Hepatitis C prevalence and risk factors survey in three rural districts

Chhorvy Sun, Médecins Sans Frontières, Cambodia

Background

Despite a dramatic reduction of HCV drug costs and proven, simplified models of care, many countries lack accurate prevalence estimates to scale up HCV services.

Methods

We conducted a cross-sectional, multi-stage cluster design survey of HCV sero-prevalence in adults ≥18 years old, with an oversampling of the population ≥45 years. 147 clusters of 25 households were randomly selected in two sets (set 1=24 clusters, ≥18-year-old respondents; set 2=123 clusters, exclusively ≥45-year-old respondents). A multivariate analysis assessed risk factors for sero-positivity among participants aged ≥45. The study was conducted in rural Moung Ruessei Health Operational District, Battambang Province, in Western Cambodia.

Results

A total of 5 103 individuals and 3 616 households participated in the survey. The overall seroprevalence for the entire adult population aged ≥18 years was 2.61% ($CI_{95\%}$ 2.25-2.96), with 5.10% ($CI_{95\%}$ 4.55-5.65) for adults aged ≥45, and 0.58% ($CI_{95\%}$ 0.27-0.89) for adults 18-44. Viraemic prevalence for these same populations was 1.87% ($CI_{95\%}$ 1.62-2.14), 3.62% ($CI_{95\%}$ 3.22-4.01), and 0.47% ($CI_{95\%}$ 0.17 - 0.76), respectively. Men were more likely to be positive both serologically and by viral load; considering the population aged ≥18, the serological prevalence for men was 3.03 ($CI_{95\%}$ 2.54 - 3.52), and 2.27 ($CI_{95\%}$ 1.87 - 2.66) for women.

Risk factors identified for the population ≥45 years included: more advanced age, lower education level, membership in an ID poor card program, injection for medical use or surgery before 1990, blood donation or transfusion before 1980 and having ever had dental or gum treatment.

Conclusions

This study provides the first large-scale prevalence data on HCV infection in the general adult population of three rural districts of Cambodia and clarifies several important infection trends: for adults ≥45 years, sero-positivity was more likely with increased age, poverty, a low level of education, and past routine medical interventions (especially prior to 1990 and 1980).

This study of HCV prevalence in adults in Cambodia shows higher sero-positivity with older age, poverty, lower education levels, and past routine medical interventions.