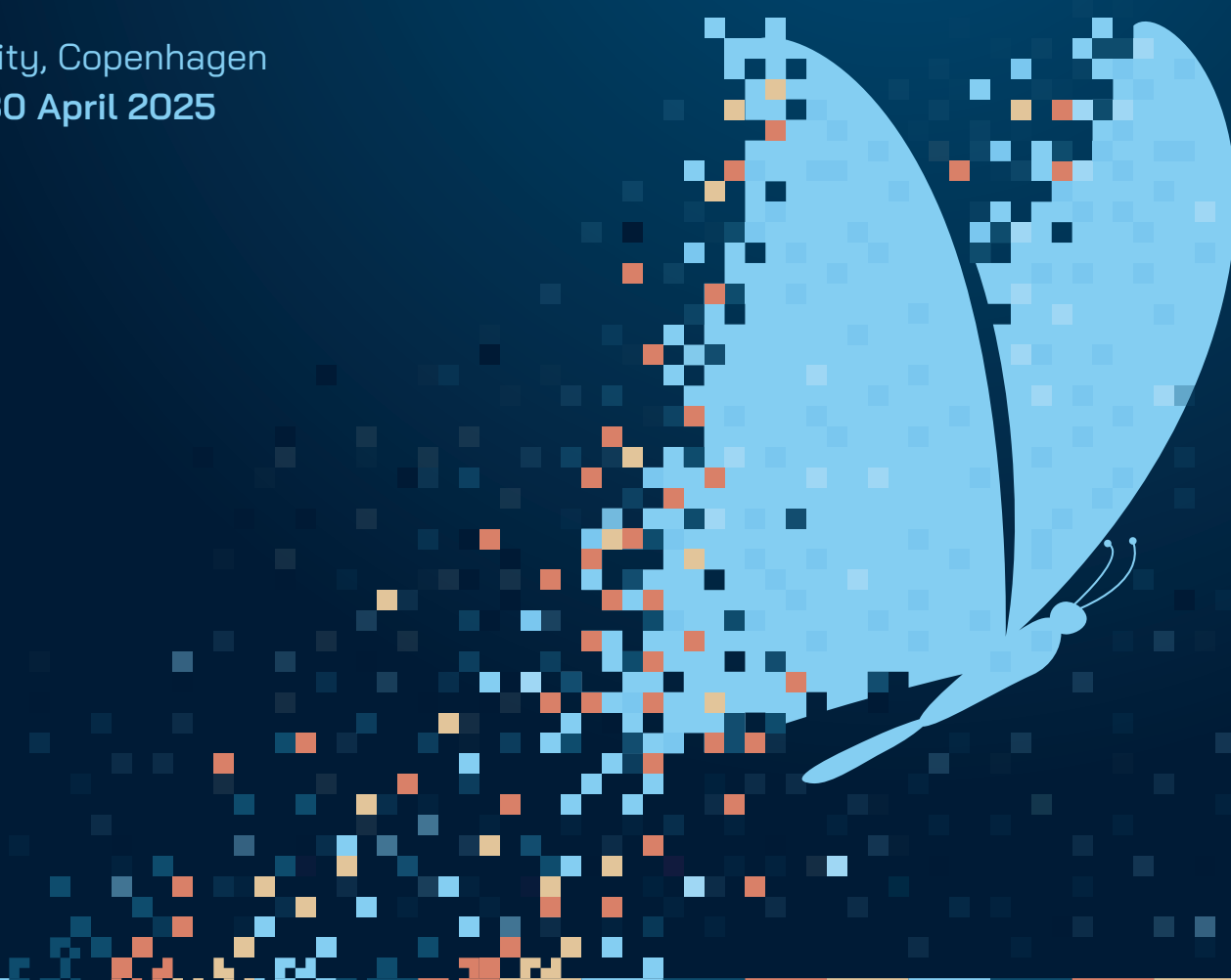Looking to the future
WHO symposium on modelling and optimizing the health and care workforce

Agenda

UN City, Copenhagen
28–30 April 2025

28 April

		Session chairs	Room
08.45 – 09.10	**Welcome coffee**		**Pacific/ Atlantic lounge area**
09.10 – 09.15	**Security briefing**	**UN Security**	**Aud 3**
09.15 – 09.30	**Welcome & Video Message**	**Hans Henri P. Kluge,** Regional Director, WHO Regional Office for Europe	**Aud 3**
09.30 – 9:50	**Introduction: Defining the challenge and vision for success** Aging populations and workforces – need for flexible and adaptable workforces across Europe; modelling and planning for optimisation of the workforce and transformation of systems	**Tomas Zapata,** Regional Adviser, Health Workforce and Service Delivery, WHO Regional Office for Europe **Katarzyna Ptak-Bufkens,** Policy Officer DG Sante, European Commission	**Aud 3**
9.50 – 10.45	**Opening Remarks and Welcome: Background to the Future** **I. Plenary: Scene setting: Underpinning theory for modelling covering key concepts for the symposium**	**Cris Scotter** Policy Adviser (Human Resources for Health), WHO Regional Office for Europe **Brian Castellani,** Health Sociology, Director, Durham Research Methods Centre, UK	**Aud 3**
10.45 – 11.15	**Coffee break and posters exhibition**		**Pacific/ Atlantic lounge area**

WHO Symposium on sustainable health and care modelling and optimizing the health and care workforce; looking to the future

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		Session chairs	Room
11.15 – 12.45	**Parallel Breakouts**	**Brian Castellani**	**Aud 3**
	1. Embracing complexity in health system modelling		
	i. From Complexity to Clarity: Using System Dynamics to Support Strategic Healthcare Workforce Planning Australia, **Siôn Cave, Decision Analysis Services Ltd, UK**		
	ii. From Chaos and Complexity to Clarity: Exploring Uncertainty Through Systems Thinking, **Sanjeev Kalra, Maharishi International University, USA**		
	iii. Health Workforce Planning in India: Estimating Supply, Demand and Need, **Navneet Kaur Manchanda, World Bank, India**		
	iv. Exploring the potential of Human Factors Ergonomics for workforce modelling: An illustrative case study, **Gillian Janes, Anglia Ruskin University, UK**		
	2. Regional approaches to building workforce planning capacity	**Tomas Zapata**	**Aud 2**
	i. Strengthening Europe's Health Workforce Planning: The HEROES Joint Action Approach, **Lisa Baldini, Research Unit, National Agency for Regional Health Services, Italy**		
	ii. Adding qualitative information to quantitative health workforce planning datasets, **Eszter Kovacs, Health Services Management Training Center, Semmelweis University, Hungary**		
	iii. Projecting Health force Need SANDEM, **Alba Bernini, European Commission - Joint Research Centre Italy**		
	iv. HEROES Joint action; The European Commissions support for HWF planning improvement**, Katarzyna Ptak-Bufkens, Policy Officer, DG Sante, European Commission**		
	v. The Role of Technical Support Instruments in facilitating Improvements to Health Workforce Capability **Simone Boselli, European Commission**		
	3. Effective data architecture for better models	**Alba Llop Girones,** Technical Officer (Nursing and Midwifery), WHO Regional Office for Europe	**Aud 1**
	i. The impact of the European Health Data Space on the health workforce: opportunities and concerns, **Joaquin Cayon, IDIVAL-University of Cantabria, Spain**		
	ii. Considering success factors and value creation of data usage-aligning input, knowledge, curiosity, and end user engagement towards output, **Markus Lingman, The Scientific Council for Medicine and Health, Region Halland, Sweden and Helena Linge, Lund University, Region Halland, Sweden**		
	iii. Open-Source Health Cloud Data, **Henrik L. Ibsen, eHealthBrains.com, Denmark**		
	4. Demand - Needs based approaches to demand	**Walter Sermeus,** Leuven Institute for Healthcare Policy, KU Leuven, Belgium	**Press room**
	i. Primary Care Healthcare Workforce Dynamics and Disease Burden: A Trend Analysis, **Raf Van Gestel, Leuven Insitute for Healthcare Policy KU Leuven and KU Leuven WHO CC Human Resources in Health Research and Policy, Belgium**		
	ii. Projecting future workforce demand in the English NHS: a microsimulation approach, **Katie Fozzard, Health Foundation, UK**		
	iii. A strategy for healthcare workforce optimization to meet both immediate and long-term staffing needs, **Liz Harrison, Shiftpartner, UK**		
	iv. Methodology for calculating the staffing needs of the national health service in Italy, **Giulia Menin, AGENAS, Italy**		

	Session chairs	Room
12.45 – 13.45 **Lunch break and posters exhibition**		**Pacific/ Atlantic lounge area**

		Session chairs	Room
13.45 – 14.40	**II. Plenary panel: Innovative approaches to modelling: Health systems as a 'safety critical' or 'service' industry** i. What's the Matter with Medicine?, **Kevin Fong, UCL, UK** ii. Building Health Systems Trust through Mission-Driven Collaboration for Sustainable Wellbeing in Europe **Lars Münter, Nordic Wellbeing Academy, Denmark** iii. The Health Complexity Framework: A Systems Perspective on Work and Population Health **Naja Hulvej Rod, University of Copenhagen Denmark** iv. Health is a Safety Critical Industry; Key Principals, **Alison Leary, Chair of Healthcare and Workforce Modelling London Southbank University, UK**	**Clayton Hamilton,** Regional Technical Officer, Digital Health Flagship, WHO Regional Office for Europe	**Aud 3**
14.45 – 16.15	**Parallel Breakouts** 5. **Integrating input from communities and people with lived experience** i. From Patient to Provider: Increasing health service reach, capacity and equity through a lived experience workforce, **Leila Reid, Hepatitis C Trust, UK** ii. Modelling of Emerging Professions: Navigating Power Structures and Hierarchies in France's Mental Health Workforce Transformation, **Nancy de Jesus, Hôpitaux Paris Est Val de Marne - Federation Hospitalière de France,** France iii. Modelling the Community Health Workforce: Navigating Uncertainties in Roles, Contexts, and Systemic Integration, **Anna Sagan, WHO European Centre for Primary Health Care, Kazakhstan** iv. Unlocking Local Capability: A Community-Centred Model for Rural Mental Health Workforce Planning, **Lee Ridoutt, Human Capital Alliance, Australia**	**Cris Scotter**	**Aud 3**
14.45 – 16.15	6. **Health workforce 2.0: Innovating for resilience and impact** i. Workforce Development and Citizen Empowerment for the Digital Health Transformation, **Georgi Chaltikyan, Deggendorf Institute of Technology, Germany** ii. Digital Innovations for Medication Safety and Healthcare Efficiency, **Faissal Wardak, City Council, City of Wiesbaden, Germany** iii. Modelling the relationships between nurse staffing and patient outcomes, **Elaine Kelly, The Institute for Fiscal Studies, UK** iv. Empowering Frontline Clinicians to Drive Systemic Change through Targeted Innovation Support in Ireland, **Caitriona Heffernan, National Health Service, Ireland** v. Increasing health workforce resilience by implementing task shifting, **Eszter Kovacs, Health Services Management Training Center, Semmelweis University, Hungary**	**Moredreck Chibi,** Regional Public Health Innovation Lead, WHO Regional Office for Europe	**Aud 2**

	Session chairs	Room

14.45 – 16.15   **7. Leveraging AI to optimize workloads and build sustainable healthcare systems**
 	
  i. **Nancy de Jesus, Hôpitaux Paris Est Val de Marne - Federation Hospitalière de France, France**
 	
  ii. **Holly Coole, Digital Mental Health Software team, Medicines and Healthcare products Regulatory Agency, UK**
 	
  iii. Transforming Healthcare Workforce Planning: AI and Information Driven Care in Addressing Workforce Shortages, **Lena Petersson, Halmstad University, Sweden**
 	
  iv. **Cassie Redlich Mental Health Technical Officer, WHO Regional Office for Europe, Denmark**
	Lars Münter, Founder and International Director, Nordic Wellbeing Academy, Denmark	**Aud 1**

8. Demand - Service specific demand models
 	
  i. Responding to a crisis in in-hospital Paediatrics - Adapting analytics for complexity, **Jennifer Wood, Strategy Unit, NHS, UK**
 	
  ii. A national perspective on oral health and dentistry**, Åsa Olsson, National Board of Health and Welfare, Sweden**
 	
  iii. Understanding healthcare utilization for Danish people with spine pain and disability: A population-based perspective, **Jan Hartvigsen, University of Southern Denmark Denmark**
 	
  iv. Impact of burnout, turn-over and sickness rates on health workforce models: lessons from Magnet4Europe **Walter Sermeus, KU Leuven, Belgium**
	Helena Linge, Lund University Region Halland, Sweden	**Press room**

16.15 – 16.30 **Coffee break and posters exhibition**		**Pacific/ Atlantic lounge area**
16.30 – 17.00 **Closing session** Key themes and messages from the day, setting the scene for day 2.	**Cris Scotter**	**Aud 3**

WHO Symposium on sustainable health and care modelling and optimizing the health and care workforce; looking to the future

29 April

	Session chairs	Room
09.00 – 09.15 **Welcome coffee and posters exhibition**		Indian/ Atlantic lounge area
09.15 – 09.30 **Welcome**	**Tomas Zapata**	**Aud 3**

09.15 – 09.30 Reflections on emerging thinking from day 1/launch of day 2 - how to practically apply innovative approaches to improving modelling and how they can apply to workforce planning and optimisation

09.30 – 10.30	**Cris Scotter**	**Aud 3**

III. Plenary panel: How can effective models and system thinking support the policy making process?

i. Sweden's pilot projects: Advancing human-centered workforce planning, innovation, and healthcare reform, **Åsa Olsson, National Board of Health and Welfare, Sweden**

ii. Health Workforce Planning and Forecasting (HWP&F): Are we doing the right thing? **Gareth Rees, ESAN University, Peru**

iii. Coded Bias in Global Healthcare: Understanding AI Integration and Workforce Development, **Kumbi Kariwo, Birmingham Community Healthcare Trust, UK**

iv. Planning for health professionals. Our experience, **Beatriz Gonzalez Lopez-Valcarcel, Universidad de Las Palmas de Gran Canaria, Spain**

10.30 – 11.00	**Group Photo**		
11.00 – 11.15	**Coffee** break and posters exhibition		Indian/ Atlantic lounge area
11.15 – 12.45	**Parallel Breakouts**	**Cris Scotter**	**Aud 3**

9. **Information to Intelligence: Integrating diverse data into modelling**

i. The Future Health Workforce: Building Trust through Mission-Driven Collaboration for Sustainable Wellbeing in Europe, **Lars Münter, Nordic Wellbeing Academy, Denmark**

ii. Policy epidemiology for intersectoral health systems action, **Amitabha Sarkar, Tampere University, Finland**

iii. Assessing the potential impact and trade-offs of policy options to improve the retention of nurses in England, **Laurie Rachet-Jacquet, Health Foundation, UK**

vi. Primary Care Workforce Planning in Toronto, Canada: Leading Practices & Persistent Challenges, **Ivy Lynn Bourgeault, University of Ottawa & Canadian Health Workforce Network, Canada**

	Session chairs	Room
11.15 – 12.45 **10. Information to Intelligence: Integrating sub-national models** i. TBC, **Lena Petersson, Halmstad University, Sweden** ii. Learning from a holistic health workforce planning approach at decentralized level in West- and Central-Africa, **Noor Tromp, KIT Institute, The Netherlands** iii. Role of Facility level qualitative data in Human Resource Planning for Primary Care System, **Ushangi Kiladze, National Family Medicine Training Center, Georgia** iv. Health Workforce Planning in India: Estimating Supply, Demand and Need. **Aarushi Bhatnagar, World Bank, India**	**Thomas Hughes-Waage**	**Aud 2**
11. Building workforce capacity for implementing AI modelling i. Nurse-Built AI Teams: Addressing Global Workforce Shortages with Citizen Developers, **Lincoln Gombedza, North Staffordshire Combined Healthcare NHS trust, UK** ii. Reimagining Health Workforce Modelling in Europe with Artificial Intelligence and Systems Thinking, **Joana Seringa, NOVA National School of Public Health, Portugal** iii. Empowering Human-Machine Collaboration for Data-Driven Insights in Health Workforce Planning, **Melanie Maia, WHO Collaborating Centre on Health Workforce Policy and Planning, Instituto de Higiene e Medicina Tropical, IHMT, Universidade Nova de Lisboa, UNL, Lisbon, Portugal**	**Markus Lingman,** CSO, The Scientific Council for Medicine and Health, Region Halland, Sweden	**Aud 1**
12. Towards a Paradigm Shift: Integrating intersectional equity and systems thinking in strategic health workforce planning and decision making i. Leveraging Intersectional Insights: A Contextualizable Framework for Health Workforce Modelling, **Roomi Aziz, University of Essex, UK** ii. Modelling Leadership and Systemic Change: Elevating Women Leaders in the Health Workforce, **Shabnum Sarfraz, P2impact Associates/ Women in Global Health, Pakistan** iii. Leadership and Systemic Change: Modelling Professionalisation, Power Structures, Hierarchy, and Incentives for International Medical Graduates, **Goran Zangana, NHS Scotland/Health Systems Global, UK**	**Anuj Kapilashrami,** School of Health and Social Care Director, Centre for Global Health & Intersectional Equity Research University of Essex, UK	**Press room**
12.45 – 13.45 **Lunch break and posters exhibition**		**Indian/ Atlantic lounge area**

	Session chairs	Room
13.45 – 14.45 **IV. Plenary panel: Leadership and systemic change: Modelling, planning, and optimisation in the realm of professionalisation, power structures, hierarchy, incentives.** i. Leadership Command of the Workforce Challenge Narrative: The Region Halland Approach, **Carolina Samuelsson, Region Halland, Sweden** ii. Clinical Design Framework co-creation using sociotechnical systems methodologies: An Action Research Project, **Anne Horgan, Health Service Executive, Ireland, Ireland** **iii.** Beyond Hierarchies: EHFF's Framework for Democratic, Sustainable Healthcare Through DAO Integration and Strategic Partnerships, **Daniel Steenstra, European Health Futures Forum, The Netherlands** iv Health workforce planning: a key lever in the CAIROS healthcare reform in Catalonia, **Tino Marti, Government of Catalonia, Spain**	**Cathal Morgan,** Technical Officer (HRH Workforce Optimization Lead), WHO Regional Office for Europe	**Aud 3**
14.45 – 15.00 **Coffee break and posters exhibition**		**Indian/ Atlantic lounge area**
15.00 – 16.30 **Parallel Breakouts** 13. **Leadership, ethics, and modelling** i. Leadership considerations for public health transformation, guiding workforce and systems change, **Mirna P. Amaya, Cornell University - Joan Klein Jacobs Center for Precision Nutrition and Health, USA** ii. Leadership, values and healthy organizations, **Rosa M. Orriols, Director of Sustainability and Environmental Health; Institut Català de la Salut. Women in Global Health, Spain** iii. Future proofing health systems: Modelling with family caregivers, the unseem bond in a care community, **Ke Wang, The Rosalynn Carter Institute for Caregivers, USA** iv. The added value of utilising Advanced Practitioners in workforce modelling, leadership and systemic change, **Vikki-Jo Scott, University of Essex, UK**	**Stefania Ilinca,** Technical Officer (Long-term care), WHO Regional Office for Europe	**Aud 3**
14. **Modelling for multiprofessional teams** i. Empowering interdisciplinary teams for effective patient outcomes, **Emma Smith, Technical Specialist in Assistive Technology Health Workforce and Service Delivery, WHO Regional Office for Europe** ii. Staffing challenges in times of crisis WISN, **Milena Milicevic, University of Belgrade, Serbia** iii. Innovative Leadership and Systemic Change in Nursing: Modelling Workforce Optimisation and Policy Impact, **Rohit Sagoo, British Sikh Nurses, UK** iv. Multiprofessional advanced practice workforce development and policy leadership: Helping systems and organisations thrive in chaos, **Bongi Sibanda, University Hospitals of North Midlands NHS Trust, UK** v. Israel's Five-Year Workforce Plan: A Model for Adaptive Strategies in Nursing, **Shoshy Goldberg, Ministry of Health, Israel**	**Margrieta Langins,** Policy Adviser (Nursing and Midwifery), WHO Regional Office for Europe	**Aud 2**

	Session chairs	Room
15.00 – 16.30 15. *The impact of gender violence and systemic discrimination against healthcare workers: Planning for a more robust, inclusive health workforce and just health system* i. NHS Wales's fight against gender-based violence in the workplace, **Gillian Knight, Welsh Government Dep CNO, UK** ii. Women in White-Coats, Are They Safe? **Sabrina Monsur, Dhaka Medical College, Bangladesh** iii. Legislating for safe workspaces in the Health Sector: the case of Moldova, **Aftene Vadim, Head, Directorate-General for Integrated Health Services Policies, Ministry of Health, Republic of Moldova** Iv. WHO Europe's Special Initiative on Violence against Women and Girls, **Isabel Yordi Aguirre, Respectful Workplace Programme, WHO Regional Office for Europe, Denmark** **v. Melanie Hyde, Technical Officer (Gender, Equity and Human Rights) WHO Regional Office for Europe, Denmark**	**Sulakshana Nandi**, Technical Officer (Human Resources for Health), WHO Regional Office for Europe	**Aud 1**
16. **Retention as a critical component of workforce approaches** i. Retention as a crucial non-demographic variable in the Health Workforce Model: results and insights from the Magnet4Europe Study, **Walter Sermeus, KU Leuven, Belgium** ii. A systems thinking approach to nursing workforce retention in Europe, **Paula del Rey Puech and Rachel Greenley, London School of Hygiene and Tropical Medicine, UK** iii. Shaping the healthcare workforce: leveraging simulation for development, resilience, and retention, **Naim Abdulmohdi, Senior Lecturer in Critical Care, School of Midwifery and Community Health Anglia Ruskin University, Cambridge, UK** iv. Global Distributed Workforce: A Model for Addressing Health Workforce Shortages, **Manuel Gonzalez, Renos AB. Umeå, Sweden**	**Alison Leary,** Chair of Healthcare & Workforce Modelling London Southbank University, UK	**Press room**
16.30 – 16.45 **Closing session** Close and setting scene for next day	**Tomas Zapata**	**Aud 3**

PLENARY Meeting
30 April

	Shaping Policy and Strengthening Leadership for Future-Ready Health Systems: Optimizing the Health and Care Workforce for Sustainable Healthcare Delivery	Session chairs	Room
08.30 – 09.00	**Welcome coffee and posters exhibition**		**Pacific/ Atlantic lounge area**
09.00 – 09.05	Setting scene for day	**Cathal Morgan**	**Aud 3**
09.05 – 09.25	**Keynote address**	**Natasha Azzopardi Muscat,** Director, Division of Country Health Policies and Systems, WHO Regional Office for Europe	**Aud 3**
09.25 – 10.00	**Overview of Pillar 3 - Optimization of the Health and Care Workforce** Framework for action on the health and care workforce in the WHO European Region 2023–2030. • Redefining new roles • Improving interactions with people and patients • Promoting appropriate use of digital technologies, and; • Reconfiguring services to be more efficient	**Cathal Morgan**	**Aud 3**
10.00 – 10.15	**Coffee break and posters exhibition**		**Pacific/ Atlantic lounge area**

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	Shaping Policy and Strengthening Leadership for Future-Ready Health Systems: Optimizing the Health and Care Workforce for Sustainable Healthcare Delivery	Session chairs	Room
10.15 – 11.45	**Expert Panel discussion** *Challenges and opportunities in achieving health and care workforce optimization – policy imperatives for member states.* ***Objective:*** To facilitate a high-level discussion on best practices and policy recommendations for optimizing the health and care workforce, ensuring sustainable, efficient, and high-quality healthcare delivery. **Panel members:** • People and patient advocate perspective, **Anne Lawlor, 22q11 Ireland Support Group, Ireland** • The government/ministry perspective, **Åsa Olsson, National Board of Health and Welfare, Sweden** • Lessons from a digital/AI and technology implementation perspective **Luis Lapao, Intelligent Decision-Support Systems (IDeaS) Laboratory, Universidade Nova de Lisboa, Portugal** • Workforce Optimization, a health economics perspective, **Brenda Gannon, University of Queensland, Australia** • Perspectives from professional bodies,– **Kostas Roditis, European Junior Doctors Association, Belgium**	Cathal Morgan – moderator	Aud 3
11.45 – 12.00	Perspectives and considerations on developing workforce optimization strategies; *what questions do we need to answer from a policy perspective?*	**Eilish McAuliffe,** School of Nursing & Midwifery and Health Systems, Centre for Interdisciplinary Research, Education and Innovation in Health Systems (IRIS,) University College Dublin, Ireland	
12.00 – 13.00	Group work will involve identifying key policy/ research questions relating to components of optimization activities. It will also involve developing impact measures for Workforce Optimization. Briefing and group work instructions provided to participants on developing impact key indicators for the following areas: i. Redefining Teams and Skill Mix for Efficiency ii. Strengthening Management Systems for Workforce Performance iii. Developing Regulatory Mechanisms for Professional Standards iv. Enhancing Patient Interactions Through Person-Centered Care v. Leveraging Digital Solutions in Workforce Optimization Group work commences deliberations. Objective - working in groups – to identify key impact indicators for each component of Pillar 3 of the Framework for Action on the Health and Care Workforce	**Cathal Morgan** will provide an overview and guidance to participants	

	Shaping Policy and Strengthening Leadership for Future-Ready Health Systems: Optimizing the Health and Care Workforce for Sustainable Healthcare Delivery	Session chairs	Room
13.00 – 14.00	**Lunch break and posters exhibition**		**Pacific/ Atlantic lounge area**
14.00 – 15.15	**Group work sessions re-commences** Objective - working in groups – to identify key impact indicators for each component of Pillar 3 of the Framework for Action on the Health and Care Workforce. Facilitated group feedback.	**Cathal Morgan** -Moderator	
15.15 – 15.30	**Coffee break and posters exhibition**		**Pacific/ Atlantic lounge area**
15.30 – 15.50	Reflections and next steps	**Cris Scotter and Cathal Morgan**	
15.50 – 16.00	**Closing address and thanks**	**Natasha Azzopardi Muscat**	**Aud 3**

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PARALLEL Event

30 April

	Scotland/Sweden sandpit Sharing best practice and key learning to further digital skills development.	Chairs	Room
09.30 – 09.35	Welcome	**Cris Scotter**	**Press room**
09.35 – 09.45	Introductions scene setting Scotland and Sweden - agenda/format	**Markus Lingman** **Janette Hughes,** Director of Planning and Performance, Digital Health & Care Innovation Centre, Scotland, UK	
09.45 – 10.05	Scotland spotlight Scotland – Overview of the future skills needed and how Scotland considers education pathways for digital	**Sanna Rimpiläinen,** Head of Research and Skills at the Digital Health and Care Innovation Centre, Scotland, UK	
10.05 – 10.25	Sweden spotlight Sweden – Overview of the future skills needed and how Sweden is using data to resource plan	**Markus Lingman**	
10.25 – 10.45	Panel discussion WHO rep Sanna Rimpiläinen – Scotland Markus Lingman – Sweden	**Moderator Janette Hughes**	
10.45 – 11.00	**Coffee break and posters exhibition**		**Pacific/ Atlantic lounge area**
11.00 – 11.40	Roundtable – Question 1 Facilitated and scribed table discussions based on question 1	**All**	**Press room**
11.40 – 12.00	Table feedback loop	**Markus Lingman**	
12.00 – 12.40	Roundtable - Question 2 Facilitated and scribed table discussions based on question 2	**All**	
12.40 – 13.00	Table feedback loop	**Markus Lingman**	
13.00 – 13.20	Panel session Table lead represented and speakers	**Janette Hughes to moderate**	
13.20 – 13.30	Next steps Summary paper timing	**Markus Lingman** **Janette Hughes**	
13.30 – 14.30	**Lunch break and posters exhibition**		**Pacific/ Atlantic lounge area**

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