

health services purchasers are giving up to introduce a new treatment; current estimates bypass this lack of information by averaging the effects of changes in expenditure by clinical area; (iii) recent methodologies consider a single health outcome: mortality; however, health outcomes of many clinical areas may not be well reflected in mortality.

**METHODS:**

We propose data envelopment analysis (DEA) as a methodology that can help to address these issues by considering efficiency to measure opportunity cost per Primary Health Trust (PCT) in England and by including several outcomes in addition to mortality. This is the first time that DEA is tested in this context.

**RESULTS:**

Results suggest that the majority of health locations have the possibility of decreasing their expenditures between 1 percent and 15 percent without affecting outcomes.

**CONCLUSIONS:**

Estimation of the threshold should allow for observation of the actual level of inefficiencies as well as an ability to consider the previous capacity of health locations to respond to changes in expenditures. Moreover, it is crucial to select the appropriate set of health outcomes, such that they reflect health system priorities, otherwise, we would be estimating a threshold that does not reflect likely displacement.

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## PP128 Relationship Between Hemoglobin A1c And Medical Costs

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**INTRODUCTION:**

Diabetes causes complications and collateral diseases, reducing quality of life and increasing medical costs. The Japanese government has promoted measures for the prevention of diabetes aggravation. Although

glycemic control is reported to prevent the development of complications, assessment of the effects on overall medical cost is insufficient. We examined the medical cost by the analysis of hemoglobin A1c (HbA1c) level.

**METHODS:**

A Japanese employee-based health insurance claims database with annual medical check-up data was analyzed. Excess medical cost was calculated as the difference between medical cost and standard medical cost (defined as the average medical cost for individuals of same age and sex). Percentage of excess medical cost was calculated by dividing excess medical cost by standard cost, and compared between individuals with or without treatment for diabetes.

**RESULTS:**

Of 4,307,184 individuals with HbA1c data, four percent of them received treatment for diabetes. For treatment of 6.5 percent of HbA1c, excess medical cost increased to 124 percent. The medical cost increased by an additional 20.4 percent (95% CI: 17.1–23.8) when the HbA1c level increased one percent. Treatment for less than six percent of HbA1c caused an increase consistent with the HbA1c level. The relative risk of iron deficiency anemia, unspecified of those with less than six percent of HbA1c against those with seven to eight percent was the highest, 2.15.

**CONCLUSIONS:**

An increase of medical cost for individuals with treatment for high HbA1c is likely associated with diabetic complication. The raise for individuals with lower HbA1c level may be related to anemia. Despite the younger age and healthier life of the analyzed individuals, since they were insured by employee-based health insurance who took regular medical check-ups, more expensive medical cost was observed for those having higher HbA1c level.

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## PP129 The Need For Building Pharmacists HTA Capacity; The Nigerian Scenario

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**INTRODUCTION:**

The role of Health technology assessment (HTA) as a systematic approach in the evaluation of health interventions and technologies is becoming increasingly important as the quest for attaining universal health coverage globally continues to increase. Some developed countries in Europe and the Americas now apply HTA extensively in healthcare policy decisions, however, developing regions and countries like sub-Saharan Africa and Nigeria respectively, seem not to be making significant progress in this area. Given that evidence suggests that Nigeria and indeed several countries in sub-Saharan Africa are performing poorly on most healthcare indices as the region continues to be ravaged by predictable and avoidable epidemics and disease outbreaks, the need to build HTA capacity has never been more paramount.

**METHODS:**

A review of HTA capability in Nigeria was done. Pharmacists in Nigeria’s Capital were randomly sampled. Semi-structured questionnaires were administered. Descriptive statistics was used in data analysis. P values less than 0.05 were considered to be significant.

**RESULTS:**

In Nigeria, there is no institution tasked with undertaking HTA and there seems to be limited knowledge, capacity and awareness on the issue. Pharmacists, being the most accessible healthcare professionals according to evidence, are a key group that could play an active role in HTA and its implementation in developing countries like Nigeria. However, out of 322 pharmacists randomly sampled, ninty-three percent were not aware of HTA and its application in healthcare decision-making.

**CONCLUSIONS:**

There is no paucity of healthcare programs and plans in Nigeria but they seem to fail due to lack of evidence-based assessment, decision-making and implementation. Hence, there is increasing need to raise awareness on the importance of HTA in healthcare decision-making; strengthen HTA capacity by developing and sustaining institutional capacity and adequate human resource for HTA; and creating regional annexes of HTA organizations in Africa.

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## PP130 Economic Burden Of Nine Human Papillomavirus Strains (HPV9)-Related Diseases: A Real World Cost Analysis From Italy

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**INTRODUCTION:**

The objectives of this study were to estimate the economic burden of human papillomavirus (HPV) in Italy, accounting for total direct medical costs associated with nine major HPV-related diseases, and to provide a measure of the burden attributable to HPV 6, 11, 16, 18, 31, 33, 45, 52, 58 infections.

**METHODS:**

A cost-of-illness incidence-based model was developed to estimate the incidences and costs of invasive cervical cancer, cervical dysplasia, cancer of the vulva, vagina, anus, penis, oropharyngeal, anogenital warts, and recurrent respiratory papillomatosis (RRP) in the context of the Italian National Health System (NHS). We used data from hospital discharge records (HDRs) of an Italian region and conducted a systematic literature review to estimate the lifetime cost per case, the number of incident cases, the prevalence of HPV9 types. Costs of therapeutic options not included in the diagnosis-related group (DRG) tariffs were estimated through a scenario analysis.

**RESULTS:**

The total annual direct costs were EUR 540.7 million, with a range of EUR 338.3 – EUR 789.7 million. These costs could increase considering innovative therapies for cancers treatment (range EUR 16.2 – EUR 37.6 million). The fraction attributable to the HPV9 genotypes without innovative cancers treatment was EUR 329.2 million (range EUR 150.1 – EUR 576.7 million), accounting for sixty-one percent of the total annual burden of HPV-related diseases in Italy. Of this amount, EUR 136.7 million (forty-two percent) was related to men, accounting for sixty-four percent of the costs associated with non-cervical conditions.

**CONCLUSIONS:**

The infections by HPV9 strains and the economic burden of non-cervical HPV-related diseases in men