

CENTRE FOR CLINICAL HEALTH ECONOMICS AND OUTCOME RESEARCH

LANDSCAPE ASSESSMENT OF A MENA HEALTHCARE DATABASE FOR USE IN HEALTH ECONOMICS MODELING

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OBJECTIVE

Real World Evidence (RWE) continues to be a fundamental tool that touches all stakeholders across the entire healthcare system, guides their decision, and contributes to generating useful economic modeling. The MENA region lacks data necessary for economic modeling. To fill the existing gap, the Centre for Clinical, Health Economics and Outcome Research (CCHO), GlobeMed and Higher Institute of Public Health (ISSP) of Saint-Joseph University (USJ) of Beirut are embarking to create a data warehouse reflecting the real world of treatment patterns and costs.

METHOD

A data mapping exercise was done to assess the capabilities of GlobeMed based longitudinal data as a source to cover data needs in health economic modeling. Data availability was assessed in a matrix framework. The inputs used were mapped into the following economic modeling categories: treatment patterns, epidemiology, patient health metrics, costs, resource use, and disease status.

RESULTS

GlobeMed database has over 22 years of longitudinal data. Its data claims are continuously updated and growing at 10% per year. The data covers 12 different markets in the Middle-Eastern and African territories: Lebanon, Ivory Coast, Syria, Saudi Arabia, Kuwait, Qatar, UAE, Bahrain, Jordan, Palestine, Egypt, and Nigeria (Figure2). GlobeMed has over 800,000 unique patient submissions, including major therapeutic areas such as diabetes (1.2 million patients), oncology (114,000 patients) and respiratory patients (1.4 million patients). Moreover, for inputs for costs, GlobeMed captures hospital, pharmacy and outpatient data (Figure1). GlobeMed database can be used efficiently to generate patient treatment patterns, market opportunity assessment, medication adherence, orphan drugs & conditions, burden of illness and cost of resource utilization (Figure 3).

FIGURE 1



Adjucated Hospital,
Pharmacy, and
outpatient data



5 million insured members



17 Million inpatient and outpatient claims processed annually



27 years



Data Validation



Transactional database updated in real time

FIGURE 2

12 countries in the Middle East and Africa

Lebanon, Ivory Coast, Syria, Saudi Arabia, Kuwait, Qatar, UAE, Bahrain, Jordan, Palestine, Egypt, and Nigeria



FIGURE 3



Clinical Data

- Treatment regimen (brand name, administration route, etc.)
- Drug coding system
- ICD-10 diagnosis codes
- CPT coding for hospital procedures
- Date of death for hospitalized
- Patient medical history and comorbidities captured

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Economic Data

- Hospitalization costs
- Resource costs
- Co-payment, co-insurance, deductibles data
- Cost of treatment
- On/off formulary status
- Complete medical and pharmacy costs



Other Data

- Physician ID captured
- All disease chapters in ICD including Cancer , orphan disease, Diabetes, and Cardiovascular, etc.
- Adverse events recorded only during hospitalization. No rate of adverse events
- Outcomes Data as Complications, Infections and Death during hospitalizations

CONCLUSION

GlobeMed database provides robust source of Real World Data. The collaboration of CCHO, GlobeMed, and ISSP (USJ) expertise will allow to fill data gaps and to leverage data-driven results in health economic modeling for the MENA region.