

Key Messages from the Inaugural Pan-African Surgical Conference 2025: Promoting Resilient and Sustainable Surgical Workforce Scale-up in Africa

Supplementary Digital Content

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Supplementary Digital Content 1. Hierarchical coding framework for thematic analysis

Level 1 Codes (Initial Open Coding):

- Workforce shortages
- Training capacity
- Gender equity
- Leadership gaps
- Donor-driven program misalignment
- South-South collaboration
- Policy engagement
- Research capacity
- Technology barriers
- Innovation and digital health
- Financing limitations
- Sustainability
- Local ownership

Level 2 Categories (Axial Clustering)

- Workforce development (training, retention, leadership, equity)
- System strengthening (district-level delivery, policy, financing)
- Innovation (technology adoption, efficiency)
- Research and evidence (African-led research, data gaps)
- Regional networks (collaboration, knowledge exchange)

Level 3 Overarching Themes / Recommendations:

1. Reinforce Pan-African professional networks
2. Strengthen and expand surgical training programs
3. Advance surgical equity through policy and advocacy
4. Promote African-led, context-specific research
5. Harness innovation for efficient, equitable surgical care
6. Invest sustainable in locally driven solutions

Supplementary Digital Content 2. Comprehensive Pan-African Surgical Conference 2025 Schedule and Speaker List

SDC 2-a. Pan-African Surgical Conference pre-conference programming schedule

Session	Date(s)
Microsurgery Simulation Lab	19-20 February
Cadaver-Based Flap Course	21-22 February
Basic Life Support	21-22 February
Pediatric Advanced Life Support	22-23 February
Essentials of Pain Management	
Non-Technical Surgical Skills	
Introduction to Global Surgery Short Course	22-23 February
Rwanda Surgical Society Annual General Meeting	23 February

SDC 2-b. First day proceedings on advancing surgical education across Africa

Main Session: Advancing Surgical Education across Africa (24 February 2025)	
Faustin Ntirenganya (<i>Rwanda</i>)	Welcome and delivery of the vision for surgery in Rwanda from Rwanda Surgical Society President
Kathy Magee (<i>United States</i>)	Opening remarks from Operation Smile Co-founder, President and Chief Executive Officer
Honourable Minister of Health, Dr. Sabin Nsanzimana	Opening remarks
Honourable Prime Minister of the Republic of Rwanda, Dr. Édouard Ngirente	Official opening of the inaugural Pan-African Surgical Conference
Didas Kayihura (<i>Rwanda</i>)	The role of academia in building Africa's surgical community through regional integration and development
Abebe Bekele (<i>Rwanda</i>)	Surgical education in Africa: Past, present and future perspectives
Panel Moderator: Faustin Ntirenganya (<i>Rwanda</i>)	Advancing surgical education in Africa: Models of success
Panel	Charles Furaha (<i>Rwanda</i>) Anil Madaree (<i>South Africa</i>) Rose Alenyo (<i>Uganda</i>) Abebe Bekele (<i>Rwanda</i>)
Panel Moderator: Robert Riviello (<i>United States</i>)	Local, regional and global collaborations for advancing surgery across Africa
Panel	Jane Fualal Odubu (<i>Uganda</i>) Florent Rutagarama (<i>Rwanda</i>) Salome Maswime (<i>South Africa</i>) Stella Itungo (<i>Tanzania</i>) Glory Msibi (<i>Eswatini</i>) Andrea Pusic (<i>United States</i>) Peter Nthumba (<i>Kenya</i>)

SDC 2-c. Second day proceedings on surgical innovation

Main Session: Surgical Innovation to Advance Access and Clinical Skill Development (25 February 2025)	
Julien Gashegu (<i>Rwanda</i>)	The power of simulation for clinical skills development
Allyn Auslander (<i>United States</i>) Faustin Ntirenganya (<i>Rwanda</i>)	AI in medical innovation for Africa
Kathryn Chu (<i>South Africa</i>)	The ethics of global surgery innovation
Panel Moderator: George Galiwango (<i>Uganda</i>)	NGO investments in surgical innovation and impact
Panel	Eric Philbert Mugoya (<i>Uganda</i>) Pedro Santos (<i>Mozambique</i>) Elizabeth Coté (<i>United States</i>)
King Kayondo (<i>Rwanda</i>)	Sustaining minimally invasive surgery in Africa: Case of IRCAD Africa
Panel Moderator: Roba Khundkar (<i>United Kingdom</i>)	Role of private industry partners in fostering surgical equity through surgical innovation
Panel	King Kayondo (<i>Rwanda</i>) Paul Odula (<i>Kenya</i>) Emmanuel Kayibanda (<i>Rwanda</i>) Kevin Brinke (<i>Netherlands</i>)
Peter Nthumba (<i>Kenya</i>)	Publishing research from the African continent

Abbreviations: NGO (non-governmental organization), IRCAD (Institut de Recherche contre les Cancers de l'Appareil Digestif)

SDC 2-d. Third day proceedings on leadership and specialization to strengthen Africa's workforce

Main Session: Creating Balanced Surgical Ecosystems: Leadership and Specialization (26 February 2025)	
Salome Maswime (<i>South Africa</i>)	Building the next generation of global health leaders
Panel Moderator: Mumba Chalwe-Kaja (<i>Zambia</i>)	Driving gender equity in surgery
Panel	Salome Masiwime (<i>South Africa</i>) Francoise Mukagaju (<i>Rwanda</i>) Metasebia Worku Abebe (<i>Ethiopia</i>) Naikhoba Munabi (<i>United States</i>)
Fetiya Awol (<i>Ethiopia</i>)	Faces of the future: Investing in the power of women
Panel Moderator: Gaston Nyirigira (<i>Rwanda</i>)	Going beyond the surgeons: Investing in multidisciplinary care / Advancing critical care in low-resource settings
Panel	Esperance Muhawenayo (<i>Rwanda</i>) Lawal-Aiyedun Olubunmi (<i>Nigeria</i>) Nicole Shilkofski (<i>United States</i>) Steven Naum (<i>United States</i>)
Hanna Getachew Woldeslassie (<i>Ethiopia</i>)	Role of regional bodies in surgical workforce development: Case of COSECSA/WACS
Menelas Nkeshimana (<i>Rwanda</i>)	Human resources for health 4x4 bodies
Panel Moderator: Ian Shyaka (<i>Rwanda</i>)	Fellowships and advanced subspecialty training in Africa
Panel	Hanna Getachew Woldeslassie (<i>Ethiopia</i>) Menelas Nkeshimana (<i>Rwanda</i>) Faustin Ntirenganya (<i>Rwanda</i>)
Aneel Bhangu (<i>United Kingdom</i>)	The power of simulation for clinical skills development / Surgical technological innovation - Advancing access and clinical skills development

Abbreviations: COSECSA (College of Surgeons of East, Central and Southern Africa), WACS (West African College of Surgeons)

SDC 2-e. Fourth day proceedings on integration of research into practice

Main Session: Supporting Research in Surgical Practice (27 February 2025)	
Amanda Gosman (United States)	Global research collaborations, the power of using data to advance global health priorities
Panel Moderator: Isaie Ncogoza (<i>Rwanda</i>)	Global burden of disease research / Supporting research in surgical practice
Panel	Bruce Biccard (<i>South Africa</i>) Kathryn Chu (<i>South Africa</i>) Emmanuel Makasa (<i>Zambia</i>) William P Magee III (<i>United States</i>) Stephen Rulisa (<i>Rwanda</i>) Amanda Gosman (<i>United States</i>)
Breakout Session 1: Surgical Education Presentations	
Moderators	JC Allen Ingabire (<i>Rwanda</i>) Faith Muchemwa (<i>Zimbabwe</i>) Clovis Baramburiye (<i>Burundi</i>) Wone Banda (<i>Malawi</i>)
Breakout Session 2: Global Health (Surgery, Anesthesia and Nursing) Presentations	
Moderators	Wone Banda (<i>Malawi</i>) Miguel Gasakure (<i>Rwanda</i>) Fidel Simba (<i>Rwanda</i>) Yegeremu Kebede (<i>Ethiopia</i>)
Breakout Session 3: Plastic Surgery: Patient Care and Outcomes Presentations	
Moderators	Abraham Gebregziabher Negussie (<i>Ethiopia</i>) Pedro Santos (<i>Mozambique</i>) Tilinde Chokotho (<i>Rwanda</i>) Mekonen Eshete (<i>Ethiopia</i>)
Panel: Access to Surgical Care in Rwanda and Sub-Saharan Africa: What is Next?	
Panel Moderator	Ulrick Kanmounye (<i>Cameroon</i>)

SDC 2-f. Fifth day proceedings on advocacy and policy updates for surgical systems strengthening

Main Session: Co-creating Robust Surgical Systems: Policy and Advocacy (28 February 2025)	
Ruben Ayala (<i>Virginia, United States</i>)	Advocating for surgical system strengthening as a component of Universal Health Coverage: Where are we now?
Abebe Bekele (<i>Rwanda</i>)	Pan-African Surgical Healthcare forum: Overview of NSOAP implementation in Africa
Emile Rwamasirabo (<i>Rwanda</i>)	Rwanda NSOAP 4-year review: Results and recommendations
Afua Adwo Jectey Hesse (<i>Ghana</i>)	The NSOAP development process in Ghana
Panel Moderator: Irene Dzirasa (<i>Ghana</i>)	The power of integration: Strengthening health systems for surgical care in Africa
Panel	<p>Kwesi Asabir (<i>Ghana</i>)</p> <p>Adebusola Adenike Owokole (<i>Ireland</i>)</p> <p>Mohammed Semakula (<i>Rwanda</i>)</p> <p>Larry Akoko (<i>Tanzania</i>)</p> <p>Barnabas Alayande (<i>Rwanda</i>)</p> <p>Faustin Ntirenganya (<i>Rwanda</i>)</p> <p>Afua Adwo Jectey Hesse (<i>Ghana</i>)</p>
Chair: Faustin Ntirenganya (<i>Rwanda</i>) Co-Chair: William P Magee III (<i>United States</i>)	Conference wrap-up and Resolutions
Honourable Minister of State for Health, Yvan Butera	Closing remarks

Abbreviation: NSOAP (National Surgical, Obstetric, and Anesthesia Plan)