

**Methods.** We manually searched the webpages of HTA organizations and included HTA-reports published since 2015. Prerequisites for inclusion were the conduct of a systematic review of economic evaluations in at least one electronic database and the use of the English, German, French, or Spanish language. Methodological features were extracted in standardized tables. We prepared descriptive statistical (e.g., median, range) measures to describe the applied methods. Data were synthesized in a structured narrative way.

**Results.** Eighty-three reports were included in the analysis. We identified inexplicable heterogeneity, particularly concerning literature search strategy, data extraction, assessment of quality, and applicability. Furthermore, process steps were often missing or reported in a nontransparent way. The use of a standardized data extraction form was indicated in one-third of reports (32 percent). Fifty-four percent of authors systematically appraised included studies. In 10 percent of reports, the applicability of included studies was assessed. Involvement of two reviewers was rarely reported for the study selection (43 percent), data extraction (28 percent), and quality assessment (39 percent).

**Conclusions.** The methods applied for systematic reviews of economic evaluations in HTA and their reporting quality are very heterogeneous. Efforts toward a detailed, standardized guidance for the preparation of systematic reviews of economic evaluations definitely seem necessary. A general harmonization and improvement of the applied methodology would increase their value for decision makers.

## PP66 Increasing Burden Of Out-Of-Pocket Healthcare Expense On Patients

Rhythm Arora, Nikhil Dugar, Vandit Saxena, Sunil K. Jaiswal, Chitresh Kumari, Nigel Cook ([nigel.cook@novartis.com](mailto:nigel.cook@novartis.com)) and Olga Furio

**Introduction.** We conducted an analysis of the key factors triggering cost-sharing mechanisms to understand the status of out-of-pocket (OOP) healthcare expense in the United States (US), Europe, and emerging markets and better appreciate the implications of OOP healthcare expense on patients' health management.

**Methods.** A review of literature and databases including The Organisation for Economic Co-operation and Development (OECD) and World Bank was performed to understand different cost-sharing mechanisms, factors triggering OOP expenditure and the country-wise trends of OOP expenditure. Additionally, the impact of OOP expenditure on healthcare budget and on patients in terms of medication adherence, uptake of newer therapies and generic substitution was explored.

**Results.** The findings reveal that patients are concerned about rising healthcare OOP costs, and we observed an increase of 134 percent in the number of articles published on OOP from 2005 to 2017. The percentage of household spending that goes OOP as healthcare expense is higher in Brazil, Russia, India, and China (BRIC countries; ~11 percent) compared to France, Germany, Italy, United Kingdom, US, Japan, and Canada (G7 countries; ~2 percent). In addition, OOP expenditure increased with age (1.9 percent of take home income in 55-64 age group versus 1.2 percent in 18-25 age group) and is higher in the low-income population (2.8 percent of take home income versus 1

percent in high-income group). Whereas, increasing OOP expenditure reduces the overall healthcare expenditure due to generic substitution (28 percent reduction) and reduction in excessive consumption of supplementary medicines, it also reduces patient adherence (~20 percent decline in dispensed prescriptions) and may foster a reluctance to adopt newer therapies.

**Conclusions.** The population groups most impacted by increasing OOP expense are the older population, those in the low-income bracket and in poorer countries. While OOP expense may help in the effective and judicious utilization of healthcare system resources and medicines usage, its implementation requires a cautious and considered approach.

## PP68 Indicators From The Real World Data To Improve Opioid Use

Eric Tremblay ([eric.tremblay@inesss.qc.ca](mailto:eric.tremblay@inesss.qc.ca)), Jean-Marc Daigle, Marie-Claude Breton and Sylvie Bouchard

**Introduction.** Opioids are being used increasingly to treat chronic noncancer pain despite the uncertainty regarding its long-term benefits. This study served to determine if problems are associated with opioid use in Québec for new users from 2006 to 2013 without history of cancer.

**Methods.** A retrospective longitudinal cohort study was conducted using administrative databases stored at the Régie de l'assurance maladie du Québec (RAMQ) to describe the annual proportion of new users to whom at least one of the five indicators of potentially inappropriate opioid use applied was estimated. These indicators are (i) overlapping opioid prescriptions, (ii) overlapping opioid and benzodiazepine prescriptions, (iii) the use of long-acting opioids at the start of treatment, (iv) a high mean daily dose, and (v) a rapid increase in the opioid dose.

**Results.** The annual proportion of new users to whom at least one of the five indicators of potentially inappropriate opioid use applied decreased from 15.4 percent in 2006 to 12.3 percent in 2013. It was mainly the following three indicators that contributed the most to these proportions in 2013: (i) overlapping opioid prescriptions (5.8 percent), (ii) overlapping opioid and benzodiazepine prescriptions (8.2 percent), and (iii) the use of long-acting opioids at the start of treatment (1.8 percent).

**Conclusions.** The vast majority of new users with no history of diagnosed cancer used opioids adequately according to the five indicators of potentially inappropriate opioid use applied. Improvement could still be made to decrease mainly overlapping opioid prescriptions and overlapping opioid and benzodiazepine prescriptions.

## PP69 Potential Gains In Health-Adjusted Life Expectancy From Reducing Four Non-Communicable Diseases Among Chinese Elderly

Shuyan Gu, Xuemei Zhen, Xueshan Sun, Yuxuan Gu, Hengjin Dong and Xiaoqian Hu ([huxiaoqian@zju.edu.cn](mailto:huxiaoqian@zju.edu.cn))