

Transitioning to a place-based model of public health management for hepatitis B & C in south east Melbourne, Australia.

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Background: With the recent establishment of local public health units (LPHUs) in Victoria, the management of hepatitis B and C was decentralised to a place-based model in September 2022. Such management puts greater emphasis on community engagement and the integration of public health systems, facilitating better connections into care. We sought to examine whether this transition resulted in tangible public health outcomes for hepatitis cases and more complete data collection, particularly for migrant communities from high-prevalence countries who are at elevated risk of having chronic viral hepatitis.

Methods: Data on hepatitis B and C cases notified through immigration health undertakings from January 2017- August 2023 were extracted from the Public Health Events Surveillance System. Outcomes measured related to transmission risk including recommendations for Hepatitis B vaccination for close contacts; and the care of cases, including ensuring regular contact with a general physician or specialist. Pearson's Chi-squared test was used to compare proportions of outcomes and data completeness before and after the transition to local management.

Results: The proportion of cases followed up until they were linked into care increased from 8.0% to 50.0% (Chi squared 12.9, $P < 0.001$), while the proportion of contacts recommended to have a hepatitis B vaccination increased from 5.7% to 34.9% (Chi squared 160.0, $P < 0.001$). Data availability on whether a case was referred into care increased from 28.4% to 98.4% (Chi squared 176.2, $P < 0.001$). Similarly, the percentage of cases with data pertaining to treatments offered increased from 24.4% to 70.5% (Chi squared 76.1, $P < 0.001$).

Conclusion: We found that the transition to a place-based model using LPHUs significantly improved connections into care. Data completeness pertaining to public health actions was also improved. This study supports the place-based management of chronic viral hepatitis for cases notified through immigration health undertakings and improvement in public health outcomes and data quality.

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