

preliminary results for OI. We considered medical centers from different regions of Brazil. The results are presented in terms of percentage and/or mean and its standard deviation (SD).

**Results.** Three medical centers completed the data collection. The average [SD] cost of a one year journey of a patient diagnosed with OI is BRL 16,308.07 [11,005.21] (USD 2,886.91 [1,948.36]) per center. Activities with greater cost are medicines, with an average cost of BRL 11,919.47 [12,629.45] (USD 2,109.76 [2,235.52]), followed by materials and human resources, with an average cost of BRL 2,881.91 [3,311.57] (USD 509.92 [585.84]) and BRL 1,506.70 [1,300.46] (USD 266.54 [230.24]), respectively. When assessing the moment of a patient's journey, the percentage of appointments, diagnosis, treatments and follow-up were 11.2, 25.8, 32.5 and 30.5, respectively. Only 3.3 percent of consumed resources were external to the center (out-of-pocket or private insurance).

**Conclusions.** The TDABC can efficiently draw the processes and costs associated with it. Medicines are the main driver of annual costs for OI patients in the SUS. This study was funded by the National Council for Scientific and Technological Development – CNPq and the Ministry of Health of Brazil – MoH.

## PP143 International Assessment of the Health Care System in Kazakhstan. A performance analysis.

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**Introduction.** Measuring the performance of the health systems is an important challenge at international level. The main objective of this work is to analyze the outcomes of the Kazakhstan Health Care System in order to establish the main causes of avoidable mortality in the country. Also, to identify benchmarking possibilities that may support public policy decisions to improve the results.

**Methods.** To calculate the avoidable mortality indicators due to preventable and treatable causes, the methodology agreed by the OECD and Eurostat based on the International Classification of Diseases, ICD-10 was applied. Starting from the mortality database of the World Health Organization, the standardized indicators of avoidable mortality was calculated for those countries that had available data based on this classification. Based on the outcomes obtained, a “Two-Step” Cluster Analysis was used to identify and characterize the different clusters of countries that present similar results to identify possible affinities and detect benchmarking possibilities.

**Results.** The main causes of mortality from treatable diseases in Kazakhstan are those related to the circulatory system, followed by different types of cancer and respiratory diseases.

Applying the cluster analysis in the international context, we find important differences between the different clusters, both in the standardized ratios of avoidable mortality and in its causes. Notable differences have also been identified between Kazakhstan and the

countries that make up its cluster. Overall, Kazakhstan presents better avoidable mortality results, both from preventable and treatable causes, than the average of the cluster to which it belongs. However, in some causes of death, it presents worse results and high mortality rates, as in the case of those related to the circulatory and respiratory systems or different types of injuries.

**Conclusions.** The cluster analysis based on the avoidable mortality indicators reveals different conglomerates of countries that show important similarities between them and also some significant differences. Groups of avoidable diseases that characterize each cluster and subcluster, provide key information for the benchmarking and the design of future actions.

## PP145 Improving Patient Expert Involvement In The Lifecycle Of Health Technology Assessments To Build Public Confidence In Decision-Making

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**Introduction.** Involving patients in the health technology assessment (HTA) lifecycle is a core principle at the National Institute for Health and Care Excellence (NICE). We include both patient organizations and patient experts, which helps build public confidence in health-care decision-making. We continually work with patient experts to improve their experience and ability to participate by seeking patient expert feedback after every committee meeting.

**Methods.** We sent patient experts an anonymous experience survey containing a five-point Likert scale and open text boxes to capture qualitative data. The survey covered their overall experience, interaction with the committee Chair, and the support they received from both NICE and the Public Involvement Programme (PIP).

In the 2019 to 2020 period we sent out 59 questionnaires and received 29 responses (47%), all of which were from medicines HTA committee participants. In the 2020 to 2021 period we sent out 120 questionnaires and received 65 responses (54%), of which 64 were from patient experts who attended medicines HTAs and one was from a medical devices HTA committee participant.

**Results.** Good or excellent experiences were reported by 90 percent of patient experts. The four main success factors noted were: good support before meetings; being welcomed and respected; well organized meetings; and patient expert input being valued. Areas for further improvement included: providing better briefing before meetings; allowing more time to review documents; providing more technical support; and giving more consideration to the opinions of patient experts.

**Conclusions.** As a result of the feedback received, the PIP now holds monthly group briefing meetings for patient experts. We also publish the anonymized feedback from the patient experts quarterly in a newsletter for committee members and share the data with internal