

Viral hepatitis and vulnerability among cocaine users in South America

Cocaine users present numerous health problems, including infections with HIV, hepatitis B (HBV), hepatitis C (HCV), and syphilis, with higher prevalence rates than in the general population.

Considering the marked reduction in the number of cocaine users that inject, especially in South America, the role of other factors should be carefully assessed in order to elucidate the dynamics of HBV and HCV infections and orient public health measures aimed at reducing the spread of these pathogens. Parenteral exposure is fundamental, as widely documented in the literature. Nevertheless, a substantial amount of these infections lack a history of parenteral exposure, and the role is unclear for factors like contamination with unsterilized material, shared use of equipment for sniffing or smoking cocaine, and unprotected sex.

Recently in Argentina and Uruguay, consistent findings indicate that HBV is associated with transmission via unprotected sexual contact and that shared sniffing equipment is relevant in the spread of HCV among non-injecting cocaine users, with the latter featuring interactions through possible social networks with injecting cocaine users and/or persons living with HIV/AIDS.

However, the epidemiology of these infections among cocaine users is still not completely clear, suggesting the need to extend beyond the individual risk model to include micro-social, macro-social, and structural approaches.

From this perspective, we can list the following: (1) globalization: a shift from consumption by injecting users towards more numerous social groups represented by non-injecting users and the availability of cocaine and its byproducts on a continental scale; (2) inequalities: a disproportional contribution by socially vulnerable segments of the population to the spread of infections; (3) institutional weakness: modest interventions in prevention strategies, including risk reduction and the availability of immunization, counseling, and treatment; (4) social networks: intense interrelations between contacts potentially at risk, whether translated or not as actual risky interactions, exposing both an infected individual and one or more susceptible individuals; (5) rapid urbanization, resulting in urban settings with the intensification and increased potential of all the factors mentioned above, along with a widespread overload of the systems providing care to drug users (health, social assistance, and the penal system).

Considering that the interconnectivity between globalization, urbanization, and the spread of infectious diseases is not new, as illustrated by the AIDS pandemic (one of the most striking examples of the convergence between population mobility, urbanization, and the inter-human interface), what is missing?

The most commonly applied analytical models in public health limit our possibilities for inference on the determination of health behavior by multiple factors, probably interrelated, among the different levels of influence (individuals, social networks, neighborhoods, governments). Dynamic modeling as complex systems can be useful, allowing the adoption of a social epidemiological approach to health behavior and drug use, particularly providing an integrated model that permits incorporating factors at multiple levels of influence. Based on the reconciliation of different research methods and levels, answers will emerge that will foster more in-depth understanding of the dynamics of social networks and their multiple interconnections.

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