

DBS Validation in NSW: Partnership success in a private prison setting.

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Background/Approach: The NSW Health Hepatitis C Strategy (2022-2025) has a goal to eliminate hepatitis C (HCV) by 2028. Partnerships between government, clinicians, researchers and community are essential to achieve elimination. Alternative HCV testing technologies such as Dried Blood Spot (DBS) sampling can reduce barriers to care among vulnerable populations and support testing scale up. DBS sampling is simple, convenient and can be performed at home, in community or custodial settings. DBS for HCV testing is not approved by the Therapeutic Goods Administration (TGA) and testing is only offered in NSW through a clinical trial. A scientific validation sub-study for HCV testing using DBS samples was commenced for use outside of a trial.

Analysis/Argument: Work was undertaken by a partnership between NSW Health, NSW Health Pathology (NSWHP), Mid North Coast Local Health District (MNCLHD) and Serco Asia Pacific to collect 1300 paired DBS and venous samples and enable comparison of conventional and DBS assays. MNCLHD approached Clarence Correctional Centre (CCC) to offer testing to inmates with the support of five nurses and six health promotion staff. A research assistant from NSWHP processed the blood samples on site and Serco nurses, administration staff and correctional officers provided additional support.

Outcome/Results: Between 7-10 March 2024, the partnership team recruited 514 participants from CCC and undertook paired DBS and venous sampling directly in prison neighbourhoods on over 1,500 assays. NSWHP provided results through the prison clinical database as part of the standard of care.

Conclusions/Applications: Clear roles were established for survey administration, blood collection, data entry, sample processing and packaging and quality control. The partnership approach to the study resulted in 514 sample collections across four days, with replicate molecular and serology testing performed in real time. A further sample collection at CCC is planned for May 2024.

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