Projection of health and economic burden due to alcohol-related liver diseases for India and its different regions for the period 2022-2036

Dr. Samba Siva Rao Pasupuleti
Department of Statistics, Mizoram University (A Central University),
Pachhunga University College Campus, Aizawl, Mizoram, India.
Email ID: srao113@gmail.com, Mobile No: +91 9903909632

ABSTRACT

Decrease in viral hepatitis and increase in alcohol consumption over the past few decades in India have resulted in a big shift in the etiology of liver diseases in the country. Recent studies suggest a growing health and economic burden due to alcohol-related liver diseases (ARLDs) around the world. But no such studies were available for India. This study projects the health and economic burden due to ARLDs for India and its different regions for the period 2022-2036. This study uses stochastic probabilistic modelling approach to estimate and project the health and economic burden due to ARLDs. The health impact is assessed in terms of number of deaths and disability-adjusted life years (DALYs) lost. The economic burden is estimated assuming all ARLD patients are to be treated following their preference to get treatment from public and private healthcare facilities. Approximately 3.6 million deaths, and a loss of 135 million DALYs were anticipated due to ARLDs in India during the study period of 2022-2036. The health and economic burden greatly varied across the regions with South India experiencing the highest health and economic burden due to ARLDs. At all India level, the economic burden due to ARLDs is projected to be 85% higher than the total tax income on alcohol to various state governments in the country. The findings of this study offer data that can be used to develop public health policies on alcohol regulation, reduce the burden due to ARLDs. Preventative initiatives are needed to reduce the burden of ARLDs in India.

Key words: ***projection, health burden, economic burden, stochastic model, alcohol, liver diseases.***