McGill Summer Institutes in Global Health

MAY 24-JUNE 15, 2022
ONLINE AND IN-PERSON COURSE OFFERINGS
Started in 2015, the McGill Summer Institute brings the research and clinical strengths of McGill University and the McGill University Health Centre-Research Institute to the world in a short course format. After six years we are thrilled to announce our evolution into the Summer Institutes in Global Health---expanding our offerings to other global health topics beyond infectious diseases.

Courses for 2022 are either offered in a hybrid (concurrent online and in-person) or online-only format. Course material will be recorded to accommodate asynchronous learners from all time zones. Summer Institute course faculty will also maximize opportunities for participants to interact with each other and our faculty.

Explore our new courses and join us in 2022!

2022 COURSE DIRECTORS

- Summer Institute in Infectious Diseases and Global Health
- Summer Institute in Peace, Health and Sustainability
- Summer Institute in Global Health Rehabilitation

**Neil Arya, BASc, MD, CCFP, FCFP, DLitt**
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Adjunct Professor, Environment and Resource Studies, University of Waterloo

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Professor, Department of Medicine, McGill University

**Chen Liang, PhD**
Professor, Department of Medicine; Director, Centre for Viral Diseases McGill University

**Dick Menzies, MD, Msc**
Director, Respiratory Epidemiology and Clinical Research Unit, McGill University Health Centre; Director, WHO Collaborating Centre for Tuberculosis Research; Director, McGill International TB Centre

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Assistant Professor, Divisions of Infectious Diseases and Medical Microbiology, McGill University Health Centre; Associate Director, J.D. MacLean Centre for Tropical Diseases

Gerasimos J. Zaharatos, MD, FRCP(C)
Chief, Division of Medical Microbiology, McGill University Health Centre; Associate Professor, McGill University

Zelalem Temesgen, MD
Director, Mayo Clinic Center for Tuberculosis

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Head of the Department of General Internal Medicine, Infectious Diseases and Tropical Medicine, University Hospital Antwerp; Professor of Infectious Diseases, University of Antwerp

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Chief, Division of Medical Microbiology, McGill University Health Centre; Associate Professor, McGill University

Makeda Semret, MD, MSc, FRCPC
Associate Professor of Medicine, Infectious Diseases and Medical Microbiology; Lead, Antimicrobial Stewardship Program; Director, Training Program in Infectious Diseases and Medical Microbiology; AMR Center Co-Director, McGill University

Nitika Pant Pai, MD, MPH, PhD
Associate Professor, Division of Clinical Epidemiology & Infectious Diseases, McGill University; Center for Outcomes Research and Evaluation, MUHC Research Institute

Makeda Semret, MD, MSc, FRCPC
Associate Professor of Medicine, Infectious Diseases and Medical Microbiology; Lead, Antimicrobial Stewardship Program; Director, Training Program in Infectious Diseases and Medical Microbiology; AMR Center Co-Director, McGill University

Nitika Pant Pai, MD, MPH, PhD
Associate Professor, Division of Clinical Epidemiology & Infectious Diseases, McGill University; Center for Outcomes Research and Evaluation, MUHC Research Institute
2022 SCHEDULE OF COURSES

Approximate times of live instruction for each course is indicated on the course page in this brochure and on our website.

Participants wishing to enroll in overlapping courses are permitted to do so, but should be aware that if overlapping courses have live sessions happening at the same time they may have to view some content later as a recording.

May 24-27: Peace through Health
May 30-June 3: Quality of TB Care
May 30-June 3: Decolonizing Humanitarian Action: Challenges and Dilemmas
May 30-June 1: Advances in the Biology and Management of COVID-19

June 2-3: Global Health Diagnostics
June 6-10: Qualitative Methods in Global Infectious Diseases Research
June 6-10: Environment and Human Health
June 6-10: TB Research Methods
June 6-10: Advanced TB Diagnostics
June 6-9: Antimicrobial Resistance (AMR)
June 6-8: Strategies to End the HIV/AIDS Epidemic
June 9-10: Digital Health
June 13-15: Global Considerations of Disability for Rehabilitation Providers

May & June 2022

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PEACE THROUGH HEALTH
DECOLONIZING HUMANITARIAN ACTION: CHALLENGES AND DILEMMAS
QUALITY OF TB CARE
ADVANCES IN THE BIOLOGY AND MANAGEMENT OF COVID-19
GLOBAL HEALTH DIAGNOSTICS
ENVIRONMENT AND HUMAN HEALTH
QUALITATIVE METHODS IN GLOBAL INFECTIOUS DISEASES RESEARCH
TB RESEARCH METHODS
ADVANCED TB DIAGNOSTICS
ANTIMICROBIAL RESISTANCE (AMR)
STRATEGIES TO END THE HIV/AIDS EPIDEMIC
DIGITAL HEALTH
GLOBAL CONSIDERATIONS OF DISABILITY FOR REHABILITATION PROVIDERS
In 2022, the Institute in Infectious Diseases and Global Health will offer 9 courses. Participants looking to learn research fundamentals should explore “TB Research Methods” and “Qualitative Methods in Global Infectious Diseases Research”. Other courses cover the latest in diagnostics and antimicrobial resistance by leading scientists. New this year is a course on “Digital Health”—teaching participants the latest in integrating technology into the fight against infectious disease.
Poor quality TB care is widespread and is a key driver of the TB epidemic. This course will address the critical need to go beyond coverage and improve quality of TB care in low and middle-income countries.

COURSE DIRECTORS

Madhukar Pai, MD, PhD
Canada Research Chair in Epidemiology & Global Health, McGill University
Associate Director, McGill International TB Centre

Zelalem Temesgen, MD
Director, Mayo Clinic Center for Tuberculosis

CONTENT

In order to end TB, we need to increase access to TB care and simultaneously ensure that the care provided is of sufficiently high quality (i.e. care that is safe, effective, patient-centered, timely, efficient, and equitable). There is plenty of evidence that quality of TB (and TB-HIV coinfection and MDR-TB) care is poor in many settings, and this is a key reason for the high mortality rate seen in LMICs. This means National TB programs need to think beyond coverage of TB services; they need to start measuring and systematically improving quality of TB care in LMICs. This session of leading international experts will:

• Discuss and debate the best approaches to measurement of quality of TB care
• Review data on quality of TB care and factors that drive variation in care
• Explore quality of TB care in private versus public sectors
• Give examples of quality improvement programs in TB as well as other areas of global health (e.g. from HIV/AIDS) that have worked or failed through case study lessons
• Explain the use of quality dashboards, audits and tools, and their likely impact on quality
• Give strategies for understanding and overcoming the pervasive know-do gap, including training, mentoring, incentives, and system-wide changes for high-quality health systems

OBJECTIVES

By the end of the course, participants will be able to:

• Review various approaches to measuring quality of TB care in low-resource settings
• Summarize current evidence on quality of TB care, and give examples of quality improvement programs that have worked or failed
• Describe the role of research in understanding variation in quality, the know-do gap, and provider performance improvement

TARGET AUDIENCE

• National TB Program managers and program implementers
• Clinicians and nurses
• Researchers and academics involved in TB care and prevention
• Funding agencies
• Product development partnerships
• Policy makers and public health implementers
• Community advocates and civil society

COURSE FORMAT

Online-only. Course will be live approximately 9:00am-12:00pm (Montreal time) each day May 30 - June 3, 2022. Live content will be recorded.

ENROLLMENT

Unlimited.
This course will introduce the up-to-date key concepts in the biology, prevention, and management in the efforts to mitigate and contain the COVID-19 pandemic. Students will learn about the epidemiology and transmission of SARS-CoV-2 which has contributed to its dissemination worldwide. Topics will revolve around understanding the virus’ biology, novel diagnostic approaches, its impact on special populations, up-to-date therapeutic approaches as well as preventative strategies using vaccines and other public health measures.

**COURSE DIRECTORS**

Chen Liang, PhD  
Professor, Department of Medicine; Director, Centre for Viral Diseases McGill University

Gerasimos J. Zaharatos, MD, FRCP(C)  
 Associate Professor, Department of Medicine, McGill University

**CONTENT**

In order to contain the COVID-19 pandemic, we need to increase diagnostic capacity and implement public health mitigation strategies. Effective measures will focus on the widespread administration of a safe and effective vaccine, as well as therapeutic approaches for both in and outpatients. There is plenty of evidence that COVID-19 has had a disproportionate impact on certain populations (e.g. people of certain socioeconomic status and ethnic origins) and understandings these differences will be paramount in containing this pandemic. This session of leading international experts will:

- Review the biology and transmission of SARS-CoV-2
- Discuss and highlight the epidemiology of the COVID-19 pandemic
- Present novel diagnostic strategies for SARS-CoV-2
- Discuss and debate the best therapeutic interventions for the management of inpatient and outpatients with COVID-19
- Highlight key differences in the manifestations of COVID-19 in special populations (including children, pregnant women, and disenfranchised individuals)
- Explore the role of technology in the management of COVID-19
- Present and debate the optimal vaccination strategy against COVID-19
- Understand and mitigate the impact of COVID-19 on mental health

**OBJECTIVES**

By the end of the course, participants will be able to:

- Understand the basic properties of SARS-CoV-2 in the context of its biology, pathogenesis, transmission and epidemiology.
- Review various approaches to the management of inpatient and outpatients with COVID-19
- Summarize current evidence on the diagnosis of SARS-CoV-2 infection, and give examples of specific use cases
- Describe optimal public health mitigation strategies, including vaccination, against the COVID-19 pandemic, and highlight current gaps to be addressed in the future
- Present the impact of COVID-19 on social life, mental health, and at-risk populations

**TARGET AUDIENCE**

- Clinicians and nurses
- Undergraduate students, graduate students, medical school students, postdoctoral fellows,
- Researchers and academics involved in SARS-CoV-2 research
- Funding agencies
- Product development partnerships
- Policy makers and public health implementers
- Community advocates and civil society

**COURSE FORMAT**

Online only. Course will be live approximately 9:00am-1:00pm (Montreal time) each day May 30 – June 1, 2022. Live content will be recorded.

**ENROLMENT**

Unlimited.
Global Health Diagnostics
JUNE 2-3, 2022

This 2 day online seminar on global health diagnostics will focus on cross-cutting issues affecting the Infectious Diseases Diagnostics space, including sexually transmitted and blood borne infections (STBBIs), acute febrile illnesses, selected neglected tropical diseases (NTDs), in addition to HIV, TB, Malaria and COVID-19.

Attendees can expect a mix of plenary talks, engaging panel discussions and tech pitches from industry leaders.

Participants will learn from an array of stakeholders including product manufacturers, donors, product development partnerships, policy makers, academics, clinicians, researchers, community advocates, program managers, public health implementers and health leaders from in high burden countries.

COURSE DIRECTORS
Cédric Yansouni, MD, FRCPC, DTM&H
Assistant Professor, Divisions of Infectious Diseases and Medical Microbiology, McGill University Health Centre; Associate Director, J.D. MacLean Centre for Tropical Diseases

Nitika Pant Pai, MD, MPH, PhD
Associate Professor, Division of Clinical Epidemiology & Infectious Diseases, McGill University; Center for Outcomes Research and Evaluation, MUHC Research Institute

CONTENT
Infectious diseases continue to pose a major threat to the health of most developing nations. The COVID-19 pandemic and emergence and spread of infections like XDR-TB, Ebola, dengue, chikungunya, and avian influenza have highlighted the importance of effective global response to epidemic threats.

Diagnosis is a critical step in effective disease care and control, but many people in developing countries do not have access to high quality diagnostic tests.

In this popular course, professionals ranging from clinicians, nurses, policy-makers, researchers, implementers, advocates and health educators gather to share their rich and diverse experiences, successes, failures and lessons learned in launching, leading, important diagnostic initiatives, globally. They ask important questions that help advance the field of global health diagnostics.

OBJECTIVES
• Convene key stakeholder groups on global health diagnostics to create a platform for information exchange and knowledge transfer.
• Inform, educate, engage and convene discussions on pertinent issues in diagnostics so as to inform the direction of future practice, policy and funding initiatives for diagnostics.
• Dissect the value chain for global health diagnostics development, current pipeline of diagnostics, market size and dynamics, policies on diagnostics, and barriers for scale-up for selected infectious diseases of global health importance across all infections.
• Debate and propose solutions for accelerating market entry for innovative diagnostics, to sustain and support manufacturers’ engagement in development of new diagnostics that address unmet global health needs.
• Debate and identify novel approaches to scale-up, including innovative business models that leverage market-based incentives.

TARGET AUDIENCE
This course appeals to a wide range of participants including:
• Policy makers and ministry officials
• Researchers, academics, and students/fellows studying global health or infectious disease
• Product developers, and industry
• Funders and public health agency officials
• Community advocacy groups working in diagnostics and global health

COURSE FORMAT
Online only. Course will be live approximately 8:00am-12:00pm (Montreal time) each day June 2-3, 2022. Live content will be recorded.

ENROLMENT
Unlimited
This advanced course will cover advanced topics in TB diagnostics research and implementation, including pipeline of innovations, critical pathway for new TB tests, impact of new tests on clinical decision-making and therapeutic choices, cost-effectiveness in routine programmatic settings, and impact on patient-important outcomes. The course will also cover meta-analysis, mathematical modeling, and cost-effectiveness studies. Panel discussions will cover topics such as value chain for TB diagnostics development, market analyses, market dynamics, target product profiles, and barriers to scale-up of new diagnostics. Participants will include TB survivors, product manufacturers, donors, product development partnerships, policy makers, academics, clinicians, community advocates, public health implementers and National TB Program managers.

**COURSE DIRECTOR**

Madhukar Pai, MD, PhD  
Canada Research Chair of Epidemiology & Global Health,  
McGill University  
Associate Director, McGill International TB Centre

**CONTENT**

Diagnosis is one of the biggest gaps in the TB cascade of care. We need better tools for TB diagnosis than what we have today and we need high quality diagnostic studies to evaluate new tools, and to develop evidence-based policies on TB diagnostics. We need data on outcomes such as accuracy of diagnostic algorithms (rather than single tests) and their relative contributions to the healthcare system, incremental value of new tests, impact of new tests on clinical decision-making and therapeutic choices, cost-effectiveness in routine programmatic settings, and impact on patient important outcomes. Translation of policy into impact requires collecting evidence for scale-up, country-level data on cost effectiveness and feasibility, implementation research, and local decisions on scale-up, delivery and impact assessment. All of these issues will be covered in this advanced course.

**OBJECTIVES**

By the end of the course, participants will understand:

- Value chain for TB diagnostics development, current pipeline of diagnostics, market dynamics, WHO policies on new diagnostics, and challenges for scale-up  
- Designs to evaluate impact of new tests on clinical decision making, therapeutic choices, and patient-important outcomes  
- Meta-analyses of diagnostic accuracy studies and GRADE approach to diagnostic policies  
- Principles of implementation research, collecting evidence for scale-up, cost-effectiveness analyses and modeling studies in TB diagnostics

**TARGET AUDIENCE**

- National TB Program managers and National Reference Lab managers  
- Clinicians and nurses  
- Researchers, students, trainees, fellows and academics involved in TB diagnostics research  
- Product manufacturers  
- Funding agencies  
- Product development partnerships  
- Policy makers and public health implementers  
- Community advocates and civil society

**COURSE FORMAT**

Online-only. Course will be live approximately 9:00am-12:00pm (Montreal time) each day June 6-10, 2022. Live content will be recorded.

**ENROLMENT**

Unlimited.
A course focused on the principles and rigorous application of qualitative methods in formative, operational, evaluation and policy research in infectious disease in diverse global settings.

COURSE DIRECTORS
Amrita Daftary, PhD, MPH
Assistant Professor, School of Global Health, York University
Research Associate, CAPRISA, University of KwaZulu-Natal

Nora Engel, PhD
Associate Professor Global Health, Department of Health,
Ethics and Society/ CAPHRI, Faculty of Health,
Medicine and Life Sciences
Maastricht University, Netherlands

CONTENT
Qualitative methods can assess the social and behavioural contexts, and the complex determinants, impacts and outcomes of illness and disease control efforts, including public health programs, policies, and technologies. There is growing interest to integrate qualitative methods into traditional operational and biomedical research to understand challenges to healthcare seeking behaviour and healthcare service delivery, and to better understand how and why some interventions and technologies are successfully (or less successfully) implemented and utilized. This course will build participants’ research literacy to use qualitative methods to inform, innovate, contextualize, evaluate, and strengthen the delivery and utilization of healthcare services and technologies for infectious diseases (e.g., tuberculosis, HIV, COVID-19) in lower- and middle-income settings.

The course utilizes case studies and practical exercises to engage learners in the following topics in qualitative research:

1. Study designs and methodologies
2. Theoretical frameworks
3. Focus groups, observation and interviews: designs, skills and implementation
4. Approaches and methods for analysis
5. Multiple methods: integrating and sequencing qualitative and quantitative methods
6. Sampling and participant recruitment
7. Data management and storage
8. Ethics and evaluation criteria
9. Dissemination

The course includes didactic expert lectures on qualitative study design, implementation, analysis, and dissemination, interactive group exercises to apply and practice the lessons learned, as well as short topical presentations and/or panel discussions.

COURSE OBJECTIVE
To be introduced to the principles and methods of qualitative research.

TARGET AUDIENCE
• Persons with a strong interest in qualitative and mixed methods, and little/no prior experience
• Persons involved in infectious disease control programs, including program managers, innovators, and M&E officers
• Junior faculty, doctoral and postdoctoral fellows engaged in global health research
• Clinical researchers and residents working internationally
• Research staff, including study coordinators, with an interest in international work
• Representatives of funding and/or advocacy bodies, grant reviewers

COURSE FORMAT
Online. Course content will be streamed live approximately 8:00am-1:00pm (Montreal time) each day June 6-10, 2022 (exact times each day to be confirmed). Teaching includes didactical lectures, dedicated periods for interactive exercises and short topical presentations and/or panel discussions. Streamed content will be recorded, except interactive exercises which will not be recorded.

ENROLMENT
Unlimited.

2022 COURSES
To Register: mcgill.ca/summerinstitute-globalhealth
An intensive course on methods of operational research, randomized controlled trials, systematic reviews and meta-analyses, qualitative / community based research, decision analyses and modeling. Format will include lectures, debates, panel discussions and small group work.

**COURSE DIRECTOR**
Dick Menzies, MD, MSc  
Director, Respiratory Epidemiology and Clinical Research Unit, McGill University Health Centre  
Director, WHO Collaborating Centre for Tuberculosis Research  
Director, McGill International TB Centre

**CONTENT**
This course will introduce broad tuberculosis research topics - the World Health Organization’s research plan as part of the End TB Strategy, priorities in drug resistant and HIV-related tuberculosis, as well as the missing pieces of the TB Research puzzle. Every morning session will focus on a different methodology - operational research, molecular epidemiology, systematic reviews, randomized trials and economic analysis. In the afternoons, there will be “late-breakers”, short presentations of exciting new findings from course faculty, followed by basics in biostatistical methods, then small group sessions to work in operational research, epidemiology, systematic reviews, qualitative/ community based research, randomized trials or cost analysis. The output from each group will be presented to the entire group on the final afternoon.

**TARGET AUDIENCE**
- Clinicians interested in TB research
- MSc, MPH and PhD students interested in TB research projects
- Postdoctoral fellows, clinical fellows and residents interested in TB research
- Junior faculty with a strong interest in TB research
- Research staff, nurses and coordinators managing TB research projects
- Persons involved in TB control programmes with interest in research and evaluation methods

**COURSE FORMAT**
In-person and online options. Course will be live to both the in-person and online participants approximately 9:00am-4:30pm (Montreal time) each day June 6-10, 2022. Live content will be recorded.

**ENROLMENT**
- 40 in-person participants maximum (limited space in small groups)
- 40 participants online (limited space in small groups)
The focus of this 4-day course is on understanding the complex causes underlying the emergence and spread of AMR, on identifying practical approaches to tackle antibiotic misuse in different settings, and discussing promising scientific advances related to AMR.

**COURSE DIRECTORS**

Makeda Semret, MSc, MD, FRCP
Associate Professor of Medicine, Infectious Diseases and Medical Microbiology, McGill University
Lead, Antimicrobial Stewardship Program, McGill University Health Centre
Director, Training Program in Infectious Diseases and Medical Microbiology, McGill University AMR Center Co-Director, McGill Interdisciplinary Initiative in Infection and Immunity (MI4)

Erika Vlieghe MD
Head of the Department of General Internal Medicine, Infectious Diseases and Tropical Medicine, University Hospital Antwerp
Professor of Infectious Diseases, University of Antwerp

Dao Nguyen, MSc, MD, FRCP
Associate Professor of Medicine, McGill University
AMR Center Director, McGill Interdisciplinary Initiative in Infection and Immunity (MI4)

**CONTENT**

Antimicrobial resistance (AMR) is now one of the biggest threats facing modern medicine. Initially described mostly in association with hospital-associated infections in high-income countries, the highest rates of AMR are now reported from low and middle-income countries (LMIC) around the world. The causes underlying the global rise in AMR are complex, but central to this crisis is overconsumption of antibiotics.

This 4-day virtual course will focus on understanding the complex causes underlying the emergence and spread of AMR, on approaches to tackle antibiotic misuse in different settings, and on discussing promising scientific advances related to AMR.

Clinicians, researchers, implementers, and health educators from both high-income and low and middle-income countries will share questions, successes, and lessons learned to advance the field of AMR.

**OBJECTIVES**

At the end of this course, participants will be able to:

- Understand the basic mechanisms and trends in antimicrobial resistance
- Describe essential diagnostic tools and challenges/opportunities for improved AMR surveillance in different settings
- Identify adaptive challenges and practical solutions to implementing stewardship programs in different settings
- Understand the emerging issues in antimicrobial use and resistance in agriculture and natural environments, and their potential link to human health
- Discuss promising advances in AMR-related biomedical research

**TARGET AUDIENCE**

This course appeals to a wide range of participants including:

- Clinicians, pharmacists, technologists, researchers and students studying infectious diseases, tropical medicine, or global health
- Policy makers and public health agency officials
- Product developers and funders
- Community advocacy groups working in global health

**COURSE FORMAT**

Course will be online approximately 8:00am-12:30pm (Montreal time) each day June 6-9, 2022. Live content will be recorded and available for viewing asynchronously.

**ENROLMENT**

Unlimited.

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2022 COURSES  To Register: mcgill.ca/summerinstitute-globalhealth
This course will introduce the up-to-date key concepts and methodologies that are currently being implemented in the efforts to halt and end the HIV epidemic. Students will learn about the HIV care cascade that forms the basis of the United Nations Programme on HIV/AIDS (UNAIDS) 90-90-90 targets to end AIDS as a public health threat by 2030. Topics will revolve around understanding and responding to HIV epidemics using biobehavioural surveillance, HIV phylogenetics, targeted population research, HIV eradication, and HIV testing, treatment, and prevention interventions.

**COURSE DIRECTORS**

Chen Liang, PhD  
Professor, Department of Medicine; Director, Centre for Viral Diseases McGill University

Marina Klein, MDCM, MSc  
Professor, Department of Medicine  
McGill University

**CONTENT**

The course’s main theme centres on how we can stop the HIV epidemic through the application of effective interventions, including the use of antiretroviral medications for prevention and treatment. Lectures will elucidate how the UNAIDS “90-90-90” targets can be best supported to achieve an end to the epidemic. Specifically, lectures will explore the tools, methods and resources that have been developed and implemented to respond to the HIV epidemic. Topics that will be discussed include the use of comprehensive HIV surveillance systems, including biobehavioural surveys, to monitor and understand the HIV epidemic, as well as HIV phylogenetics, mathematic modeling of HIV transmission, HIV cure and targeted population research. In addition, the key role of HIV testing technologies and HIV treatment and prevention strategies will be examined in depth.

**OBJECTIVES**

- Understand the HIV care cascade, the global targets to end HIV epidemic and how to measure success
- Identify the major barriers to success in reaching global targets
- Understand HIV biobehavioural surveillance as part of second generation surveillance
- Learn about phylogenetics to monitor HIV epidemic in real time
- Learn about HIV transmission in targeted populations
- Learn about the up-to-date HIV testing technologies, HIV treatment and prevention strategies
- Learn mathematic modeling and other research methods to understand HIV transmission and epidemic
- Learn the main HIV cure strategies aimed at eradicating HIV infection

**TARGET AUDIENCE**

This course is suitable for graduate students (MSc and PhD), postdoctoral fellows, medical school students, clinician researchers, healthcare professionals (nurses, physicians) who are interested in learning the current efforts and strategies to control and end HIV epidemic.

**COURSE FORMAT**

Online only. Course will be live approximately 9:00am-1:00pm (Montreal time) each day June 6-8, 2022. Live content will be recorded.

**ENROLMENT**

Unlimited.
The health care industry is at the threshold of a massive disruption that is increasingly catalyzed by the COVID-19 pandemic. The scope of change and transformation brought about by innovations is unprecedented. Wearables and Internet of Things (IoT) enabled platforms have improved remote patient monitoring and monitoring for wellness. Smart Applications (Apps) have demonstrated evidence of improved linkages and retention of patients in care, expanded access to unreached populations, improved documentation of health-related metrics and overall engagement in health care. Machine learning has improved prediction. 3D modeling and 3D printing have generated a blueprint for changes in drugs, devices, prosthetics, and hearing aids. High-value care (convenient, targeted, personalized, efficient, and cost-saving) is available for the billions with access to the internet.

COURSE DIRECTOR
Nitika Pant Pai, MD, MPH, PhD
Associate Professor, Department of Medicine, McGill University
Divisions of Clinical Epidemiology, Experimental Medicine & Infectious Diseases.
Center for Outcomes Research and Evaluation, MUHC Research Institute

CONTENT
This two-day online course on digital health will touch upon many of these promising innovations and developments in the space. Participants will learn from world-class faculty and industry experts.

The course format includes a mix of plenary talks, engaging panel discussions, and a showcase of innovative products and services from innovators, industry, academics, and data analysts to health care organizations.

Content will cover a wide variety of topics from population health/preventative medicine to clinical medicine/virtual health and telemedicine. We will also showcase clinical decision support with algorithms to Augmented Reality, Virtual Reality, and immersive patient experiences. We plan to focus on global and national innovations, evaluations and implementation, and discuss challenges and barriers to scale-up, and sustainability.

OBJECTIVES
- Engage with key global thinkers in the digital health space to share their vision.
- Provide a global forum to showcase top of the line protected digital health innovations from the industry, academia, and non-profit organizations.
- Learn from exemplars of digital health processes and systems implemented globally and discuss the implementation at scale and sustainability of promising digital health innovations.
- Identify novel approaches to scale-up within health care systems worldwide
- Convene discussions on data harmonization, data access, data sharing, and data ownership, so as to inform the direction of future practice, policy, and funding initiatives for big data and digital health.
- Raise awareness, educate, and engage the global audience (participants, stakeholders, and end-user groups) on key issues of global importance.

TARGET AUDIENCE
This course appeals to a wide range of participants including:
- Innovators, Entrepreneurs, Industry and Product Developers
- Researchers, Academics, and Policy Makers
- Clinicians, Patient advocates, and Clinical champions
- Clinical Administrators Health care Organizations CIO, CTO, CDO, CDGHO
- Students/fellows
- Funders including non-profit organizations and foundations

COURSE FORMAT
Online only. Approximately 9 am to 1pm (Montreal time) each day June 9-10, 2022. Live content will be recorded.

ENROLMENT
Unlimited.

2022 COURSES  To Register: mcgill.ca/summerinstitute-globalhealth
McGill is pleased to partner with the Pegasus Institute to offer courses for students interested in how conflict and the environment shape human health. Courses will explore connections between larger events of the world and the health of populations and individuals. Courses are open to all—explore these topics with us!
The course explores the basic principles and practice of peace through health and how peace and health perspectives can complement each other. By examining various concepts, competencies, determinants, indicators and real-world examples of the interrelationships and interlinkages between peace/war/violence and health/disease/illness, it allows for the critical analysis of integrated peace and health paradigms and delves into the effects of conflict on health and the practice of healthcare; and subsequently the use of health-based concepts and practice in the transformation of conflict.

COURSE DIRECTOR
Dr. Neil Arya (BA.Sc MD CCFP FCFP DLitt)
Fellow, Balsillie School for International Affairs;
Past VP, International Physicians for the Prevention of Nuclear War (IPPNW);
Founding President, PEGASUS Institute for Peace, Global Health and Sustainability

CONTENT
The connections between health-disease and peace-war are multiple. Militarized violence and war have serious and negative effects on human health, both directly and indirectly: directly, through casualties and injuries, and indirectly, through disrupted economic and social systems that address health needs as well as instilled fear and distrust. The course is meant to allow critical analysis of the interrelationships between health-disease and peace-violence and the role of health-related interventions and humanitarian work as a means of discouraging violence and addressing root causes. A case study approach including examples from personal experiences of lecturers in Afghanistan, Iraq, Somalia, Israel/Palestine, El Salvador, Sri Lanka through a theoretical lens of primary, secondary and tertiary prevention.

OBJECTIVES
• Provide students with information on determinants and indicators of health and peace.
• Develop students’ critical thinking abilities toward analyzing global peace and health problems and finding ways to deal with them.

COURSE OUTCOMES
At the end of this course, the student will:
• Understand the potential and limitations of work for peace through one societal sector – the health sector.
• Identify, describe, and discuss the basic principles of peace through health, and how peace perspectives and health perspectives can complement the work of the other sector.
• Explain the impact of war on health
• Discuss why and how the health sector should work on expanding peace

TARGET AUDIENCE
• Global Citizens
• Policymakers, programme managers, government, and public health junior faculty
• Graduate students and faculty with an interest in peace, global health and community health
• Health Practitioners
• Funding, advocacy and policy bodies
• Those working in warzones, advocates and civil society
• Transdisciplinary with interest in peace-law, medicine, ethics, global health, political science, international development

COURSE FORMAT
Online only. Course will be live approximately 8:00am-1:00pm (ET) each day May 24-27, 2022. Live content will be recorded.

ENROLMENT
Unlimited.
This unique course will explore three key challenges confronting humanitarian action today: forced migration, climate crisis, and access to medicines. Through a combination of inspiring lectures and interactive case studies, the course will explore emerging ethical dilemmas and current controversies around these issues. Building a bridge between theory and practice, this course will enable participants to tackle the challenges within their own spheres of influence.

COURSE DIRECTORS

Rachel Kiddell-Monroe, LL.M
Professor of Practice, Institute for the Study of International Development, McGill University; International Board Director, Médecins Sans Frontières; General Director, See Change Initiative

Teresa Bonyo, MD/MPH
Medical Doctor and Public Health Specialist; National Medical Officer, IOM - UN Migration Agency; Board of Directors, Médecins Sans Frontières

CONTENT

People around the world are facing profound challenges and are living in increasingly fragile contexts. These changing dynamics are forcing us to reflect on how humanitarian assistance is conceptualized and delivered to benefit vulnerable and marginalized populations. Today, over 65 million people have been forced to leave their homes because of conflict, violence, climate change, or extreme poverty. They are increasingly demonized by society. At the same time, inequitable access to affordable medicines and diagnostics, and significant health impacts of accelerating climate change continue to challenge our ability to deliver meaningful humanitarian assistance. This course aims to provoke reflection and debate of these trends. Participants will delve into the ethical dilemmas these trends present for humanitarian action. With input from thought leaders and community advocates from the humanitarian, environmental, and human rights field, participants will use practical examples and case studies to explore the political, human and ethical dimensions of these three global realities.

OBJECTIVES

- The course will allow participants to develop skills in:
  - Reflecting critically on contemporary humanitarian action
  - Identifying key ethical dilemmas facing humanitarian practitioners and policy makers
  - Debating humanitarian issues
  - Advocating for meaningful change at grassroots and policy levels
  - Understanding how to decolonize their own practices

TARGET AUDIENCE

This course will appeal to a wide range of participants from different countries including:

- Policy makers and ministry officials
- Researchers, academics and students from all disciplines who are interested in humanitarian issues (law, medicine, ethics, global health, political science, international development and more).
- Mid-career humanitarian workers, civil society and advocacy groups.

Participants from LMICs and Indigenous communities are encouraged to apply.

COURSE FORMAT

Course will be live to both the in-person and online participants approximately 8:30am-12:30pm (Montreal time) each day May 30–June 3, 2022. Live content will be recorded.

ENROLMENT

- 50 in-person participants maximum
- Unlimited participants online
Global crises that are unfolding around the world are inextricably linked to the sustainability of vital biophysical systems. Environmental health approaches explore the interdependent relationship between human health and natural ecosystems. This course examines the environment-health links from health care practitioner, policy and public health perspectives. It is designed for those who wish to gain insight into how human health and well-being is directly affected by environmental factors and a variety of approaches to environment and health problems on macro and micro-scales.

**COURSE DIRECTOR**

Dr. Neil Arya (BASc MD CCFP FCFP DLitt)
Founding Board President PEGASUS Institute
Adjunct Professor - Environment and Resource Studies, University of Waterloo
Former Chair Ontario College of Family Physicians (OCFP)
Environmental Health Committee and member Pest Management Advisory Council of Health Canada

**CONTENT**

The course will introduce health issues related to toxins found in land water air and food and an approach to individual illness that may relate to the biophysical environment. It then looks at elements of human development such as extractive industries, forestry agriculture and energy productions and resultant waste as they relate to health of vulnerable populations and approaches to risk management followed by ways of societal design to minimize negative effects and create healthy resilient communities. We then look at climate change and reducing the impact of health care on negative change and finally look at advocacy particularly for Indigenous populations. Course participants will be encouraged to reflect and share their own observations and examples.

**OBJECTIVES**

- To foster an understanding of the interconnections between public health, and environmental systems
- To encourage participants to apply an environmental perspective to their own areas of interest with respect to human health.
- To explore and share different approaches to human health ranging from the biomedical model and evidence-based medicine to a broader environmental perspective affecting public and individual health
- To consider what role environmental advocacy may be playing in health care and the implications for human health and the advocate/practitioner.

**TARGET AUDIENCE**

- A transdisciplinary group with an interest in the relationship between human health and the physical environment with backgrounds in health, law, medicine, ethics, global health, political science, international development, governance
- Social and health decision-makers, administrators and policy advisors
- Public health graduate students and faculty with an interest in global and community health
- Health practitioners
- Programme managers, government and public health junior faculty
- Funding, advocacy and policy bodies
- Development and environmental studies students
- Advocates and civil society

**COURSE FORMAT**

Online only. Course will be live approximately 8:00am-12:00pm (Montreal time) each day June 6-10, 2022. Live content will be recorded.

**ENROLMENT**

Unlimited.
The numbers of persons with disabilities worldwide are large and growing. Along with the Manipal Academy of Higher Education and the McGill School of Physical and Occupational Therapy, the Summer Institute is pleased to announce new content aimed at emphasizing concepts of disability as societal and human rights concerns.
Global Considerations of Disability for Rehabilitation Providers
JUNE 13-15, 2022

This course will help rehabilitation providers engage with disability in a complex and globalizing world. Through interactive and community-building activities, participants will expand their understandings of disability and the contributions that rehabilitation providers can make to improve the situation of persons with disabilities worldwide.

COURSE DIRECTORS
Shaun Cleaver, PhD
Faculty Lecturer, School of Physical and Occupational Therapy, McGill University, Montreal, Canada

Sidhiprada Mohapatra, MPT
Assistant Professor, Department of Physiotherapy, Manipal College of Health Professions; Coordinator, Centre for Comprehensive Rehabilitation, Manipal Academy of Higher Education

CONTENT
Rehabilitation providers strive to facilitate improved function, health, and quality of life for their clients. Whereas the field of rehabilitation is broad and diverse – including providers who are members of the rehabilitation professions, like physiotherapists, and providers involved in complementary rehabilitation activities, like individuals supporting community-based rehabilitation programs – rehabilitation providers are united by the drive for enhanced function, better health, and improved quality of life.

Given the complexities of rehabilitation in globalizing contexts, this new summer institute course aims to equip rehabilitation providers to engage proactively with disability. Course content will expand the perspectives of rehabilitation providers with respect to understanding disability as a societal and human rights concern. Course delivery will include interactive and community-building activities to encourage collective learning and independent development.

OBJECTIVES
By the end of this course, participants will be able to:
- Explain key concepts from disability studies and discuss their application to rehabilitation practice.
- Define ableism and identify ways in which ableism can be reproduced through rehabilitation.
- Discuss the construction of disability and examine how diverse cultural and environmental contexts will influence experiences of disability.

TARGET AUDIENCE
The targeted audience for the summer school will include rehabilitation professionals from the disciplines of
- Physiotherapy
- Occupational Therapy
- Nursing
- Clinical or Rehabilitation Psychology
- Social work
- Individuals involved in disability advocacy
- Certified recreation therapists
- Other professions
- Students interested in broadening their views and knowledge in disability studies.

COURSE FORMAT
Online only. Course will be live approximately 8:00am-12:00pm (Montreal time) each day June 13-15, 2022. Live content will be recorded.

ENROLMENT
Unlimited.
Vibrant nightlife, eclectic cuisine, and cobblestone streets. Here in Montreal, the old city blends seamlessly into a modern metropolis of glass and steel, where trendy boutiques sit side-by-side with quaint bistros and brasseries.

Surrounded by the mighty St. Lawrence River and more than 400 islands, Montreal buzzes with energy and excitement all year long. Festivals abound, celebrating the power of laughter, fireworks, diversity, fast cars and cool jazz, a wintertime fusion of performing arts, fireworks and fine wine and dining.

The world’s second-largest French speaking city, Montreal is renowned for its numerous universities, medical and scientific research centers, as well as for its cultural and artistic life, excellent restaurants and hotel network. While French is the official language of the Province of Québec, English is also widely spoken.

You can enjoy the artisan studios of the Old Port, or the shops, theatres, and major department stores of the underground city. Montreal’s artistic scene includes one of the world’s leading orchestras, an internationally-renowned ballet company, English and French theatres, comedy clubs, and dozens of museums and galleries.

Enjoy the city’s mixture of European and North American charm that both surprises and enchants participants of the Summer Institute year after year.

The Infotouriste Centre located near the Summer Institute, and in the heart of the city, offers free tourism information about Montréal, and the rest of the province of Québec. You can find out about guided bus tours, STM transit fares, Montréal Museums, cruises and car rentals. The Infotouriste Centre is located at: 1255 Rue Peel suite #100, Montréal, QC H3B 4V4

Additional Information about activities can also be found at the Tourisme MTL website: www.mtl.org/en

Montreal: a unique city
REGISTRATION

To register: Visit our website www.mcgill.ca/summerinstitute-globalhealth

Pricing: The cost of each course is clearly marked on the registration form. Prices vary by category and course—discounts are given for participants from low and middle income countries and students. There are also different prices for those courses that are offered both in-person and online.

Deadlines: Registration closes when the course is full, or seven days before the course is scheduled to begin. The deadline to be considered for a scholarship is March 31, 2022.

Overlapping courses: Participants wishing to enroll in overlapping online courses are permitted to do so, but should be aware that if overlapping courses have live sessions happening at the same time they may have to view some content later as a recording.

Scholarships: We have a limited amount of funding and are only able to grant scholarships for registration fees. We are not able to fund travel or lodging (for those courses that are in-person). If you are interested in a scholarship you must apply for the scholarship before registering for your courses.

Group registration: Groups larger than 10 people are eligible for group registration and payment by invoice. Contact us at summerinstitute.med@mcgill.ca first, to discuss the proper registration procedure and receive instructions. We regret that we cannot invoice for groups of less than 10 people.