

# SASOM 2025 Conference tackles AI, informal work, and the future of occupational medicine in Africa

## **Multi-disciplinary summit explores technology's role in advancing medical care for vulnerable workers and strengthening occupational medicine practice**

The South African Society of Occupational Medicine (SASOM) successfully convened its 2025 Annual Conference on 15 November 2025 at the Protea Fire & Ice! Menlyn, bringing together occupational medicine practitioners (OMPs) alongside nurses, ergonomists, human resources professionals, and technology innovators to address one of the most pressing challenges facing occupational medicine practice in Africa: the intersection of artificial intelligence (AI), informal work, and worker health protection.

Under the theme *Artificial Intelligence at the Crossroads of Informal Work and Public Health: Risks, Innovations, and Responsibilities*, the conference examined how technology, innovation, and multi-disciplinary collaboration can strengthen occupational medicine's capacity to protect and advance the health of workers in the informal sector – a population representing approximately 60% of the global workforce and over 80% of Africa's labour force.

### **MULTI-DISCIPLINARY COLLABORATION STRENGTHENS OCCUPATIONAL MEDICINE**

The conference showcased how allied disciplines strengthen occupational medicine practice, featuring expertise from cybersecurity, ergonomics, nursing, AI development, and international public health policy working alongside OMPs.

*"The challenges facing occupational medicine today cannot be solved by medicine working in isolation", said Prof. Daan Kocks, Chair of SASOM. "This year's conference demonstrated the power of bringing together diverse perspectives – from cybersecurity experts and AI developers to nurses on the frontlines and ergonomics specialists working in communities. Each discipline brings unique insights that, when integrated with occupational medicine practice, create comprehensive solutions for protecting worker health and wellbeing, particularly for those in vulnerable and informal employment."*

Seven distinguished presenters delivered evidence-based insights spanning cybersecurity threats to healthcare systems (Prof. Joey Jansen van Vuuren, Tshwane University of Technology); the ethical integration of AI in occupational medicine across Africa (Dr Casper Joubert, Stellenbosch University); human factors engineering in informal economies (Ms Sma Ngcamu-Tukulula, President of the Ergonomics Society of South Africa (ESSA), and Mr Andrew Todd, Rhodes University); community-based nursing interventions (Sr Mercia Patience, South African Society of Occupational Health Nursing Practitioners (SASOHN)); AI-powered tuberculosis (TB) screening technology (Mr Johan Coetzee, AI Diagnostics); and global perspectives on migrant and informal worker health (Dr Acran Salmen-Navarro, New York University, USA and President of the Global Coalition on Informal Workers' Health, Safety and Wellbeing (GCIW)).



15

**SASOM**  
 South African Society  
 of Occupational Medicine  
 FOUNDED IN 1948

**ARTIFICIAL INTELLIGENCE  
 AT THE CROSSROADS OF  
 INFORMAL WORK AND  
 PUBLIC HEALTH**

Sponsored by and in collaboration with:

**SSEM**  
 Mthembu  
 MEDICAL

**AI**  
 DIAGNOSTICS

**GCIW**  
 Global Coalition on  
 Informal Workers

**RMA**  
 ergonomics  
 SOCIETY OF  
 SOUTH AFRICA

Image: courtesy of SASOM

## CENTERING INFORMAL AND MIGRANT WORKERS IN OCCUPATIONAL MEDICINE

A defining focus of the 2025 conference was the urgent need to extend healthcare and occupational medicine protections to informal and migrant workers – populations historically excluded from medical workplace safety systems, despite facing disproportionate health risks.

Ms Sma Ngcamu-Tukulula emphasised the necessity of recalibrating human factors and ergonomics practice to serve Africa's informal economy. *"We must transition from compliance-focused approaches to co-creation with informal workers, from risk avoidance to resilience building, and from human-machine fit to human-system synergy", she stated. "Embedding 'Ubuntu' principles – our African values of collective wellbeing, dignity, and compassion – reinforces the ethical foundation of ergonomics and ensures our solutions truly serve the communities who need them most."*

Dr Acran Salmen-Navarro, joining virtually from New York, provided international context on the precarious conditions facing informal and migrant workers, globally. *"Informal and migrant workers have historically faced what we call '4-D jobs' – dirty, dangerous, difficult, and discriminatory", noted Dr Salmen-Navarro. "As technology reshapes the global workforce, we have both an opportunity and a responsibility to ensure AI and innovation enhance worker dignity and wellbeing rather than deepening existing inequalities. The collaboration between SASOM, GCIW, and African institutions represents exactly the kind of partnership needed to drive meaningful change."*

The conference also previewed the First International Conference on Informal Work: Health, Safety and Wellbeing, scheduled for November 2026 in Santiago de Cali, Colombia – positioning South African OMPs as leaders in this global movement.

## AI AS TOOL FOR OCCUPATIONAL MEDICINE PRACTICE

Several presentations explored how AI and digital health technologies can address longstanding gaps in occupational medicine surveillance, diagnosis, and clinical intervention – particularly in resource-constrained settings.

Mr Johan Coetzee presented AI Diagnostics' AI-powered TB screening platform, approved by the South African Health Products Regulatory Authority (SAHPRA), which enables frontline health workers to conduct accurate TB screening using a smart stethoscope and mobile application. This innovation exemplifies how technology can expand access to specialist-level diagnostic capability in communities without requiring costly infrastructure or specialist personnel – strengthening OMPs' reach.

Dr Casper Joubert argued that Africa has a unique opportunity to "leapfrog" traditional development barriers by adopting AI strategically and ethically in occupational medicine practice. However, he cautioned that success requires a "human-in-the-loop" approach, robust governance, and careful attention to algorithmic bias, data privacy, and worker dignity. Prof. Joey Jansen van Vuuren highlighted the growing cybersecurity risks facing healthcare systems, emphasising that protecting health and medical data is



Participants at the 2025 SASOM Conference – L to R: Dr Jameson Malemela (Sibanye Stillwater), Prof. Daan Kocks (SASOM Chair), and Dr Geoffrey Tafaune (SASOM Treasurer) Photograph: Claudina Nogueira

itself a workplace safety and wellbeing issue – particularly given recent ransomware attacks on South Africa’s National Health Laboratory Service and other health institutions.

**PROFESSIONAL DEVELOPMENT AND CONTINUING MEDICAL EDUCATION**

The conference programme was accredited by the South African Medical Association (SAMA) for four Clinical and four Ethical Continuing Education Units (CEUs), automatically awarded to all Health Professions Council of South Africa- (HPCSA-) registered practitioners who attended in full. This accreditation underscores SASOM’s commitment to advancing occupational medicine practice through continuing medical education and rigorous professional development. Session chairs – Dr André Kotzé (SASOM Vice-Chair), Dr Mpho Rakgoale (National Institute for Occupational Health), and Dr Geoffrey Tafaune (SASOM Treasurer) – facilitated robust discussions that integrated clinical, ethical, policy, and practical dimensions of contemporary occupational medicine practice.

**STRATEGIC PARTNERSHIPS STRENGTHEN OCCUPATIONAL MEDICINE CAPACITY**

The conference was made possible through collaboration with the GCIW and ESSA, alongside sponsor support from SSEM Mthembu Medical, Rand Mutual Assurance (RMA), AI Diagnostics, Ampath Laboratories, and Dr Mahmood Jina.

Ms Claudina Nogueira, the International Commission on Occupational Health’s (ICOH’s) National Secretary for South Africa and President of Workplace Health Without Borders (WHWB), provided updates on ICOH activities and emphasised the value of international collaboration in strengthening South Africa’s occupational medicine capacity and global influence.

**LOOKING FORWARD**

The 2025 SASOM Conference concluded with renewed commitment to advancing occupational medicine through innovation, collaboration, and inclusive practice. The Annual General Meeting (AGM) followed immediately after the conference, with delegates expressing strong support for continuing this momentum into 2026.

As Africa’s workforce continues to evolve – shaped by technological change, migration patterns, climate pressures, and economic transformation – SASOM’s role in providing thought leadership, evidence-based medical guidance, and multi-disciplinary platforms for collaboration becomes increasingly vital.

The presentations and discussions from the 2025 SASOM Conference will inform ongoing research, policy development, and occupational medicine practice innovation across South Africa and beyond, particularly in extending healthcare and medical protections to workers in informal, precarious, and non-traditional employment arrangements.

**ABOUT SASOM**

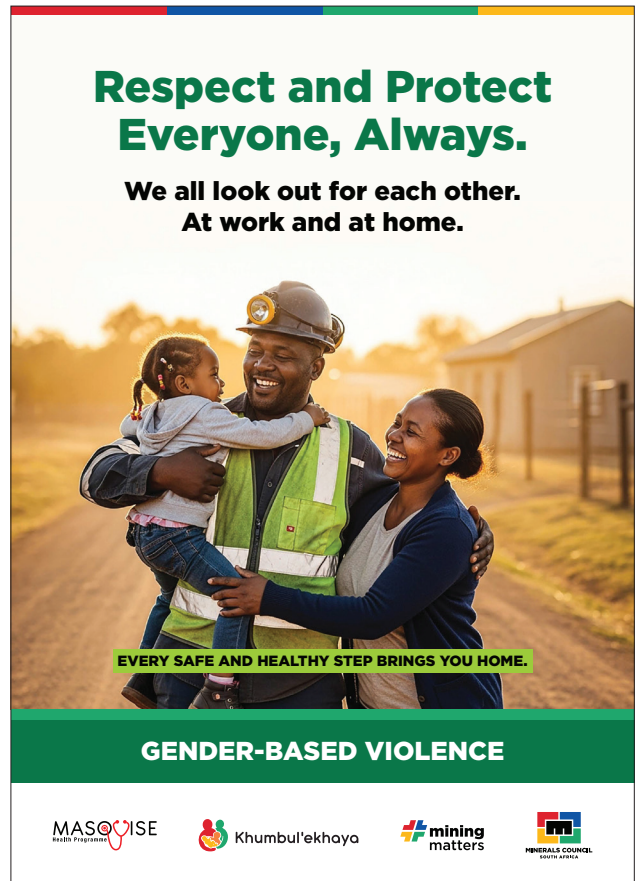
SASOM is a special interest group of SAMA with links to the World Medical Association. SASOM is affiliated with ICOH and its 37 Scientific Committees. Founded in 1948, SASOM’s mission is to promote, protect, and enhance the health of the working population of South Africa. Through guidance, education, standards, and collaboration, SASOM helps professionals navigate evolving risks, technologies, and regulatory expectations, while advancing the recognition of occupational medicine as a speciality field. For more information, visit [www.sasom.org](http://www.sasom.org)



**Underground Safety Brings You Home Safely.**  
 Moving carefully underground helps bring you closer to being back with those who love you.  
 EVERY SAFE AND HEALTHY STEP BRINGS YOU HOME.

**SAFE STEPS UNDERGROUND**

MASOISE Health Programs | Khumbul'ekhaya | mining matters | MINERALS COUNCIL SOUTH AFRICA



**Respect and Protect Everyone, Always.**  
 We all look out for each other. At work and at home.  
 EVERY SAFE AND HEALTHY STEP BRINGS YOU HOME.

**GENDER-BASED VIOLENCE**

MASOISE Health Programs | Khumbul'ekhaya | mining matters | MINERALS COUNCIL SOUTH AFRICA