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## **Economic Burden of Multiple Sclerosis in Egypt: A Societal Perspective**

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**Background:** Egypt got the highest number of multiple sclerosis (MS) patients in the Middle East region with estimated number of 25,000 subjects. In 2018 there were 7,000 patients diagnosed and treated with high burden due to delay in both diagnosis and treatment initiation adding to that financial burden.

**Method(s):** Bottom-up cost of illness model was built based on a face to face patient reported outcome study conducted with 142 patients nationwide, 75% were relapsing remitting multiple sclerosis (RRMS) and 25% Progressive phase (primary progressive and secondary progressive) stating both direct, and indirect costs, indirect cost was calculated based on Human Capital Method(s).

Exchange rate used through – out the report is (EGP 1) = (USD 0.17808) as per the published exchange rate on currency converter for year 2018.

**Result(s):** The total cost of MS including RRMS and Progressive phase was 20.038 Million USD in 2018 from patient's perspective and excluding governmental expenditure on MS. Direct medical costs were 64%, 8% direct non-medical and 28% indirect cost. Results showed that average age is 33 years yet 56% are unemployed and 46% of MS patients lost their jobs after diagnosis. Patients with progressive phase of MS showed higher level of unemployment with 22% versus 16% for the RRMS patients. Progressive phase patients spend average of 3 years till confirming diagnosis versus 1 year for RRMS. The total cost per patient per month was estimated to be 240 USD given the average wage in Egypt is 235 USD per month.

**Conclusion:** Although the financial burden on RRMS patients compared to an earlier cost of RRMS study conducted in 2015 decreased by almost 40% in terms of direct spending however the burden is still relatively high given the low-income level of MS patients and unemployment status, for progressive phase (PPMS and SPMS patients) burden is much higher due to incomplete coverage for the treatment at public sectors.