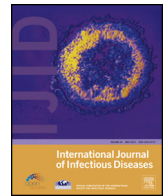




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## Editorial

## Hepatitis C virus in Arabian Gulf countries: Implications and priorities



The report by Mohamoud *et al.* is an informative, well executed systematic review and meta-analysis on the prevalence of blood-borne hepatitis C virus (HCV) in the Arabian Gulf countries. The study stands as the first to provide such comprehensive picture of HCV epidemiology in this region. With the recent advances in HCV treatment, this study comes at an important juncture, highlighting critical gaps in research and priority avenues for prevention in a region that is a melting pot of much of the Middle East and North Africa (MENA). MENA stands, overall, as the region with the highest HCV prevalence in the world.

A strength of the report was the authors' ability to include all available publications, some of which are from locally published journals and country level reports. By providing an abundance of details and descriptives in tables and figures, and conducting meta-analytics to assess study effect sizes and heterogeneity, the study establishes itself as an essential reference for HCV epidemiology in this region.

Mohamoud *et al.* estimated that the overall prevalence of anti-HCV antibody for the Arabian Gulf, was about 1% and the prevalence of HCV RNA (diagnostic for HCV viremia and typically two thirds of the antibody prevalence) to be lower. Higher HCV prevalence was found in resident expatriates, especially Egyptians, multi-transfused and dialysis patients, thalassemics, and people who inject drugs.

A striking finding of this study was the dominant role of HCV iatrogenic transmission. For example, the highest HCV estimates were reported in attendees of hemodialysis and thalassemia centers. This is an urgent issue that needs updated research studies and follow-up; particularly given that this region has all the resources needed for dedicated facilities and cohorting patients which prevent HCV negative patients from becoming infected.

The authors found that the prevalence of HCV was typically higher in reports that included non-nationals. These individuals are more often than not immigrant workers to the region. This was especially true of Egyptian nationals. Saudi Arabia and other Gulf countries instigated a policy that all migrant workers have to be tested free of HCV before a visa would be issued to live and work in the country. This policy has been in place for more than a decade. It would be useful to know when these infected foreign nationals

immigrated and if they had been screened. That said, there is no public health justification for this regional policy and it is not endorsed by the World Health Organization nor practiced elsewhere in the world. HCV screening for visa applications needs to be stopped to end this discriminating practice against infected persons.

The authors established that national and risk group estimates were based, with too few exceptions, on convenience samples that are susceptible to inherent bias. The few probability-based sampling studies were limited to specific urban areas or selected age groups. This highlights an important rationale for conducting population-based studies to guide public health policy and programs. In addition, further current epidemiological work is needed as too few of the included publications were recent. This begs for a recommendation in a region with ample resources, both technical and monetary, to improve the health status of its population: to design and complete full national-scale probability-based epidemiologic investigations on viral hepatitis. This would be an opportunity to include other important endemic pathogens and health conditions. This could be integrated or paralleled with maternal and childhood data collection, and nutritional and risk factor surveys. The results would be invaluable and would, no doubt, generate international scientific interest. This report by Mohamoud *et al.* provides a solid basis for this recommendation and points to the needed quality and standards for conducting HCV epidemiologic studies in these communities.

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