Yehoda Martei, Assistant Professor of Medicine and the Vice Chief of Diversity, Inclusion and Health Equity in the Division of Hematology-Oncology, University of Pennsylvania, USA

"The adverse effects of antimicrobial resistance (AMR) are already manifesting themselves in cancer care delivery in a big way. As a medical oncologist who primarily manages cancer patients admitted to the hospital, I commonly admit patients with complex infectious complications due to their underlying cancer or sequelae of immunosuppression from cancer-directed therapy. AMR may result in the undertreating of patients who are started on empirical antibiotics but later found to have culture growth with resistant organisms, e.g., extended-spectrum β-lactamases-producing *Enterobacteriaceae*, requiring more broad-spectrum antibiotics. This was the case in a young patient with colon cancer who had to spend more than a month in the hospital due to multiple complications from a drug-resistant infection. In addition, he could not start cancer-directed therapy due to infectious complications requiring surgical procedures, a prolonged antibiotics course and recovery. As a multidisciplinary care team, we were acutely aware of his rapidly advancing tumour on serial abdominal scan images, but were held hostage by his equally aggressive infectious complications from drug-resistant organisms. These patients are undoubtedly medically complex, often cared for by multiple specialty teams with ongoing reassessments of risks versus benefits of delaying cancer-directed therapy while treating ongoing infections. Fortunately, when practising in the United States, I have access to institutional resources and colleagues that promote antimicrobial stewardship. Additionally, antimicrobial diagnostics are ubiquitously available with fast turnarounds to inform clinical decisions, and patients receive excellent education and guidance on antimicrobial usage and adherence. Furthermore, cancer patients with resistant organisms and rare organisms are always co-managed with specific oncology infectious disease teams.

I also have the privilege of working in resource-constrained settings, where providers deliver the best care for cancer patients with infectious complications with much fewer resources. The burden of AMR is grossly underappreciated due to a lack of diagnostics, broad-spectrum antimicrobials and personnel resources. Therefore, AMR may be one of the biggest threats to cancer care delivery in these settings, which may further widen the already existing survival disparity in cancer outcomes. There is an urgent need to focus on capturing AMR data and expanding diagnostics and access to antimicrobials in these settings."

Dr Yehoda Martei is a medical oncologist, an Assistant Professor of Medicine, and the Vice Chief of Diversity, Inclusion and Health Equity in the Division of Hematology-Oncology at the University of Pennsylvania (Penn). She is also a global health scholar at the Center for Global Health and a Senior Fellow at the Leonard Davis Institute of Health Economics at Penn. She is an Adjunct Lecturer at the University of Botswana, where she conducts most of her research work related to access to essential medicines for cancer treatment. Her research is also focused on implementation strategies for eliminating global disparities in breast cancer and HIV outcomes by optimizing high- quality breast cancer therapy delivery in low-resource settings.

She has previously served as a Steering Committee member for the selection of the World Health Organization's List of Essential Cancer Medicines and currently serves on the Scientific Advisory Panel for the Medicine Patent Pool, the Access to Oncology Medicines Coalition, and the Medical Advisory Board of the Max Foundation. Dr Martei obtained her undergraduate and medical degrees at Harvard and Yale, respectively. She completed her internal medicine training at the University of California, San Francisco, before moving to Penn where she completed her Hematology-Oncology fellowship and Master of Science in Clinical Epidemiology.