Queensland Health

pathology queensland

Pathology Queensland (PQ)

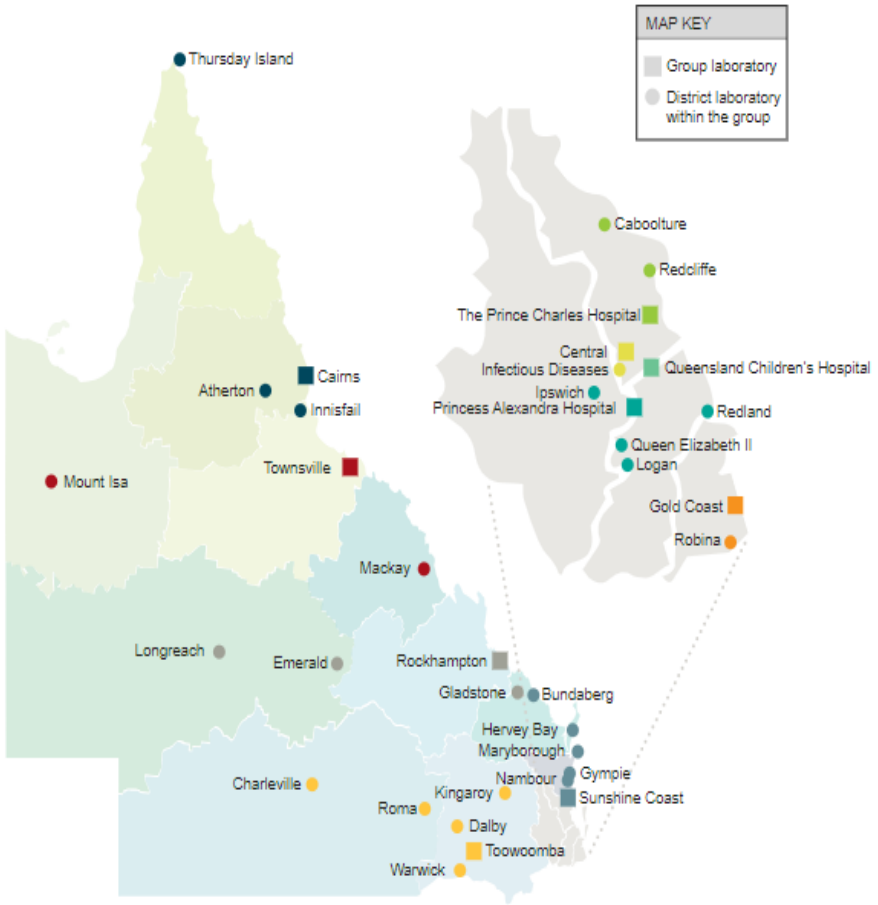
Hepatitis C Reflex PCR testing

2026 National PPA Conference

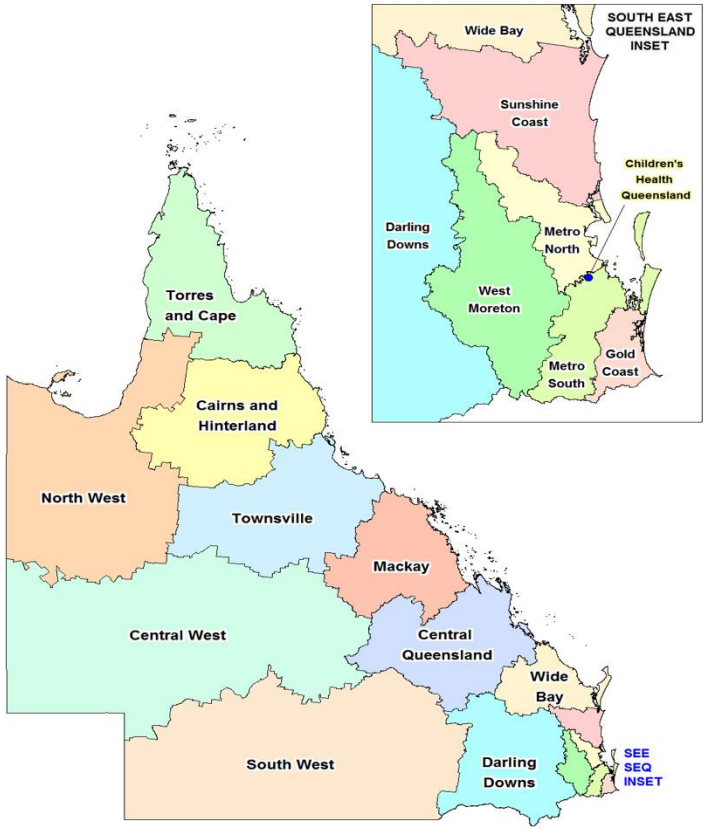
Queensland Government

Pathology Queensland at a Glance

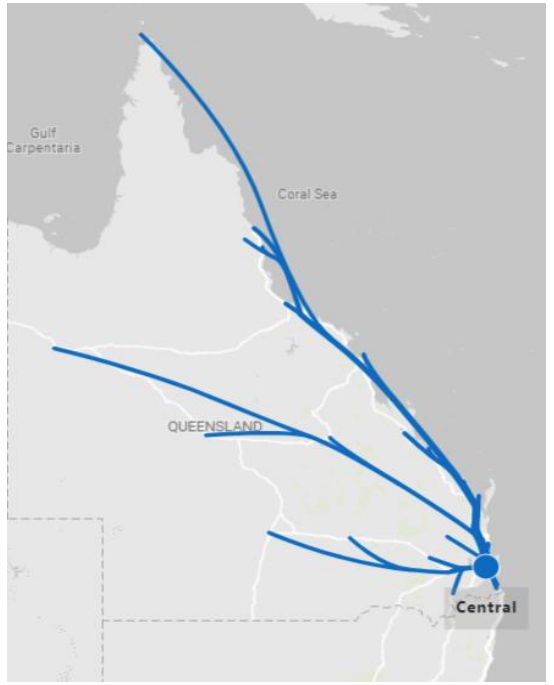
Pathology Queensland: **35 laboratories** across QLD
~2,000 FTE = Pathologists, Scientists, Clinical Assistants, Administration
Per day: **~25,000 patient episodes** = **~60,000 test results**



16 Health & Hospital Services (HHS)

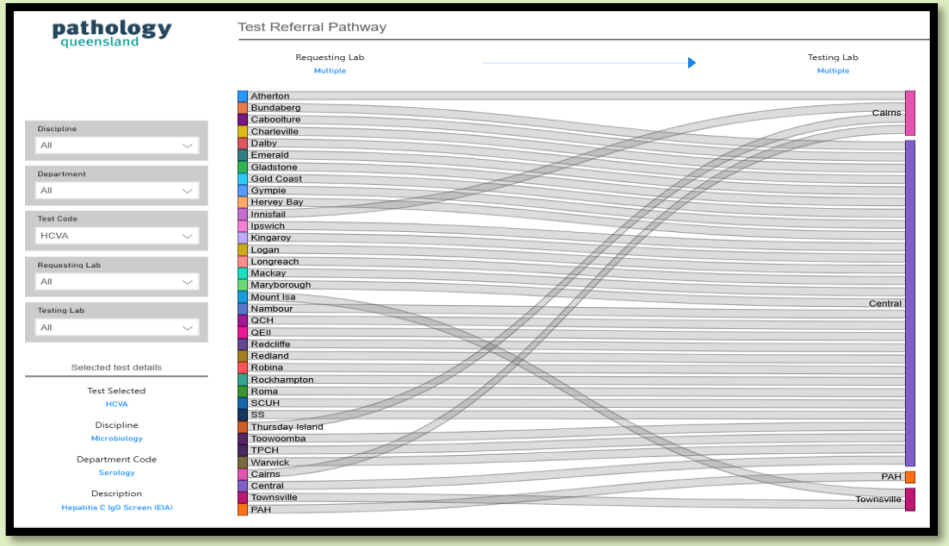


> 200k tests per month
referred across the state within PQ network
77% of which go to the RBWH Central lab



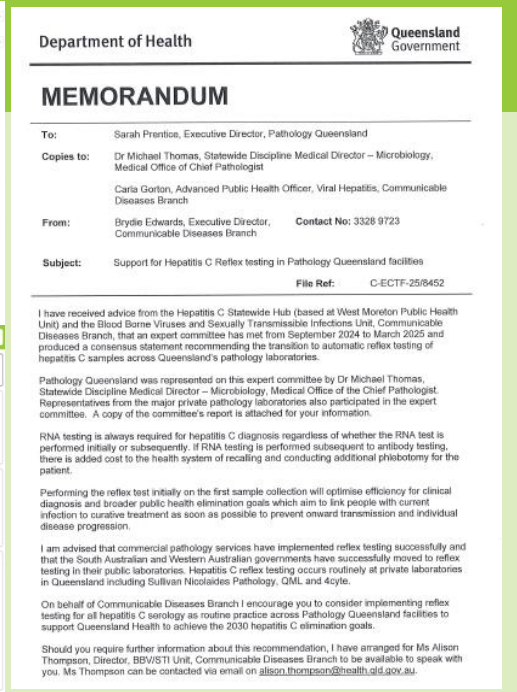
Hepatitis C Testing - PQ

- **Serology Testing** – IgG Screen - Serum
  - Atellica platform - Siemens
  - 4 testing sites – CN/TN/RBWH/PAH
  - First time positives
    - Multiple repeats
    - Supplementary testing – Evolis
      - » 2 testing sites only – TN and RBWH
- **Confirmatory testing and Tx monitoring** – Plasma
  - Qualitative and Quantitative assay (viral load)
  - COBAS 6800 – Roche
  - Centralised testing – RBWH
  - Strict sample conditions



Automatic Reflex Request

- April 2025 – Memo Executive Director CDB
- PQ BI Digital Team – assigned task May
  - PQ COVID Response
- Design – Complex
  - Sample/collection requirements
  - Multiple tests affected (tests and panels)
  - Referral pathways
  - 2 x IT Systems - AUSLAB and ieMR
  - Non-ieMR Workflow
  - Multiple clinical groups and Correctional Centres
  - Different ordering patterns
    - Add-ons



Department of Health

Queensland Government

MEMORANDUM

To: Sarah Prentice, Executive Director, Pathology Queensland

Copies to: Dr Michael Thomas, Statewide Discipline Medical Director – Microbiology, Medical Office of Chief Pathologist

Carla Gorton, Advanced Public Health Officer, Viral Hepatitis, Communicable Diseases Branch

From: Brydie Edwards, Executive Director, Communicable Diseases Branch **Contact No:** 3328 9723

Subject: Support for Hepatitis C Reflex testing in Pathology Queensland facilities

File Ref: C-ECTF-25/8452

I have received advice from the Hepatitis C Statewide Hub (based at West Moreton Public Health Unit) and the Blood Borne Viruses and Sexually Transmissible Infections Unit, Communicable Diseases Branch, that an expert committee has met from September 2024 to March 2025 and produced a consensus statement recommending the transition to automatic reflex testing of hepatitis C samples across Queensland's pathology laboratories.

Pathology Queensland was represented on this expert committee by Dr Michael Thomas, Statewide Discipline Medical Director – Microbiology, Medical Office of the Chief Pathologist. Representatives from the major private pathology laboratories also participated in the expert committee. A copy of the committee's report is attached for your information.

RNA testing is always required for hepatitis C diagnosis regardless of whether the RNA test is performed initially or subsequently. If RNA testing is performed subsequent to antibody testing, there is added cost to the health system of recalling and conducting additional phlebotomy for the patient.

Performing the reflex test initially on the first sample collection will optimise efficiency for clinical diagnosis and broader public health elimination goals which aim to link people with current infection to curative treatment as soon as possible to prevent onward transmission and individual disease progression.

I am advised that commercial pathology services have implemented reflex testing successfully and that the South Australian and Western Australian governments have successfully moved to reflex testing in their public laboratories. Hepatitis C reflex testing occurs routinely at private laboratories in Queensland including Sullivan Nicolaides Pathology, QML and 4cyte.

On behalf of Communicable Diseases Branch I encourage you to consider implementing reflex testing for all hepatitis C serology as routine practice across Pathology Queensland facilities to support Queensland Health to achieve the 2030 hepatitis C elimination goals.

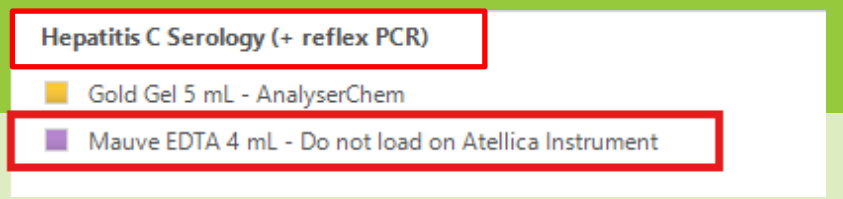
Should you require further information about this recommendation, I have arranged for Ms Alison Thompson, Director, BBV/STI Unit, Communicable Diseases Branch to be available to speak with you. Ms Thompson can be contacted via email on alison.thompson@health.qld.gov.au.

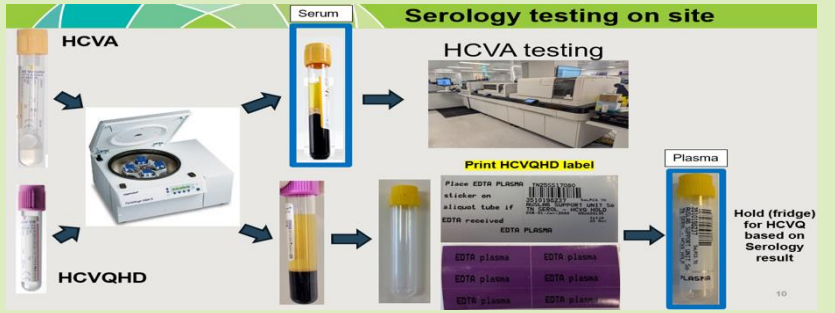
Screen Test Name	AUSLAB Panel Code	Component Tests	Sample Collection
Hepatitis C Serology	HCVA	**Anti-HCV (HCVA) - Now with reflex HCVQ**	- **New Additional Maeve EDTA for potential HCVQ**
Acute Hepatitis Screen	HACTA	HAV IgM (HAVMA) HBsAg (HBSAGA) Anti-HBc (HBCA) **Anti-HCV (HCVA)- Now with reflex HCVQ**	
Chronic Hepatitis Screen	HCHRNA	HBsAg (HBSAGA) Anti-HBc (HBCA) **Anti-HCV (HCVA) - Now with reflex HCVQ**	
Needle Stick – Hepatitis C Serology	NHCVA	**Anti-HCV (HCVA) - Now with reflex HCVQ**	
Needle Stick Exposure Source (patient)	NSPATA	HBsAg (HBSAGA) **Anti-HCV(HCVA)- Now with reflex HCVQ** HIV (HIVA)	
Needle Stick Exposure (staff)	NSSTFA	**Anti-HCV (HCVA)- Now with reflex HCVQ** HIV (HIVA) Anti-HBs (HBSAB)	
Needle Stick Exposure (follow up testing)	NSFCA	**Anti-HCV (HCVA) - Now with reflex HCVQ** HIV (HIVA)	

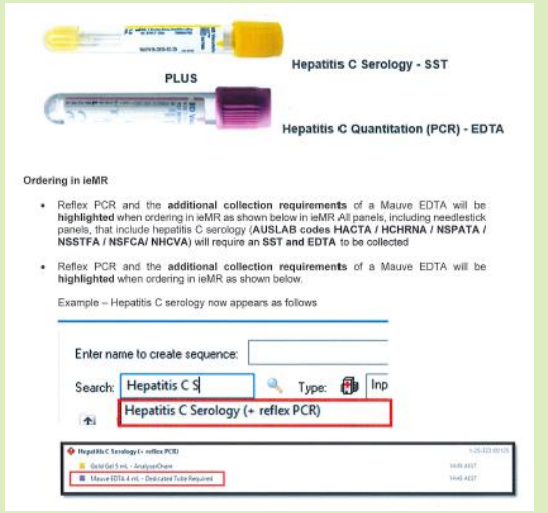
Implementation

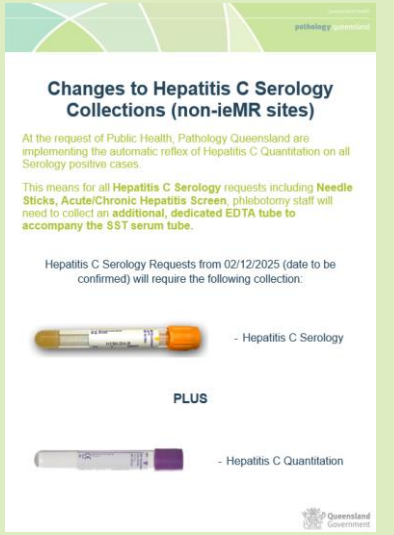
- Digital workflow changes
  - ieMR orderable and collection changes
  - AUSLAB
    - Sample referral coding
    - Automatic reflexing of confirmatory
    - Handling fee coding - $14.20
- Targeted Education – PQ
  - CSRs, Testing sites, RBWH, Phlebotomy
- Tailored Education – Clinical
  - Torres and Cape
  - ieMR vs Non-ieMR
  - Correctional Centres
  - Infection Control

Go-Live
2nd Dec 2025









89%

Hepatitis C Rate of Reflex Testing
in first **9 months** of implementation

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Aim
Queensland Health is committed to the elimination of Hepatitis C by 2030. The implementation of reflex testing (automatically proceeding to a test to confirm presence of the virus if the antibody screening serology is positive) has been identified as a key system improvement to optimise efficiency for clinical diagnosis and broader public health elimination goals. An expert committee with pathology, public health and clinical representatives produced a consensus statement recommending the transition to automatic reflex testing of Hepatitis C samples across Queensland's pathology laboratories.

Objective
Pathology Queensland (PQ) have proceeded with the implementation of automatic reflex testing for all Hepatitis C serology as routine practice across Pathology Queensland facilities. This was implemented in December 2025.

	Prior to Implementation (Sep to Nov 2025)	First 9 months of Implementation (Dec 2025 to Aug 2026)
Serology Testing Growth		**3.3%** month on month
Serology Positivity Rate	~9%	**~10%**
Rate of Reflex Testing	47.8%	**88.7%**
Negative PCR Confirm	71 – 75%	**74 – 80%**
Positive PCR Confirm	25 – 29%	**20 – 26%**
ieMR Sites* Rate of Reflex		**89.4%**
Non-ieMR Sites* Rate of Reflex		**86.1%**
Excluding Add-on Requests		
Rate of Reflex Testing		**94.7%**
ieMR Sites* Rate of Reflex		**96.2%**
Non-ieMR Sites* Rate of Reflex		**92.9%**

* Primary facilities only

95%

Hepatitis C Rate of Reflex Testing
excluding Add-on Requests

Breakdown of Hepatitis C Rate of Reflex Testing

in first **6 months** of implementation

	Routine Testing (70%)	Hepatitis Panels (16%)	Needlestick Testing (6%)***
Rate of Reflex Testing	**90.8%**	**79.5%**	**70.8%**
ieMR Sites* Rate of Reflex	**92.8%**	**79.5%**	67.3%**
Non-ieMR Sites* Rate of Reflex	**86.6%**	54.5%**	82.8%**
Correctional Centres Rate of Reflex	**96.4%**	**96.4%**	100%**
ED Rate of Reflex (11% of Total Hepatitis C Serology)	**59.5%**	**52.8%**	**42.9%**

* Primary facilities only

** Low volume

*** Remaining 8% is standalone confirm (HCVQ)

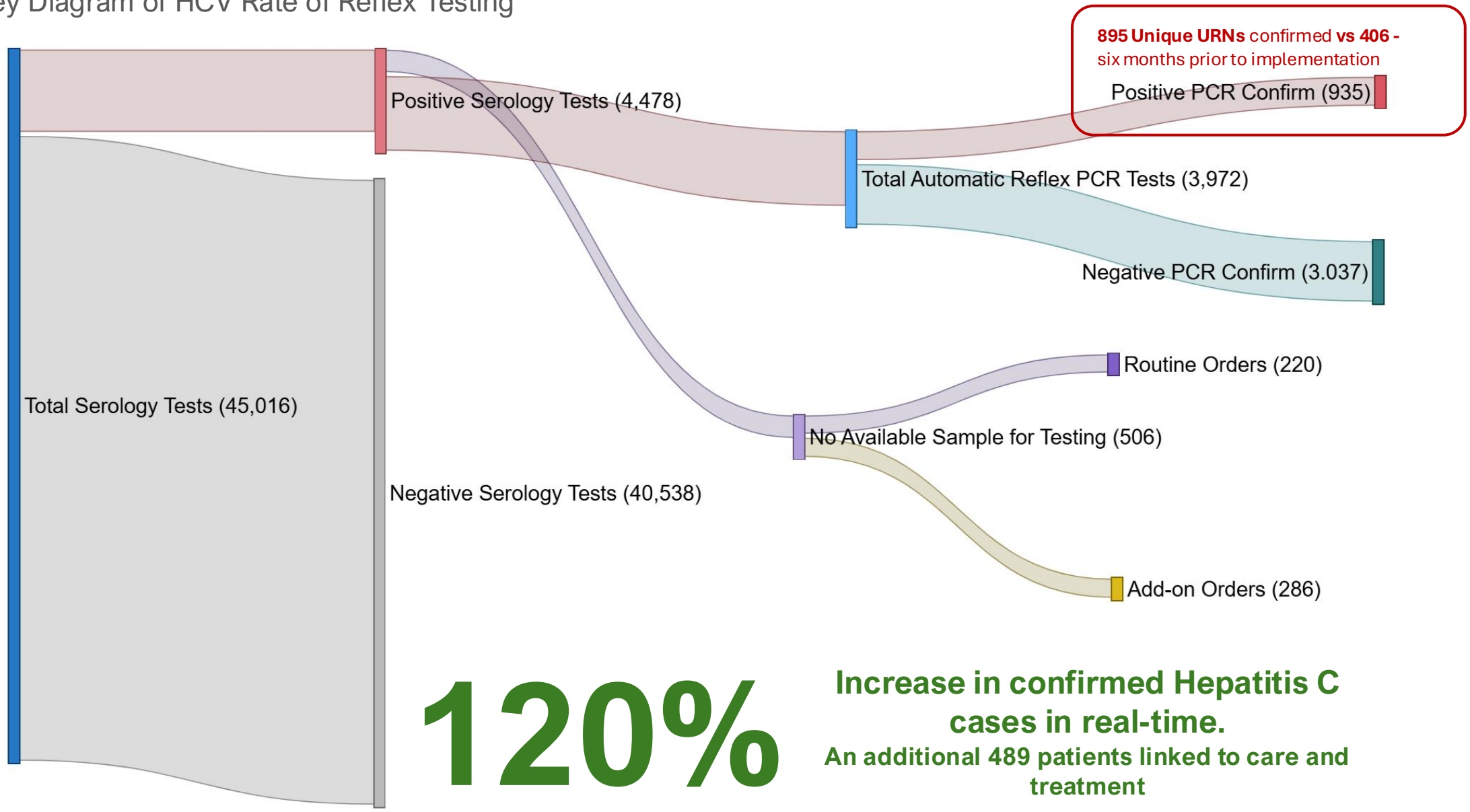
$380k

Additional Cost to the Health System

in first **6 months** of implementation

PQ more than doubled the number of confirmed Hepatitis C cases

Sankey Diagram of HCV Rate of Reflex Testing



895 Unique URNs confirmed **vs 406 -** six months prior to implementation

120%

Increase in confirmed Hepatitis C cases in real-time.

An additional 489 patients linked to care and treatment

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Hepatitis-C Testing

Tests: Multiple selections

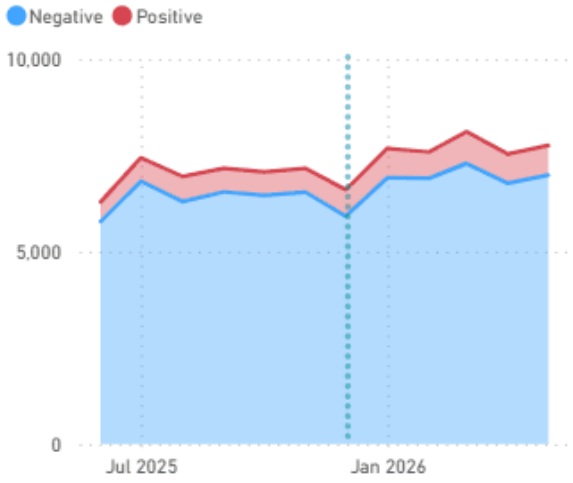
HHS: All

Date: All

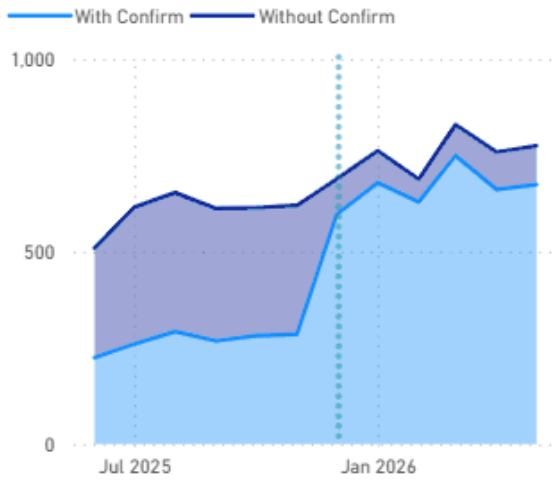
Type: All

Lab Numbers	Confirm Rate	PQ Collect w/o Confirm
87,364	88.7%	25.8%

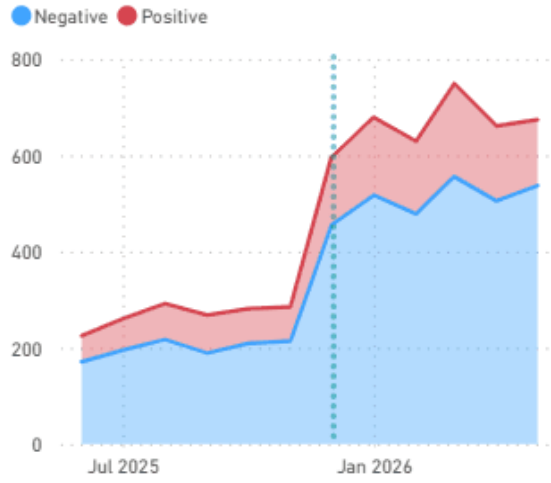
Serology Results



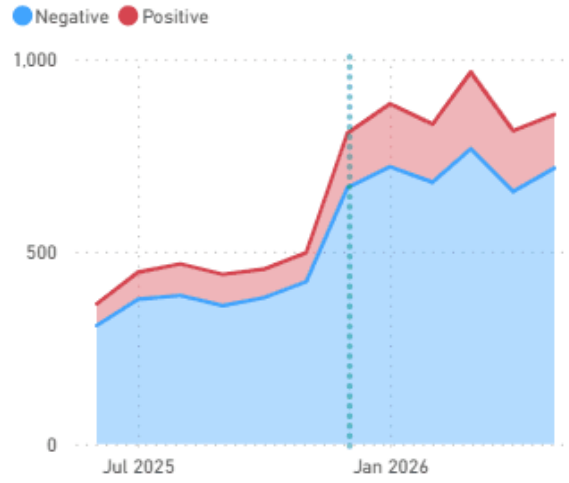
Serology Positives

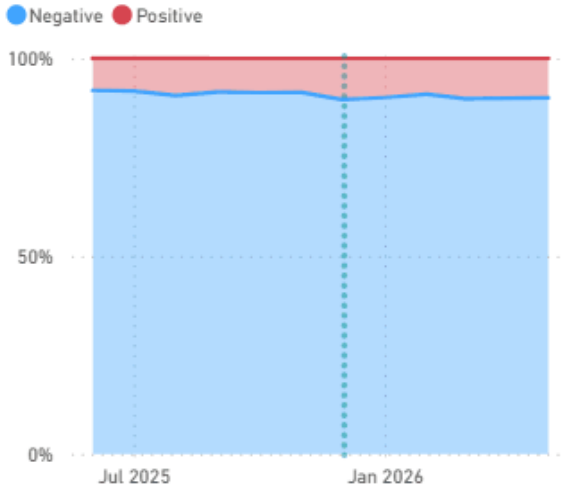


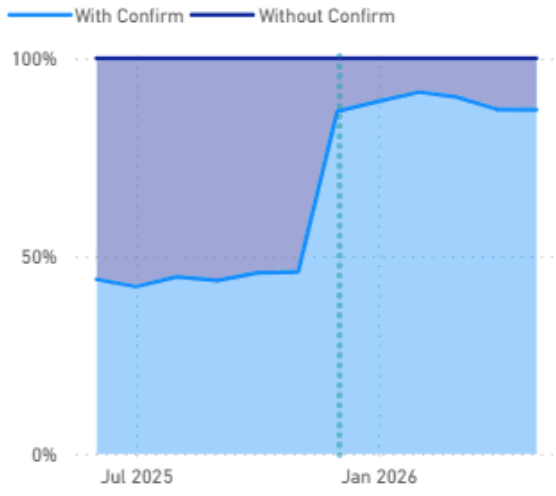
Confirmatory Tests

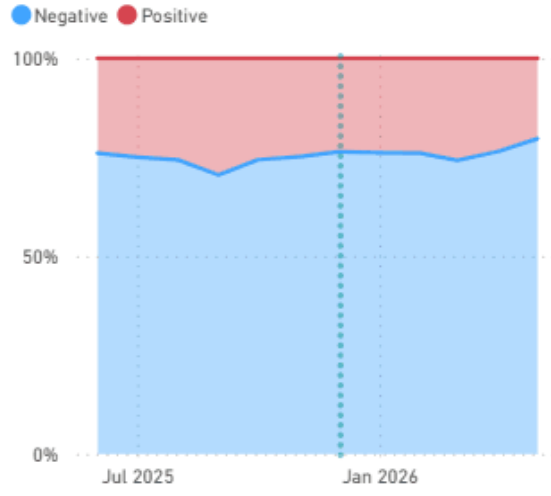


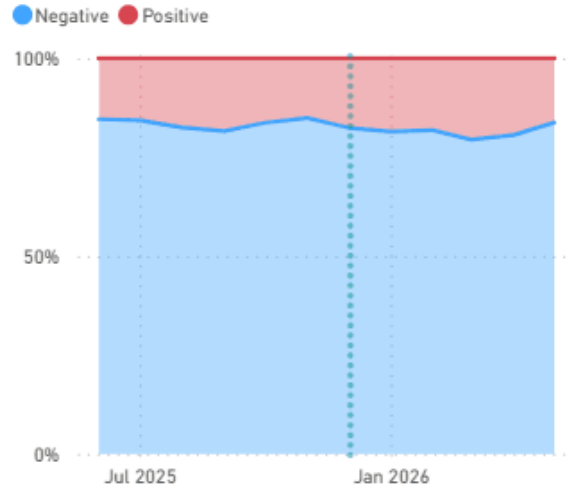
All Quantitative Tests











Next Steps

- Dissemination of the information
  - Spread the word
  - Important to maintain the workflow
- Dashboard release – PQ
  - Managers to target specific clinical groups
  - Good linkage to key contacts
- Dedicated education and comms:
  - Emergency Department – concentrated effort
  - Infection Control – request form templates
  - Non-ieMR and Phlebotomy focus