



**PMAC** | PRINCE MAHIDOL  
AWARD CONFERENCE **2018**



## **PARALLEL SESSION 2.4**

**CHANGING DYNAMICS: EMERGING INFECTIOUS DISEASES AND ANTIMICROBIAL  
RESISTANCE IN AN ERA OF EXPANDING GLOBAL HUMAN POPULATION  
GROWTH AND MOVEMENT**



## | BACKGROUND

The global human population is projected to peak at over 11 billion this century. Accelerated human population growth and corresponding changes in demography, along with associated food and companion animal population increases, are altering disease dynamics and will continue to drive emerging infections and transmission over the course of the next century. This session will explore the connections among infectious disease emergence, antimicrobial resistance (AMR), and changing human and animal population dynamics. We will explore the state-of-the-art in emerging disease and AMR detection and forecasting and answer the question, "How can we minimize emerging disease and AMR risks linked to changing demography."

## | OBJECTIVES

This session aims to explore and address the impacts of growing human and animal populations and unplanned mega-cities and peri-urban settlements on disease emergence, amplification, and global distribution. Accordingly, presenters will also tackle the risks associated with surging global trade and travel and illustrate how forecasting can inform risk mitigation.  
Specific Objectives:

- Explore projected demographic trends over the 21st century and their impact on expected zoonotic disease emergence and AMR
- Enhance understanding of how trends in demography will differ regionally; how differences in agricultural productivity and marketing practices will impact emerging disease risk, including spread of AMR; and how purchasing power and animal protein demand will have global supply chain impacts and associated emerging disease risk
- Highlight practical, evidence-driven approaches to defining, forecasting, and mitigating human demographic-driven emerging disease risk



Panelist

## Saber Yezli

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Dr Saber Yezli is the Head of Research at the Global Centre for Mass Gatherings Medicine, a WHO collaborating center on Mass Gatherings Medicine. He obtained his first class BSc (Hons) degree in Genetics in 2003 and his PhD in molecular biology in 2008 from Cardiff University, UK. A pioneer in the emerging field of mass gatherings health, Dr Yezli started his career in the area of hospital acquired infections and antimicrobial resistance to later expand to infectious disease and public health, with particular interest in mass gatherings and mass gatherings health. In the last few years Dr Yezli led numerous Hajj-related research for providing evidence-base for appropriate public health policy making for the event. Dr Yezli is a member of the UK Infection Prevention Society (IPS), the European Society of Clinical Microbiology and Infectious Diseases (ESCMID), and the French Association for Standardization (AFNOR). He served as an associate editor of the Journal of Infection Prevention and the Journal of Epidemiology and Global Health. Dr Yezli is also the author/co-author of numerous peer-reviewed publications, book chapters, abstracts and invited oral presentations.