

34th International Congress on Occupational Health (ICOH2024): the Marrakesh Express arrives at its final destination

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Marrakesh meander: a never-to-be-forgotten experience

The essence of Marrakesh – the ‘Ochre City, in Morocco’ – is a blend of vibrant colours, bustling souks (markets), rich history, and diverse cultures. It is a city where ancient traditions meet modern influences, creating a unique tapestry of experiences for leisure and business travellers alike.

One of the defining features of Marrakesh is its medina – a maze-like ancient city filled with narrow alleyways, humming bazaars, and treasure troves of hidden gems, waiting to be discovered. The sounds of hawkers, the aroma of spices, and the dazzling colours of textiles create a sensory overload that is both exhilarating and enchanting. The Jemaa el-Fnaa square in the heart of the medina is a UNESCO World Heritage site. By day, it is filled with colourful stalls selling everything under the sun (literally). By night, it transforms into a lively open-air spectacle, with storytellers, musicians, snake charmers, and food vendors creating an electric atmosphere. From artisan workshops and souks to hammams (traditional Moroccan bath houses) and centuries-old riads (traditional Moroccan homes or guesthouses built around a central courtyard or garden), the medina is a feast for the senses at every turn.

The architecture of Marrakesh is another key aspect of its essence. From the intricate tilework of the Ben Youssef Madrasa and the grandeur of the Bahia Palace, to the historic landmarks of the Koutoubia Mosque – the largest and most iconic in the city – and the Saadian Tombs dating back to the 16th century, the city’s buildings are a testament to its rich past and cultural heritage.

Marrakesh cuisine is as diverse and appetising as the city itself – a tantalising fusion of flavours, drawing influence from Berber, Arab, Moorish, and Andalusian culinary traditions. The iconic tagine (a slow-cooked stew of meat and vegetables), couscous (steamed semolina grain), pastilla (sweet-savoury pastry), mechoui (succulent, slow-roasted lamb), and harira (a hearty soup) entice the taste buds, whether you are sampling street food in the souks and cafés or dining in a riad or a fine restaurant. No meal in Marrakesh is complete without a glass of traditional mint tea. Made with green tea, fresh mint leaves, and a generous amount of sugar, this sweet and refreshing beverage is a staple of Moroccan hospitality and is enjoyed throughout the day; there is an art and science to pouring and serving the mint tea!

Peaceful oases like the Majorelle Garden – a haven of exotic plants, serene ponds, and vibrant blue buildings, all set against the backdrop of the Atlas Mountains, and the Menara Garden, dating back to the 12th century and originally used as an orchard and olive grove by the rulers of Marrakesh – provide escapes from the hustle and bustle of the medina, and opportunities to soak up the tranquillity of nature.

However, the true essence of Marrakesh lies in its people. The warmth and hospitality of the locals, known as ‘Marrakchis’, are legendary. Whether you’re sipping mint tea in a riad or bargaining for handmade crafts and jewellery in the souks, you’ll find yourself welcomed with open arms and treated like family.



The Marrakesh medina – In the labyrinthian ancient part of the city, the clamour of vendors, the fragrance of spices, and the vivid hues of fabrics combine to overwhelm the senses in a way that is thrilling and captivating

Photograph: Claudia Frost (South Africa)



Marrakesh is a vibrant blend of history, culture, and hospitality that captivates the senses and leaves a lasting impression on all who visit. A leisurely stroll or ride in a horse-drawn carriage through the winding streets and lively markets of the city, taking in the sights, sounds, and aromas that make Marrakesh so enchanting, was proof positive that the 'Ochre City' was the perfect venue to host the ICOH2024 Congress!



Moroccan craftsmanship in the heart of Marrakesh – Visiting the Bahia Palace is a popular tourist activity, offering a chance to admire its exquisite architecture, learn about Moroccan history, and experience the beauty of its gardens

Photograph: Claudia Frost (South Africa)

Introduction to the ICOH2024 Congress

ICOH2024 – the 34th International Congress on Occupational Health of the International Commission on Occupational Health (ICOH) – themed *Enhancing Occupational Health Research and Practices: Closing the Gaps!*, was held from 28 April to 3 May 2024, at the *Palais de Congrès* in Marrakesh, Morocco. ICOH is grateful to its scientific committees (SCs), working groups (WGs) and members for their valuable contributions and ongoing commitment and dedication to occupational health, which ensure the sustainability and continuity of the ICOH congress. The congress organisers (ICOH, supported by the Moroccan Organising and Scientific Committee members, the Moroccan Occupational Health Association (MOHA), the Faculty of Medicine and Pharmacy of the University Hassan II of Casablanca, and working in close collaboration with the professional congress organiser, 'We Mice You') endeavoured to reinstate the flavour of the traditional ICOH triennial congresses, in post-pandemic times, by returning to an in-presence format.

During the condensed past triennium (two years: 2022–2024) instead of three, as a direct result of the impact of the Pandemic and an extended previous triennium of four years (2018–2022) instead of three, the SCs, WGs and Board members of ICOH and the National Scientific Committee (Morocco) contributed extensively and enthusiastically to the development of the scientific content of the congress in various ways, e.g. by recommending plenary and semi-plenary speakers, sourcing presenters, organising 73 special sessions, and providing reviewers for the abstracts submitted to free paper session topics as oral or e-poster presentations.

Fast facts on the ICOH2024 Congress

- Approximately 1 300 participants (occupational health experts, researchers, practitioners, trainers, and educators)
- 93 countries from six continents
- Approximately 900 presentations delivered across all oral sessions
- Registration fee waivers granted to 99 presenters (ICOH members in good standing) from low- and middle-income countries (LMICs)

- One opening keynote address
- 10 plenary presentations
- 32 semi-plenary presentations
- Global Policy Forum – 'Strategies to improve occupational health and safety policies and implementation in low- and middle-income countries'
- 73 special sessions with close to 300 presentations
- 78 free paper sessions with 1 394 presentations (513 oral communications and 881 e-posters) across the 51 free paper session topics (see Tables 1 to 6)
- Scientific content – 350 hours across all sessions
- ICOH2024 was accredited by the European Accreditation Council for Continuing Medical Education (EACCME®) for a maximum of 28 European CME credits (ECMEC®s)
- Accepted abstracts are in the process of being published as open access ICOH2024 Congress Proceedings in an online supplement of *Occupational Medicine*, one of the key international journals in its field and part of the Oxford Academic, Oxford University Press (OUP) platform, with an impact factor of 5.1
- 34 of the 66 applications received for the International Labour Organization (ILO) Master Fellowship in OSH Award (open to ICOH members from LMICs with a scientific contribution at the congress) met the basic requirements; 14 applicants submitted the additional requested documents to be admitted to the selection process. Two winners were identified:
 - Dr Anissa Thattil (India)
 - Dr Cheng Lim Yin (Malaysia)
- Eight winners in the student poster competition and two winners of the Moroccan best poster award (see Table 7)

ICOH2024 Congress special sessions

The congress organisers endeavoured to grant at least one special session to all SCs and WGs that submitted proposals. Preference was given to special sessions organised, collaboratively, by more than one SC and/or WG and/or other entity.

Several special sessions were organised and presented by external (non-ICOH) organisations, in some cases in collaboration with ICOH SCs, e.g. Barcelona Institute for Global Health (ISGlobal), Spain; Cochrane Thematic Group 'Work and Health and Social Security'; European Academy of Allergy and Clinical Immunology (EAACI) Taskforce on Work-related Asthma Questionnaires and Algorithms for Screening and Surveillance (WAQASS); European Association of Schools of Occupational Medicine (EASOM); European Union of Medical Specialists (UEMS); European Agency for Safety and Health at Work (EU-OSHA); French Society of Occupational Health; Global Network for Evidence Synthesis in OSH; Human Factors and Ergonomics Society (HFES); International Agency for Research on Cancer (IARC); International Association of Labour Inspection (IALI); International Centre for Rural Health, Milan, Italy; International Ergonomics Association (IEA); International Organization of Migration (IOM); International Social Security Association (ISSA) – Research and Construction Sections; ISO TC283 OHS Management Systems; Kuwait University; MEDICHEM; Migration Health and Development Research Initiative (MHADRI); Nordic Labour Inspections (Nordic Future of Work Group for OSH Practice); OSHAfrica; Partnership for European Research on Occupational Safety and Health (PEROSH); Workplace Health Without Borders (WHWB); Women in Informal Employment: Globalising and Organising (WIEGO); the ILO; and the World Health Organization (WHO).



Publish or perish – The special session on publishing research on workers' health brought together Editors-in-Chief of a sample of international journals. L-R: Won-Jun Choi, *ICOH Newsletter* (Republic of Korea); Seong-Kyu Kang, *Safety and Health at Work* (Republic of Korea); Hans Kromhout, *Occupational and Environmental Medicine* (The Netherlands); Gill Nelson, *Occupational Health Southern Africa* (South Africa); Ingrid Siversind Mehlum, *Scandinavian Journal of Work Environmental Health* (Finland); Paul Blanc, *Journal of Occupational Medicine and Toxicology* (USA); Alexis Descatha (France) and Jacqueline Moline (USA), *Archives of Occupational and Environmental Diseases*; and Hyoung-Ryoul Kim, Chair of the session and Associate Editor of *Safety and Health at Work* (Republic of Korea)

Photograph: courtesy of Prof. Seong-Kyu Kang (Republic of Korea)

One ICOH sustaining member and two affiliate members, respectively, organised/co-organised one special session each:

- Institution of Occupational Safety and Health (IOSH, UK) – 'Proactive approach to accident prevention through risk management' in collaboration with the ICOH SC on Accident Prevention. The session explored the risks associated with vulnerable and high-risk sectors, e.g. high-risk industries such as oil and gas, as well as small- and medium-sized enterprises, and provided insights into how injury and disease prevention, and safe and healthy work for all, can be achieved.
- Colombian Society of Occupational Medicine – 'Psychosocial risks and mental health promotion in Colombia', which included the following presentations: i) futuristic vision: mental health in Colombia; ii) mental health management in companies: the importance and impact of health promotion strategies; and iii) impact and assessment of mental health issues/consequences as occupational diseases.
- Society of Occupational Medicine of the Province of Buenos Aires, Argentina (SMTBA) – 'Occupational health in Latin America: post-graduate student presentations'. The presentations, in Spanish, were on the following topics: i) factors associated with daytime sleepiness in public transportation drivers in Lima, Peru; ii) validation of the Computer Vision Syndrome Questionnaire (CVS-Q) instrument among administrative workers in Lima, Peru; iii) toluene

use and exposure and its implications for the visual health of restorers of works of art; and iv) potential nano-toxicological risks of carbon nanotubules in workers' health.

The special session 'How to publish your work on workers' health: insights from the Editors-in-Chief of several OSH journals', organised by the ICOH President, Prof. Seong-Kyu Kang, was very well attended. Scientists usually seek to publish their work in renowned international journals, primarily indexed in Web of Science (WoS) or Scopus. However, young scientists often face challenges in publishing their manuscripts due to a lack of submission strategy, despite the adequate quality of their work. In this session, Editors-in-Chief of major OSH journals provided insights into the status of their journals and offered strategies for successful submission. The seven OSH journals represented in this session, and their respective Editors-in-Chief (or their representatives), were: *Journal of Occupational Health*, Japan – Narufumi Saganuma; *Occupational and Environmental Medicine*, UK – Hans Kromhout; *Safety and Health at Work*, Republic of Korea – Seong-Kyu Kang; *Scandinavian Journal of Work Environmental Health*, Finland – Ingrid Sivesind Mehlum; *Archives of Occupational and Environmental Diseases*, France – Alexis Descatha; *Journal of Occupational Medicine and Toxicology*, USA – Paul Blanc; and *Occupational Health Southern Africa*, South Africa – Gill Nelson.

The National Scientific Committee and other Moroccan entities also contributed to the special session organisation, viz. the Association of Occupational Medicine and Ergonomics of the Northern Region of Morocco; the Association of Occupational Medicine of the Eastern Region of Morocco (AMETRO); the Interprofessional Group for Prevention and Industrial Safety (GIPSI); the Moroccan Federation of Insurance and Reinsurance Companies (FMSAR); Moroccan Society of Maritime Medicine (SMMM); and the Professional Association of Cement Manufacturers (APC).

The special session titled 'The organisation of Moroccan crafts and government policy in the artistic crafts sector', was delivered in French. The four presentations delved into common risks faced by artisans, such as exposure to toxic chemicals, and poor working conditions; explored how addressing these risks aligns with the UN's Sustainable Development Goals; tackled the issue of persistent child labour in the handicraft sector despite the ratification of international conventions; focused on the socio-economic and demographic characteristics of craft production; and discussed the organisation of Moroccan crafts and government policies in the artistic crafts sector.



From a region full of diversity, culture, traditions, and joy of life – Presenters, Chair and commentator of the Special Session 'Occupational health in Latin America: Postgraduate student presentations', delivered in Spanish. L-R: Jonh Astete Cornejo (session commentator) and Yessenia Huapaya (Peru); Graciela Molina, Claudio Taboada (session organiser and Chair), and Santiago Aldaz (Argentina)

Photograph: courtesy of Dr Claudio Taboada (Argentina)



The special sessions spanned a diverse range of topics, with some recurring themes across different sessions, such as vulnerable workers, OSH in LMICs, risk prevention, climate change; and the inclusion of various sectors and industries. Some examples of the special sessions are:

- Adverse human health and safety impacts of chemical use among small-scale miners, and their households and community, and interventions
- Bottlenecks and solutions in starting and progressing basic occupational health services
- Building global consensus for occupational health and safety management through ISO standardisation
- Building knowledge capacities for the future of work in the chemical industry
- Climate change and occupational safety and health
- Combating occupational heat stress: moving towards a global approach
- Core values at work: everyday tools for the workplace
- Effective delivery of occupational health services: promoting safety and health as a universal fundamental right at work
- Electronic waste (E-waste) and informal work in LMICs
- Emerging and continuing biohazards in the workplace
- Ergonomics and musculoskeletal disorders in health workers and healthcare settings
- Guidelines for emergency preparedness and management: learnings from situations like the 9/11 disaster and the COVID-19 pandemic
- IARC Monographs update: opportunities and challenges in occupational epidemiology and exposure characterisation
- New developments in pesticides: enhancing occupational health and safety
- Nordic and global collaborations for OSH impact: integrating 'Vision Zero', climate change, and non-communicable disease prevention to create safe, sustainable, and healthy workplaces for all
- Occupational and environmental medicine in Africa
- Occupational cancer: what are we missing?
- Occupational disease coverage system in Morocco and international market perspectives (session in French)
- Occupational health for indigenous and migrant workers: challenges and opportunities

Table 1. Geographical origin of ICOH2024 Congress free paper (oral and e-poster) presentations

Continent	No.
Africa	325
Asia	384
Europe	470
North America	113
Oceania	28
South America	74
Total	1 394

Table 2. Accepted oral and e-poster presentation abstracts by continent

Continent	No. oral abstracts	No. e-poster abstracts
Europe	194	276
Asia	119	265
Africa	105	220
North America	60	53
South America	20	54
Oceania	15	13
Total	513	881

- Occupational health in the automotive industry in Tangiers, Northern Morocco (session in French)
- Occupational health of the fisherman
- Occupational health training and education in LMICs: overcoming challenges and developing solutions
- Occupational safety and health and decent work
- Off-job experiences and wellbeing
- Prevention of exposure to radiation risks: current updates and implications for workers' health
- Road safety programme in the Moroccan cement industry (session in French)
- SDG 8 Decent Work: healthy workplaces for vulnerable workers
- Screening and surveillance for work-related asthma
- Shiftwork, health, and the individual: challenges and opportunities for research and prevention
- The future of work after the COVID-19 pandemic: ethical issues and proposed solutions
- The history of occupational health on the African continent
- The jigsaw of job insecurity
- 'Vision Zero' for promoting a culture of prevention in construction: role of leadership, stakeholders, and technology
- Women, health, and work in post-pandemic times

ICOH2024 free paper communications (orals and e-posters)

Details regarding geographical origin, the most popular topics for abstract submission, the 10 countries with the highest numbers of accepted abstracts, and the poster awards, are provided in Tables 1–7.

Since the ICOH2009 Congress in Cape Town, the student poster competition has been a main event at ICOH congresses. Free membership for the 2024–2027 triennium was awarded to all eight winners; monetary prizes were awarded to the top three winners (see Table 7).

Various ICOH SCs and WGs and other organisations used the congress as an opportunity to hold business meetings, and two 'meet and greet' sessions were held for 'old' and 'new' SC leadership (outgoing and incoming Chairs and/or Secretaries) and the ICOH National Secretaries. The non-profit international organisation, WHWB, held a meeting to discuss the proposal for the launch of an African branch of WHWB.

Table 3. Accepted oral presentation abstracts for the 11 most popular free paper sessions

Free paper session	No.
Occupational safety and health (OSH) in Morocco	34
Epidemiology in occupational health	34
Positive mental health, work engagement, and wellbeing	31
Occupational medicine	28
Occupational health for health workers	27
OSH in low- and middle-income countries (LMICs): sharing good practices	26
Women, health, and work	20
Education and training in occupational health	18
Psychosocial risks: regulation and policies from an international comparative perspective	14
Evidence-based prevention in occupational health	14
Occupational health in small-scale enterprises	14
Total	260

Table 4. Accepted oral presentation abstracts by the top 10 countries

Country	No.
Morocco	49
Italy	36
India	29
Canada	27
United States	27
Belgium	23
Germany	23
China	21
France	20
Sweden	16
Total	271

Table 5. Accepted e-poster presentation abstracts for the 10 most popular free paper sessions

Free paper session	No.
Occupational health for health workers	85
Epidemiology in occupational health	63
Occupational medicine	56
Occupational toxicology, human biomonitoring, and neurotoxicology	45
Positive mental health, work engagement, and wellbeing	44
Education and training in occupational health	38
Work-related musculoskeletal disorders: the new ways of working and prevention among informal workers	31
Shiftwork and working time	28
Evidence-based prevention in occupational health	28
Occupational safety and health (OSH) in Morocco	26
Total	444

Table 6. Accepted e-poster presentation abstracts by the top 10 countries

Country	No.
Tunisia	89
Morocco	67
India	53
Italy	51
Japan	50
Germany	31
China	30
Brazil	29
France	27
Belgium	26
Total	453

Table 7. Winners of poster competitions

Student winners	Name	Country	Title of poster
First	Adam Moskowitz	USA	Occupational injury from patient handling and workplace violence at residential disability and mental health facilities
Second	Shinhyeong Kim	Korea	The impact of long working hours (LWH) and the use of work-related communication devices outside regular working hours (WDOW) on computer vision syndrome (CVS) among workers intensively utilising visual display terminals (VDTs)
Third	Kian Kiong Yap	Malaysia	Predictors of noise-related hearing disorder among vector control workers in Kuala Lumpur
Runner-up	Marieme Tah	Tunisia	Work-related factors affecting life and job satisfaction among medical residents
Runner-up	Aicha Haddar	Tunisia	Assessment of radiological risk in the operating rooms of a university hospital in Sfax, Tunisia
Runner-up	Chayma Sridi	Tunisia	Extremely low frequency electro-magnetic fields and quality of sleep: a cross-sectional study in a power plant in Tunisia
Runner-up	Moustafa Sherif	UAE	Genotoxicity of occupational pesticide exposures among agricultural workers in Arab countries
Runner-up	Amanda Voss	Germany	Evaluation of secondary aspects of online teaching by medical students
Jaouad El Jaï Prize – best Moroccan poster	Nadia Manar	Morocco	Prevalence of respiratory symptoms, diseases and ventilatory disorders among dental technicians
	Imane Zerrad	Morocco	Child labour in Moroccan legislation: view of an occupational physician



'Empowering people to change their working conditions' – Workplace Health Without Borders (www.whwb.org) leadership, members, OSHAfrica representatives, and friends of occupational safety and health met at the ICOH2024 Congress to start discussing a proposal to launch an African branch of WHWB

Photograph: courtesy of Ehi Iden (Nigeria)



First ICOH General Assembly

The First ICOH General Assembly, held on Sunday 28 April 2024, was attended by ICOH members in good standing only; it comprised the following presentations and topics of discussion:

- Opening address – Prof. Seong-Kyu Kang, ICOH President
- Approval of the minutes of the previous General Assembly (ICOH2022 Rome-Melbourne Digital Congress, held virtually in February 2022)
- President's Report – Prof. Seong-Kyu Kang
- Report on ICOH Scientific Committees – Claudina Nogueira, ICOH Vice President
- Report on ICOH National Secretaries – Dr Martin Hogan, ICOH Vice President
- Secretary General's Report – Dr Diana Gagliardi
- The ICOH Triennium Report (2022–2024) – available on the ICOH website (<https://www.icohweb.org/site/news-detail.asp?id=254>)
- *ICOH Newsletter* – Prof. Won-Jun Choi, Editor-in-Chief of the *ICOH Newsletter*
- Auditor and Vice Auditor election
- Amendments to the ICOH Constitution
- Honorary ICOH membership was bestowed on Prof. Bonnie Rogers – Past ICOH Vice President (USA), and Prof. Toshiaki Higashi (Japan), in recognition of their distinguished contributions to global occupational health
- Venue for the ICOH2030 Congress – presentations by bid committees from the two candidate cities – Medellín (Colombia) and Rome (Italy) – and explanation of the voting procedure during the congress week

ICOH2024 Congress opening ceremony

The opening ceremony followed the First General Assembly. Ms Rim El Kholti (ICOH National Secretary for Morocco) was the master of ceremonies. Welcome addresses were delivered by two Presidents, viz. Prof. Abdeljalil El Kholti (ICOH2024 Congress President) and Prof. Seong-Kyu Kang (ICOH President). Congratulatory addresses were delivered by national authorities, United Nations agencies and sister organisations, represented by various invited dignitaries:

- Wafaa Asri – Secretary General of the Ministry of Economic Inclusion, Small Business, Employment and Skills, representing Younes Sekkouri – Minister of Economic Inclusion, Small Business, Employment and Skills, Rabat, Morocco
- Fanfan Rwanyindo Kayirangwa – Regional Director for Africa and Assistant Director General, ILO
- Maria Neira – Director, Department of Public Health and Environment, WHO, representing Tedros Adhanom Ghebreyesus, Director General, WHO
- Karim Cheikh – President of the General Confederation of Enterprises of Morocco (CGEM), Human Capital Commission
- Ana Ercoreca de la Cruz – Secretary General, IALI
- Samantha Connell – President, International Occupational Hygiene Association (IOHA)

The opening keynote address was delivered by Dr Elisabete Weiderpass, Director of the IARC in Lyon, France, who presented a paper on global cancer burden due to occupational exposures.

Dr Diana Gagliardi, ICOH Secretary General, introduced Dr Marilyn Fingerhut (USA), who was honoured with the ICOH Lifetime Achievement Award in recognition of her longstanding commitment, dedication, and support to the ICOH community, and invaluable contribution to global occupational health. Dr Fingerhut, an ICOH member for more than two decades,

participated remotely in the ceremony and expressed her thanks to the audience, which responded with a standing ovation. Dr Fingerhut, PhD and a molecular biologist by qualification, is retired from the National Institute for Occupational Safety and Health (NIOSH, USA), where she worked for 25 years. She also worked for NIOSH at the WHO in Geneva, Switzerland. She served as an ICOH Board member for two triennia (2009–2015) and as ICOH vice president for two non-consecutive triennia (2006–2009 and 2015–2018). She contributed to the ICOH leadership, organising several congresses, and assisted in the founding of the SCs on Women, Health and Work (SC WHW) and Mining Occupational Safety and Health (SC MinOSH).



Dr Marilyn Fingerhut

Photograph: courtesy of ICOH

The welcome cocktail followed the opening ceremony, and was held in the pool area of the Mövenpick Hotel Mansour Eddahbi, a haven of lush greenery, tranquillity, and luxury, located adjacent to the *Palais de Congrès*. It was an animated event of Moroccan hospitality, sumptuous cuisine, and world music, very conducive to socialising under the Marrakesh evening sky. Friends and colleagues in occupational health from across the globe were offered the perfect opportunity to meet again, face-to-face, and to catch up after the long hiatus brought about by the global Pandemic.

ICOH2024 Congress Global Policy Forum

The Global Policy Forum, titled 'Strategies to improve occupational health and safety policies and implementation in low- and middle-income countries', a highlight of the congress, was held on Tuesday, 30 April 2024. The main focus of the forum was the practical implementation of research findings to improve workers' health, in the era of globalisation. The forum also explored the lessons learned from high-income countries and the realities facing LMICs, with the main aim of formulating strategies for priority actions and programmes that can help to create a more harmonised world of work in the future. The forum addressed pressing occupational

risk issues on each continent, particularly in LMICs, the current status of practices for managing these risks, and gaps between research and practice.

Leading experts in the fields of research and practice in occupational health from international and national policy-making organisations, public institutes, and professional associations were invited to engage in interactive discussions with congress participants. Speakers were selected with the aim of achieving representation from different regions of the world, including the host country, and professional organisations from various disciplines.

The moderator was Prof. Seong-Kyu Kang (ICOH President), Gachon University Gil Medical Center, Incheon, Republic of Korea. The invited panel participants, representing various sectors, were as follows:

- International organisations
 - WHO – Dr Tedros Adhanom Ghebreyesus, Director General (video recorded message), Geneva, Switzerland
 - WHO – Dr Ivan Ivanov, Cross-cutting Lead, Occupational and Workplace Health, ECH Directors' Office, HQ/HEP/ECH, Geneva, Switzerland
 - ILO – Joaquim Pintado Nunes, Chief of Labour Administration, Labour Inspection and Occupational Safety and Health, Geneva, Switzerland
- Enforcement authority
 - Africa – Younes Sekkouri, Minister of Economic Inclusion, Small Business, Employment and Skills, Rabat, Morocco
- Regional organisation
 - Europe – William Cockburn, Executive Director, EU-OSHA, Bilbao, Spain
- Research
 - North America – Dr Lyne Sauvageau, President and CEO, Robert-Sauvé Research Institute on Health and Safety at Work (IRSST – *Institut de Recherche Robert-Sauvé en Santé et en Sécurité du Travail*), Montreal, Canada
- Academia
 - South America – Prof. Marcia Bandini, Latin American Association of Occupational Health (ALSO – *Asociación Latinoamericana de Salud Ocupacional*), University of Campinas, São Paulo, Brazil
- Practice
 - Asia – Teresita S Cucueco, Consultant, Philippines College of Occupational Medicine (PCOM), Former Executive Director, Occupational Safety and Health Centre, Department of Labour and Employment (DOLE-OSHC), Manilla, Philippines

The deliberations arising from the forum and the scientific programme throughout the congress week served as the foundation for the 'Marrakesh Declaration on Occupational Health', which was adopted by the ICOH2024 Congress on 3 May 2024. The Declaration expresses the commitment of ICOH to take action for the development of occupational health, wellbeing, work ability, and decent work and life for all workers of the world, in collaboration with other relevant international actors. More specifically, ICOH calls for support from the ILO and WHO, through: (i) the revitalisation of the Joint ILO/WHO Committee on Occupational Health, (ii) a request from the ILO to its member states to ratify the ILO Convention 161, and (iii) a request for the WHO to revitalise and expand its global and regional networks of Collaborating Centres in Occupational Health. The Declaration was signed by Prof. Abdeljalil El Kholti, President of the ICOH2024 Congress, and Prof. Seong-Kyu Kang, ICOH President, and has been published in *Safety and Health at Work* (<https://doi.org/10.1016/j.shaw.2024.05.006>).



The dotted line uniting two Presidents – ICOH President, Prof. Seong-Kyu Kang (left) and ICOH2024 Congress President, Prof. Abdeljalil El Kholti, sign the 'Marrakesh Declaration on Occupational Health'

Photograph: courtesy of ICOH

During the congress, three international organisations in occupational health – the ICOH, International Ergonomics Association (IEA), and IOHA – renewed their Memorandum of Understanding (MoU) for ongoing closer collaboration.



United we stand (and sit) – Signing of the MoU between the ICOH, IOHA and IEA. Standing, L-R: ICOH Vice Presidents Martin Hogan (Ireland) and Claudina Nogueira (South Africa); Diana Gagliardi, ICOH Secretary General (Italy); Paulo António Barros Oliveira (Brazilian Ergonomics Association); Frida Marina Fischer, ICOH Board member (Brazil). Seated, L-R: Samantha Connell, IOHA President (Switzerland); Seong-Kyu Kang, ICOH President (Republic of Korea); José Orlando Gomes, IEA President (Brazil)

Photograph: courtesy of Prof. Frida Marina Fischer (Brazil)



ICOH2024 Congress plenary and semi-plenary presentations

The following plenary and semi-plenary presentations were delivered from 29 April to 3 May 2024 (in alphabetical order of presenter surnames):

Plenary presentations

- Nicola Cherry (Canada) – Department of Public Health, University of Alberta: 'Occupational health epidemiology in the face of disasters'
- Titilola Hameed (Nigeria) – Legal Professor, Nigerian Law School: 'Occupational safety and health: probing the legislative affairs within the African continent'
- Bobby Joseph (India) – Head, Department of Community Health, St. John's Medical College, Bangalore: 'Development of occupational health services in a medical college setting in India: looking back over 25 years to inform the future'
- Maria Neira (Spain) – Director, Department of Public Health and Environment, WHO, Geneva, Switzerland: 'Healthy, safe, and resilient workplaces for all'
- Stéphane Pimbert (France) – General Director, French National Institute for Research and Safety (INRS): 'Occupational health and public policies'
- Kathy A Seabrook (USA) – CEO, Global Solutions, Inc.: 'Connecting the dots: the value of people at work and their health, safety and wellbeing'
- João Silvestre Silva-Junior (Brazil) – Professor, University of São Paulo Medical School and São Camilo University Centre: 'Mental health of frontline healthcare workers during the COVID-19 pandemic'
- Malcolm Sim (Australia) – Professor Emeritus, School of Public Health and Preventive Medicine, Monash University, Melbourne: 'From Ramazzini to robots: the impact of new technologies on occupational health'
- Loulna Tahri (Morocco) – Assistant Professor, Faculty of Medicine and Pharmacy, Hassan II University of Casablanca: 'Most wanted OSH actions in Morocco: current state, lessons learned and the way forward'
- Ken Takahashi (Japan) – Professor Emeritus, Advisor for International Centre, University of Occupational and Environmental Health: 'Global spread of asbestos-related diseases: still seriously under-recognised'

Semi-plenary presentations

- Ken Addley (Ireland) – 'Health inequality in work: advocating for occupational health in Ireland'
- Salima Admi (Morocco) – 'Impact of international regulatory standards in the implementation of public occupational safety and health policies'
- Houssine Azeddoug (Morocco) – 'Leading innovation for excellence in occupational health in Moroccan universities on the eve of major world-class projects'
- Ana Bakic (Montenegro) – 'Heavy physical work and fatigue in healthcare workers'
- Thuthula Balfour (South Africa) – 'Prevention culture in the mining industry: a female perspective from the African region'
- Amy Behrman (USA) – 'Vaccine recommendations, and mandates for adults and specific worker populations'
- Mohammed Ali Benmakhlof (Morocco) – 'Ethical issues of global health'

- Jorge Morales Camino (Mexico) – 'Long COVID impact on workers and its monitoring in occupational health'
- Jiabin Chen (People's Republic of China) – 'Post-pandemic occupational health services in Guangdong Province, China'
- San Daniel Choi (USA) – 'Prevention through design (PTD) and research to practice to research (RTPTR) in the ageing US construction workforce: bridging the gap between academia and practitioners'
- Cecilia Colautti (Argentina) – 'Risks and challenges in the ferro-port work of the General Ports Administration (AGP), Port of Buenos Aires, Argentina'
- Martin Cottam (UK) – 'Building global consensus for occupational health and safety management through ISO standardisation'
- Andrew Curran (UK) – 'Transmission of SARS-CoV-2: findings from a national core study'
- Tiaan de Jager (South Africa) – 'Endocrine disrupting chemicals: impact on the environment and human health'
- Marie-Agnès Denis (France) – 'Mental health and occupational health'
- Alexis Descatha (France) – 'Job exposure matrices: past, present, and future'
- Jorge Barroso Dias (Portugal) – 'Promoting longevity by means of 'ATOS' – alcohol, tobacco, obesity, and sleep: measuring, intervening, and controlling major risk factors in the workplace'
- Marie Diallo (Senegal) – 'The culture of workplace improvement in Senegal: the social security strategies'
- Maria Claudia Borda Gallon (Colombia) – 'Lifestyle medicine as a strategy for health and productivity in the workplace'
- Fabriziomaria Gobba (Italy) – 'Occupational health surveillance of workers exposed to non-ionizing radiation: lessons learned and new challenges'
- Halim Hamzaoui (Switzerland) – 'Biological hazards'
- Chakib El Houssine Laraqui Hossini (Morocco) – 'Occupational health and safety of coastal fishermen: a gap to fill in developing countries'
- Jan Hoving (The Netherlands) – 'Development and validation of a core outcome set for work participation'
- Louis Laurent (France) – 'Research and occupational health'
- Koji Mori (Japan) – 'Development, success factors and challenges of health and productivity management initiatives in Japan'
- Suvarna Moti (India) – 'Basic occupational health services: challenges and opportunities for universal occupational healthcare'
- Ade Mutiara (Indonesia) – 'Digitalisation in occupational health programmes: the new challenges'
- Dorothy Ngajilo (Tanzania) – 'Caring for those who care: safeguarding health, safety and wellbeing of health workers'
- Noriko Nishikido (Japan) – 'Support for balancing medical treatment and work in small- and medium-sized enterprises: the role and function of occupational health nurses'
- Diane Rohlman (USA) – 'Health effects of organophosphorus pesticides on children working in the agricultural industry'
- Evgeny Shigan (Russian Federation) – 'Modern requirements for occupational physician professional competencies'
- Jin-Ha Yoon (Republic of Korea) – 'Platform workers: social inequity in occupational safety and health'

ICOH2024 Congress gala dinner

The congress gala dinner was held on Thursday 2 May 2024, at the *Palais Dar Soukkar* ('Sugar Palace' in Arabic), a stunning historic mansion located in the heart of Marrakesh, renowned for its intricate and

elegant design, and rich history. Built during the late 19th century by a wealthy Moroccan family as a residence, one of its most notable features is its Moorish architecture, characterised by elaborate tilework, ornate plaster carvings, and intricately carved wooden ceilings. The interior is adorned with colourful mosaics, marble columns, and luxurious furnishings, showcasing the craftsmanship and artistic flair of Moroccan artisans. In 2004, the *Palais* was renovated into a boutique hotel, to host prestigious private events such as the Marrakesh International Film Festival, the *Marrakesh Du Rire* (comedy festival), and the Dior evenings. In 2016, *Dar Soukkar* launched its charming and unmissable dinner and entertainment show to the wider global community. Diners were treated to an unforgettable night – unique ambience, delectable cuisine (a fusion of Moroccan, Asian and Mediterranean flavours and culinary traditions), and spectacular entertainment (musicians, fire eaters, dancers... in essence, cultural magicians!). The *Palais Dar Soukkar* stands as a testament to Morocco's rich architectural heritage and serves as a captivating destination for travellers seeking to immerse themselves in the beauty, splendour, and tradition of Marrakesh. The décor is exquisite and authentic, the dimmed lights and lanterns create the illusion of a mystical arch, the water features are illuminated, and the gardens are lush – well worth a return visit!



The gala dinner was held in the sumptuous *Palais Dar Soukkar*

Source of graphics: <https://www.darsoukkar.com/>



Entertainers at the gala dinner

Source of graphics: <https://www.darsoukkar.com/>



Occupational health doyens from the South – L-R: Profs Daan Kocks (SASOM Chair and ICOH National Secretary for South Africa, 2018–2024), Gill Nelson (OHSA Editor-in-Chief and University of the Witwatersrand) and Mary Ross (Chair: SC on Biohazards and Occupational Health, 2022–2024 and University of the Witwatersrand) flew the South African flag high at the ICOH2024 Congress

Photograph: courtesy of Prof. Gill Nelson (South Africa)

ICOH2024 Congress closing ceremony

The closing ceremony was held on Friday 3 May 2024. The Congress President, Prof. Abdeljalil El Kholti, presented overall highlights and a short report on the congress. The ICOH President, Prof. Seong-Kyu Kang, presented highlights and take-home messages from the Global Policy Forum. This was followed by a summary of the scientific programme and statistics for free paper and special sessions, presented by the two congress scientific co-chairs: Prof. Kamal Wifaq (Chair of the National Scientific Committee and University Hassan II of Casablanca, Morocco) and Claudina Nogueira (ICOH Vice President for SCs and Chair of the International Scientific Advisory Committee, and SASOM ExCo member, South Africa). The awards for the winners of the student poster competition, the ILO Master Fellowships in OSH, and the best poster presentation by a Moroccan delegate (the Jaouad El Jaï Prize) were announced by Claudina Nogueira, Dr Diana Gagliardi, and Prof. Kamal Wifaq, respectively.

The ICOH flag was passed from Prof. Abdeljalil El Kholti, President of the Congress, to the Organising Committee members of the ICOH2027 Congress, themed *Occupational Health – Growth and Sustainability in Changing Times*, to be held in Mumbai, India, 14–19 February 2027. The handover of the flag followed video presentations about the next congress, and highlights of ICOH2024. The congress was declared officially closed by the ICOH President, Prof. Seong-Kyu Kang, after his vote of thanks to all individuals and teams involved, especially the participants, in making the ICOH2024 Congress a resounding success.

Second ICOH General Assembly

The closing ceremony was followed by the Second ICOH General Assembly, which was attended by ICOH members in good standing only; it included the following presentations and events:

- Opening address – Prof. Seong-Kyu Kang, ICOH President
- Farewell to ICOH Officers and Board members of the previous triennium 2022–2024, and respective service awards – Dr Diana Gagliardi, ICOH Secretary General



Reunited for the last time – ICOH Officers and Board members of the 2022–2024 triennium. Standing, L-R: Akizumi Tsutsumi (Japan), Sandeep Sharma (India), Maureen Dollard (Australia), Alexis Descatha (France), Riitta Sauni (Finland), Olivier Lo (Singapore), Stavroula Leka (UK), Sergio Iavicoli (Italy), Dingani Moyo (Zimbabwe), Shyam Pingle (India), Paul Schulte (USA). Seated, L-R: Jukka Takala (Finland), Claudina Nogueira (South Africa), Seong-Kyu Kang (Republic of Korea), Diana Gagliardi (Italy), Martin Hogan (Ireland), Frida Marina Fischer (Brazil)

Photograph: courtesy of ICOH

- Report from the scrutineers' committee of the elections of the ICOH Officers and Board members for the new triennium (2024–2027)
 - Dr Jorge Camino Morales, President of the ICOH2012 Congress, Cancún, Mexico
- Results of the elections of ICOH Officers and Board members for the new triennium (2024–2027)
 - ICOH Officers:
 - President – Prof. Seong-Kyu Kang (Republic of Korea)
 - Secretary General – Dr Diana Gagliardi (Italy)
 - Vice President for Scientific Committees – Dr Martin Hogan (Ireland)
 - Vice President for National Secretaries – Dr Shyam Pingle (India)
 - Past President – Dr Jukka Takala (Finland)

◦ ICOH Board members:

- Naesinee Chaiear (Thailand), Alexis Descatha (France), Quentin Durand-Moreau (Canada), Rim El Kholti (Morocco), Stefan Esser (Germany), Dongmug Kang (Republic of Korea), Ashish Mishra (India), Aida Fajardo Montiel (Mexico), R Rajesh (India), Rosylane Rocha (Brazil), Riitta Sauni (Finland), Mahinda Seneviratne (Australia), Giovanna Spatari (Italy), Akizumi Tsutsumi (Japan), Kamal Wifaq (Morocco), and Charles Yarborough (USA)
- President's address and strategy for 2024–2027
- Bid results of the vote for the venue of the ICOH2030 Congress: Congratulations to Rome, Italy, for winning the bid to host the ICOH Congress in 2030!



From traditional craftsmanship to modern marvel – The production of argan oil in Morocco is an art form that combines tradition, dedication, and innovation. From the painstaking labour carried out by Berber women to the incorporation of modern techniques, the result is a pure and exquisite oil that captures the essence of Moroccan heritage, and is highly prized in the cosmetics industry

Photograph: Claudia Frost (South Africa)



Lights, camera, action – The congress social programme included a Moroccan cultural evening showcasing traditional music and lively dance

Photograph: Claudia Frost (South Africa)

ICOH Board and other meetings associated with the ICOH2024 Congress

The meetings of the ICOH Officers and Board members from the previous triennium (2022–2024) were held prior to the ICOH2024 Congress – on 27 and 28 April 2024. The newly appointed Officers and Board members met for the first time after the congress, on 4 May 2024, in Marrakesh, Morocco.

The 13th Meeting of the Global Network of WHO Collaborating Centres for Occupational Health was held in hybrid format before the congress, from 25 to 26 April 2024, at the Grand Mogador Menara Hotel, Marrakesh, Morocco.

Photographs, congress statistics, and approval for the use of the ICOH and ICOH2024 Congress logos: courtesy of ICOH and the ICOH2024 Congress Organisers (Morocco), unless stated otherwise.

ICOH Statements at the ILO's 112th International Labour Conference

Source: International Labour Organization (ILO)

The ICOH Officers, Prof. Seong-Kyu Kang (President), Dr Diana Gagliardi (Secretary General), and Dr Jukka Takala (Past President) represented ICOH at the ILO's 112th International Labour

Conference, held in Geneva, Switzerland, from 3 to 14 June 2024. Delegates representing worker, employer and government sectors from the ILO's 187 member states addressed a wide range of issues, including (i) a standard-setting discussion on protection against biological hazards, (ii) a recurring discussion on the strategic objective of fundamental principles and rights at work, and (iii) a general discussion on decent work and the care economy. The ILO Conference also elected members of the Governing Body for the 2024–2027 term of office.

On this occasion, two ICOH statements were presented, verbally:

- 'The road for decent work together with healthy workers' at conference plenary session: <https://www.icohweb.org/site/multimedia/news/pdf/The%20Road%20for%20Decent%20Work.pdf>
- 'The importance of successful prevention of biological hazards' at the Biological Hazards Committee session: <https://www.ilo.org/wcmsp5/groups/public/---multimedia/documents/news/pdf/Biorisks%20ILC%2020112%20June%202024.pdf>

The recording of the plenary address on decent work delivered by the ICOH President can be accessed at: <https://live.ilo.org/events/plenary-debates-afternoon-sitting-2024-06-04?segmentid=89a3b3f4-4a77-435c-b6e0-14819d8563ef> 



'To get to know, to discover, to publish; this is the destiny of a scientist' – François Arago

The ICOH2024 Congress scientific programme comprised 73 special sessions (including 'How to publish your work on workers' health: insights from the Editors-in-Chief of several OSH journals', pictured) and 78 free paper sessions on a wide range of topics

Photograph: Prof. Seong-Kyu Kang (Republic of Korea)