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*Modelling the impact and costs of hepatitis C virus screening and treatment scale-up to achieve elimination in Pakistan*

**Background and Aims:** Pakistan has the world's second-largest hepatitis C virus (HCV) burden. The World Health Organization (WHO) HCV-elimination strategy advocates for a reduction in HCV incidence by 80% by 2030. We explore how this could be achieved and the costs of doing so in Pakistan.

**Methods:** A general population HCV transmission, screening, and treatment model was developed and calibrated using available data from Pakistan, incorporating cost data on diagnostics and HCV treatment. We modelled alternative strategies for scaling-up screening and HCV treatment to determine the resulting impact and costs of achieving the WHO HCV incidence target in Pakistan.

**Results:** One-time screening of 90% of the 2018 population by 2030, with 80% referral to treatment, leads to 14 million individuals being screened and 350,000 treated annually, decreasing incidence by 27% over 2018-2030. Prioritising screening to higher prevalence groups (people who inject drugs (PWID) and adults >30 years) and introducing re-screening (annually for PWID, otherwise 10-yearly) increases the number screened and treated by half and decreases incidence by 51%. Decreasing HCV incidence by 80% requires doubling the primary screening rate, increasing referral to 90%, re-screening the general population every 5-years, and re-engaging those lost-to-follow-up every 5-years. This could cost USD\$8.1 billion, reducing to USD\$3.9 billion with lowest costs for diagnostic tests and drugs, including healthcare savings, and implementing a simplified treatment algorithm. Further including societal benefits of gained productivity suggests that elimination can be cost-saving by 2030.

**Discussion:** HCV elimination can bring about substantial societal health and economic benefits for Pakistan.