public–private collaborations for surgical expansion, infrastructure scale-up, and harmonised credential recognition.

Dr. Markos also proposed structured, licensed short-term return missions for African surgeons in the diaspora, enabling them to contribute their skills and innovations back home. He aligned these priorities with PASHeF’s roadmap, the AU’s Agenda 2063, the Africa CDC Regional Workforce Strategy and the WHO Emergency Care Framework, stressing that real progress depends on moving from talk to action.

He closed by urging participants to pool public and private resources, invest in digitalisation and local manufacturing, and embed surgical priorities in continental agendas: *“We have talked long enough; now it’s time to act—so that every surgical provider can thrive on African soil and no patient is left behind.”*

Welcome Address – H.E. Dr. Mekdes Daba, Minister of Health, Federal Democratic Republic of Ethiopia

H.E. Dr. Mekdes Daba welcomed delegates to Addis Ababa, thanking PASHeF and partner countries for entrusting Ethiopia with hosting the forum. She acknowledged Rwanda for its role in hosting the previous meetings and sustaining momentum on the surgical agenda. To connect the issues personally, she asked the audience how many had undergone surgery, were surgeons or anaesthetists, or had family members needing surgery, underscoring that surgery is a universal human experience built on trust and vulnerability.

She reaffirmed Ethiopia’s commitment to strengthening surgical, obstetric and anaesthesia care as a cornerstone of universal health coverage. Acknowledging workforce shortages, high attrition and under-resourced facilities across Africa, she stressed the need to train, retain and fairly compensate health workers, while promoting intra-African collaboration to address migration and imbalances.

Dr. Mekdes emphasised that Africa’s health agenda must be shaped by African governments and grounded in people’s priorities, not external expectations. She called for renewed investment in workforce readiness and competence, improved working conditions, and engagement of ministries of finance to address the economic underpinnings of health system sustainability. She noted that surgical enablers, once overlooked, gained overdue attention during COVID-19, revealing how many facilities lack adequate operating spaces, pre-operative rooms and basic infrastructure.

She highlighted that around 93% of people in Sub-Saharan Africa lack access to timely surgery, framing this as a profound equity and development challenge. Ethiopia’s response centres on five priority areas that she proposed as continental priorities as well:





1. **Healthcare Financing:** Strengthen community-based and public-private financing mechanisms, recognizing that governments alone cannot bear the full burden. Sustainable reform requires people-to-people and people-to-government partnerships, making health financing a shared responsibility.
2. **Health Workforce:** Invest in building a strong, skilled, motivated and entrepreneurial health workforce. Encourage intra-African collaboration to address migration, ensure fair compensation, and create attractive career paths that retain talent on the continent.
3. **Primary Healthcare Strengthening:** Integrate surgical and obstetric care into primary healthcare by expanding operating rooms and surgical capacity at primary-level facilities, bringing life-saving services closer to communities.
4. **Digital Health and Data Systems:** Invest in digital infrastructure and robust data systems to enable evidence-based policy-making and accountability. She urged all member states to make digitalization a foundation of coordination and efficiency, including for workforce planning and outcome tracking.
5. **Local Manufacturing and Innovation:** Promote local production of medical equipment, consumables, and training programmers to reduce dependency on imports and strengthen self-reliance. *“Healthcare cannot be sustainable if Africa continues to depend on imports,”* she cautioned.

She also advocated for integration rather than vertical programmes, linking training, research and service delivery and fostering collaboration across countries, sectors, and professional bodies. To achieve these goals, she commended public-private partnerships, diaspora engagement, and volunteerism that have enabled Ethiopia to perform thousands of complex surgeries locally and provide millions of volunteer service hours, while recognizing that these must evolve into more sustainable, long-term models.

In her closing, Dr. Mekdes invited health workers to care for themselves as they care for others, reminding them that their well-being is fundamental to the health of societies. Reaffirming Ethiopia’s commitment to the PASHeF Call to Action and the African Union’s Agenda 2063, she articulated a shared vision: “an Africa where safe surgery is a right, every mother is safe, and every citizen can access life-saving care with dignity.”

Presentation: History of the Surgical Workforce in Africa:

Presenter: Prof. Abebe Bekele

Prof. Abebe, chair of the PASHeF executive committee, started his opening presentation by outlining factors that have historically constrained the development of surgical care in Africa, including persistent poverty, wars and political instability, migration and brain drain, and enduring structural and policy legacies from the colonial era. He drew on historical examples to illustrate the depth of Africa’s surgical roots: evidence of brain surgery in Kenya in the 15th–16th centuries; a documented successful cesarean section in Uganda in 1879 in which both mother and baby survived; and numerous records of surgical procedures and indigenous medical practices in Ethiopia, Sudan, Namibia, and the Congo Basin. Even European explorers such as David Livingstone reportedly underwent procedures such as tonsillectomy in Africa, underlining the long-standing presence of





surgical expertise on the continent. As he put it, “Surgery has been practiced in Africa for 400 years, the modern doctor is only a late 19th-century phenomenon.”

Prof. Abebe then discussed the colonial era, from the late 19th to the mid-20th century, when modern Western medicine was introduced under colonial rule. Colonial health systems were designed primarily to serve colonizers and their allies and to protect economic productivity, rather than to build comprehensive health services for African populations. Africans were largely confined to roles as assistant medical officers under policies dating back to 1826, with training deliberately structured to support colonial doctors rather than to produce independent African physicians. The system entrenched medical segregation and limited African access to full professional training. By the early 20th century, most surgical providers in colonial Africa were white British or other colonial subjects such as Irish and Indian practitioners. Non-British-trained doctors, including Americans, were often required to requalify in the United Kingdom before being allowed to practice in African territories. During this period, the concepts of professional registration, licensure, and accreditation took shape in Africa as instruments of control that restricted who could practice medicine and surgery.

Within this colonial framework, the medical education system was extremely limited. Across the continent there were only seven medical schools, and just two of these, both in Egypt, were authorized to train full physicians. The remaining institutions trained assistants, reinforcing a hierarchical model that anticipated what is known today as task shifting. Professor Abebe highlighted that task shifting, often presented as a modern innovation, in fact has a 200-year history rooted in colonial policies that have never been comprehensively rethought. This legacy continues to influence how roles, responsibilities, and recognition are structured in many African health systems today.

With decolonization in the 1950s and 1960s, newly independent African states sought to reclaim their health and education sectors. By the time independence movements had taken hold, nearly all new African countries had established at least one medical school, and in the 1970s there was a surge in the creation of medical schools seen as symbols of sovereignty and progress. However, the momentum slowed in the 1980s and 1990s due to economic crises, armed conflict, and structural adjustment programs imposed by the International Monetary Fund and the World Bank, which restricted public spending, including on health and education. As a result, only six new medical schools opened in the 1980s. By 2000, the continent had around 100 medical schools. Today, that number has grown to more than 440–444, many of them privately owned. Despite this expansion, the sector continues to face challenges such as outdated curricula, misalignment between training outputs and workforce needs, and rising unemployment or underemployment among general practitioners in the context of persistent shortages of specialists.

Professor Abebe described how, in the post-independence period, many Africans continued to receive medical and surgical training abroad in Europe, North America, Asia, and socialist countries such as Cuba and Russia. Institutions like the Patrice Lumumba People’s Friendship University in Russia were established specifically to train students from Africa and other socialist-aligned states, and similar models appeared in China and Eastern Europe. Over time, two main training routes emerged for surgeons: professional surgical colleges and university-based postgraduate programs.





These developments were complemented by the creation of regional surgical colleges within Africa itself. The College of Medicine of South Africa (CMSA), founded in 1954; the West African College of Surgeons (WACS), established in 1960 and now serving 22 countries; and the College of Surgeons of East, Central, and Southern Africa (COSECSA), formed in 1964 and now representing 23 countries, all arose in part as responses to colonial restrictions and as instruments to promote local credentialing. These colleges helped reduce reliance on external accreditation bodies and supported the development of regionally appropriate training standards.

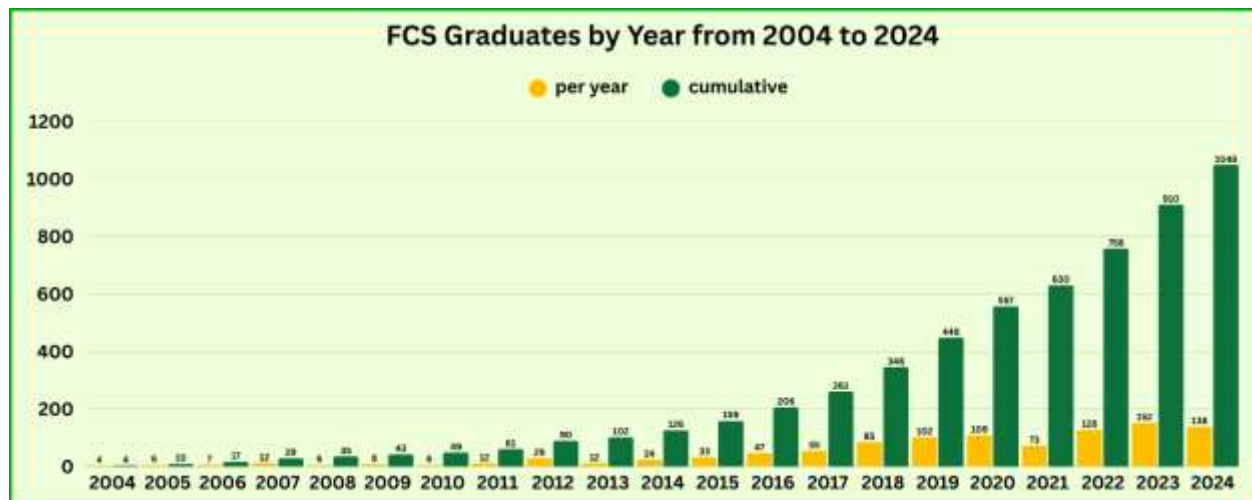


Figure 1.2: COSECSA FCS graduates from 2002 to 2024

In parallel, universities in various African countries launched their own surgical training programs. Makerere University in Uganda pioneered postgraduate surgical training in 1972, initially attracting trainees from Uganda, Kenya, and Tanzania. Despite the establishment of these programs, early graduates were often still required to requalify in London before being fully recognized, demonstrating the persistence of colonial-era recognition barriers. Over subsequent decades, similar programs were established in Tanzania (1975), Zambia (1976), Mozambique (1982), and other countries. Many of these initiatives began with small cohorts due to limited faculty capacity, infrastructure, and financial resources, but they laid the foundation for a continent-wide network of university-based surgical training.



	Uganda	Kenya	Tanzania	Zambia	Zimbabwe	Malawi	Mozambique
First local graduates (year)	1970	1975	1976	1985	1988	1999?	1982
Total Number of Graduates so far	70-80?	158	78	17	19		10
Number in Training	15	58	2-4	15		4	?
Duration of Program in years	3	3 (4-6)	3	4 + 1	4 + 1	ARCS Edinburgh	4 71
Proportion of Surgeons in Country with Local Qualification	95%	66%	70%	? small	15%	N/A	40%
Source (with grateful acknowledgement)	Onaswa	Adwok	Lema and Kinshasa	Erzingastian	Levy	James	Barradas

Table 1.1. Postgraduate surgical training in Eastern Africa

A key part of the session was the analysis of how training models have shifted from extracontinental to intracontinental approaches. Historically, African surgeons were heavily reliant on training abroad, particularly in Europe and North America. Today, there is a growing emphasis on training within Africa through regional surgical colleges and university programs. Data from countries such as Ethiopia and Rwanda show that locally trained surgeons have high rates of retention: approximately 85% remain in their country of training, 90% stay within their region, and 98% remain on the continent. These figures challenge the widely held assumption that African-trained surgeons inevitably migrate, and they suggest that context-relevant, locally delivered training can be a powerful tool for retaining skilled professionals.

Despite these positive trends, the presentation underscored persistent structural challenges. Task shifting remains governed by frameworks that are essentially two centuries old and have not been systematically updated. Many medical and surgical curricula are outdated and insufficiently tailored to African disease burdens, health system constraints, and resource realities. Accreditation and registration systems remain fragmented, with inconsistent degrees and qualifications (such as MBBS and MBChB) complicating the mutual recognition of credentials across borders. Licensing frameworks still reflect colonial-era structures and pose significant barriers to mobility within Africa. Language adds another layer of complexity, as medical education is delivered in at least five major languages on the continent, further fragmenting training and practice. Moreover, an estimated 75% of the trained workforce and health facilities are concentrated in a few regions, leaving large populations underserved.

In looking to the future, Prof. Abebe proposed four guiding principles for the development of surgical education in Africa: expansion, excellence, equity, and employability. Expansion refers to increasing training capacity and broadening geographic access to both university-based and college-based surgical programs. Excellence emphasizes the need to prioritize quality and competence rather than



focusing solely on the number of graduates or credentials. Equity calls for fair and inclusive access to training opportunities, particularly for young Africans in underserved regions and marginalized groups, while also addressing linguistic and socio-economic barriers. Employability highlights the imperative to align training outputs with labor market realities and health system needs, ensuring that graduates can find meaningful work and contribute effectively to service delivery.

Building on these principles, the session advanced several concrete recommendations. These included expanding surgical training capacity across the continent; ensuring that the right personnel are trained for the right roles in line with actual workforce needs; and guaranteeing equitable access to education and specialization. The speaker called for comprehensive curriculum reform so that programs reflect local disease patterns, health system structures, and language requirements, and integrate context-specific and indigenous knowledge where supported by evidence. Strengthening intra-African recognition of qualifications and harmonizing accreditation and licensure systems across countries were identified as critical steps toward facilitating professional mobility and collaboration. Additional priorities include promoting intra-African training exchanges and partnerships among surgical colleges and universities, as well as creating clear employment pathways and career structures to retain and effectively deploy local graduates while addressing the root causes of brain drain and workforce shortages.

In conclusion, Professor Abebe presented a sweeping historical narrative that shows Africa's surgical legacy predates colonialism by centuries. While the colonial period institutionalized inequality and dependency and established enduring barriers to African participation in full medical practice, the post-independence era has seen African countries progressively reclaim agency through the creation of local medical schools, university-based surgical programs, and regional surgical colleges such as WACS, COSECSA, and CMSA. He challenged policymakers and educators to move beyond inherited colonial systems and to reimagine surgical education that is authentically African, equitable, and excellent.

Panel Discussion: The African Multidisciplinary Surgical Healthcare Workforce: The Past, The Potential, The Promise

Moderator: Professor Emmanuel Ameh

This panel discussion explored the evolution, current status, and future opportunities for building a resilient, multidisciplinary surgical healthcare workforce across Africa. The session aimed to identify strategies to strengthen workforce development, improve training systems, and foster collaboration across regions, disciplines, and institutions. Panelists and participants examined progress achieved to date, persisting gaps, and context-appropriate solutions to advance Africa's surgical, anesthesia, and obstetric (SAO) workforce as a central component of Universal Health Coverage (UHC) and the Sustainable Development Goals (SDGs).

The discussion opened with recognition of the continent's significant shortfall in surgical healthcare workers. Africa has not yet met the often-cited benchmark of 20 SAO providers per 100,000 population, and this deficit constrains progress toward UHC. Nevertheless, there was broad agreement that Africa must critically reassess these imported metrics, redefine success on its own terms, and design workforce strategies that are realistic, sustainable, and rooted in African realities.





National Perspective – Ethiopia’s Task-Sharing Experience (Dr. Tihitina Negussie)

Dr. Tihitina Negussie, Global Clinical Director, Life-box and paediatric and general surgeon, Tikur Anbesa Specialized Hospital, provided a national perspective grounded in Ethiopia’s 20-year experience with the Health Extension Program (HEP) and task sharing. She underlined that, despite notable gains, Ethiopia remains far below the Lancet Commission’s recommended SAO provider density. To address this, Ethiopia has pursued systematic task sharing and community-based workforce strategies, focusing particularly on Health Extension Workers (HEWs) and mid-level providers.

Health Extension Workers were highlighted as an integral force in expanding access to surgical and emergency care, especially in rural and underserved areas. HEWs have significantly contributed to reducing the first two delays in the surgical care pathway: the delay in seeking care and the delay in reaching appropriate facilities. By improving community awareness, promoting early detection of complications, and strengthening referral pathways, HEWs help ensure that patients arrive at health posts and health centers in a more timely and stable condition.

Dr. Tihitina stressed, however, that task sharing must never compromise quality or patient safety. In Ethiopia’s model, non-physician clinicians such as health officers and emergency surgical officers are trained to perform essential procedures (e.g., appendectomies) at primary hospitals. This is supported by robust, long-term mentorship rather than short, theory-heavy courses. One-on-one, hands-on supervision often spans five to ten years, which has proven transformative for both skills acquisition and professional confidence. Ethiopia’s experience suggests that, with proper training and mentoring, outcomes achieved by task-shared providers can be comparable to those in more specialized centers.

National policy alignment has been critical. The Ministry of Health has explicitly prioritized surgical care, expanded the number of SAO providers, and integrated surgical indicators into national health strategies. Dr. Tihitina underscored that expanding access must go hand in hand with maintaining high standards of training, supervision, and safety. As she put it:

“Give the right training, train the right people, with the right system — then the community will decide what’s best for them.”

Regional Surgical Education and Workforce Metrics – COSECSA Perspective (Prof. Abebe Bekele)

Speaking from a regional standpoint, Prof. Abebe Bekele presented the experience of the College of Surgeons of East, Central and Southern Africa (COSECSA). Over the past 15 years, COSECSA has developed a sustainable and regionally owned model of surgical education spanning more than a dozen countries. Built largely on volunteerism, collaboration, and a “college without walls” model, COSECSA leverages existing hospitals in 18 countries as accredited training sites, thereby strengthening local service delivery while expanding training capacity.

The College receives approximately 700 applications per year but can admit only about 400 trainees, mainly due to financial and logistical constraints rather than lack of demand. Despite this, the training system thrives on the commitment of volunteer trainers who provide supervision without





financial compensation, driven by a shared vision for the region's surgical future. A notable achievement has been the increased participation of women in surgery, fostered by deliberate mentorship initiatives and partner support.

Prof. Abebe emphasized that high-quality surgical training does not need to be confined to large, urban tertiary centers. He argued that district hospitals can serve as effective training sites when supported by digital learning, virtual case reviews, simulation-based instruction, and strong local mentorship. This approach has allowed COSECSA's community-based programs to train approximately 1.5 times more trainees than all university-based residences combined.

Retention outcomes were a central theme. Comparing COSECSA and the West African College of Surgeons (WACS), Prof. Abebe noted that while over 50% of WACS-trained surgeons migrate abroad, 98% of COSECSA graduates remain in Africa, with about 85% practicing in their home countries. He attributed this to local training models that keep trainees embedded in their communities, where they establish families, professional networks, and a stronger sense of belonging.

Most importantly, Prof. Abebe questioned the suitability of the widely used global metric of 20 SAO providers per 100,000 population. He argued that these thresholds, designed a decade ago and largely based on Western contexts, do not fully reflect African realities such as national budgets, infrastructure, distribution of health facilities, and supply chain capacity. He also pointed to the paradox of having unemployed doctors and nurses in some countries despite major workforce shortages, indicating systemic failures in planning and absorption. He called on Africa to redefine its own metrics and success indicators: *"We must redefine what success looks like. Our metrics should reflect our context, not mirror those of other continents."* More broadly, he urged a population-centred approach: *"Let the definition of the workforce be about the population, not ourselves... Let's define what the population wants first, and then decide what to call that professional."*

The Anesthesia Perspective: CANECSA and Team-Based Care (Dr. Stephen Okelo)

Representing the College of Anesthesiologists of East, Central and Southern Africa (CANECSA), Dr. Stephen Okelo drew attention to one of Africa's most acute workforce challenges: the extreme shortage and maldistribution of anesthesia providers. CANECSA operates in 12 countries and has played a key role in advancing regional anesthesiology training and simulation-based education.

Dr. Okelo described anesthesia as facing a "double challenge": not only are absolute numbers low, but most specialists are concentrated in urban centers, leaving rural and remote areas severely underserved. He underscored the importance of task shifting and task sharing to non-physician anesthetists, but insisted that this must be governed by clear, structured frameworks, well-defined scopes of practice, and robust supervision. Currently, he noted, task shifting in anesthesia exists in many countries but remains largely unstructured, raising concerns about safety and accountability.

Highlighting CANECSA's experience, he explained that the college has trained and graduated anesthesiologists who, in his example, have all remained within Africa. He attributed this retention to training models that keep doctors within their existing hospitals or regions and to standardized curricula recognized in up to 20 African countries, which facilitate mobility within the continent rather than encouraging emigration abroad. Kenya's experience, where physician anaesthetists





mentor non-physician anaesthetists through workshops, remote mentorship (including via WhatsApp), and joint conferences, was cited as a promising model of inclusive professional collaboration.

Dr. Okelo also stressed the importance of viewing anesthesia within a broader team-based surgical ecosystem. Surgeons, nurses, biomedical engineers, anesthetists, and other cadres must work cohesively to ensure safe surgery. He identified faculty development as a significant bottleneck: many skilled practitioners lack formal training in teaching and supervision, limiting the capacity to scale specialist education. Additionally, the competition perceived between CANECSA and university-based Master of Medicine (MMed) programs has, in some cases, slowed collaboration and joint planning.

In a broader reflection on advocacy and investment, he argued that surgery and anesthesia are often neglected in health policy debates because professionals in these fields may lack the advocacy and negotiation skills needed to effectively present their case to governments and regional bodies. He insisted that investing in surgical and anesthesia care is economically productive, reducing disability, prolonged hospital stays, and lost productivity: *“If we Africans invest in surgical care, we will be richer.”*

Continental Policy and Coordination – Africa CDC Workforce Compact (Dr. Tiruneh Amsalu Baye)

From a continental and policy-level perspective, Dr. Tiruneh Amsalu Baye, Technical Officer, Health Workforce Development at Africa CDC (Africa Centres for Disease Control and Prevention) outlined the institution’s evolving mandate and its Workforce Compact Initiative. Africa CDC was originally established in the wake of the 2014–2016 Ebola outbreak to coordinate disease surveillance and outbreak responses. However, the COVID-19 pandemic underscored the need to broaden its focus to the wider health workforce, including doctors, nurses, allied health professionals, and, increasingly, surgical and anesthesia providers.

Dr. Tiruneh noted that more than 70% of Africa’s health workforce is concentrated in urban areas, leaving large rural populations underserved. Drivers of this imbalance include poor infrastructure, limited schools, and challenging living conditions in rural settings, alongside weak incentives for rural deployment and retention. He highlighted major coordination gaps: ministries of health, education, labour, and finance often operate in silos, leading to mismatches between training outputs, recruitment, and available fiscal space.

He also pointed to serious challenges in data quality and harmonization. Across the continent, there is limited reliable information on how many health workers are being trained, how many are employed, where they are deployed, and how many have migrated. Curricula and accreditation standards vary widely, limiting cross-border recognition and complicating workforce planning.

Africa CDC’s workforce framework aims to harmonize training approaches, develop shared standards, and promote data-driven planning. Efforts include convening associations of schools, professional bodies, and regulators to agree on core curricular frameworks; standardizing and accrediting programs such as Field Epidemiology Training; establishing the African Volunteer Health





Corps and an Emergency Medical Team framework for rapid deployment; and integrating leadership, communication, research, innovation, and diplomacy skills into training. Baseline studies have revealed low and stagnant salaries, inadequate rural infrastructure, and high unemployment or underemployment among specialists, often linked to macroeconomic constraints and civil service hiring freezes shaped by international financial institutions.

Dr. Tiruneh stressed that these are systemic and macroeconomic challenges, not simply matters of political will. Africa CDC's approach involves multi-sectoral collaboration and regular reporting to heads of state, recognizing that high-level political commitment is essential to address wage policies, fiscal ceilings, and long-term workforce investment. He argued that health workforce development must be seen as both a national and regional economic investment, not merely a health sector expense.

Reassessing Metrics, Roles, and Professional Definitions

A key cross-cutting theme was the need to rethink how Africa defines and measures its health workforce. Prof. Abebe and other panelists questioned whether global benchmarks such as 20 SAO providers per 100,000 population are scientifically robust and contextually appropriate for African countries at different stages of development. They stressed that rigid adherence to external metrics can obscure realities such as underutilized expertise, unemployment among trained professionals, and fiscal and infrastructural constraints.

Delegates including Dr. John Mark Kasumba, representative from the Ministry of Health, Federal Republic of Uganda, posed relevant questions: Should Africa redefine what it means to be a doctor, nurse, or anesthetist? How much voice should communities have in shaping these definitions? Should training be standardized for safety or diversified to reflect local needs? And how can safety be ensured when health teams range from certificate-level providers to highly specialized practitioners?

In response, Prof. Abebe advocated for a population-centered redefinition of professionalism. He criticized Eurocentric curricula that fail to reflect African disease burdens and health system realities. Instead, he proposed starting from foundational questions: who is the population, what are their surgical and anesthesia needs, who should be trained, and to what level of competence? From there, core competencies and curricular content can be defined, with flexibility for national adaptation. Harmonization, he clarified, does not mean a single uniform curriculum, but agreement on shared competency frameworks that each country can contextualize.

Dr. Stephen Okelo, President, College of Anaesthesiologists of east, Central and Southern Africa (CANESCA) mentioned that all patients, urban or rural, deserve the same minimum standard of safety and quality. Basic competencies and patient safety norms must be non-negotiable everywhere. Training systems should ensure that the right skills are delivered to the right people, deployed in the right places, while engaging communities in the design of their health services. Dr. Tihitina added that minimum competency standards must be uniform for high-risk areas such as anesthesia, but curricula can and should be adapted to local epidemiological and health system needs. She emphasized the role of communities in needs assessment, curriculum design, and approval, ensuring that training priorities reflect local demand.





Training Approaches, Non-Technical Skills, and Educational Innovations

The panel devoted significant attention to effective training models for developing Africa's surgical workforce.

Panelists agreed that applied, hands-on training models, very close to residency teachings, where learning occurs through practice, are more effective than purely didactic approaches. Simulation-based training and structured mentorship were repeatedly highlighted as critical. In anaesthesiology, for example, simulation allows trainees to safely practice managing critical events and complex cases despite limited real-life exposure, while remote mentorship platforms enable ongoing support for non-physician anaesthetists in peripheral facilities.

Prof. Abebe contrasted with university-based training, which is strong in research, academic leadership, and structured mentorship but often limited in reach, with community-based models that are more accessible, practical, and closely aligned with local service needs. COSECSA's experience suggests that community-based, hospital-embedded training can reach more trainees while directly strengthening service delivery. He advocated for blended models that combine academic rigor with community relevance.

Panelists discussed one-on-one mentorship as a particularly impactful method. As highlighted by Dr. Tihitina, sustained mentorship over many years allows for personalized skill development, feedback, and professional growth, and can build confidence and autonomy among mid-level providers.

Non-technical skills such as leadership, communication, teamwork, advocacy, and diplomacy were also recognized as essential components of modern surgical and anesthesia training. Responding to questions from the audience, panelists reported encouraging early efforts to integrate these skills into curricula, including safety and teamwork courses delivered at the point of care. Africa CDC is similarly incorporating research, innovation, and entrepreneurship skills into its training frameworks, encouraging health professionals to generate evidence, secure funding, and develop solutions rather than relying solely on government employment.

Prof. Abebe Bekele described two major educational innovations within COSECSA. The decentralization of training to district hospitals demonstrates that high-quality surgical education can occur outside capital cities; and digital transformation accelerated by COVID-19, which enabled online membership examinations (written and oral) and technology-enhanced teaching even in low-bandwidth settings. These measures have improved accessibility, resilience, and scalability of training across the region.

Coordination, Governance, and the Role of Policy

Throughout the discussion, panelists and audience members emphasized that workforce development is inherently multisectoral and cannot be addressed by the health ministers alone. Strong coordination is required between ministries of health, education, labor, finance, and planning, as well as universities, professional societies, and regional bodies such as Africa CDC, COSECSA, WACS, and CANECSA.





Panelists argued that governments must lead on defining national health priorities, including surgical and anesthesia needs, and on identifying the essential package of services required at different levels of the health system, particularly at the district level. Once these priorities are articulated, governments should formally commission academic and training institutions to design programs that meet those needs, and allocate adequate funding to support both infrastructure and human resources. Academic and professional bodies, in turn, should guide how these goals are met, leveraging research evidence, technical expertise, and quality assurance mechanisms. Panelists and delegates spoke against governments prescribing detailed training content without sufficient professional input.

The discussion highlighted frequent mismatches between available infrastructure, funding, and human resources. Some countries possess relatively strong physical infrastructure but lack the funds to hire and retain staff; others have resources but insufficient trained personnel. Fragmented efforts where ministries, universities, colleges, and partners act independently were identified as a key reason why workforce gaps persist despite numerous initiatives. In response, delegates called for greater collaboration through unifying institutions in workforce planning discussions to ensure that high-level policy translates into practical training programs across the continent.

Rethinking Training Duration, Task-Sharing, and Career Pathways

Panelists' discussion focused on reconciling the urgency of surgical needs with the long duration of traditional training programs, which often last five years or more. One speaker proposed a tiered training approach that prioritizes urgent pathologies and equips technicians or mid-level practitioners to manage high-impact, essential procedures in the short term. These practitioners could later pursue full surgical qualifications as resources and opportunities allow. Such a tiered system could help address immediate service gaps and save lives, while preserving pathways for professional advancement.

Panelists revisited the concepts of task-sharing and task-shifting, noting that these terms are widely used but often poorly defined in policy and practice. Both Prof. Abebe and Dr. Okelo called for clearer frameworks, structured roles, and explicit accountability mechanisms to ensure that task sharing enhances rather than compromises quality and safety. Ethiopia's experience with emergency surgical officers and health officers, and Kenya's mentorship-based support for non-physician anesthetists, were cited as examples of how structured task sharing can work when backed by robust training, supervision, and regulatory support.

Retention was discussed extensively. COSECSA's high retention rates, as well as CANECSA's experience of graduates remaining in Africa, suggest that training delivered locally and embedded in existing health systems helps reduce external migration. At the same time, the presence of unemployed surgeons and anesthetists in some countries, despite documented workforce shortages, points to deeper systemic problems of planning, financing, and civil service frameworks.

Finally, a forward-looking concern was raised regarding the impact of artificial intelligence (AI) on the health workforce. Panelists cautioned that without careful planning and proactive engagement, AI-driven changes could exacerbate professional demotivation, delays in care, and burnout among critically needed professionals such as surgeons, anesthetists, and nurses. This highlighted the





need for anticipatory workforce planning that considers technological change alongside demographic and epidemiological trends.

Conclusion

The panel concluded on a note of cautious optimism and collective resolve. Participants acknowledged that Africa's surgical workforce has evolved from a fragmented, under-recognized component of health systems into a more coordinated, forward-looking movement that increasingly integrates surgery, anaesthesia, and obstetrics into broader discussions of UHC and health system strengthening. Yet substantial challenges remain insufficient and maldistributed workforce numbers, unemployment and underemployment despite shortages, inadequate funding, outdated metrics and curricula, and fragmented governance.

The consensus from panellists and audience alike was that Africa must invest strategically in people, partnerships, and coherent policies. Governments must clearly define priorities, align financing with needs, and take ownership of workforce planning. Universities, colleges, and professional associations must design and deliver training that is responsive to population needs, while regional bodies such as COSECSA, CANECSA, WACS, and Africa CDC must continue to facilitate harmonization, collaboration, and mutual recognition. The session underscored that Africa's potential and promise in surgical care will be realized only through shared responsibility and sustained, multisectoral action to build a workforce that is fit for purpose, contextually grounded, and capable of delivering safe, equitable, and high-quality care to all.

Plenary: Surgical Healthcare in Africa – Policy, Practice and Programs

Moderators

Mrs. Lilian Mwape, Principal Nursing Officer. Ministry of Health of Zambia, PASHeF Executive committee

Dr. Barnabas Alayande, PASHeF Executive Committee and Secretary General, General Surgeon and Chair of the Center of Equity in Global Surgery in UGHE

Country Case Studies: Ethiopia, Rwanda, Nigeria, Sierra Leone

The plenary opened with Mrs. Mwape Lilian, PASHeF Executive Committee, Principal Nursing Officer, Ministry of Health of Zambia, and Dr. Barnabas Alayande, PASHeF Executive Committee and Secretary General, General Surgeon and Chair Of Center of Equity in Global Surgery, welcoming delegates from more than 50 African countries and acknowledging Ethiopia as the host nation. Sr. Lilian recalled that an estimated 76% of Africa's population has historically lacked adequate access to surgical services and that, even today, access remains highly inequitable. Citing current evidence, the introducers noted that more than 95% of Africans still lack access to safe, affordable surgical care and that surgical workforce densities remain extremely low in many settings around 0.5 surgeons and 0.1 anaesthesiologists per 100,000 population in some estimates.

Both speakers stressed that these gaps are not simply clinical or technical problems but reflect deeper systemic issues such as high staff turnover, shortages of appropriate equipment, limited and





poorly distributed infrastructure, and chronic underinvestment in surgery as a core component of health systems. Rapid population growth and shifting disease patterns are further increasing surgical need, widening the gap between demand and current surgical volumes. As a result, they argued, countries must move beyond ad hoc facility-level interventions towards comprehensive reforms spanning national policy, financing, workforce strategy, service delivery, and quality assurance—from ministries of health down to operating theatres in district hospitals.

Dr. Alayande highlighted that 2024/2025 has been a watershed period for surgical planning on the continent. A growing number of countries including Ghana, Sierra Leone, Zambia, Rwanda, Nigeria, Uganda and Botswana have developed or revised National Surgical, Obstetric and Anaesthesia Plans (NSOAPs/NSOANPs), while some have introduced specialized paediatric components. Regional blocs such as SADC are starting to engage with surgical issues, and platforms such as the Pan-African Surgical Healthcare Forum (PASHeF) are emerging as intergovernmental peer-learning mechanisms to identify “what works for Africa specifically.”



Figure 1.3. State of National Surgical Healthcare Current Stats, adopted from PASHeF Secretariat

He cautioned, however, that having a plan on paper is not enough. Successful implementation depends on strong political commitment, integrating NSOAPs into national health strategies, securing sustainable funding, and empowering committed champions within ministries, professional societies, and training institutions. Barriers include limited fiscal space, competing priorities, and weak political conviction in some settings. Dr. Barnabas Alayande also mentioned that many national health policies still lack explicit focus on surgery; as long as surgical care is underrepresented in general health plans, dedicated NSOAPs/NSOANPs remain essential to keep surgery visible on the policy agenda.



Federal Democratic Republic of Ethiopia – Saving Lives Through Surgery (SaLTs I–III)

Presenter: Dr. Elubabor Buno, Neurosurgeon, Federal Ministry of Health, Ethiopia

Dr. Elubabor Buno, Lead Executive Office, Medical Services, Federal Ministry of Health, Federal Democratic Republic of Ethiopia, presented Ethiopia's transformation from highly fragmented surgical services to a coordinated national program through the "Saving Lives Through Surgery" (SaLTs) initiative. Ethiopia, with a population of around 120 million and as Africa's second most populous country, historically had very low surgical volumes relative to the Lancet Commission's benchmarks, long waiting lists up to four to six years for some procedures marked urban–rural inequities, and a critical shortage of surgeons and anaesthetists. Anaesthesia-related mortality was significantly higher than in high-income countries, and maternal and neonatal mortality were high.

He explained that SaLTs was designed to align with World Health Assembly Resolution 68.15, embed surgery into the national health system plan, and reposition surgery from a perceived "luxury" to a vital, cost-effective component of essential health care. The rationale included a high burden of trauma, increasing obstetric emergencies, and a large backlog of treatable surgical conditions. Ethiopia's three-tier system comprises primary hospitals, health centres and health posts, supported by general hospitals at the secondary level and specialized hospitals at the tertiary level. SaLTs aim to ensure timely, safe, affordable SOTA (surgery, obstetrics, trauma and anesthesia) care across this continuum.

SaLTs is organized around eight pillars: leadership and governance; infrastructure; equipment and supplies; human resources; advocacy and partnerships; quality and safety; innovation; and monitoring and evaluation. Under SaLTs I (2016–2020), the Ministry defined an essential package of 44 surgical procedures, integrated Emergency Surgical Officers into the workforce, improved operating room infrastructure and processes, introduced the WHO Surgical Safety Checklist, and embedded SaLTs into hospital plans and national guidelines. A key step was building routine data systems for surgical reporting, addressing a prior lack of reliable information.



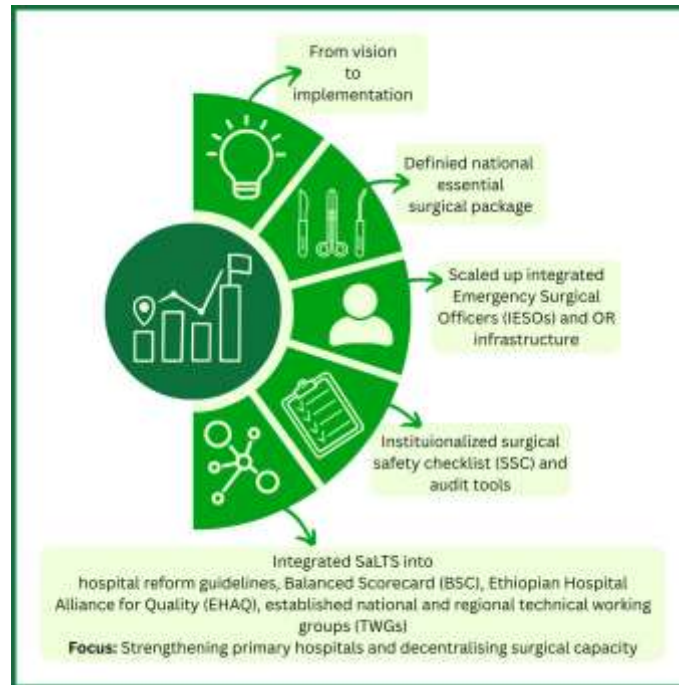


Figure 1.4. Key Activities of SaLTs 2016–2020, Adopted from Ethiopian MOH, Dr Elubabor Buno

These measures increased the number of surgical beds and raised annual surgical volume to nearly 70,000 procedures across 172 facilities, while expanding the specialized workforce. Nevertheless, challenges persisted, including heavy referral burdens, continuing workforce shortages, lack of case management guidelines in many facilities, long operating room turnover times, poor documentation and a high burden of surgical site infections.

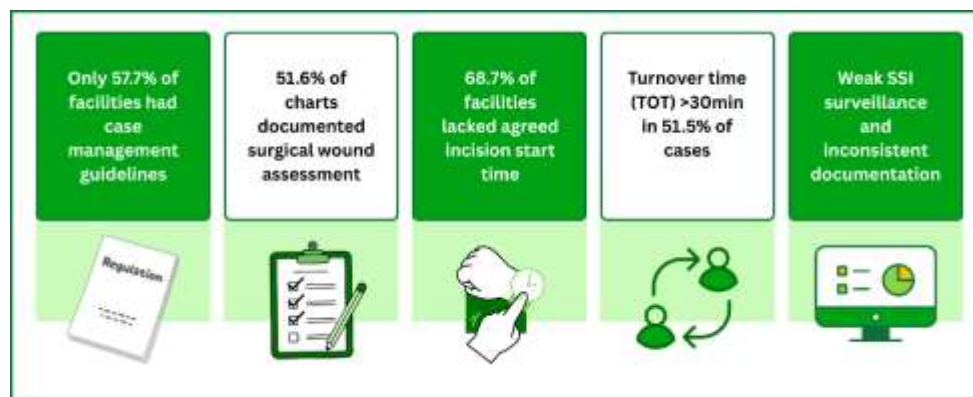


Figure 1.5. Challenges. Adopted from FMOH Ethiopia, Dr Elubabor Buno

SaLTs II (2021–2025) focused on equitable access, improved efficiency and effectiveness, people-centred care and harm reduction. Using the WHO health system building blocks as inputs, it introduced a structured set of intervention and outcome pillars to further scale access and improve



quality. Efforts concentrated on expanding infrastructure and workforce in underserved regions, strengthening clinical governance (for example, perioperative monitoring and morbidity–mortality reviews), reducing surgical backlogs and improving anaesthesia safety. Dr. Elubabor reported notable improvements in clinical outcomes and system performance, though issues around staff shortages, supply chains and referral delays remain.

SaLTs III (2025 onward) now aims to consolidate and scale up gains from SaLTs II, with particular emphasis on strengthening supply chain systems, standardising guidelines, and further extending services to rural populations. Across SaLTs I–III, Ethiopia has seen a dramatic increase in surgical volume: before SaLTs, fewer than 62,000 patients received surgery annually; recent figures indicate more than 455,000 patients are now served each year. Dr. Elubabor concluded by thanking participants for the opportunity to share Ethiopia’s experience that emphasizes on the importance of sustained technical, material and financial support as the key to progress.

Republic of Rwanda – 4x4 Workforce Initiative- A Bold Strategy for Surgical Workforce Development

Presenter: Dr. Menelas Nkeshimana, Head, Health Workforce Development Department, Ministry of Health, Rwanda

Dr. Menelas Nkeshimana is the Head of the Department of Health Workforce Development at Rwanda’s Ministry of Health. He presented Rwanda’s 4x4 workforce initiative as a comprehensive reform to accelerate the development of the health workforce, particularly in surgery, anaesthesia and related disciplines. He anchored the initiative in Rwanda’s post-genocide context: following the 1994 Genocide against the Tutsi, the country lost around 80% of its health workforce and was left with fewer than 10 surgeons. System rebuilding began in 1995, with the first general surgery training program launched in 2005. Subsequently, Rwanda has produced hundreds of surgeons trained in the country.

Despite this impressive recovery, the country still faces serious constraints. Only about 160 surgeons for 14 million people, approximately 46 anesthesiologists and roughly 162 operating theatres. Projections showed that, under a “business as usual” scenario, Rwanda would take 185 years to meet the WHO target of 4.45 health workers per 1,000 population, which was deemed unacceptable.



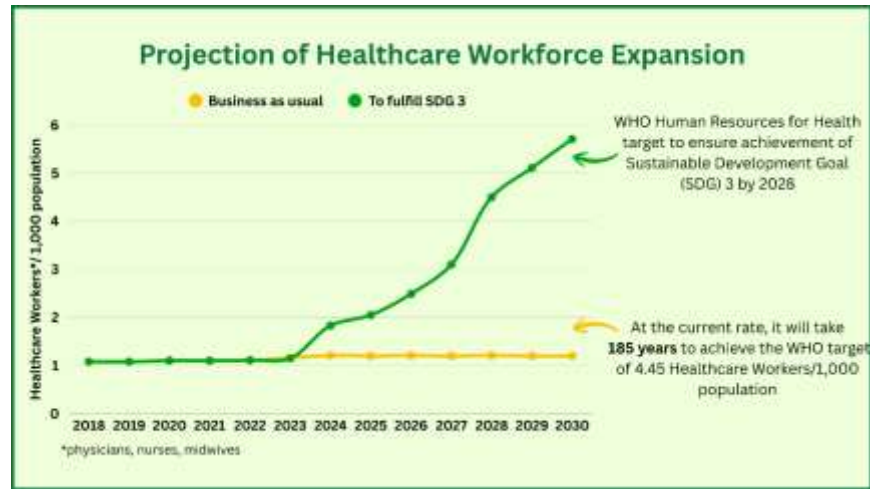


Figure 1.6. Workforce Expansion, “Business as usual” VS “4x4 SDG scenario”, Adopted from Dr Menelas Nkeshiman, Rwanda MOH

The 4x4 initiative is built on four pillars. Pillar one is increasing the quantity and quality of students in priority programs; Pillar two, expanding faculty capacity in targeted disciplines; Pillar three, improving infrastructure at teaching facilities and clinical sites; and Pillar four, enhancing governance through stronger coordination and efficiency. Historically, only 20% of national training slots were filled due to financial and capacity constraints. Through 4x4, this rate rose to 50% by December 2023 and 71% by December 2024. In just two years, 86% of residency programs more than doubled enrolment: obstetrics and gynaecology expanded from 12 to 70 residents, paediatrics from 12 to 34, internal medicine from 14 to 26, and general surgery from 3 to 10. Rwanda now runs 20 residency programs and has increased locally accredited fellowship programs from six to 25, adding new fellowships in adult cardiology, gastroenterology, maternal–fetal medicine and multiple surgical subspecialties.



Figure 1.7. Residency enrolment pre and post 4x4 program, Adopted form Dr Menelas *Nkeshiman*, Rwanda MOH

Dr. Menelas underscored that this expansion is underpinned by strong public–private partnerships formalised through a “synergy MOU” and an inter-ministerial 4x4 Steering Committee, co-chaired by the Ministries of Health and Education, which meets quarterly to align training, licensing, and employment. Rwanda’s broader philosophy is that every surgeon must train and mentor others—multiplying impact by producing several professionals who may eventually become more skilled than their trainers. This culture of humility, mentorship and service has been crucial for sustainability.

He noted ongoing challenges, particularly in anaesthesia, where workforce shortages and tensions between anaesthesiologists and non-physician anaesthetists (NPAs) persist. The government is preparing policy measures to formalise collaboration and clarify roles. NPAs will be legally mandated to manage lower-complexity anaesthesia cases (levels 1–3), while anaesthesiologists will focus on more complex cases (levels 4–5). This division of labour aims to reduce conflict, improve efficiency, and ensure that highly trained specialists are reserved for the most demanding procedures.

Rwanda has also invested in biomedical engineering and expanded residency capacity, which used to be limited to about 22 residents at a time. Through reforms and international partnerships, particularly with institutions such as St. Paul’s and Addis Ababa University, the country now hosts more than 50 surgical residents from abroad, contributing to mutual learning and regional collaboration. Looking ahead, Rwanda plans to continue decentralizing and expanding training opportunities. From January 2026, new residency programs will be launched in hospitals outside Kigali, including in northern Rwanda, to distribute training and services more equitably. Dr. Menelas emphasized that internationalization and regional collaboration should not be confined to capital cities but should reach all regions.



He concluded by stressing the importance of continental collaboration and South–South cooperation in medical training and workforce development, urging African nations to use the continent’s public resources collectively and wisely.

He summarized by suggesting that African’s should Expand partnerships, train together and to utilize our collective research capacity to improve our healthcare through a strong surgical workforce.

Federal Republic of Nigeria: NSOANP II: Progress, Lessons and Way Forward

Presenter: Dr. Vivian Chinelo Okafor, NSOANP Desk Officer, Head of e-Health and Inspectorate Division, Federal Ministry of Health, Nigeria

Dr. Vivial Okafor, NSOANP Desk Officer, Head of e-Health and Inspectorate Division, Federal Ministry of Health presented Nigeria’s transition from its first national surgical plan (often referred to as NSOANP I or ESOP 1, 2019–2023) to the second phase (NSOANP II / ESOP 2), which is awaiting final endorsement. The first national surgical healthcare plan, ESOP 1/NSOANP I, was developed with broad stakeholder engagement, including trainers, professional associations, regulatory bodies and partners at national and sub-national levels. This inclusive approach created strong ownership and alignment. Key achievements included extensive Basic Life Support (BLS) and Paediatric Advanced Life Support (PALS) training that strengthened emergency preparedness and surgical safety initiatives, such as training perioperative nurses and surgical instrument repair technicians. The latter significantly reduced equipment downtime and costs, with repaired instruments performing as effectively as new ones, thereby freeing funds for other priorities.

ESOP 1 also introduced national electronic registries to strengthen data and research capacity, starting with pilots on congenital abnormalities, including cleft and birth defects. Advocacy campaigns often use cleft care as an entry point to raise public and political awareness of surgical needs and help secure additional support. Leadership structures, including national and subnational desk officers, improved coordination, monitoring and accountability.

From these experiences, Dr. Vivian drew several lessons. These include, projects are more sustainable when embedded in national systems rather than heavily reliant on donors. Strong leadership and committed champions at multiple levels are essential; and alignment with national priorities such as the Minister of Health’s four-point agenda on governance, population health outcomes, the health value chain and health security helps secure political backing and continuity across administrations.





Figure 1.6. Lessons Learned from Nigeria's first NSOAP, Adopted from Dr Vivian Okofar, Nigeria Federal Ministry of Health.

NSOANP II / ESOP 2 was developed on the basis of a situational analysis using the WHO Hospital Assessment Tool. The assessment indicated that, despite progress, significant gaps remain in infrastructure, workforce, data systems, quality, and community engagement. The new plan, conceived as a five-year roadmap with detailed annual targets, is designed to strengthen emergency and critical care systems, improve community inclusion and contribute to halving premature mortality through stronger surgical systems.

Strategic priorities include scaling up service delivery by consolidating NSOANP I activities, expanding surgical infrastructure (especially integrated Maternal and Child Centers within existing hospitals), strengthening district and general hospitals to deliver bellwether and essential paediatric procedures, and building stronger referral networks. Quality and safety measures focus on universal use of the surgical safety checklist, regular morbidity and mortality meetings, perioperative mortality tracking, infection prevention and control, and the routine use of tools such as pulse oximetry.

In health information, research, and metrics, NSOANP II seeks to harmonize health information systems to create a single “source of truth” for surgical data, expand electronic registries (including a national birth defects registry) and fund locally relevant surgical research. Workforce priorities include training surgical, anaesthesia, obstetric, and nursing providers for general hospitals and expanding training for perioperative nurses, nurse anaesthetists and instrument repair technicians. Financing strategies involve scaling up surgical benefit packages under health insurance, ensuring anaesthesia and critical care are covered, and securing budget allocations at all levels of government. Governance and leadership priorities include leveraging NSOANP structures built under the first plan and tracking the performance of desk officers at state and institutional levels. A dedicated focus on children’s surgery will train providers in paediatric surgery at district and general hospitals and expand Trauma Resuscitation in Kids (TRIK) training.

Dr. Okafor emphasized that ESOP 2 / NSOANP II marks a shift from foundation-building to integrated, scaled, and sustainable implementation, grounded in evidence and aligned with national development agendas.

Republic of Sierra Leone – Surgical Healthcare Planning Progress Report

Presenter: Dr. Mustapha Kabba, Deputy Chief Medical Officer, Ministry of Health and Sanitation, Republic of Sierra Leone

Dr. Mustapha Kabba, Deputy Chief Medical Officer, Ministry of Health and Sanitation, Republic of Sierra Leone presented on the country's progress in planning and launching its first full National Surgical, Obstetric and Anaesthesia Plan (NSOAP) for 2026–2030. He began by outlining the country's surgical care realities. He mentioned that Sierra Leone's 89.9% of surgical needs are unmet, and one in four Sierra Leoneans has a condition requiring surgical consultation. Accessing surgery carries an 84.7% risk of catastrophic health expenditure, and the caesarean section rate, an important proxy for access to emergency obstetric care, is just 5.3%, contributing to a very high maternal mortality ratio.

He noted that between 2015 and 2030, projected GDP losses due to inadequate access to surgical care are estimated at between USD 4.6 and 6 billion. Thus, neglecting surgery is not only a health crisis but an economic one. Sierra Leone's policy journey began with the adoption of WHO Resolution 68.15 in 2015 and a national declaration in 2016. A one-year NSOAP was developed in 2018, but momentum slowed until renewed leadership in 2024 reignited the process and led to the validation and launch of the NSOAP 2026–2030 on 31 October 2025.



Figure 1.9. Sierra Leone's NSOAP Development Process. Adopted from Dr Mustapha Kabba. Sierra Leone, Ministry of health and sanitation.

The NSOAP is aligned with the National Health Sector Strategic Plan and the National Hospital Strategy, ensuring that surgical planning is integrated into broader health system reforms. The plan was developed locally, with technical input from national experts and international partners, including WHO and global surgery leaders. Its official launch, led by the Minister of Health and partners, signalled strong political commitment and a shared vision of “safe, timely and affordable surgical care” for all.

Dr. Mustapha Kabba explained that the NSOAP is structured around eight strategic pillars. These include workforce excellence, service delivery, infrastructure, supply chain, information management, sustainable financing, community engagement and ownership, and governance. Workforce excellence addresses a specialist density of around 1.5 per 100,000 by expanding residency training in surgery, anaesthesiology, obstetrics/gynecology and pediatrics, as well as specialized nursing (for example, in critical care, burns and wound management). Resident numbers have increased from 10–15 in 2020 to 117 in 2024, with the plan emphasising retention and equitable deployment across regions.



Figure 1.10. Strategic Pillars for Sierra Leone's NSOAP. Adopted from Dr Mustapha Kabba, Sierra Leone Minister of Health and sanitation.

Service delivery aims to increase surgical volume from about 400,000 to 500,000 procedures annually and move towards a target of 1,000 procedures per 100,000 population, using structured task-shifting and task-sharing where appropriate. Infrastructure goals focus on ensuring that all operating theatres meet WHO safety and sterilization standards. The supply chain pillar seeks to create a data-driven system to ensure reliable procurement and accountability for drugs, consumables and anaesthetic agents.

Information management efforts are focused on integrating surgical indicators into the national DHIS2 platform, which currently does not fully capture surgical data, and using these data for decision-making and monitoring. Sustainable financing is acknowledged as a major challenge: surgical care is inherently costly, but failing to invest generates greater long-term economic losses.



The plan, therefore, emphasizes homegrown financing solutions through domestic revenue and insurance schemes, aiming to reduce dependence on external donors. Community engagement strategies seek to correct myths and misconceptions about surgery and promote public education and community ownership of surgical reforms.

Implementation will be overseen by a Ministry of Health Technical Working Group, with plans for district-level dissemination, resource mobilization, pilot hospital programmes and strong accountability frameworks. Looking forward, priorities include scaling up technology and innovation, expanding training and retention, establishing centers of excellence for surgical care and deepening South–South collaboration within Africa. Dr. Mustapha Kabba stressed that the NSOAP launch should be seen as the beginning, not the end, of Sierra Leone’s journey towards a stronger, safer and more equitable surgical system.

Breakout sessions Day 1

Breakout Session A: Training and Retention Strategies: The future of African Collegiate-Led Training Models

Moderators: Prof. Emmanuel Ameh, Dr. Stephen Okelo

Question 1: What innovative models or partnerships are showing promise for scaling training capacity in Africa?

Participants highlighted a range of models demonstrating promise for scaling surgical training across the continent, with a strong emphasis on collaboration and local ownership. National postgraduate colleges were cited as foundational, with examples such as the Liberia College of Physicians & Surgeons, established in 2013, which now trains surgeons, anesthesiologists, ophthalmologists and radiologists locally, thereby reducing dependence on overseas training. Similarly, the South Sudan College of Physicians & Surgeons now trains surgeons and obstetrician–gynecologists in-country, building on earlier ministry-led initiatives that placed trainees in Kenya, Ethiopia, Uganda and Tanzania. Sudan’s college model for general practitioners, which equips GPs with basic emergency surgical skills to reduce maternal deaths, was also discussed, although delegates noted the risks when practitioners step beyond their scope and perform complex surgeries without adequate preparation.

Regional colleges and harmonized platforms were presented as powerful mechanisms for scaling quality training. The regional colleges COSECSA and WACS were widely praised for standardizing curricula and examinations across multiple countries, facilitating portable qualifications and helping to retain specialists within Africa. In the francophone bloc, countries including Mali, Guinea, Chad, Togo, Niger, Benin, Burkina Faso, and Côte d'Ivoire use a harmonised general surgery curriculum that allows trainees to complete their five-year program across different countries while maintaining regional recognition of their license. This approach maximizes shared teaching capacity and creates a larger, interconnected training ecosystem.

Task-sharing and task-shifting partnerships featured prominently in the discussion. In Sierra Leone, the Capa care program trains community health officers in a defined set of procedures such as caesarean sections, basic laparotomies, ileostomies, and obstructed hernia repairs to extend





essential surgical services into remote areas. This has significantly increased surgical volumes in public hospitals but has also highlighted the need for clear regulatory frameworks, strong supervision and career transition pathways as workforce composition evolves. Mozambique's experience with nurses functioning as non-physician surgeons in rural areas underlined similar tensions. While this model improved access to caesarean sections and other bellwether procedures, it generated complications and legal issues when some providers attempted operations outside their trained scope. Mozambique is therefore pivoting towards training general practitioners in essential surgery to maintain access while better aligning with legal and safety standards. Zambia's long-standing task-sharing in anaesthesia, dominated by non-physician providers, was used to rebut assumptions that non-physician cadres are inherently unsafe, with the caveat that outcomes remain acceptable only when tasks are kept within well-defined competencies and supported by strong teams and supervision.

Decentralized and community-proximate training models were also highlighted. Rwanda, under its 4x4 workforce initiative, has expanded specialty training programs and is now designating Level II teaching hospitals outside Kigali as new training sites, enabling trainees to learn where needs are greatest and reducing the concentration of training in the capital. Delegates from Côte d'Ivoire and Mauritania similarly argued for decentralization policies that establish regional specialty centers and rural training hubs, combined with mentoring arrangements to support doctors performing essential surgeries in non-urban settings. Mali's experience, where hospitals recruit general practitioners and nurses from local communities and train them on site in surgical and anesthesia roles, was mentioned as a proven effective model at retaining staff in remote regions, although sustainability is threatened as external funding retreats.

Finally, university and international collaborations were described as critical enablers. South Sudan's partnerships with the University of Nairobi, the University of Mbarara, and others have been used to update national curricula and build lecturer and tutor capacity, which is essential for sustainable local training and mentorship. Rwanda's collaborations with institutions such as St Paul's and Addis Ababa University have similarly allowed it to host more than 50 foreign surgical residents, strengthening South-South learning and regional solidarity. Overall, the responses underscored that training capacity scales most effectively when it is delivered close to where providers live and work, supported by shared curricula, regional colleges, structured task-sharing, and strong cross-border academic partnerships.

Question 2: What incentives and career pathways have proven most effective in retaining surgical professionals, especially in rural or underserved areas?

In discussing retention, participants emphasised that professionals remain where they feel supported, valued and connected, not only where they earn the highest salaries. Financial and practice-based incentives were identified as part of the solution. In Zimbabwe, surgeons in public hospitals are allowed a regulated window of private practice within government facilities, including dedicated theatre time; this arrangement has improved willingness to serve in provincial hospitals. Targeted salary supplements for remote postings have had some effect but have not fully countered the long-term pull of urban centres and the private sector. Sierra Leone has introduced one year of compulsory rural service for all new doctors, coupled with provision of hospital accommodation and





transport support for those posted outside the capital, both to ensure exposure to rural practice and to ease the logistical burdens that often deter deployment.

Non-financial and contextual incentives were described as equally important. Rwanda has framed rural service partly as an ethical obligation, encouraging doctors to “give back” to their communities and embedding service values into professional identity. The government complements this with practical supports, including appropriate equipment, reasonable working environments, housing, meals and transport for rural staff. Delegates stressed that decentralization cannot be limited to moving clinicians alone; families must also be supported through schools, housing and basic amenities if specialists are to remain in non-urban posts. Across several countries, placing training hospitals and residency programmes in rural or regional locations has helped trainees build roots and familiarity with underserved areas, while targeted recruitment of trainees from rural backgrounds has increased the likelihood that they will return to and remain in those communities.

Career pathways for both physicians and non-physician cadres were also recognised as crucial for retention. In Sierra Leone, there is interest in developing structured transitions for community health officers and other mid-level providers into more advanced roles, including full medical training, so that their contributions remain relevant as the workforce evolves. Zambia’s delegates highlighted that non-physician providers such as nurse anaesthetists and clinical officers carry most of the peri-operative workload in many settings; they argued that these cadres require clear career structures, formal recognition, and integration into multidisciplinary teams, rather than being treated as temporary solutions. Collectively, the responses suggested that durable retention strategies combine targeted financial incentives, supportive living and working conditions, strong professional identity, and well-defined, long-term career trajectories.

Question 3: How can governments and academia collaborate to harmonize curricula and accreditation systems across regions?

On harmonization, participants agreed that progress must be phased and realistic, beginning with national alignment before moving towards regional agreements. Zimbabwe stressed the importance of first harmonizing curricula within a country so that all domestic training institutions meet a consistent standard. Only then, delegates argued, can countries fully benefit from regional mutual recognition and integration. Sudan’s experience showed how changes in leadership and ownership of postgraduate programs can derail harmonization efforts, underlining the need for stable governance and clear lines of authority for training institutions.

Regional frameworks were nonetheless viewed as critical. South Sudan described how, in the early phases of system rebuilding, the government sent trainees to Ethiopia, Tanzania, Uganda and Kenya to train under existing regional programmes, thereby rapidly increasing the number of general surgeons, obstetricians, gynaecologists and other specialists. Building on this foundation, South Sudan is now establishing its own college for obstetrics and gynaecology and plans to launch midwifery, anaesthesia, and general surgery programmes, all while continuing to collaborate with regional universities to update curricula and build lecturer capacity. Delegates from Mali and other francophone countries explained how a harmonized regional curriculum for general surgery allows trainees to rotate across multiple countries during their five-year programme and practise anywhere





in the bloc after qualification, creating a flexible and mobile workforce within a common regulatory framework.

Participants highlighted the important role of regional colleges and councils such as COSECSA, WACS, and ECSACOG in aligning core competencies, examinations, and licensing standards. They suggested focusing harmonisation efforts on defining shared competency frameworks and establishing mutual recognition of accredited training institutions, rather than attempting to impose a single, uniform system. A practical proposal was to use PASHeF, operating under the auspices of the African Union, as a continent-level forum to bring together ministries of health, education and finance with regional colleges, universities and regulatory bodies. Such a platform could help map the competencies that different countries require, clarify the types of surgeons, anaesthetists and other professionals African systems aim to produce, and design a phased pathway towards harmonised curricula, accreditation standards and cross-border practice rights.

Question 4: How can governments collaborate with academic institutions and professional associations to institutionalize mentorship and CPD programs that ensure sustained professional growth?

Delegates from Sierra Leone and Mozambique emphasized that task-sharing models, such as training community health officers or nurses to perform essential surgeries, can remain safe only if they are anchored in strong supervision structures and regular skills reviews. Without formal mentorship and ongoing CPD, non-physician providers are at risk of gradually expanding their scope beyond their training, with potential consequences for patient safety and medico-legal exposure. In this sense, institutionalized mentorship and CPD are not optional add-ons but core safeguards within any task-sharing strategy.

South Sudan's experience with university partnerships illustrated how governments and academia can collaborate to build such capacity. By working with universities like Nairobi and Mbarara, South Sudan has increased the number and quality of local faculty, which in turn enhances the country's ability to provide sustained mentorship to trainees and practising clinicians. More broadly, several participants noted that informal mentorship already occurs through regional college networks, visiting faculty and clinical rotations, but remains under-recognised and under-resourced. The key challenge is to formalise these mentorship ecosystems through policies and agreements that allocate protected time, funding and recognition for trainers, link CPD requirements to licensure and promotion, and clearly define the respective roles of ministries, universities and professional associations in sustaining professional development over the course of a career.

Question 5: In what ways can evidence on workforce densities be leveraged to align national planning, training investments, and equitable deployment strategies?

Feedback for this segment of the discussion stressed on the importance of detailed workforce data for planning. South Sudan delegates mentioned that national doctor-to-population ratios can be misleading, as they can mask severe maldistribution. Many providers cluster in urban centres while rural and peripheral areas remain acutely underserved. Mozambique and Sierra Leone representatives noted that task-shifting policies must be dynamic and responsive to changing workforce realities and legal contexts. As more physicians and specialists are trained, countries will





need to revisit which tasks are assigned to non-physician cadres and ensure that laws, regulations and training programmes are updated accordingly.

Zambia's delegates argued that workforce planning must systematically account for non-physician providers, such as nurse anaesthetists and clinical officers, who deliver much of the anaesthesia and essential surgical care in many systems. Limiting metrics to surgeons and anaesthesiologists alone underestimates true capacity and can misdirect investments. The planning implication drawn from these discussions is that workforce density data used for national strategies should include all cadres performing surgical and anaesthesia tasks, be disaggregated by region to reveal rural–urban disparities, and directly inform decisions about where to locate new training sites, how many trainees to admit in each cadre, and where funded posts should be created. In other words, countries need a realistic, geographically detailed map of “who is doing what, and where” to align training investments, deployment strategies, and regulatory reforms with actual service needs.

Breakout Session B: Gender Equity and the African Surgical Workforce

Moderators:

Dr. Joao Rufino Lopes Jandy: Assistant professor of gynecology and obstetrics, consultant at Simão Mendes National Hospital, Guinea-Bissau. PASHeF executive committee member

Ms. Lilian Mwape, Principal Nursing Officer, National Heart Hospital, President of Perioperative Nurses Association of Lusaka, Zambia

The session explored the current landscape of gender representation in Africa's surgical workforce, the barriers limiting women's participation, and concrete strategies to enhance inclusion, leadership, and equity. Speakers and participants drew on personal experiences, national initiatives, and regional policy perspectives.

1. With female surgeons forming less than 10% of the workforce, what concrete steps can institutions take to remove systemic and structural barriers that limit women's participation in surgery?

The discussion began with an overview of the gender gap. Women account for only about 7–9% of the surgical workforce across Africa, and in Rwanda, the female-to-male ratio is roughly 1 to 15.5 (about 1.15% female). Specialty breakdowns show women representing around 22% of general surgeons, 18% of plastic surgeons, 15% of vascular surgeons, and 10% of neurosurgeons, in stark contrast to obstetrics and gynecology, where women make up roughly 87% of the workforce. Participants agreed that surgery remains an environment that is often inhospitable to women, with barriers that extend well beyond technical skill.

Speakers described a range of structural obstacles, illustrating how women's physical attributes are sometimes used to cast doubt on their suitability. Sociocultural norms frequently assign primary domestic and caregiving responsibilities to women, making long and unpredictable surgical hours particularly difficult. Some communities do not allow male obstetricians to care for women, which





paradoxically both pushes women toward OB/GYN and reinforces restrictive gender roles. Many institutions lack adequate maternity leave, childcare options, and flexible scheduling for residents and early-career surgeons. In some settings, female doctors are routinely mistaken for nurses, undermining their authority and professional identity. Gender stereotypes portraying surgery as “too physically demanding” or “not for women” further deter applicants.

Concrete institutional steps proposed included: revising residency structures to incorporate family-friendly policies, such as protected maternity leave, reasonable call schedules, and access to childcare, ensuring that entry criteria and examinations do not inadvertently penalize women. This can be done, for example, by considering special exam settings or flexibility around pregnancy and early childcare periods and addressing overt and subtle discrimination in recruitment and assessment. Several participants argued for affirmative measures in training selection to counter entrenched biases ranging from additional points for female applicants (as used in Uganda’s university admissions) to explicit gender-sensitive admissions policies in surgical programs. There was also a call to change organizational culture so that sexist comments, harassment, and microaggressions are recognized and addressed, and so that women are not treated as exceptions but as surgeons in their own right.

Overall, the group agreed that institutions must move beyond symbolic statements to implement tangible, enforceable policies that directly tackle work–life balance constraints, discriminatory attitudes, and the lack of structural support that continues to drive women away from surgical careers.

2. How can governments and institutions implement mentorship, role modelling, and scholarship programs to actively increase women entering surgical specialties?

Participants emphasised that mentorship, visible role models, and targeted scholarships are essential to drawing more women into surgical specialties and supporting them through training. Several female surgeons shared how rarely they saw women in senior surgical roles when they were students, making it difficult to imagine themselves in those positions. For example, Dr. Mariam Joof, an orthopaedic surgeon from Gambia and a PASHeF representative, described the loneliness of being one of the very few women in her field, the pressure of long hours, and the absence of institutional support for issues like fertility and family planning. She stressed that seeing women successfully navigate these challenges and having direct access to them as mentors can be transformative for younger trainees.

Speakers recommended formal mentorship programmes designed with gender in mind. These would pair aspiring female surgeons with established women surgeons (and supportive male allies) who can guide career decisions, navigating bias, negotiating workloads, and balancing personal and professional responsibilities. Participants proposed that ministries of health, universities, and surgical colleges jointly sponsor such programmes, ensuring protected time for mentors and structured follow-up rather than relying solely on informal relationships. Early pipeline interventions, such as school-based mentorship, career talks in secondary schools, and undergraduate exposure to theatre and surgical teams, were highlighted as ways to inspire girls and young women to consider surgery before societal norms close off those options.





Scholarships and financial support were also seen as critical. Several speakers described how economic barriers disproportionately affect women, especially those from rural or disadvantaged backgrounds. Targeted scholarship schemes for women in surgical training funded by governments, professional associations or partners could help reduce dropout due to financial stress. Participants also called for integrating role modelling and mentorship into policy frameworks, for example, by making mentorship structures a criterion in accreditation of surgical training programmes and by recognising mentorship contributions in promotion criteria for faculty.

Taken together, the discussion stressed that mentorship and role modelling should not be optional extras but core components of national and institutional strategies to increase women's entry into and success within surgical specialties.

3. What policies or institutional mandates can guarantee equitable recruitment, promotion, and leadership opportunities for women in surgical careers?

Policy and institutional reform were identified as central to achieving gender equity across the surgical career pathway from entry, through progression, to leadership. Participants agreed that gender equity should be elevated to a national and institutional priority, not treated as a peripheral “women’s issue.” Dr. Hassen Ali Daoud, representative for Somalia at WHO and PASHeF policy to practice fellow from Somalia, noted that gender equity is featured in Somalia’s national agenda, with efforts aimed at improving female retention and participation in higher education. He argued that, rather than relying solely on quotas, systems should focus on reducing dropout and ensuring fair competition, so that capable women can succeed on merit in an enabling environment.

Specific policy options discussed included gender-sensitive recruitment policies that explicitly counter unconscious bias; transparent promotion criteria that value contributions often made by women but undervalued in traditional metrics (such as mentoring, teaching, and service in underserved areas); and ensuring that all promotion and leadership selection processes are monitored for gender balance. Some participants advocated for quotas or minimum targets for female representation in training programmes, committees, and leadership roles as a transitional measure to correct historical imbalances. Others emphasised the importance of equitable pay and benefits, noting that women are sometimes channelled into lower-paid subspecialties or face slower promotion, even with similar qualifications.

Institutionally, participants argued that women should not be labelled as “female surgeons” but simply as surgeons, with equal access to high-profile cases, research opportunities and leadership tracks. Policies should require that selection panels and examination boards themselves be gender-balanced and trained in bias recognition. Speakers drew parallels with reforms in South Africa, where broader labour policies such as equal paternity leave are already in place, and questioned why surgical training structures lag in offering inclusive conditions. The consensus was that formal mandates embedded in hospital bylaws, college regulations, and ministry policies are necessary to guarantee equitable recruitment, promotion, and leadership, rather than leaving progress to individual goodwill.

4. How can existing leadership structures be engaged to drive measurable progress toward gender equity in surgery?





The session underscored that meaningful change requires the active engagement of current leadership structures, including hospital directors, department heads, deans, professional associations, and political leaders. Dr. Relebohile Ncha, Chief Director of Hospitals and Tertiary Health Services from South Africa argued that placing more women in leadership and political positions is itself a powerful lever for change, as leaders who have personally experienced gender barriers are often more motivated to reform systems. However, she and others stressed that male leaders also have a crucial role to play and must be brought on board as genuine partners in advancing gender equity.

Participants suggested several ways to engage existing leaders. First, gender equity goals should be explicitly integrated into institutional and national strategic plans, with clearly defined targets and timelines. Leadership teams should be held accountable for progress, for example, through performance evaluations that include gender equity indicators or through public reporting of gender-disaggregated data. Second, community and religious leaders can be influential in shifting societal attitudes. In some contexts, as Dr. Hassen Ali Daoud illustrated with the comment “Go call the real surgeon” when a woman appears, entrenched cultural norms still question women’s legitimacy as surgeons. Engaging these leaders to publicly endorse women in surgery can help change community perceptions.

Third, participants emphasized the need to address workplace culture at the leadership level. Department heads and senior surgeons set norms around work hours, expectations of constant availability, tolerance of harassment, and recognition of family responsibilities. Leaders must champion policies that support work–life balance for all staff and challenge sexist or dismissive behavior. Participants also highlighted that men in leadership positions should reflect on their own attitudes, including assumptions that women “demand rights” rather than “request support.” Several participants cautioned that framing women’s advocacy as confrontational can itself be a barrier, and that leadership training should include gender awareness and inclusive management skills.

Finally, participants called for leadership structures within PASHeF and regional colleges to model gender-inclusive governance by ensuring female representation on boards, committees, and panels, and by using their convening power to disseminate good practices and set continental norms for gender equity in surgery.

5. What gender-disaggregated metrics should be collected and reported to monitor progress, hold institutions accountable, and guide policy decisions?

Speakers agreed that strong, gender-disaggregated data are essential to move from anecdote to evidence-based policy. Dr. Hassan Ali Daoud posed the following questions to point to the lack of data. He asked if the number of women in surgery is increasing and if dropout rates changing? Without systematic data, he stated, it is difficult to know whether interventions are working or to convince policymakers of the scale and nature of the problem. Participants called for routine collection and publication of gender-disaggregated metrics at institutional, national, and regional levels.





Suggested indicators included, the proportion of female applicants, entrants, and graduates in medical schools and surgical training programs; the percentage of women in different surgical specialties and subspecialties; and attrition rates during training, including reasons for leaving (e.g., family pressures, discrimination, financial constraints). At the career level, data should track the share of women in faculty positions, senior consultant roles, leadership posts (e.g., heads of department, deans, college council members), and on key committees and examination boards. Pay equity metrics comparing salaries, allowances, and promotion speeds between male and female surgeons were also recommended.

Participants additionally suggested measuring the availability and uptake of family-friendly policies (such as maternity/paternity leave, flexible schedules, and childcare support) by gender, as well as documenting experiences of harassment or discrimination through anonymous reporting systems. At the community level, periodic surveys could assess public perceptions of women in surgery to gauge changes in societal attitudes over time. These data would enable institutions and governments to set baselines, define realistic targets, and monitor progress, while enabling civil society and professional bodies to hold institutions accountable for commitments to gender equity.

In closing, the session emphasized that achieving gender equity in surgery will require a comprehensive, policy-driven, and data-informed approach, combining removal of structural barriers, investment in mentorship and role models, reform of recruitment and promotion systems, leadership engagement, and continuous monitoring through gender-disaggregated metrics. In summary, women are not asking for special treatment but for “a conducive environment where we are treated as doctors and surgeons, not exceptions.”

Breakout Session C: Public–Private Partnerships in Surgical Workforce Development

Moderators:

Mrs. Nkeiruka Obi: Vice President and Regional Director for Africa at Smile Train, Member of PASHeF Executive Committee

Prof. Faustin Ntirenganya: Plastic, Reconstructive and Breast Surgeon, Chair, Department of surgery, University of Rwanda and Member of the PASHeF executive committee

Africa faces severe surgical workforce gaps, too few providers, maldistribution, and limited training capacity against a rising burden of non-communicable diseases and injuries. This breakout session examined how public–private partnerships (PPPs) can help close these gaps through training, financing, and shared service delivery.

1. What are the most critical gaps in the surgical workforce in our countries (e.g., numbers, skills, distribution), and how can private sector collaboration rapidly address these gaps?

Participants from multiple countries described shortages in numbers, skills, and geographic distribution of the surgical workforce, with anaesthesia and subspecialties particularly constrained. From Kenya, Dr Victoria Simiyu, Consultant anaesthesiologist and PASHeF policy to practice fellow, noted that anaesthesia practitioners remain well below global benchmarks. Referring to a density of around 0.4 per 100,000 compared to a target of 4–5. In light of this persistent shortage of workforce,





Kenya has used private sector support to develop MMed and MA anaesthesia programmes, with private entities sponsoring trainees and funding non-physician anaesthetist training, which has allowed more graduates to enter the system and strengthened teaching capacity.

Dr Simukayi Percy Machawira, Parirenyatwa Hospital, Ministry of Health and Child Care representative, shared Zimbabwe's cardiothoracic perspective and illustrated extreme subspecialty scarcity. Dr Simukayi mentioned that only five cardiothoracic surgeons serve a population of millions, with approximately one open-heart surgery per week at a single centre, despite the need for at least three cases weekly. The private sector and NGOs partially fill the gap by sponsoring cardiac surgeries and donating technology such as heart-lung (bypass) machines. However, sustainable progress requires training more surgeons, perfusionists, and allied staff, and cannot rely solely on intermittent donations. A multidisciplinary approach with government providing predictable budget support and the private sector contributing resources and expertise was noted as necessity.

Small island states and low-density settings highlighted specific constraints. Dr Danielson Pereira Barreto Veiga and Dr Murtala Mohamed Pires Queita, Cape Verde representatives from the Ministry of health described a context where most health institutions are public, with many small private clinics and few private hospitals. Only a handful of surgeons serve multiple islands, forcing surgeons to travel between up to ten islands to provide services. While the government is exploring PPPs, the delegates expressed concern that pushing too aggressively without clear frameworks could have unintended consequences. They called for reforms that create space and incentives for private sector engagement without undermining public service and stressed the need for public institutions to view the private sector as a partner rather than a competitor.

Dr Leslie Cravid Neto an orthopaedic surgeon and PASHeF delegate from São Tomé and Príncipe, explained that there are only two orthopaedic surgeons for the entire population, creating a heavy workload and long waits. All services are provided free in the public sector, but without reimbursement mechanisms, this model threatens financial sustainability. Health workers often pay out of pocket for training and skills updates, highlighting the lack of funding for professional development. Prof. Adenge Togo, a PASHeF delegate from Mali, provided a context in which limited workforce numbers and maldistribution are compounded by weak PPP structures. Prof Togo noted that developing effective PPPs requires clear regulations, guidance, and mutual understanding between sectors. He mentioned that often, private providers are not fully aware of PPP mechanisms, leading to misalignment and mistrust.

Dr Samuel Gondje from the Central African Republic reported poorly organized private clinic sectors and low workforce numbers pose integration challenges. He mentioned efforts from ministries of health to map private providers and lobby them to align more closely with national priorities will help tackle this challenge effectively. Participants suggested that PPPs could accelerate workforce expansion by using private facilities as training sites, sponsoring scholarships, and co-funding local and regional training programs, provided these activities are underpinned by strong regulatory and quality assurance frameworks.





Overall, the session concluded that the most critical gaps are shortages in specialist cadres that are compounded by extreme maldistribution favouring urban centres, and insufficient training capacity. Private sector collaboration can rapidly help by co-financing training, providing infrastructure and technology, and partnering as accredited training centres. Such collaboration needs roles, expectations, and accountability mechanisms to be clearly defined to avoid potential malpractice and misalignment.

2. What policies or regulations need to be adapted or created to encourage PPP-driven training programs for surgical workforce development and address issues such as quality and accreditation?

Participants agreed that effective PPPs in surgical training require clear, predictable policy and regulatory frameworks. It was emphasised that while the private sector is typically profit-oriented and the public sector is mandated to serve vulnerable populations, both can collaborate if the government articulates a coherent vision for human resources and establishes rules that align incentives. At present, regulatory frameworks for working with private providers are often unclear or fragmented, deterring long-term investment in training.

Key regulatory needs identified included formal PPP policies that set out roles and responsibilities of each party; accreditation standards that allow private hospitals and clinics to serve as recognised training centres in partnership with government and professional colleges; and data-sharing requirements that oblige private providers to report training outputs and service statistics to national health information systems. Ghana's experience, presented by Ernest AGYEI-TUFFOUR, Ministry of Health representative, illustrated how a ministry can take the lead by mapping human resource needs, identifying gaps, and then designing PPP arrangements that incentivise private sector participation. In Ghana, several PPPs are already in place, with private hospitals co-training surgeons and sponsoring the costs of training for selected health workers.

Dr John Mark Kasumba, a delegate from Uganda's Ministry of Health, shared his country's private sector perspective. He argued that PPP policies must acknowledge the legitimate need for private providers to earn a profit, while ensuring that public health goals are met. This means creating regulatory frameworks that allow private partners to recoup investments (for example, through contracts to provide training or subsidized services) without compromising quality or equity. He reiterated the importance of quality assurance and accreditation, governments and colleges must set and enforce minimum standards for curricula, supervision, case exposure, and examinations, regardless of whether training happens in public or private institutions.

Participants stressed the need to educate private stakeholders about existing and new PPP mechanisms so that they can engage constructively. They also advocated for shared data platforms to improve transparency and joint planning. Overall, the consensus was that PPP-driven training will only flourish if underpinned by transparent, enforceable regulations that protect patients, ensure quality and make collaboration attractive for private partners.

3. How can PPPs support retention and incentive structures for trained surgical staff and ensure equitable deployment across regions?





On retention and deployment, participants noted that without thoughtful design, PPPs can exacerbate brain drain from the public sector, as better-resourced private facilities attract scarce specialists. From Uganda, Dr John Mark Kasumba argued for formal dual practice policies that acknowledge the reality that many specialists work in both sectors. Such policies should clearly define time allocations between public and private work, include auditing mechanisms to ensure fairness, and protect public service delivery. When private entities fund specialist training but then retain graduates exclusively in private practice, the public sector's capacity may stagnate or decline, especially in rural and low-income areas.

Participants suggested that PPPs can be used to structure incentives and rotations that favour equitable deployment. For example, governments and private partners could negotiate agreements where specialists spend a fixed proportion of their time (e.g., “three days urban, two days rural”) serving public facilities in underserved regions, with the private sector and government jointly compensating them. Delegates stressed on the potential of PPPs to support decentralisation of infrastructure and services, enabling high-quality surgical care in district hospitals through shared facilities, equipment and staffing.

Dr Delia Chimwemwe Mabedi, an anesthesiologist and Ministry of Health representative from Malawi, highlighted that PPPs can strengthen retention by improving infrastructure in rural areas, such as equipping operating theatres and recovery areas, so that professionals are more willing to work outside capital cities. Shared resource arrangements between public and private providers can help support free public services while ensuring that staff have acceptable working conditions. Participants expressed concern that if PPPs focus narrowly on urban, high-income markets, they risk deepening regional inequities.

4. What equitable financing models (e.g., cost-sharing, matching grants, results-based funding) can make PPPs sustainable?

Financing emerged as a central theme, with participants emphasising the need for trust, transparency, and shared risk. It was noted that if a private provider invests in expensive surgical equipment, there must be a mechanism for the public sector to utilise that capacity fairly, especially when long waiting lists exist in public hospitals. PPPs could be structured so that patients on public waiting lists receive surgery in private facilities at negotiated, affordable prices, with the government covering part of the cost through subsidies or insurance schemes.

Equitable financing models discussed included: cost-sharing arrangements, where government and private partners jointly fund training programs, infrastructure and equipment; matching grants, where public funds match private investments in designated priority areas (such as anesthesia or rural theatres); and results-based funding, where payments are linked to agreed outputs (e.g., number of trainees completed, number of surgeries performed for public patients, or improved outcomes in underserved regions). According to the Ghana Minister of Health delegate, Erenest, Ghana's experience provided a reference point in which the country is decentralizing training and deploying e-health technologies for training and service, within a framework of deliberate government PPP policy that delineates roles and responsibilities.





Dr Simba Kaja, an orthopedic surgeon from Zambia and a PASHeF Policy to Practice Fellow, stressed the importance of transparent pricing. He mentioned that Surgical societies could play a crucial role by proposing standard fee schedules to ensure fairness and protect patients from exploitative pricing in the private sector. Dual employment models, where specialists serve both public and private facilities, must include clear rules on working hours, patient numbers, and reporting to prevent abuse. Dr Victoria Simiyu, Consultant Anesthesiologist and PASHeF policy to practice fellow from Kenya, suggested moving from rigid permanent contracts towards more flexible, activity-based contracts, in which compensation is linked to the number of patients treated.

Prof Adegne Togo, PASHeF delegation from Mali Minister of Health, highlighted the need for alliances with the private sector that include both co-investment and dual practice, as well as rural-urban sharing of staff time. Participants also mentioned private health insurance and community-based schemes (such as Rwanda's CBHI) as mechanisms that can channel funds into both public and private providers under regulated arrangements.

5. What metrics can Governments use to monitor progress and outcomes of PPP initiatives?

Finally, the session turned to monitoring and evaluation, with consensus that established metrics are essential to ensure PPPs deliver value for money and advance public goals. Dr Adamson Phiri, Consultant Anaesthesiologist from Senegal and PASHeF policy to practice fellow, described the establishment of a dedicated office within the Ministry of Health responsible for private partnerships, supported by laws and regulations that define accountability. He emphasised the importance of building “bridges” between sectors through clear communication channels and routine data exchange. One practical step is to ensure that private providers report into national health information systems, such as DHIS2, so that surgical activity and workforce patterns can be tracked across the whole system.

Participants proposed several categories of metrics. On the workforce side, governments should track the number and distribution of surgical personnel working in private practice, including surgeons, anaesthetists, and other cadres, and monitor movement of personnel between public and private sectors and in and out of the country. This can reveal whether PPPs are helping to expand net capacity or simply redistributing existing staff. Clinical indicators should include surgical volumes, complication rates, referral patterns, and patient outcomes, disaggregated by where the service was delivered (public vs private) and by region, to assess equity and quality.

Financial metrics such as return on investment analyses, costs per procedure for public patients treated in private facilities, and the budgetary impact of PPP contracts were also recommended. Dr Simba from Zambia suggested tailoring metrics to the needs of the population, ensuring that indicators capture not only business performance but also public health impact. More broadly, participants stressed that monitoring frameworks should capture both quantitative indicators (e.g., numbers trained, procedures performed) and qualitative aspects such as patient satisfaction, provider experience, and adherence to national guidelines.





PASHeF 2025 Proceedings: Day 2

Plenary Session - Financing the Surgical Workforce

Speaker: Mrs. Nkeiruka Obi: Vice President and Regional Director for Africa at Smile Train, Member of the PASHeF executive committee

Mrs. Obi emphasized that while donor funding can play a catalytic role in strengthening the surgical workforce, it is inherently unsustainable as a primary financing mechanism. Long-term progress requires deliberate government leadership, integrated financing strategies, and domestic resource mobilization. Mrs. Obi introduced the plenary session as one that examined sustainable approaches to financing the surgical workforce in Africa, highlighting the limitations of donor-dependent models and the urgent need for strong political commitment.

The session outlined two broad categories of funding mechanisms. One is traditional models: donor funding, donor-supported scholarships, and government budgetary allocations, and Innovative models such as public-private partnerships (PPPs), blended financing, impact financing, performance-based financing, strategic purchasing, and insurance innovations.

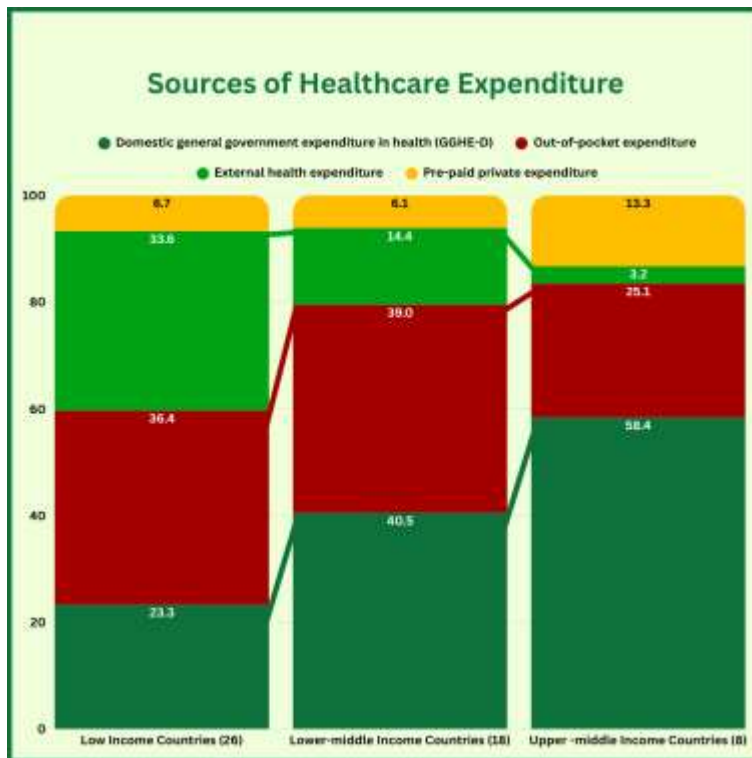




Figure 2.1. Sources of health expenditure, Adopted from Health and Economic Growth in Africa. United Nations Economic Commission for Africa. 2019. <https://repository.uneca.org/handle/10855/43118>

Mrs. Obi presented Smile Train’s partnership-driven approach as a practical example of sustainable workforce financing. Rather than relying on short-term “fly-in, fly-out” missions, Smile Train focuses on empowering local medical professionals through long-term capacity building. Key elements of the discussion were strategic partnerships with regional professional bodies such as COSECSA, CANESCA, and WACS; Comprehensive cleft care workforce development, including the training of 164 cleft surgeons across Africa, alongside orthodontists and speech therapists; and support for national surgical planning, including Smile Train’s contribution to Nigeria’s National Surgical, Obstetric, Anesthesia and Nursing Plan (NSOANP)

Smile Train’s engagement extends beyond workforce training to broader system strengthening pillars, including health information systems, research, and metrics; leadership and governance; Infrastructure development; and service delivery improvement. The session concluded by underscoring that the surgical workforce in Africa remains critically underfunded. Key challenges include fragmented financing mechanisms, heavy reliance on donor funding, and high out-of-pocket costs for surgical training. Mrs. Obi stressed the need for clear, tangible, and sustainable financing strategies to ensure the long-term development and retention of the surgical workforce.

After the introductory speech from Mrs Obi, several countries presented their experience on healthcare financing examples.

African Surgical Healthcare Financing Exemplars – Country Presentations

1. Zimbabwe: NSOAP Financing and Implementation

The presentation from Zimbabwe was delivered by Dr. Shingai Audrey Nyaguse-Chiurunge, Consultant Anaesthesiologist at the Ministry of Health and Child Care, Republic of Zimbabwe. Dr Shingai started by outlining Zimbabwe’s healthcare system. The country’s health system includes 29 districts and six tertiary hospitals. The presentation highlighted key financing challenges affecting the implementation of the National Surgical, Obstetric, and Anaesthesia Plan (NSOAP), including tight fiscal space, the absence of a specific budget allocation for NSOAP, and skewed funding imbalances within the health sector.





Figure 2.2. Zimbabwe NOSPA financing, Adopted from, Dr. Shingai Audrey Nyaguse-Chiurunge, MOH Zimbabwe.

It was reported that the development and initial financing of the NSOAP were primarily driven by professional associations, including medical, surgical, and nursing associations, with support from the World Bank. A deliberate commitment was made to utilize internal technical expertise, and the NSOAP was fully developed using local capacity. The financing strategy followed a two-pronged approach, focusing on identifying funding sources and prioritizing projects, with support planned across initial, medium-term, and long-term phases.

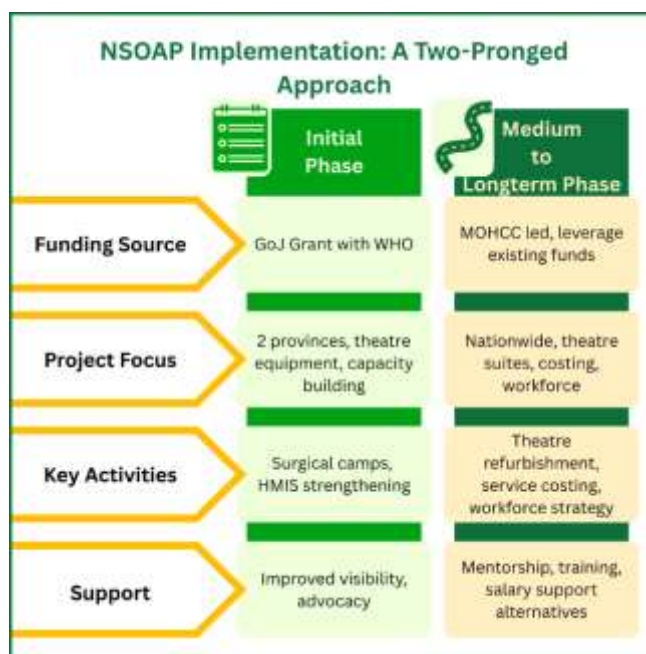


Figure 2.3. NSOAP implementation, the two-pronged approach. Adopted from, Dr. Shingai Audrey Nyaguse-Chiurunge, MOH Zimbabwe.

Implementation began with a paediatric hernia surgery campaign. Funding was further leveraged by aligning NSOAP activities with maternal and child health priorities, an area described as having relatively strong funding availability. Financing of the National Surgical, Obstetric, and Anaesthesia Strategy (NSOAS) has included the use of public-private partnerships (PPPs), such as the refurbishment of a large maternity hospital, procurement of SIGN nails for orthopedic services, and support for cardiac surgery training through NOIC, alongside engagement with other partners.

Dr. Shingai Audrey then presented Zimbabwe's efforts in expanding zimbabwe's healthcare workforce. Zimbabwe's health workforce reform followed a structured pathway from evidence to action: a comprehensive Health Labour Market Analysis conducted between August and December 2022 informed a high-level policy dialogue in February 2023, which in turn led to the development of the Health Workforce Strategy 2023–2030. Building on this strategic framework, the country advanced to implementation through the Health Workforce Investment Compact for 2024–2026, translating long-term policy commitments into coordinated, time-bound investments aligned with the national Vision 2030. She reported several proposed actions from the government to train more workforce and finance their practice in Zimbabwe.

The presenter highlighted that despite these commitments, the workforce expansion still has a funding gap of USD 120.3 million. Zimbabwe reported training 3,334 health workers per year, with projections estimating 69,000 trained health workers by 2030. The current surgical, obstetric, and anaesthesia workforce density was reported as approximately 3.83 per 100,000 population,



including both public and private sectors. The presentation noted a situation where many doctors are in training or unemployed despite existing workforce shortages. Several efforts are underway to close the reported gap and to leverage aligned investments, including road traffic accident-related funding.

Dr. Shingai Audrey then presented the next steps and review of the NSOAP for the next five-year period. The NSOAPS 2022–2025 is currently under review, following which a new five-year plan will be developed to guide the next phase of surgical system strengthening. Leadership capacity will be reinforced through the appointment of a new director and coordinators to enhance strategic oversight and operational effectiveness. Efforts will be made to improve coordination with other ministries to ensure a whole-of-government approach. The strategy will continue to emphasize synergistic engagement with regional and continental platforms and partners, including the SADC Technical Expert Working Group, PASHeF, WHO, and Smile Train. In parallel, stronger engagement with local industry and the development of strategic partnerships will be pursued, alongside the adoption of an AI strategy as a force multiplier to improve planning, delivery, and monitoring of surgical services.

2. Kingdom of Eswatini: Investment in Surgical Workforce Expansion

The presentation from the Kingdom of Eswatini was delivered by Dr. Bongiwe Prudence Malinga, Deputy Director of Clinical Services at the Ministry of Health. Eswatini was described as a country with a population of approximately 1.2 million, where the government, through the public sector, is the main provider of healthcare services. The health system is organized into five levels: community services; clinics and public health units; health centers; regional hospitals; and national referral hospitals.



The Five Levels of the Health System in Eswatini



Figure 2.4 Levels of healthcare system in Eswatini, adopted from Dr. Bongiwe Prudence Malinga, MOH Eswatini

It was reported that Eswatini does not have a medical school for training doctors. However, the country has established nursing and anaesthesia schools. Government training plans were presented as being domestically funded and inclusive of both undergraduate and postgraduate studies. Salaries are provided to individuals while in training. The ECSA College of Anaesthesia, in collaboration with national nursing colleges, has enabled the local training of anaesthetists, leading to a steady growth in the anaesthesia workforce. This expansion has directly supported the operationalization of surgical theatres at lower levels of service delivery, including health centres, thereby improving access to essential surgical care.

Several strategies for surgical workforce expansion were outlined. These included training, decentralization of corporate social responsibility initiatives in surgical care, and retention and incentive mechanisms, such as the provision of on-call allowances. Public-private partnerships were reported as mechanisms to attract private service providers, facilitate cross-border referrals, and promote skills sharing and mentorship. In addition, the government provides funding to subvented health institutions, particularly non-governmental and faith-based hospitals. Systems support was noted to depend on political will and continued investment in health infrastructure.



3. WHO Liaison Office, Ethiopia: Regional and Global Perspectives on Surgical Financing

The regional and global context was presented by, Dr Sarai Malumo, Disease Prevention and Control (DPC) Lead at the WHO Liaison Office in Ethiopia. The presentation reported that globally, five billion people lack access to essential surgical services and that surgical systems in Africa remain inadequately funded. It was stated that the consequences of underinvestment in surgery extend beyond medical outcomes to include economic, political, and generational impacts. The presentation emphasized that investing in surgery is a means to achieving universal health coverage and that surgery continues to serve as a tool for equity and development in Africa. Despite this, surgical care remains underfunded. It was noted that only Rwanda, Cape Verde, and Botswana have met the Abuja Declaration targets. Aid dependency was reported to be increasing, while external aid has declined by 71 percent.

Country-specific examples were presented, including Ethiopia, where surgical volume was reported as 189 operations per 100,000 population, and 25 percent of operating tables were described as non-functional. Performance-based financing was reported to have improved service delivery in Borana and Jimma, and digital innovations at ALERT Hospital were highlighted as success stories. Rwanda and Tanzania were noted to have integrated surgical care into national insurance schemes, while Ghana and Kenya have implemented public-private partnership models to support surgical care delivery.

Additional opportunities discussed included leveraging the African free trade route to improve access to medical equipment and drugs, and ongoing exploration of impact bonds linked to surgical outcomes by the World Bank, African Development Bank, and European banks. The presentation also highlighted the importance of linking surgical care to emergency preparedness and climate resilience.

Key financing considerations included integrating surgical financing into national health plans, establishing long-term partnerships in which governments and partners co-invest, and improving data accountability by linking mortality and outcomes to funding sources managed by associations and governments. The importance of data generation and measurement was emphasized through the statement that funding depends on measurable outcomes.

Dr Sarai Maluma mentioned key steps to improve the future of surgical care in Africa will depend on policy, financing, and people. Priorities should include reliance on predominant public funding sources, avoidance of fragmented funding, optimization of health budgets, advocacy for the inclusion of essential surgical care, pursuit of innovative financing mechanisms, and investment in surgical data systems with digital outcome monitoring.





4. Panel Discussion on African Surgical Healthcare Financing Exemplars

Date: November 6, 2025

Time: 8:40–10:50 AM

Moderators

Mrs. Nkeiruka Obi: Vice President and Regional Director for Africa at Smile Train, Member of PASHeF Executive Committee

Prof. Faustin Ntirenganya: Plastic, Reconstructive and Breast Surgeon, Chair, Department of Surgery, University of Rwanda and Member of the PASHeF executive committee

Panellists

Dr. Bongiwe P. Malinga, PASHeF Delegate, MOH Eswatini),
Dr. Shingai Audrey Nyaguse-Chiurunge, PASHeF Delegate, Zimbabwe,
Dr. Sarai M. B. Maluma (DPC) Lead at the WHO Liaison Office in Ethiopia,
Dr. Iboudo Bernard, PASHeF Delegate, Burkina Faso Ministry of Finance,
Dr. Roshan Kumar, PASHeF Delegate, Mauritius, Ministry of Finance

The session focused on sustainable financing for surgical systems in Africa. It aimed to identify barriers and gaps in financing, share country-level experiences, discuss potential public-private partnership (PPP) models, and explore strategies to mobilize domestic and international resources for surgical workforce development, infrastructure, and service delivery. The panel discussion began with Prof. Faustin Ntirenganya emphasizing that sustainable financing is central to maintaining Africa's surgical workforce and achieving universal health coverage goals.

Sharing experience from Eswatini, Dr. Bongiwe P. Malinga highlighted that most healthcare expenditures are out-of-pocket, leaving populations financially vulnerable. She identified inadequate national health insurance structures and underdeveloped PPPs as key barriers. Dr. Shingai Nyaguse-Chiurunge seconded the idea of gaps in partnerships. She mentioned that siloed financing within government ministries and international partnerships limits efficiency. She emphasized the need for cross-sectoral collaboration to break compartmentalized budgeting and improve resource use.

Burkina Faso Dr. Iboudo Bernard mentioned lack of prioritization of surgical care within national health planning is a major challenge. Limited data, the absence of formal dialogue on surgical financing, and insufficient monitoring hinder effective investment. He stated that Burkina Faso allocates 12% of its annual budget to health, which remains inadequate.

A delegate representing the World Health Organization, Dr. Sarai M. B. Maluma, emphasized that the Abuja Declaration's recommendation for allocating 15 percent of national budgets to health should be understood as a minimum threshold rather than a target. Dr. Maluma underscored the importance of strengthening domestic resource mobilization and highlighted the need to integrate health economics into both medical education and policy training. She also stressed that strong data systems are essential to support evidence-informed decision-making in health financing and planning.





Dr. Roshan Kumar, from Mauritius shared the country's experience in aligning public and private sector contributions to healthcare financing. He noted that approximately one quarter of healthcare financing in Mauritius comes from the private sector. To manage capacity constraints, the government has established memoranda of understanding with private hospitals, allowing patients to be referred from public facilities when capacity is exceeded, with treatment costs covered by the state. Dr. Kumar also described efforts to expand the surgical workforce, including sending fifteen anesthesiologists for training abroad and partnering with international universities. In addition, Mauritius has mobilized domestic revenue through mechanisms such as sugar taxation to support surgical care and has encouraged private organizations to contribute through corporate social responsibility initiatives.

Dr. Bongiwe Malinga, highlighted the importance of context-specific dialogue among stakeholders when designing sustainable surgical financing strategies. She proposed a blended financing model that brings together contributions from public institutions, private entities, non-governmental organizations, and faith-based organizations. This collective approach was presented as a way to address national surgical priorities while reflecting local realities and capacities.

Dr. Shinga, advocated for a whole-of-government approach to surgical financing. She emphasized the need to engage not only the Ministry of Health but also ministries responsible for finance, infrastructure, and trade, alongside local industries and private insurers. She provided examples of potential strategies, including leveraging road traffic funds to support trauma care, proposing tax exemptions for imported medical equipment, and encouraging private sector investment as a means of generating more sustainable funding for surgical services.

Strategies for reducing surgical backlogs and optimizing resources were also discussed. Panelists described interventions such as surgical outreach camps, task-shifting models involving non-physician providers, mobilizing private sector participation with spending caps and reimbursement ceilings to prevent public sector resource depletion, utilizing local talent with incentives for weekend service provision, and collective procurement of surgical commodities to reduce costs. In Eswatini, limits on private service delivery were applied to manage financial risk. According to panelists. Mauritius relied on domestic revenue mobilization and international training partnerships, while Zimbabwe focused on multisectoral collaboration and mobilization of local resources.

Panelists emphasized the role of regional and continental institutions, such as WHO and Africa CDC, in supporting sustainable financing beyond direct funding. Their contributions include technical assistance, policy advocacy, and monitoring the implementation of commitments like the Abuja and Lusaka Declarations. For instance, WHO facilitates dialogue platforms among governments, private sector actors, and international funders; Regional bodies support domestic financing mobilization, private sector engagement, and innovative approaches. Such regional bodies could also promote digital health tools and AI-enabled health economics improves resource allocation and efficiency. Regional and continental institutions could also encourage local production of medical commodities to reduce costs and enhance sustainability.





Several questions from the audience reflected the need for inclusive and innovative approaches. Participants from Ethiopia asked about addressing surgical backlogs, to which panelists suggested outreach camps and task-shifting. The need for political advocacy was heightened citing the securing of free maternal and emergency services through government engagement as in the case of Mauritania. Concerns about out-of-pocket payments were raised to which reforms in insurance systems were recommended. Participants from Zambia proposed involving traditional and community leaders in financial decision-making to ensure ownership and sustainability. Other general input from the audience included advocating for pooled procurement of surgical equipment and national surgical funds supported by taxes and social investment.





Breakout sessions

Session A: Policy and Governance: Integration of Surgical Healthcare into the African Union Health Agenda

Event: Pan-African Surgical Healthcare Forum (PASHeF), Day 2 – Breakout Session 1

Date: November 6, 2025

Moderators:

Prof. Emmanuel Makasa (Zambia), Consultant, Ministry of Health & University Teaching Hospitals (UTH), Executive Director, SADC–Wits Regional Collaboration Centre for Surgical Healthcare (WitSSurg), PASHeF executive committee,

Dr. Stephen Okelo (Kenya), Consultant Anesthesiologist, President, College of Anesthesiologists of East, Central and Southern Africa, Kenya, Member of the PASHeF executive committee

The session focused on policy and governance strategies to integrate surgical, obstetric, and anaesthesia care into the African Union's (AU) broader health and development agenda. The discussion emphasized the need for coordinated continental advocacy, alignment with existing AU structures, and sustained political commitment comparable to that achieved for HIV and maternal health initiatives. A strong consensus emerged that surgical healthcare must be positioned as a core component of Universal Health Coverage (UHC) and socioeconomic development, rather than as a narrow, specialist service.

Dr. Stephen Okelo, Consultant Anesthesiologist, President, College of Anesthesiologists of East, Central and Southern Africa, Kenya, Member of the PASHeF executive committee, opened the session by emphasizing the urgency of strengthening coordination for surgical and anaesthesia care across Africa. He noted that despite the continent carrying a high burden of surgically treatable conditions, Africa performs less than 4% of global surgical procedures. He emphasized that addressing this gap requires elevating surgical and anaesthesia care onto the AU policy agenda and encouraged Member States to reflect on how ministries of health, finance, and other stakeholders can work together to ensure surgical care is recognized within the AU's Agenda 2063 health ambitions.

Delegates emphasized that surgical and anaesthesia care must be framed as part of a comprehensive perioperative care system that supports UHC, primary healthcare strengthening, and national development. Zambia shared its experience of transitioning from a National Surgical, Obstetric and Anaesthesia Plan to a National Perioperative Strategic Plan after recognizing that earlier approaches focused too narrowly on surgeons and anesthesiologists. The revised approach incorporates prevention, community awareness, referral pathways, operative care, nursing, rehabilitation, and post-operative follow-up, emphasizing the full patient pathway and reducing professional silos within the health system.

In order to effect similar changes in the continent, it was mentioned that PASHeF should not function as a stand-alone initiative. Delegates agreed that it should be institutionally embedded within the





Africa Centres for Disease Control and Prevention (Africa CDC), which already coordinates continental priorities related to health security and UHC. This placement was viewed as essential for policy continuity, legitimacy, and integration into existing AU mechanisms.

Several delegates from different countries emphasized the importance of aligning surgical advocacy with existing AU development language and frameworks. It was advised that messaging should use Universal Health Coverage (UHC) terminology rather than introducing new concepts, stressing that UHC cannot be achieved if surgical care is excluded from essential health services. Dr Mohamed Lamine, PASHeF delegate from Senegal, recommended learning from the way HIV was successfully elevated by embedding it within established AU decision-making pathways rather than creating parallel systems.

Surgical care was also framed as an economic and development priority. Dr Daniel John Lavaly, PASHeF delegate from the Ministry of Health and sanitation Sierra Leone, highlighted the significant economic burden of untreated surgical conditions and argued that framing surgery as an issue of productivity and poverty prevention would elevate it within policy discussions. Participants added that failure to prioritize surgical care leads to avoidable mortality exceeding that of HIV, tuberculosis, and malaria combined, yet surgical services receive comparatively less funding. It was emphasized that infrastructure alone is insufficient without parallel investment in specialist training and equitable workforce distribution, describing efforts to decentralize services to health districts and extend coverage to vulnerable populations.

The importance of data was repeatedly mentioned. A delegate from South Africa, Dr Relebohile Ncha, stressed that strong data is essential to demonstrate the burden of surgical disease and inform policy decisions. She added that there is a need for comparable, country-level data showing burden, service gaps, and outcomes, and called for the adoption of a continental template for data reporting. Dr Mugisha Nkoronoko, Consultant General Surgeon and PASHeF Policy to practice fellow from Tanzania, advocated for the integration of perioperative care into national health sector strategic plans to ensure ownership and sustainability and highlighted the role of Regional Economic Communities (RECs) as important pathways through which AU decisions are advanced.

Delegates discussed concrete steps for collective advocacy at the upcoming AU Health Ministers' Meeting. A delegate from Ghana proposed that surgical and perioperative care be formally submitted as an agenda item at both the AU Health Ministers' Meeting and Heads of State level, a proposal that received consensus support. It was emphasized that ministers should be briefed in advance so that proposals are not introduced during the meeting and that ministers arrive aligned and prepared to support adoption.

Prof. Emmanuel Makasa proposed to position PASHeF as the AU's flagship program for surgical and perioperative care, drawing inspiration from historical AU leadership reflections on safeguarding African health. It was emphasized that the effectiveness of the platform is more important than its name and that the priority should be functional impact rather than branding. It was stressed on the need to co-engage Ministers of Finance in AU-level discussions, as budget decisions are made jointly with health ministries.





Participants agreed that advocacy must be supported by documentation, including a technical report and draft decision text. The Africa CDC and the PASHeF Secretariat were identified as responsible for preparing these materials based on Member State guidance. Ministers should also approach the AU meeting with a unified position. It is also encouraged to have coordinated national briefings, active engagement of finance ministries, and present PASHeF as an AU platform, and a formally prepared agenda item to enable adoption and progression to Heads of State.

In summary, participants mentioned that surgical and anesthesia care should be positioned as perioperative care central to UHC and development, institutionalized within the Africa CDC, supported by economic and public health arguments, and aligned with existing AU policy frameworks. Participants also reflected on how HIV and maternal health achieved sustained political traction, noting that these movements were supported by strong data, public awareness, financing pathways, champions, and continental attention. Delegates agreed that public education and community engagement are necessary so that patients and communities can advocate for surgical care.

The moderators synthesized the discussion into agreed actions. Member States overwhelmingly supported embedding PASHeF within the Africa CDC to leverage its continental mandate and reporting structures. A draft resolution reflecting the session's outcomes was circulated for review, amendment, and endorsement. The resolution will be submitted to Africa CDC, with the Secretariat requested to propose an agenda item on integrating perioperative care at the AU Health Ministers' Meeting scheduled for February 2026. Participants emphasized that ultimate responsibility for advancing this agenda lies with Member States, who must champion it within their national governments, Regional Economic Communities, and AU platforms. The session concluded with agreement that it had established a clear, collaborative pathway for elevating surgical and perioperative care as a continental priority within the African Union health agenda.





Session B: Diaspora Engagement for Scaling of Surgical Healthcare Training, Equity, and Finance

Format: Case studies and discussion

Moderators:

Dr Justina Seyi-Olajide: Consultant Pediatric Surgeon at Lagos University Teaching Hospital, Nigeria, Member of PASHeF Executive Committee

Prof. Emmanuel Ameh: Professor of Surgery and consultant Pediatric Surgeon at National Hospital and Nile University Abuja, Nigeria, Member of PASHeF Executive Committee

Session Overview

The session focused on the role of the African diaspora in scaling surgical healthcare training, promoting equity, and mobilizing financing across the continent. The moderator, Dr Justina Seyi-Olajide, consultant Pediatric Surgeon at Lagos University Teaching Hospital, Nigeria, opened the session by welcoming participants and emphasizing that the discussion was intended to be highly interactive, encouraging contributions from all participants. She highlighted the significant potential of the African diaspora for collaboration across the continent and stated that the session would center on leveraging these existing potentials.

Participants were informed that the discussion would explore frameworks for engaging the diaspora in surgical healthcare training, research, financing, and equitable partnerships, drawing on lessons from successful national and institutional models. The moderator encouraged participants to propose frameworks, share experiences of equitable diaspora collaborations, and contribute ideas aimed at enhancing surgical care within Africa. Dr Justina emphasized that the objective was to identify mutually beneficial diaspora engagements that empower local communities without creating dynamics of superiority between partners. Following these remarks, the session proceeded directly into guided discussion questions.

In response to the first discussion question, participants shared country experiences and perspectives on how governments, professional associations, and academic institutions can facilitate effective diaspora engagement. Dr Daneilson Veiga, PASHeF representative from Cabo Verde highlighted that the country's diaspora population is nearly twice the size of the resident population, with a significant presence in the United States and other African countries. He described close collaboration with the medical diaspora, particularly through the Cabo Verde–United States Medical Society, which convenes at least twice yearly in Cabo Verde. These engagements have supported infrastructure development, conferences, symposia, workshops, and the introduction of laparoscopic equipment, although financial limitations prevented full establishment of laparoscopic services. He further noted that collaboration with the diaspora contributed to the establishment of a medical school and resulted in substantial improvements within the health system.

Prof Ismael Lawani, PASHeF delegate from Benin, emphasized that regulatory and legal instruments play a critical role in enabling diaspora participation. He stressed that laws and policies often hinder full diaspora engagement and cited the example of a newly built hospital intended to attract professionals from abroad, noting that enabling policies were required to facilitate recruitment. He emphasized the need to address governing laws rather than focusing solely on individual surgeons.





Participants mentioned that diaspora professionals and organizations have had a significant impact on advancing surgical care, including enabling the provision of advanced surgical procedures. It was emphasized that governments, particularly ministries of health, should take the lead in facilitating diaspora engagement by developing policies, coordinating links between diaspora and local or regional hospitals, providing data on service gaps, and streamlining approval and licensing processes required for diaspora professionals to work locally.

The moderator, Dr Justina Seyi-Olajide, referenced Nigeria's experience, highlighting institutional mechanisms such as the Nigerian Diaspora Commission, which coordinates diaspora engagement in national development projects and mobilizes diaspora human and material resources. She also cited the National Postgraduate Medical College of Nigeria, which facilitates engagement of Nigerian healthcare professionals in the diaspora, including in postgraduate training. These examples were presented as models for institutionalizing diaspora involvement.

In addressing policy instruments required for short-term professional exchange, it was noted that some issues raised under the previous discussion were directly relevant. Dr Jean Raul Choocolat, PASHeF delegate from the Republic of Congo raised concerns regarding the absence of clear systems to vet diaspora professionals, noting that some individuals may lack appropriate qualifications or bring unsuitable equipment. He emphasized that quality assurance should be prioritized and highlighted challenges related to nationality changes and integration of diaspora professionals.

Dr Seyi-Olajide summarized these points by emphasizing that policies are needed to address concerns related to the quality and safety of skills and equipment introduced through diaspora engagement. She stressed the importance of engaging with professional associations that can vet diaspora professionals, citing the Association of Nigerian Physicians in the United States as an example of an organization that assesses qualifications before engagement in Nigeria. Prof. Emmanuel Ameh added that this association has recently collaborated with the Nigerian Postgraduate Medical College to facilitate qualification screening and training, resulting in certification that allows diaspora professionals to practice legally in Nigeria. This was noted as a recent development within the past one to two years.

In the ongoing discussion, Dr Jean Raul Choocolat, noted that diaspora organizations are often poorly organized and suggested that a single, unified organization for healthcare professionals in the diaspora, rather than multiple country-specific entities, might be more practical.

Dr Justin Bayisenga, PASHeF delegate from Rwanda MOH, emphasized that political will is essential, with national leadership responsible for engaging diaspora communities, organizing them, informing them of national regulations, and creating a welcoming environment. Rwanda's annual Diaspora Day was cited as a platform for engagement. It was also cautioned that diaspora groups that self-organize following negative experiences in their countries of origin may form entities that are disadvantageous to national interests. Participants stressed the importance of recognizing diaspora contributions and proactively engaging them through ministries of health when self-organization is lacking. This approach was seen as a means of enhancing engagement while avoiding uncoordinated activities, unnecessary medical tourism, or poor-quality care.





A participant from Côte d'Ivoire, Jean Baptiste YAKREH, noted that many diaspora professionals are reluctant to return due to better working conditions abroad. He suggested greater engagement of non-medical diaspora, particularly those in finance, to support funding and investment in health projects, which may also align with their business interests.

Prof Emmanuel Ameh, providing more on Nigeria's experience, stated that the country has established commissions and ministerial oversight mechanisms to guide diaspora contributions and prevent duplication, particularly in relation to expertise and regulatory engagement. Telemedicine was described as being implemented to varying degrees across public and private sectors, largely driven by diaspora initiatives. Nigeria is developing national telemedicine guidelines in collaboration with regulatory bodies, reported to be approximately 80 percent complete, with the expectation that full implementation will enable diaspora professionals to support projects remotely.

Dr. Simba Kaja, a participant from Zambia, shared insights from an ongoing fellowship and outlined a structured framework for engaging the diaspora in surgical partnerships. The framework emphasizes meaningful community engagement to ensure diaspora contributions are aligned with locally identified priorities, alongside multidisciplinary collaboration that brings together surgical, nursing, biomedical, and allied health teams. Education and training are positioned as central components, with a focus on effective skill transfer through both formal and informal approaches. The model also incorporated the importance of measuring outcomes to evaluate the impact of partnerships on patient care, promoting bilateral authorship in documentation and academic publications to ensure equitable recognition, and leveraging diverse funding streams, including direct diaspora contributions as well as in-kind support such as staff time and infrastructure. The framework was presented as adaptable within government systems and explicitly grounded in principles of equity in diaspora partnerships.

In discussing equity and the avoidance of brain drain or dependency, an example was shared from Ethiopia involving a neonatologist and an interventional radiologist from the United States who contributed to establishing a neonatology center through both service delivery and equipment provision. It was proposed that ministries of health establish dedicated desks to engage diaspora physicians, identify national gaps annually, and sustain diaspora contributions through policy and coordination. To facilitate progress, governments should formally recognize diaspora as partners and encourage the formation of legally recognized diaspora associations. Such entities could engage governments through memoranda of understanding, helping to address potential brain drain. The Nigerian Diaspora Commission was cited as an example of such a mechanism.

On mobilizing diaspora investment and philanthropy, it was pointed out that member states should strengthen inter-country collaboration, particularly through ministries of health. Ongoing cooperation between Sierra Leone and Liberia, including support from organizations involved in task-sharing, was cited as contributing to increased capacity. The moderator added that African countries should not view themselves as competitors and highlighted Ghana's experience with the National Health Insurance Scheme, noting that its success prompted engagement with financing experts from neighboring countries to share lessons.





The session concluded by acknowledging the Nigerian Diaspora Commission as a practical exemplar to support continued engagement. The discussion highlighted the diversity of experiences and perspectives presented, showcasing the growing role of diaspora engagement in strengthening surgical training, advancing equity, and mobilizing sustainable financing.





Session Title: Progress in Surgical Care: Workforce and Financing

Date: 6 November 2025

Time: 11:45 am – 12:45 pm

Moderators:

Ms. Lilian Mwape, Principal Nursing Officer, National Heart Hospital
President, Perioperative Nurses Association of Zambia
Lusaka, Zambia

Dr. Mulugeta Tenna: Consultant General Surgeon, Lecturer and Associate Professor at the University of Global Health Equity. Former Senior health and program coordinator at Africa Humanitarian Action

The session on *Progress in Surgical Care: Workforce and Financing* focused on the interrelated challenges of human resources and financing in strengthening surgical health systems. Moderators Ms. Lilian Mwape, Principal Nursing Officer, Perioperative Nurses Association of Zambia and Dr Mulugeta, Consultant General Surgeon, Lecturer and Associate Professor at the University of Global Health Equity, opened the discussion by mentioning that an adequate and well-distributed workforce is essential for patient safety and for building resilient surgical systems capable of delivering care appropriate to each level of the health system. The discussion highlighted that task shifting may be necessary in certain contexts but must be approached with patient safety as a priority. Dr. Mulugeta Tenna outlined the structure of the session and introduced the three country presentations from South Africa, the Republic of Benin, and the Republic of Congo.

Country Presentations

South Africa: Workforce Training and Financing for Tertiary Care

Dr. Relebohile Ncha, Chief Director for Hospitals and Tertiary Health Services at the South African Department of Health, presented an overview of the country's health system, workforce training, and financing mechanisms. South Africa has an estimated population of 66 million, with approximately 85% relying on the public health sector and 15% accessing private care through health insurance. Health expenditure accounts for about 8.7% of GDP, and the country operates approximately 336 hospitals.

South Africa applies an integrated approach to tertiary services rather than a surgery-specific framework. A National Safe Surgery Technical Working Group, originating from a ministerial committee established during the COVID-19 period, is active in reviewing and defining surgical indicators and addressing inconsistencies in how surgical backlogs are defined across provinces. Interventions are also being examined to address backlogs and strengthen surgical safety practices. The public health system is governed by the National Health Act, which categorizes hospitals into district, regional, tertiary provincial, specialized, and central or academic hospitals. District and regional hospitals are funded through the equitable share allocated to provinces, while tertiary,



specialized, and central hospitals receive an additional National Tertiary Services Grant. Training takes place at all levels of care.

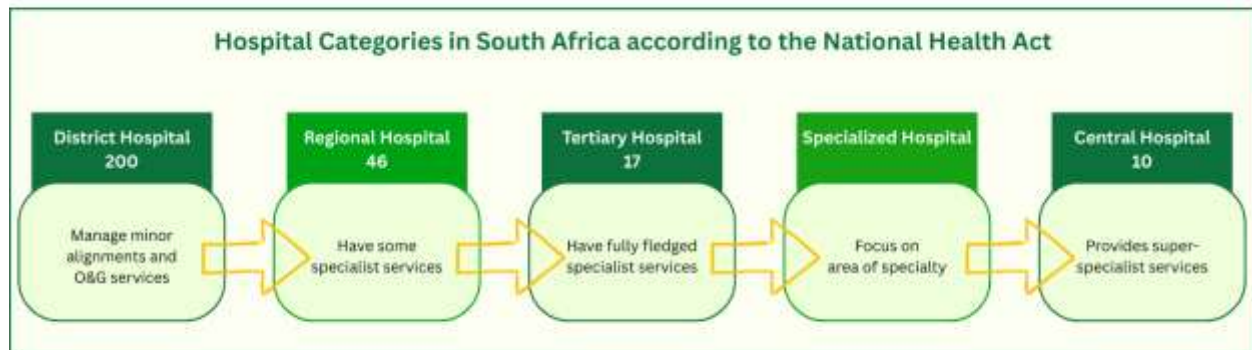


Figure 2.5. Hospital Categories in South Africa according to the National Health act, adopted from Dr. Relebohile Ncha, South Africa MOH

Workforce training includes an active registrar program linked to 11 medical schools and regulated by the Health Professions Council of South Africa, with approximately 2,719 registrars across all specialties. Entry into the program is competitive, and funding support is provided through the Health Professional Training and Development Grant, which covers registrars and nurse trainees. Training and service delivery are supported through partnerships involving the Departments of Health and Higher Education, the Colleges of Medicine of South Africa, and professional regulatory councils.





Fig 2.6. South Africa Healthcare Workforce Registration posts trend 2021-2025, Adopted from Dr Dr. Relebohile Ncha, South Africa MOH

Financing for tertiary care is provided through Equitable share allocations and the National Tertiary Services Grant. The grant was designed to address disparities between provinces and to compensate for cross-provincial patient flows. All provinces now qualify for the grant, which also includes oncology funding. The grant is governed by a framework under the Division of Revenue Act and the Public Finance Management Act and is managed through a structured process involving provincial business plans, quarterly reporting of clinical and non-clinical data, expenditure reviews, and end-of-year adjustments.

The grant supports the compensation of specialist doctors and nurses, the procurement of goods and services for tertiary care, and the provision of equipment to strengthen regional and district hospitals. It also covers machinery, equipment, and infrastructure required for tertiary services, including dedicated investments in oncology infrastructure and equipment.

Key challenges highlighted included delays in completion of specialist training requirements, limited training capacity for specialist nurses due to attrition of trainers, uneven distribution of health workers between urban and rural areas, and high vacancy rates driven largely by movement from the public to the private sector. Financial pressures, infrastructure constraints, and unclear delineation of surgical services by level of care were also noted. Current responses include recruitment efforts as fiscal conditions improve, expansion of medical schools, task shifting to capacitate medical officers and nurses, strengthening referral pathways and outreach programs, infrastructure maintenance plans, development of electronic medical record systems, and policy reviews related to remuneration and overtime. The country is also progressing toward the implementation of a National Health Insurance Fund as part of universal health coverage reforms.

Republic of Benin: National Task Shifting Program

Professor Ismaïl LAWANI: Consultant visceral (general) surgeon and Professor at the Faculty of Health Sciences in Cotonou, Benin. Director of the Benin Hub of the NIHR Global Surgery Unit

Prof. Ismail Lawani, Consultant visceral (general) surgeon and Professor at the Faculty of Health Sciences in Cotonou, Benin, PASHeF delegate from the Ministry of Health of the Republic of Benin presented on the national task shifting initiative. Prof. Lawani mentioned that Benin faces a severe shortage and uneven distribution of health workers, with approximately 2 doctors and 7 nurses or midwives per 100,000 population in 2024, compared to WHO recommendations of 20 doctors and 70 midwives. Growth rates in workforce density remain low, and the country experiences both internal disparities and external migration of health workers.



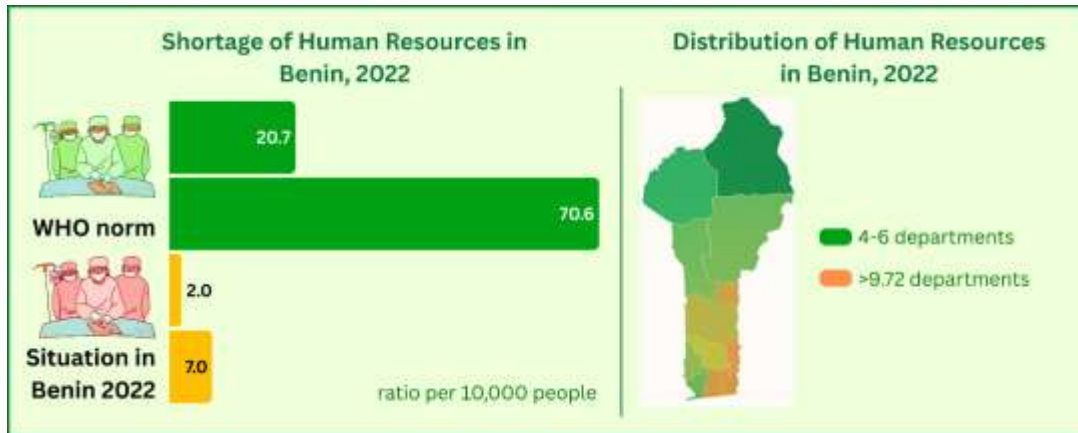


Fig 2.7. Healthcare workforce density in Benin, adopted from Ismail Lawani, MOH republic of Benin

In response, the government adopted task-shifting as a national strategy to optimize available human resources. Task shifting was legally authorized at the ministerial level, and a national commission comprising experts and decision-makers was established to design and oversee the program. Academics contributed evidence and identified specialties for implementation, after which focal point committees defined specific tasks to be delegated. A series of stakeholder workshops validated the tasks, developed training curricula, and prepared all documentation. Legal frameworks were developed in parallel to protect delegated practitioners.

Prof. Lawani described that the program's aim is to strengthen the capacity of general practitioners to perform specific tasks while preparing them for future specialization. Seven specialties were selected, including surgery, gynecology, and obstetrics. Training includes one month of intensive theoretical and practical instruction, followed by five months of supervised clinical internship, after which doctors are deployed to district hospitals. The full program spans 24 months, after which participants are expected to enter formal specialization, supported by funds retained from their remuneration.

Delegated tasks include a defined set of procedures, such as basic surgical interventions, appendectomy, hernia repair, soft tissue surgery, fracture management, caesarean section, hysterectomy, myomectomy, and management of ectopic pregnancy. A total of 214 doctors are enrolled in the program, including 42 in surgery, distributed across the country. Patient safety concerns were acknowledged as central to the design of the program. Only selected procedures were delegated, and major surgeries were excluded. To generate evidence, randomized trials are being conducted alongside implementation, including studies comparing outcomes of procedures performed by delegated doctors and specialists.

Republic of Congo: National Surgical and Obstetric Care Planning

Dr. Jean Raoul CHOCOLAT: Medical Colonel Major, Surgeon, Coordinator of Health Facilities, Director General of Edith Lucie Bongo Ondimba General Hospital, Oyo

Dr. Jean Raoul Chocolat from the Ministry of Health of the Republic of Congo presented progress in surgical health with a focus on human resources and financing. Surgical health was defined as encompassing surgical interventions and the management of services that are accessible, efficient, and responsive to population needs.

Dr Chocolat described Congo's health system challenges related to limited access to surgical services, shortages, and uneven distribution of human resources, infrastructure gaps, and limited data for decision-making. National efforts include the implementation of a program providing free emergency surgical and obstetric care, including caesarean sections, funded by the government. Advocacy efforts have focused on strengthening political commitment, improving data systems, and integrating surgical indicators into national health information platforms.

The country has approximately six million inhabitants, 52 health districts, 835 health facilities, and one university teaching hospital. Of the 8,577 health workers nationwide, more than half are concentrated in major urban centers (See Figure). Surgical specialists are similarly concentrated, with 126 specialists nationwide. Postgraduate training capacity has been expanded in selected specialties, including surgery, urology, and anesthesia.

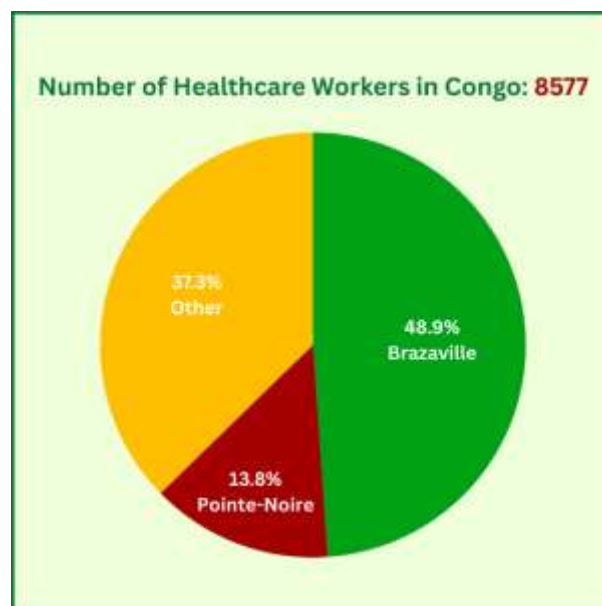


Fig 2.8. Healthcare workforce distribution in major cities in the Republic of Congo, Adopted from Dr Chocolat, MOH Republic of Congo



Health sector financing has varied over time, with government funding as the primary source, followed by household out-of-pocket expenditure. Performance-based financing and steps toward universal health insurance aim to reduce household financial burden and expand access. Progress has been made in drafting a national surgical and obstetric care action plan for 2026–2030, appointing a national focal point, establishing follow-up committees, and initiating field assessments and indicator integration.

Challenges identified include limited ownership of surgical health policies, low prioritization by major donors, insufficient resource mobilization, weak motivation of health personnel, and disruptions related to changes in political leadership. Ongoing efforts focus on advocacy, governance strengthening, human resource development, infrastructure rehabilitation, and alignment of national programs with universal health coverage objectives.

Session Conclusion

In closing, the moderators acknowledged the contributions from South Africa, Benin, and the Republic of Congo, noting the value of shared experiences across linguistic and regional contexts. The session underscored the central role of workforce development and sustainable financing in advancing surgical care.





Session Title: Digital solutions for expanding the surgical workforce

Date and Time: November 6, 2025, | 3:00–4:30 PM

Moderators:

Dr. Joao Rufino Lopes Jandy: an assistant professor of gynecology and obstetrics, and consultant at Simão Mendes National University Hospital, Guinea-Bissau, Member of PASHeF executive committee

Dr. Pierrette Ngutete Mukundwa: lecturer at the University of Global Health Equity in Rwanda in the Master of Science in Global Health Delivery program, Global Surgery option.

This session addressed the critical shortage of the healthcare and surgical workforce in Africa and explored the role of digital solutions in expanding capacity. The moderators introduced the topic by highlighting that Africa bears a high global burden of disease despite having a disproportionately small share of the global health workforce. Sub-Saharan Africa, in particular, was identified as having the lowest density of healthcare workers globally, a gap illustrated through global workforce distribution maps.

Data presented indicated that Africa holds approximately 4% of the global health workforce while carrying about 25% of the global disease burden. Projections toward 2030 show that although the global health workforce is expected to reach approximately 84 million, a shortfall of around 10 million health workers will persist, primarily affecting Africa and the Eastern Mediterranean region. This workforce deficit was noted to have significant implications for the delivery of essential surgical services.

The discussion focused specifically on the Surgical, Anaesthesia, and Obstetric (SAO) workforce. While increases in SAO density have been observed in low- and middle-income countries, the levels remain critically low. Current estimates indicate an SAO density of approximately 1.16 per 100,000 population in low-income countries and 3.19 per 100,000 in low- and middle-income countries. These figures fall substantially below the Lancet Commission on Global Surgery target of 20–40 SAO providers per 100,000 population.

Projections presented during the session indicated that, under current trends, low- and middle-income countries will not meet the recommended SAO density by 2030. Modeling studies suggest that achieving the minimum target would require training more than 800,000 additional SAO providers globally, representing a forty-fold increase in training rates in low-income countries. It was noted that, based on historical trends, only about half of countries are expected to reach the recommended targets by 2030, underscoring the need for alternative and innovative approaches to workforce expansion.

Role of Digital Solutions and the Impact of COVID-19

The COVID-19 pandemic was discussed as both a stressor on already challenged health systems and an opportunity that accelerated the adoption of digital tools. The pandemic's restrictions led to





the rapid adoption of technologies that enabled the continuity of education, training, and service delivery. Digital solutions were presented as a means of addressing logistical barriers, expanding access to training, and improving the availability of surgical services.

Key categories of digital solutions highlighted included:

- **Digital learning platforms**, which allow flexible, blended learning and enable healthcare workers to gain knowledge despite geographical and logistical constraints.
- **Simulation-based training**, including virtual and augmented reality, which supports skills acquisition in a safe environment and mitigates limitations related to operating space and instructor availability.
- **Telemedicine and remote mentorship**, which enhance access to specialist expertise and improve service availability across distances.

Advancements in telemedicine, including the use of optic fiber technology and remote surgical support, were noted as contributing to improved accessibility and training opportunities.

Several challenges to the widespread adoption of digital solutions were identified. Financial constraints were highlighted, particularly the high cost of equipment and infrastructure required for telemedicine and advanced digital platforms. Infrastructural limitations, including unreliable electricity supply and poor internet connectivity, were also noted as major barriers. Additional challenges included skepticism or resistance among some professionals toward digital learning modalities, regulatory and licensing issues, and systemic limitations within health and education structures that are not yet fully adapted to digital integration.

Digital solution exemplars for Africa

1. Digital Learning Platforms: GlobalSurg Hub (SURGhub)

Professor Emmanuel Makasa: Consultant, Ministry of Health & University Teaching Hospitals (UTH), Executive Director, SADC–Wits Regional Collaboration Centre for Surgical Healthcare (WitSSurg), PASHeF executive committee,

A sub-session focused on digital learning platforms, with a presentation on SURGhub by Professor Emmanuel Makasa on behalf of the Global Surgery Foundation. SURGhub was introduced as a UN-backed digital learning platform developed in collaboration with partners including UNITAR and the International Committee of the Red Cross. The platform was described as a “one-stop-shop” designed to empower frontline surgical and perioperative health workers in low-resource settings, particularly those working in rural or peripheral facilities who cannot be removed from service for traditional training.

SURGhub is a free, online platform offering self-administered courses with certification upon completion. At the time of presentation, the platform had demonstrated broad global reach and growth, with participation from more than 202 countries, over 27,000 learners, and nearly 47,000



course enrolments across 129 courses. More than 1,600 learners were reported to be accessing the platform from conflict-affected regions. Course quality was reflected in an overall rating of 4.6 out of 5, and the platform received the 2024 Times Higher Education Award for Technological or Digital Innovation of the Year.

Survey data from over 11,000 respondents indicated that the platform serves a diverse audience, including practitioners already in service, undergraduate learners, and postgraduate trainees. Users represent all cadres of the surgical team, including specialist surgeons, medical students, residents, general medical officers, non-physician clinicians, and nurses. While current content is strongest in surgery and anaesthesia, strategic expansion areas include obstetrics and gynecology, perioperative care, and non-technical skills such as communication, teamwork, leadership, governance, and accountability.

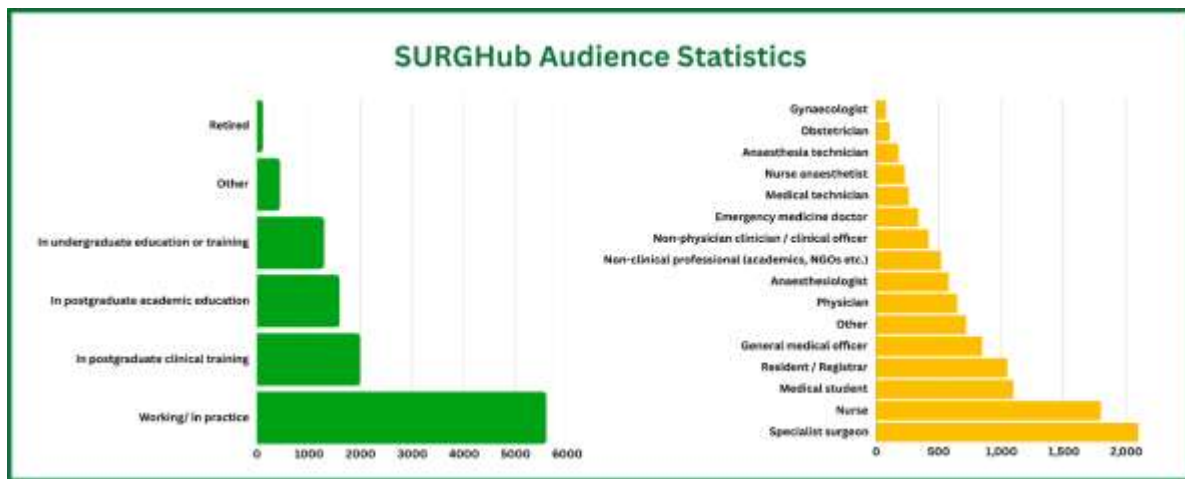


Figure 2.9. SURGhub audience by profession: result from 11000 survey respondents, Adopted from Prof. Emmanuel Makasa, SURGhub, Global Surgery Foundation

Prof. Makasa mentioned that the platform operates through partnerships with 28 organizations and is an affiliate of the World Journal of Surgery. Participants were invited to contribute locally relevant content. Future growth targets include enrolling more than 35,000 learners by the end of 2025 and over 100,000 learners by the end of 2026, expanding courses to over 150 and increasing content partners to 35. Prof. Makasa also pointed to plans that were to incorporate artificial intelligence tailored to low- and middle-income country contexts. In addition, the Global Surgery Foundation's SurgFund was introduced as a funding mechanism aimed at supporting the implementation of surgical plans and strengthening health systems.

2. The Intelligent Operating Room: Proximie

Dr. Tinsae Abera Worku: Manager of the Digital community of practice at Proximie

Another sub-session introduced Proximie, a digital platform for surgical mentorship, training, and quality improvement, presented by Dr. Tinsae Abera Worku. The presentation contextualized Proximie within the broader global surgery crisis, noting that approximately five billion people lack



access to safe surgical care, contributing to an estimated 18.6 million deaths annually. A projected global shortfall of 11 million healthcare providers by 2030 was also mentioned, with a disproportionately low number of surgical specialists practicing in Sub-Saharan Africa and Southeast Asia.

Proximie, founded in 2016 and commercialized in 2019, was described as a telepresence platform enabling real-time surgical collaboration and education. It is currently used in more than 800 facilities, with 32 operating theaters equipped with Proximie technology across seven East African countries. The platform provides live, multi-angle visualization of the operating room, integrates feeds from vital sign monitors and laparoscopic equipment, and includes wearable devices that offer first-person views for remote mentors and trainees. All procedures can be securely recorded and stored in a cloud-based library for review and training purposes. The system is designed for flexible deployment using laptops, tablets, or mobile devices, with an emphasis on security, legal data compliance, and long-term on-ground support.

Dr Tinsae emphasized that successful technology transfer requires attention to context, relevance, feasibility, security, and change management. It was noted that digital transformation represents not only a technological shift but also a cultural change requiring engagement of healthcare teams and leadership.

Examples of Proximie's application in East Africa included its use in Ethiopia, Kenya, Rwanda, Uganda, Tanzania, and Malawi to support "borderless digital communities of surgical practice." Reported uses included remote mentorship for surgical residents, bi-directional learning partnerships between institutions, and targeted programs to improve maternal and surgical outcomes. In Kenya's Makueni County, a hub-and-spoke model connecting multiple hospitals for safe cesarean section training was reported to have increased training sessions from one per month to twelve per month. In Ethiopia, the platform enabled students to observe surgeries remotely with live audio interaction, addressing challenges related to overcrowding and infection control in operating rooms.





Figure 2.10. Proximie operations in East Africa, adopted from Dr Tinsae, Proximie

3. Mentorship Without Borders: Stories from Ohana One

Mr. Peter Ronoh: Biomedical Engineer and founder of Molgen Scientific, Africa Coordinator for Ohana One

The session presented the work of Ohana One, a surgical education non-profit organization, with a focus on mentorship, connectivity, and the use of digital technology to expand access to safe surgical care in low-resource settings. The presentation was delivered by Mr. Peter Ronoh, Africa Coordinator for Ohana One, with contributions from Dr. Biruk Bekele.

Mr. Ronoh introduced Ohana One as a surgical education non-profit organization founded by Dr. David Kulber, a plastic and reconstructive surgeon from Los Angeles. The organization emerged from Dr. Kulber's experience conducting plastic and reconstructive surgery missions in Africa over a period of seven to ten years. The session began with a short video illustrating the organization's work and mission.

The mission of Ohana One was described as utilizing mentorship, relationships, and advanced technology to elevate and expand access to safe surgical care in settings where surgical training opportunities are scarce. The organization's approach to surgical training is multidisciplinary, extending beyond surgeons to include nurses, anesthesiologists, occupational therapists, and other professionals working within the surgical platform. Its vision is that every surgeon and those involved in surgical care, should have access to advanced surgical training through mentorship, innovation, technology, wellbeing programs, and educational resources, with a strong emphasis on professional connectivity.



The speaker highlighted estimates indicating that a surgeon in a low-income country may operate on up to 10,000 patients over the course of an entire career. In response to this need, Ohana One has set a goal of connecting and training 1,000 surgeons by the year 2030, with the intention of extending care to as many as 10 million patients. The organization emphasized that its training activities are intended to have a direct impact on the lives of thousands of patients.

Ohana One clarified that it is not a technology company but a non-profit organization that leverages various technologies to support its mission. One of the technologies used is Proximie, which enables surgical telepresence. Another technology described was TeleVU, a system that allows clinicians to link remotely and integrate multiple visual inputs during surgery, such as endoscopic or laparoscopic views. TeleVU enables the combination of live surgical views and medical screens into a single connected experience, including the use of fixed cameras in operating rooms.

The presentation also described the use of wearable, AI-powered smart glasses that surgeons can use hands-free during procedures. These glasses include a microphone, display, and software that allows communication with remote clinicians through voice commands, such as adding another doctor to the session, zooming the view, or giving instructions. An associated application enables the integration of medical devices, such as endoscopes, by connecting them to a smartphone, allowing simultaneous viewing of the surgical field and medical imaging. Challenges were noted in using these smart glasses, particularly when surgeons already require surgical loupes or other eyewear.

The technologies were presented as adaptable to multiple clinical scenarios, including urgent care, anesthesia and pain management, nutrition support, patient transport in ambulances, long-term care, mentorship and education, wound care for complex cases, and biomedical engineering support. An example was provided where biomedical engineers could use the technology to connect with remote experts when surgical equipment breaks down during outreach programs.

Another technology referenced was a system described as requiring only a single visual field and operating through a mobile phone. However, several challenges associated with existing technologies were outlined. These included the requirement for high minimum internet speeds, such as 20 megabits per second for TeleVU, which is difficult to achieve in many African countries. High software costs and concerns about long-term sustainability were also identified as barriers.

In response to these challenges, Ohana One developed the Ohana One mobile application. The app was described as simple to use, compatible with smartphones, and functional in low-bandwidth settings. It supports the creation of posts and groups, enabling surgeons from different specialties to participate, and includes features such as video libraries, clinical sessions, and virtual assistance. The app functions as a support center and help-finding platform and is freely accessible once users log in, allowing them to initiate video calls or clinical discussions without subscription fees. The application also supports case discussions through image sharing and video calls with clinicians available globally.

Examples of the application's use were presented across multiple countries and clinical contexts, including observation of procedures by students, support for hydrocephalus cases, pituitary tumor surgeries in Côte d'Ivoire, fistula surgeries in Mozambique, orthopedic and other residency training





in Nairobi, pediatric surgery support in South Africa and Ghana, and maternal healthcare support in Nigeria through collaboration with the March Initiative, where smart glasses were donated.

Mr. Rohan reported that to date, more than 200 surgeons have been impacted by using Ohana One's technology and platform. A total of 102 mentors and mentees have been paired, and partnerships have been established with 66 non-governmental organizations through which technologies have been donated and integrated into various programs. Ohana One operates in 55 countries, has conducted 144 connectivity engagements, and supports 10 surgical specialties across a wide range of surgical services. The organization expressed openness to additional partnerships to expand its work.





PASHeF 2025 Proceedings: Day 3

Day 3 of the PASHeF 2025 forum brought together country and regional leaders to examine how policy is being translated into practice in strengthening surgical, obstetric, anesthesia, and emergency care systems across Africa. The session was composed of diverse national experiences, while revealing shared challenges around workforce shortages, financing constraints, governance, and data systems, alongside promising reforms and innovations.

Somalia – Progress in Surgical Care, Workforce, Financing, and Governance

Dr Mohamed Abdinor Omar: Mass Casualty Management and Trauma Care Unit and National Surgical Care Program Manager at Somalia's Federal Ministry of Health

Dr Mohammed Omar opened the presentation, sharing Somalia's experience, which highlighted progress and persistent gaps in surgical care delivery within a fragile, conflict-affected context. As the longest coastline country in mainland Africa, Somalia faces recurrent shocks including conflict, climate crises, and disease outbreaks. Its population of ~20 million is young (75% under 30) and increasingly urbanized (46%). Despite important milestones such as the establishment of a National Surgical Care Program, completion of national assessments, and stakeholder engagement around surgical governance, Somalia continues to face severe workforce shortages, weak emergency and critical care capacity, heavy donor dependence, and high out-of-pocket payments. Under-investment in infrastructure, equipment, and training remains a major barrier to equitable access to life-saving surgery.

The Essential Package of Health Services (EPHS) is the vehicle for delivering a set of highly cost-effective, equitable, accessible and affordable health services that would address most immediate needs of the population. It provides the structural backbone of the national system. There are 1,256 facilities distributed across five levels of care. However, critical-service availability remains uneven such that only 48% of hospitals have 24-hour medical and nursing staff in emergency units, and only 9% have essential medicines available around-the-clock. Gaps in around-the-clock staffing and medicine availability significantly limit emergency response capacity in public facilities.

Dr Mohammad mentioned staffing challenges are pronounced as the surgical workforce density remains extremely low. He specified that surgeons are 0.33 per 100,000; anaesthesiologists 0.18 and obstetricians 0.21. Major surgery availability reaches 51% in public hospitals, and availability of minor surgery in public hospitals reaches 81%. Dr. Mohammad reported on the availability of emergency services in public hospitals, noting significant gaps in readiness and coverage. He stated that 69 percent of public hospitals provide emergency services at the point of first entry. However, only 48 percent have 24-hour onsite medical and nursing staff within emergency units. He further highlighted that just 9 percent of public hospitals, representing only 3 percent of all health facilities, have round-the-clock availability of essential medicines in or near the emergency unit.

Dr Mohammad Omar indicated that there has been substantial progress in governance, implementation of the WHO Surgical Safety Checklist, harmonized WHO-supported assessments,





and integration of surgical indicators into DHIS2. Besides, he mentioned that Somalia is finalizing its 2025–2029 NSOAP, supported by stakeholder engagement and a national effort to unify public and private data streams.

Equatorial Guinea – Health System Reform & Surgical Advancements

Dr Apolinar González Pelayo: Consultant anesthesiologist and university lecturer with extensive experience in development of anesthesia and safe surgery programs in Equatorial Guinea

Dr. Apolinar González Pelayo of Equatorial Guinea presented a contrasting narrative characterized by sustained public investment and strong political commitment to health system reform. He described a structured health system with clearly defined primary, secondary, and tertiary levels of care, alongside the adoption of World Health Organization safe surgery standards.

Dr Apolinar mentioned that the health system is organized across three interconnected levels of care. At the primary level, services are delivered through community health centers and health posts, with a strong focus on disease prevention, vaccination, maternal and child health, and the management of common illnesses. The secondary level consists of district and provincial hospitals that provide more advanced care, including basic specialized services such as general surgery, internal medicine, and pediatrics. At the tertiary level, care is delivered through the Sampaka General Hospital, regional hospitals in Malabo and Bata, and a network of 15 referral hospitals. These facilities offer highly specialized services, advanced medical technologies, and comprehensive management of complex health conditions.

According to Dr Apolinar a healthcare reform agenda in Equatorial Guinea is structured around seven strategic pillars that guide health system strengthening efforts. The first pillar focuses on leadership and governance of the health system, emphasizing effective stewardship, coordination, and accountability. The second pillar addresses human resources for health, prioritizing the training, deployment, and retention of a competent health workforce. The third pillar concentrates on health infrastructure, equipment, and maintenance, ensuring that facilities are adequately built, equipped, and sustained. The fourth pillar is dedicated to the management of medicines and other health products, aiming to improve availability, regulation, and rational use. The fifth pillar covers health financing, with an emphasis on sustainable and equitable funding mechanisms to support universal access. The sixth pillar highlights health information management and health research, underscoring the role of data, evidence, and research in informed decision-making. Finally, the seventh pillar focuses on the provision of health services, ensuring that quality, accessible, and comprehensive services are delivered across all levels of care. Together, these seven strategic pillars form an integrated framework to guide national health system reform and support progress toward universal health coverage by 2030.

The speaker also noted the expansion of specialist training programs, supported through international cooperation, as a key strategy to strengthen the surgical workforce. Dr. Apolinar González Pelayo further explained that government financing covers most emergency and maternal surgical services, helping to reduce out-of-pocket expenditure for patients. These efforts are complemented by social protection mechanisms aimed at avoiding financial barriers for vulnerable





populations, positioning surgical care as an integral component of the country's pursuit of universal health coverage.

Zambia – Transition to a National Perioperative Strategic Plan (2027–2031)

Dr. Malao Brian: Consultant Orthopedic and Trauma Surgeon at the Ministry of Health of Zambia, PASHeF delegate

Dr. Malao Brian, Consultant Orthopedic and Trauma Surgeon at the Ministry of Health of Zambia, PASHeF delegate, presented one of the most forward-looking perioperative reform initiatives discussed at PASHeF 2025. He explained that Zambia's original National Surgical, Obstetric, and Anesthesia Plan for 2017 to 2021 is being restructured into a National Perioperative Strategic Plan aligned with the 2027 to 2031 National Health Strategic Plan of the country. This transition expands the focus from surgery alone to encompass the full perioperative ecosystem, reflecting a more integrated approach to care delivery. He reported that the NSOAP is now at its finalization and dissemination of revised Peri-operative strategy. Implementation of pilot programs was also done in 3 districts for 2025.

Dr. Malao Brian also reported substantial progress in workforce development, noting that 318 specialists have been trained over the past four years, with an additional 397 Master of Medicine trainees currently enrolled. He highlighted that all provinces now have surgeons and that 140 of the country's 179 hospitals are staffed with qualified anesthesia providers. At the same time, he drew attention to persistent systemic challenges, including the unemployment of 200 trained paramedics due to funding constraints, which he described as a bottleneck between workforce production and absorption.

Dr Brian also reported on healthcare financing in Zambia. He described the role of the National Health Insurance Management Authority (NHIMA), which aims for free access to healthcare for all. NHIMA pooled resources via contributions by employers and employees with subsidising for those above age 65. This pooled financing mechanism ensures free access to services for more than 90 percent of the population, with particular emphasis on protecting the elderly and vulnerable groups.

Mozambique – NSOAP Development, Workforce & Infrastructure Challenges

Dr. Matchecane Cossa, Consultant thoracic surgeon at Maputo Central Hospital, director of the MOH's National Surgery Program, Vice President of the Mozambique Institute for Health Education and Research and a member of the Afri-health Governing Board.

Dr. Matchecane Cossa, Consultant thoracic surgeon at Maputo Central Hospital, director of the MOH's National Surgery Program, presented an overview of Mozambique's demographic and health system context, noting a population of approximately 34 million and a life expectancy of 60 years. He reported that an estimated 65 percent of the population lives below the poverty line and that national HIV prevalence among adults aged 15 to 49 years stands at 13.2 percent. Within the National Health Service, approximately half of the 1,710 health facilities operate at the primary care level. Health system capacity remains constrained, with 0.76 hospital beds per 1,000 inhabitants and a physician density of 5.9 medical doctors per 100,000 population.





Drawing on Mozambique's experience, Dr. Cossa highlighted significant infrastructure and human resource limitations affecting surgical care delivery. Of the country's 203 operating rooms, only 133 are currently functional, and just 73 hospitals provide surgical services for the entire population. He emphasized the heavy reliance on task-shifting, noting that non-physician surgeons perform approximately 40 percent of all surgical procedures, particularly in rural hospitals. He also reported that the National Program of Surgery is supported by only one dedicated human resource, underscoring capacity constraints at the national level.

Dr. Cossa further discussed data and planning challenges, highlighting the establishment of a technical working group focused on surgical data. He noted that the current DHIS2 platform does not capture key indicators recommended by the Lancet Commission on Global Surgery. In response, the technical working group is piloting an electronic operating room data system in four hospitals. Additional priorities identified included maximizing the training capacity of existing teaching hospitals, expanding training institutions, and advancing the development of a National Surgical, Obstetric, and Anesthesia Plan. He explained that surgical care has historically been embedded within multiple Ministry of Health strategic plans that did not adequately address surgery and anesthesia, and that there remains no dedicated budget line for these services. While healthcare is provided free of charge as a constitutional right in Mozambique, he noted concerns regarding the sustainability of resource-intensive surgical services, particularly in the context of financing the NSOAP process and broader economic constraints.

Dr. Matchecane Cossa concluded by noting that the Ministry of Health had its third NSOAP technical working group meeting in April 2025, signaling continued commitment and momentum toward strengthening surgical systems despite limited financial resources.

Ghana – NSOAP Development, Workforce and Infrastructure Challenges

Prof John Nkrumah Mills: Chair, NSOAP Steering Committee, Ministry of Health, Republic of Ghana

Prof. John Nkrumah Mills, Chair, NSOAP Steering Committee, Ministry of Health, Republic of Ghana, presented a comprehensive analysis of health financing for surgical and obstetric care in Ghana, focusing on existing funding gaps, expenditure trends, and the limitations of current financing mechanisms. He highlighted that, despite progress in service coverage, many hospitals continue to face significant shortages of modern surgical equipment. These challenges are compounded by the inequitable distribution of infrastructure and equipment, which remains heavily concentrated in urban areas, and by high equipment downtime caused by outdated technologies and weak maintenance systems. Prof. Mills noted that these constraints contribute to delayed surgical care, increased referrals, suboptimal clinical outcomes, and, in some cases, the denial of needed surgical services.

He outlined several structural financing challenges that hinder improvements in surgical care. These include low levels of domestic investment in surgical infrastructure, continued reliance on donor funding streams that largely exclude surgery and anesthesia, limited fiscal space, fragmented procurement processes, and the absence of dedicated budget lines for equipment maintenance and





replacement. Prof. Nkrumah Mills explained that existing financing mechanisms are insufficient to address these gaps. Government capital budgets are limited and not earmarked for surgical equipment, donor funding rarely supports capital investments in surgery, and internally generated funds, while used in tertiary and regional hospitals, remain inadequate. National health insurance schemes, including the National Health Insurance Authority and Mahama Cares, primarily finance service delivery and do not support the procurement of surgical equipment.

Drawing on projections for the period 2025 to 2029, Prof. Mills estimated that Ghana would require approximately 250 million US dollars to meet its surgical equipment needs. In contrast, current average annual allocations are below 10 million US dollars, resulting in an estimated financing gap of around 200 million US dollars. Priority equipment needs identified included anesthesia machines, surgical lights, mobile X-ray units, laparoscopy systems, and other essential surgical technologies.

To address these challenges, Prof. Mills made a strong strategic case for the use of public-private partnerships to finance Ghana's surgical care plan and support phased implementation of the National Surgical, Obstetric, and Anesthesia Plan within the broader national health strategy. He outlined several potential PPP models, including design-build-finance-operate-maintain arrangements, equipment leasing models and vendor-managed maintenance contracts. He also highlighted Ghana's broader PPP investment pipeline, noting that while major investments exist across sectors such as transport, energy, water, and education, the health sector remains significantly underrepresented. Currently, approximately 43 million US dollars is committed to health-related PPPs, but he suggested that moderate expansion could mobilize between 200 and 500 million US dollars, with an ambitious nationwide rollout exceeding 1 billion US dollars, particularly if focused on surgical equipment, imaging services, and hospital maintenance.

Prof. Mills concluded by emphasizing that Ghana's Public-Private Partnership Act provides an enabling framework for such investments, supported by technical guidance from the Ministry of Finance PPP Unit. However, he stressed that the health sector must clearly define priorities, develop a bankable PPP project pipeline, and ensure appropriate risk-sharing arrangements. He underscored that closing the surgical equipment gap is essential for saving lives, that traditional financing approaches are insufficient, and that well-designed public-private partnerships offer a viable and sustainable path forward.

Namibia – MVA Fund as a Model for Trauma Financing

Dr. Shiwana Amesho: Chief Medical Officer for the Otjozondjupa Health Directorate,
PASHeF Delegate from Namibia MOH.

Dr. Shiwana Amesho, Chief Medical Officer for the Otjozondjupa Health Directorate, PASHeF Delegate from Namibia MOH, presented Namibia's Motor Vehicle Accident (MVA) Fund as a concise case study of innovative, earmarked financing to support trauma care and surgical services. He first outlined Namibia's national context, noting a population of approximately 3.2 million people dispersed across 825,615 square kilometres, making it one of the least densely populated countries





globally. The health sector receives about 11.5 percent of the national budget, reflecting sustained commitment to public health.

Dr. Shiwana Amesho explained that the MVA Fund operates as a public entity with defined leadership and corporate governance. Its mandate is anchored in a strong legal framework, including the MVA Act No. 10 of 2007, which governs its establishment and administration, and the Public Enterprises Governance Act No. 19 of 2019, which provides oversight and accountability. The Fund is designed to provide equitable support to victims of road traffic accidents, regardless of fault.

He described the Fund's financing model, which relies primarily on a fuel levy charged on every litre of fuel sold in Namibia. Additional revenue is generated through investment income from managed reserves, recoveries from liable third parties or insurance claims, and interest on outstanding claims or late payments. These mechanisms collectively support the Fund's financial sustainability.

Dr. Shiwana Amesho noted that the MVA Fund finances a continuum of services, including acute medical and surgical care, rehabilitation, provision of assistive devices, referrals for specialized care, and compensation for crash victims and their dependents. The Fund also supports road safety awareness and prevention programs to reduce injury burden and long-term costs. However, he highlighted key limitations, including the limited and uneven distribution of surgeons and anesthesiologists, the Fund's focus on patient benefits rather than workforce development, delays in provider reimbursements, and its orientation toward compensation rather than system-wide capacity building. He concluded that while the MVA Fund offers a sustainable model for financing trauma-related surgical care, its impact depends on complementary investments in workforce and health system strengthening.

Southern Africa Development Community (SADC): VALIDATION OF SURGICAL HEALTHCARE FRAMEWORK 28-30 OCTOBER 2025, NAMIBIA

Dr. Simukayi Percy Machawira: Cardiothoracic surgeon heading the Department of Cardiothoracic Surgery at Parirenyatwa Group of Hospitals. PASHeF Delegate for Zimbabwe Minister of Health and Child Care.

Dr. Simukayi Percy Machawira provided an overview of the Southern African Development Community (SADC) efforts to strengthen Emergency and Essential Surgery, Obstetrics, and Gynecological (EESOA) services across its 16 member states, representing a population of over 400 million. He noted that diverse economies and health system capacities result in variation in EESOA service provision, particularly between urban and rural areas. The SADC Regional Collaboration Centre has been mandated to develop a regional strategy for EESOA as an integral component of primary health care and universal health coverage, aiming to harness regional expertise and harmonize services across member states.

The objectives of the meeting included finalizing and validating the regional EESOA strategic framework, building consensus, aligning with international policies and commitments, mobilizing resources, planning implementation, and completing country representation in the SADC Technical Working Group. The regional strategy emphasizes integrating surgical healthcare into SADC protocols, formalizing country representatives in the technical working group, establishing country





hubs in each member state, strengthening cross-border collaboration, enhancing communication strategies, and improving monitoring and evaluation through biannual progress reports.

At the national level, Dr. Machawira highlighted priorities such as establishing national units and working groups for EESOA, linking country hubs to the regional hub WitSSurg, identifying sites for regional centers of excellence, integrating EESOA into national health strategic plans and health benefit packages, and developing treatment guidelines and communication strategies for frontline workers and communities.

The implementation roadmap outlined strengthening anesthesia, trauma, and emergency care, developing terms of reference for country focal points within the technical working group, incorporating feedback from member states, finalizing and submitting the strategic framework to the SADC Secretariat, translating key documents, and ultimately presenting the framework and terms of reference to senior officials and the Health Ministerial Committee. Dr. Machawira emphasized that these coordinated efforts are critical for harmonizing surgical care, enhancing capacity, and achieving sustainable improvements in EESOA services across the region.

Republic of Congo – National Surgical Health Policy Framework

Jean Raoul Chocolat from the Republic of Congo also delivered a country presentation providing a comprehensive overview of the national surgical health policy, which frames surgery as a core component of the health system. The policy articulates a clear vision, strategic objectives, financing approaches, governance arrangements, and monitoring mechanisms, positioning surgical care as a national development priority.

He emphasized that a national surgical health policy serves as the country's roadmap for surgical care, defining where the country aims to go in surgery, why action is needed based on a situational diagnosis, how goals will be achieved through defined strategies, and with what means, including resources and governance structures. This framework underscores surgery as a planned, coordinated, and accountable component of health system strengthening rather than a standalone or ad hoc intervention.

Pan-African Surgical Healthcare Forum (PASHeF): A vision beyond a forum

Round Table Discussion

The Pan-African Surgical Healthcare Forum (PASHeF) convened a high-level continental Round Table bringing together representatives from Ministries of Health, academic leaders, surgical and anesthesia professionals, WHO, and Africa CDC. The discussion marked a critical milestone in PASHeF's evolution as a unifying platform for Surgical, Obstetric, Trauma, and Anaesthesia (SOTA) care across Africa.





The Round Table aimed to examine shared national and regional challenges in surgical healthcare provision, explore opportunities for continental collaboration, strengthen engagement with the WHO and Africa CDC, and define the strategic direction for PASHeF's institutionalization. Across all deliberations, participants strongly reaffirmed that surgical care is a fundamental public health necessity and a core pillar of universal health coverage (UHC), health security, and resilient health systems.

2. Why PASHeF Matters: A Unified African Voice

Country and institutional contributions consistently emphasize that surgery is not merely a clinical specialty but a complex health system encompassing infrastructure, workforce, financing, governance, and data. Surgical conditions account for approximately one-third of the global disease burden, yet an estimated 80% of the five billion people lacking access to safe surgery live in sub-Saharan Africa.

Delegates emphasized that fragmentation has historically weakened Africa's influence in global health decision-making. PASHeF was repeatedly recognized as a corrective mechanism, providing a collective technical and political voice to elevate surgical care within the African Union (AU), Africa CDC, WHO, and national policy processes. PASHeF's rapid growth, from approximately 60 to over 100 members across the continent, reflects increasing recognition of this role.

3. Country Perspectives: Shared Challenges, Contextual Realities

Jean Raoul Chocolat, representing the Republic of Congo, highlighted that surgical pathologies constitute nearly one-third of national disease burden, yet access remains severely constrained. Key challenges include prolonged training pathways (up to 12 years), workforce demotivation, brain drain to Europe and Asia, underfinancing, and stark urban-rural inequities. The delegation emphasized that well-equipped emergency and trauma facilities significantly influence workforce motivation and retention, and called for stronger political advocacy to reposition surgery as a national priority.

Prof Pr. Adégné Togo from Mali emphasized partnerships, decentralization, and digitalization as core strategies. Prof Togo stressed that failure to provide surgical care nationwide risks eroding public trust in government. PASHeF was identified as critical for defining standards, tracking indicators (including maternal mortality, and strengthening accountability through data systems such as DHIS2, potentially enhanced by artificial intelligence for surveillance and advocacy.

Dr Murtala Mohamed from Cabo Verde stressed a human resources-centred vision, noting a transition from exclusive reliance on external training to the establishment of a national medical school. Retention strategies extend beyond remuneration to include professional development, research, and working conditions. He acknowledged limited health budgets and gaps in Surgical, obstetrics and Anaesthesia specialists and identified PASHeF as a catalyst for introducing surgical planning into national policy discourse.

Prof. Dossouvi Tamegnon from Mali reported severe financing constraints, with health expenditure at approximately 3% of GDP. Workforce shortages, lack of equipment, and limited absorption of





locally trained professionals were highlighted as drivers of migration. Participation in PASHeF was framed as an opportunity for learning, inspiration, and alignment with regional best practices.

Equatorial Guinea representative, Dr Apolinar González Pelayo, described a strong political commitment to strengthening surgical and anesthesia systems. Investments include a national central hub with decentralized branches supporting facilities nationwide, aligned with international standards for emergency and surgical care. Delegates emphasized partnerships as essential to sustaining momentum and advocacy.

4. PASHeF Leadership Reflections

PASHeF Chair, Prof Abebe Bekele, reiterated that the forum was established to respond to Africa's massive unmet surgical need and to consolidate fragmented efforts into a coherent continental agenda. Emphasis was placed on the urgency of institutionalizing PASHeF within Africa's health architecture, particularly through Africa CDC, to ensure legitimacy, sustainability, and long-term impact. Evidence-based advocacy, grounded in African data and realities, was highlighted as central to this next phase.

Dr Fahmi Mohommod, Infection prevention and control officer, WHO, commented on the evolution of global surgical policy, noting that while Alma-Ata prioritized access, quality and safety only gained prominence through later mandates, including WHA54.18. WHO highlighted that 5–10% of surgeries globally result in death or major complications, half of which are preventable, with disproportionate harm borne by low- and middle-income countries. Priority areas outlined included surgical site infection prevention, safe anaesthesia, team-based safety culture, measurement of surgical indicators, and system-level protection of patients and providers. Dr Fahmi emphasized PASHeF's potential to bring professional expertise, patient voices, and data into global policy platforms such as the World Health Assembly, and to support countries in strengthening quality and safety frameworks.

Africa CDC Perspective: Surgery as Health Security

Dr Tsague Dongmo Landry, Center for Primary Health Care (PHC), Africa CDC

Dr Tsague Dongmo Landry from Africa CDC commended PASHeF's leadership and emphasized the intrinsic link between surgical systems and health security. He acknowledged the importance of Surgical care at all levels. He mentioned that the African CDC is located in Addis Ababa and that the PASHeF executive committee paid a courtesy visit to the institution after making all the important preparations.

Dr. Tsague Landry outlined the evolution of the Africa Centres for Disease Control and Prevention (Africa CDC), tracing its establishment to a growing continental recognition of the need for stronger public health coordination. In 2013, during a Special Summit of the African Union held in Abuja, Heads of State and Government formally agreed on the necessity of creating an Africa CDC to strengthen disease surveillance and response across the continent. This decision gained urgency following the 2014 West Africa Ebola outbreak, which exposed significant weaknesses in





surveillance systems and public health infrastructure, resulting in profound social and economic consequences.

In response, the African Union convened its 16th Extraordinary Session of the Executive Council in 2015, dedicated entirely to addressing the Ebola virus disease and reinforcing continental preparedness. These efforts culminated in 2016 with the appointment of the Africa CDC Governing Board and the convening of its first meeting. In the same year, the 26th Ordinary Session of the African Union Assembly formally adopted the resolution establishing the Africa CDC. The institution was officially launched in 2017, marking a major milestone in Africa's collective commitment to strengthening health security, disease prevention, and emergency response capacity.

Dr. Landry explained that the Africa Centres for Disease Control and Prevention was established as an autonomous, specialized technical institution of the African Union, entrusted with the responsibility of promoting disease prevention and control across the continent. He emphasized that Africa CDC's mandate reflects a collective continental commitment to safeguarding public health through coordinated, science-driven action.

According to Dr. Landry, the institution's vision is rooted in the aspiration for a safe, healthy, and resilient Africa, one where populations are protected from disease threats through strong national public health institutions and effective regional and continental collaboration. He noted that this vision guides Africa CDC's strategic direction and its engagement with Member States.

He further described Africa CDC's mission as a practical extension of this vision: to support public health initiatives of African Union Member States by strengthening the capacity of their public health institutions to detect, prevent, control, and respond rapidly and effectively to disease threats. Through technical assistance, partnerships, and evidence-based approaches, Africa CDC seeks to ensure that countries are better prepared to manage both routine public health challenges and large-scale health emergencies. Dr. Landry then emphasized the importance of strong and resilient health systems as a foundation for effective healthcare delivery. He highlighted key lessons from the COVID-19 pandemic and from discussions with the PASHeF Executive Committee, noting that robust surgical systems played a critical role by contributing oxygen supply, personal protective equipment (PPE), and critical care capacity. He stressed that a strong surgical care system enhances overall health system preparedness and is essential for responding effectively to future "Disease X" threats, supporting both prevention and control efforts.

Dr. Landry then turned to the importance of policies that strengthen infrastructure and build national capacity to support effective health systems. He highlighted key areas of convergence between the PASHeF agenda and broader African Union health priorities, noting that both initiatives are aligned in advancing resilient and equitable healthcare systems across the continent.

He specifically emphasized the critical role of data collection as a shared priority and a clear area for collaboration, where Africa CDC and PASHeF could work closely together. In addition, he underscored the importance of laboratory systems and medical equipment, outlining Africa CDC's strategic interest in advancing these capacities across Member States. He noted that these efforts align closely with PASHeF's aspirations to strengthen surgical systems and improve access to safe, timely, and high-quality care across Africa.





Dr. Landry then turned to the role of local manufacturing, noting how investments in domestic production can significantly strengthen the resilience of health systems. He highlighted local manufacturing as a critical area for capacity building and a key opportunity for collaboration between Africa CDC and PASHeF. By boosting local manufacturing capacity, he explained, the continent can increase the availability of locally produced supplies, thereby strengthening surgical and anaesthesia service delivery and reducing reliance on external supply chains. Dr. Landry emphasized that such collaboration would have a direct and lasting impact on health system resilience.

He then shifted the discussion to workforce development, describing it as another priority area where Africa CDC is currently heavily engaged. He underscored the importance of the Workforce Compact initiative launched by Africa CDC, noting that it aligns closely with PASHeF's agenda to expand and strengthen the surgical healthcare workforce across the continent. He identified this as a strong and strategic area for collaboration between the two institutions.

In closing, Dr. Tsague called on PASHeF leadership to articulate a clear and focused policy agenda on injury prevention, to define laboratory and diagnostic needs relevant to surgical care, to advance local manufacturing of surgical and anaesthesia equipment, and to integrate surgical healthcare indicators into continental health dashboards. He strongly emphasized alignment with the New Public Health Order, particularly in relation to strengthened institutions, workforce development, manufacturing, sustainable financing, and partnerships. He further noted that the establishment of a Global Surgery Division within Africa CDC is feasible, provided there is strong leadership, robust evidence, and a compelling, equity-driven case.

Audience Reflections and Deliberations

Dr. Mugisha (Tanzania) raised a question regarding possible flagship pathways for integrating surgical care within Africa CDC structures. In response, Dr. Landry emphasized the importance of grounding such efforts in the African Union's broader vision and realities, particularly the aspiration of *"the Africa we want"* as articulated in Agenda 2063. He noted that strengthening healthcare systems is an integral part of Africa CDC's mandate and long-term commitment.

Referring to the PASHeF 50-Point Consensus, Dr. Landry stated that he was convinced there are several areas of overlap between Africa CDC and PASHeF, particularly in health systems strengthening. He highlighted "low-hanging fruit" such as workforce development and specialty training as practical entry points for collaboration. These interventions, he explained, have the potential to reduce maternal mortality, improve the management of chronic diseases, strengthen primary healthcare, and prevent disease-related complications. He concluded by emphasizing that aligning surgical system strengthening with broader public health priorities can serve as an effective and strategic entry point for sustained collaboration.

Dr. Ashcalew Worku, Pulmonologist and Advisor to the Ministry of Health of Ethiopia, highlighted two critical insights for advancing collaboration. First, he identified PASHeF's work on patient safety and legal frameworks as a potential entry point for immediate engagement. Second, he proposed a hub-and-spoke research model to bring together researchers across countries, enabling the generation of meaningful and coordinated data for the continent. He noted that this presents an additional area





of collaboration where PASHeF and Africa CDC share common goals in strengthening evidence generation for Africa.

Dr. Ashcalew further emphasized the importance of strong national surgical healthcare forums that amplify the voices of surgical care providers. He underscored the need for unity among the many surgical societies and recommended that PASHeF leverage existing national and continental platforms, particularly in advance of upcoming African Union Health Ministers' engagements. He concluded by expressing the Ethiopian Ministry of Health's commitment to elevating PASHeF's agenda to a level where it can deliver tangible impact.

Building on these points, Dr. Landry stressed the importance of leveraging both national and continental platforms to maximize impact. He highlighted the opportunity to integrate surgical data generation within Africa's broader digital transformation agenda, particularly through continental dashboards. He explained that creating such a "data highway" would allow for the generation of data points that meaningfully inform surgical and anaesthesia care. He also noted that infection prevention and control (IPC) frameworks and African patient safety legal frameworks represent further areas for collaboration. He emphasized that patient-oriented approaches championed by PASHeF can have a direct and sustained impact on patient outcomes over time.

The roundtable concluded with consensus on several priority actions: institutionalizing PASHeF within Africa CDC frameworks; developing continental surgical healthcare indicators integrated into DHIS2 and Africa CDC dashboards; strengthening partnerships with WHO on quality and safety; advancing advocacy on workforce development, financing, rural access, and local manufacturing; and preparing consolidated recommendations for African Union Health Ministers.

In closing, Prof. Abebe captured the collective spirit of the deliberations with a simple yet powerful metaphor reflecting PASHeF's pragmatic and unified approach: "How do you eat an elephant? One bite at a time." He mentioned that it took three years to build this but it is moving with momentum.

PASHeF Member State Resolutions (English, French, Spanish, Portuguese)

Following the country report presentations, the *Member State Resolution on Policy and Governance: Integration of Surgical Healthcare into the African Union Health Agenda*, adopted in Addis Ababa on 7 November 2025, was declared as outlined in the annex.

Closing Ceremony

The day closed with regional and continental perspectives, including Africa CDC's vision under the New Public Health Order, emphasizing resilient health systems, strong leadership, local capacity, and sustainable investment. Collectively, Day 3 reinforced that while African countries are at different stages of progress, achieving safe, accessible, and affordable surgical care for all will depend on sustained political will, integrated financing, workforce development, robust data systems, and regional collaboration



