Evaluating the impact theory of the National Australian Hepatitis C Point-of-Care Testing Program: An implementation science-informed study

Authors:

<u>Fontaine G</u>^{1,2,3,4}, Rudge T³, Nicholls W³, Taylor N⁵, Marshall A^{3,6}, Baffsky R⁵, Mazariego C⁵, Kingsland M⁷, Wolfenden L⁷, Grebely J³

¹ Faculty of Medicine and Health Sciences, McGill University, ² Centre for Clinical Epidemiology, Lady Davis Institute for Medical Research, ³ Kirby Institute, UNSW Sydney, ⁴ Centre for Implementation Research, Ottawa Hospital Research Institute, ⁵ School of Population Health, UNSW Sydney, ⁶ Centre for Social Research in Health, UNSW Sydney, ⁷ School of Medicine and Public Health, University of Newcastle

Background:

The National Australian Hepatitis C Virus (HCV) Point-of-Care Testing Program is one of the first globally to evaluate scale-up of point-of-care HCV testing and treatment across settings, providing critical information on this approach to reach WHO's goal to eliminate HCV by 2030. This study evaluated the impact theory of the National Program to elucidate its essential components, processes, and intended impacts.

Methods:

This implementation science-informed, mixed-methods study was guided by the Consolidated Framework for Implementation Research (CFIR), the Expert Recommendations for Implementing Change Taxonomy (ERIC), and the Taxonomy of Implementation Outcomes (TIO). To map the National Program's inputs, activities, outcomes, and operations, study activities included CFIR/ERIC/TIO-informed document reviews (protocols, standard operating procedures, and training materials), coding of minutes from meetings pertaining to program coordination, rollout, and maintenance, and interviews key National Program stakeholders (community, government/policy, industry, laboratory/quality assurance, providers, research). Focus groups were conducted to validate the impact theory. Data were analysed using framework analysis.

Results:

Between July 2023 and April 2024, 28 documents and 83 meetings related to National Program coordination, rollout, and maintenance were coded. Interviews were conducted with 30 stakeholders across six Australian states and territories. A total of 40 implementation strategies targeting multilevel barriers to the implementation of point-of-care HCV testing were identified. Key implementation strategies included *Developing/distributing educational materials*, *Conducting educational meetings*, *Assessing sites for readiness*, *Developing and implementing quality monitoring tools and systems*, *Identifying early adopters*, *Providing local technical assistance and ongoing consultation*, *Staging implementation scale-up*, and *Using data warehousing techniques*.

Conclusion:

Study findings demonstrate key components for implementation success across highly varied clinical and community-based settings engaging in HCV-related care. As HCV testing becomes increasingly decentralised globally, findings from this implementation science-focused study will be key to ensuring successful adaptation in various clinical and community-based settings.

Disclosure of Interest Statement:

JG is a consultant/advisor for and has received research grants from AbbVie, Abbott, bioLytical, Camurus, Cepheid, Gilead Sciences, Hologic, Indivior, and Roche.