

## OP522 Years Of Potential Productive Life Lost Due To Cancer Premature Mortality In Brazil: 2000 to 2016

Luís Felipe Leite Martins ([lfmartins@inca.gov.br](mailto:lfmartins@inca.gov.br)), Marianna De Camargo Cancela, Leonardo Borges de Souza, Dyego Leandro Bezerra de Souza, Anton Barchuk, Arthur Correa Schilithz, Paul Hanly, Linda Sharp, Alison Pearce and Isabelle Soerjomataram

**Introduction.** Early death from cancer is potentially preventable. In developing countries, it is not only a human tragedy but also an economic tragedy. In Latin America and the Caribbean, the estimated number of deaths for people 15–64 years in 2018 was 262,141, with Brazil being the country with the largest number of cases in the region (38.2%). The mortality rate for cancer in Brazil was 68.7/100,000. The analysis of causes impacting premature mortality is an essential function of public health surveillance. This study aims to estimate Potential Productive Life Years of Lost (YPPLL) due to cancer from 2000 to 2016, according to the region, sex and cancer site.

**Methods.** Official data from the Brazilian government were used for the period 2000–2016 for the 15–64 age group (economically active population). For each cancer death in working-age people, potential years of productive life lost (YPPLL) were calculated as the difference between pensionable age and age at death from cancer (based on the age group mid-point). The limit considered as pensionable age was 65 years for men and 60 years for women.

**Results.** The total of cancer deaths among working-age people was 61,547 in 2000 and increased to 93,551 in 2016. The correspondent YPPLL was 717,883 and 944,565, respectively (increase of 31.6%), mostly coming from males (56.8%). Highest individual YPPLL were observed in the North and Northeast and Midwest, for both sexes. The most substantial changes observed from 2000 to 2016 in total YPPLL were for colorectal cancer, which moved from sixth to the second position nationally.

**Conclusions.** The YPPLL due to cancer is increasing in Brazil and present different patterns by sex and geographic regions. While in the South and Southeast lung cancer has the highest impact among males, in the North and Northeast most YPPLL come from stomach cancer. Among females, a clear pattern is observed with breast cancer being responsible for most YPPLL excepting in the North, where cervical cancer still having a major impact compared to other tumors.

## OP523 Towards A Health Technology Assessment Framework For Omics-Technologies: Preliminary Results Of The ExACT project.

Laurenz Govaerts ([laurenz.govaerts@kuleuven.be](mailto:laurenz.govaerts@kuleuven.be))\*, Ilda Hoxhaj\*, Steven Simoens, Walter Van Dyck, Isabelle Huys, Stefania Boccia and Inaki Gutierrez-Ibarluzea

**Introduction.** Omics technologies enable the measurements of genes (genomics), mRNA (transcriptomics), proteins (proteomics) and metabolites (metabolomics) and thus proved to be valuable tools for personalized decision-making in clinical practice. For their evaluation, a health technology assessment (HTA) framework is not standardized and accepted, yet. Therefore, we aim at designing an omics-technologies HTA evaluation framework to facilitate their assessment, through a mixed-method approach. This work is part of the ExACT project, which aims to produce a range of tools to facilitate the implementation of precision health in clinical practice.

**Methods.** A systematic review was conducted to identify the existing HTA frameworks used for the evaluation of omics-technologies. Desk research on the HTA agencies' websites was performed to identify the reports on omics-technologies HTA evaluation frameworks used by these agencies. A questionnaire evaluating HTA agencies' experience on evaluation of omics-technologies was designed. The new framework will be elaborated based on the findings from the three methodological steps, and will be validated through a Delphi process.

**Results.** Twenty-three articles were included in the systematic review. The main identified HTA frameworks were ACCE and "Evaluation of Genomic Applications in Practice and Prevention" (EGAPP). The desk research showed that these frameworks were seldom used by HTA agencies, which for the evaluation of omics-technologies mostly refer to the HTA Core Model®, mainly assessing the following domains: clinical effectiveness and economic evaluation. Data collection process of the questionnaire HTA agencies' experience is in progress.

**Conclusions.** Although two main HTA frameworks for the evaluation of omics-technologies have been identified, these frameworks are sporadically used by HTA agencies in their practice. The particular interest of HTA agencies on clinical effectiveness and economic evaluation, might potentially reflect the uncertainty and difficulties when evaluating omics-technologies. This could indicate that these HTA frameworks are not feasible and practical to be used in routine HTA agency processes for omics technologies, emphasizing the need for a new framework. Our methodological approach might contribute to the development of a new HTA framework, feasible and practical to use not only for HTA agencies.

## OP535 Cost-Effectiveness Of Internet-Based HIV Screening In Men Who Have Sex With Men in Vancouver, British Columbia, Canada

Wei Zhang ([wzhang@cheos.ubc.ca](mailto:wzhang@cheos.ubc.ca)), José de Anda, Michael Irvine, Hsiu-Ju Chang and Mark Gilbert

**Introduction.** In Canada, individuals test for HIV commonly through clinic-based screening services (CBSS). However, gay, bisexual and other men who have sex with men (GBMSM) may face barriers accessing such services due to, for example, feeling discomfort disclosing their sexual history or fearing judgment from healthcare providers. To reduce barriers and increase uptake and frequency of screening for sexually-transmitted infections