



NHS England Data Dashboards

Overview

The emergency department opt out blood borne virus testing programme in England started in 2022 in 34 hospital emergency departments in areas of very high diagnosed HIV prevalence.

It has now been expanded to 90 sites.

A data, monitoring and evaluation strategy was developed, including a three-pronged evaluation in partnership with the UK Health Security Agency and University of Bristol.

Data collection was key to the strategy and informs programme management, evaluations and continued funding decisions. It has also been a key enabler with insights on where back-office support and direct care resources should be focused most.

Indicators

There are four separate data collections making up the ED opt-out data set, which are completed by different teams:

- **ED monthly site reports: ED attendances, testing coverage and reactive tests.**
- **Hepatitis B**
- **Hepatitis C**
- **HIV**

The blood borne virus data collections include aggregate tests results, numbers of people with reactive tests / confirmatory tests, whether people with positive results were previously diagnosed, linkage to care and linkage to peer support. They are completed by the clinical teams.

Approach

- An expert advisory group was convened to define the data requirements needed for programme monitoring, evaluation and oversight. Data is collected anonymously in aggregate form, with no patient-identifiable information.
- To enable rapid set up, sites initially submitted data through a custom Microsoft Excel template. While effective, limited validation made administration time-consuming, so submissions were moved to an online data submission portal at NHS Data Collection Framework (DCF).
- The current DCF based process has made it possible to add validation checks at point of submission and has made it easier to automatically track submissions and respond to sites facing difficulties with timely submission of the required data. This is now managed through a back-office data management report.
- The DCF process has also enabled a full end-to-end modern data analytics pipeline that allows the testing data to be stored in a data warehouse and drawn automatically into a visually rich, interactive front-end Tableau based dashboard.
- Access to the dashboard is via request to the programme team. A privacy notice was developed to protect use of the data.

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Use of dashboard

The dashboard is used in a variety of ways:

The programme team use it for **oversight of the programme** including individual site testing coverage, linkage to care rates and also to assess funding due to each site.

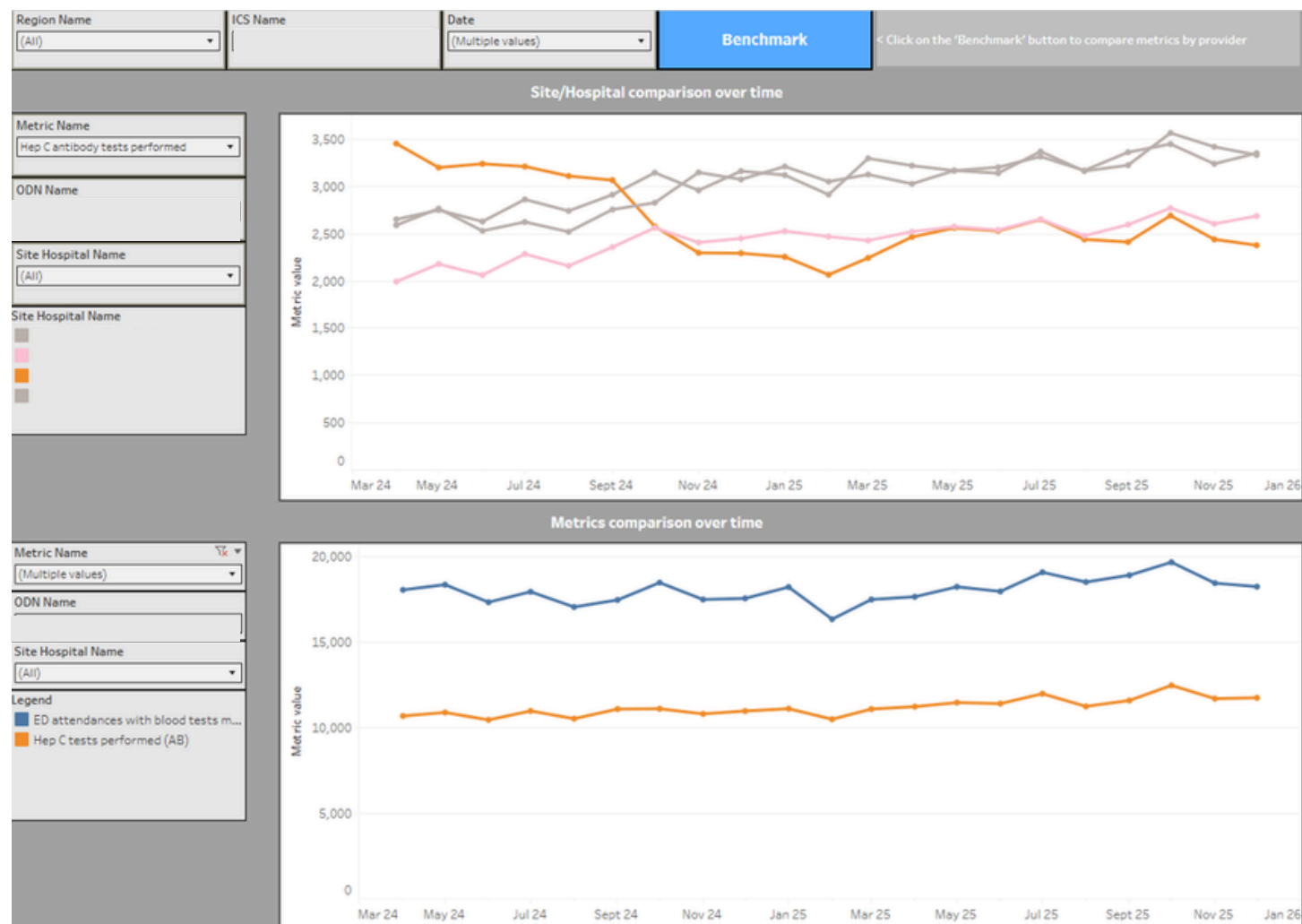
Integrated Care Boards use it to **understand testing patterns within their area**.

Individual hospitals use it to assess their progress, to understand any fluctuations, **using the run charts to present back to emergency department staff**, pathology and virology colleagues and to senior Board colleagues.

It receives universal acclaim for its functionality, accessibility and ability to show data clearly in both tabular and visual diagrams.

Diagrams illustrate some of the ways that data can be displayed.

Read me first	Summary	Key statistics	Charts	Data from last reporting period	All data	Uptake
BBV Dashboard - BBV Key Statistics						
BBV	HIV	HEP B	HEP C	Linkage to Care		
Region Name	ICS Name	Date	ODN Name	Provider Name	Site Hospital Name	Table view
London	(All)	(All)	(All)	(All)	(All)	
Adult ED attendances		ED attendances having a UAE test		ED attendances with blood tests for any reason minus blocked		
9,841,657		5,855,183		5,151,984		
HIV tests performed		Reactive HIV tests		Proportion of HIV tests against ED attendances with blood test after blocking		
3,417,706		25,107		66%		
Hep B Surface Antigen tests performed		Positive Hep B Surface Antigen tests		Proportion of Hep B tests against ED attendances with blood test after blocking		
2,872,687		22,371		56%		
Hep C Antibody tests performed		Positive Hep C Antibody tests		Proportion of Hep C tests against ED attendances with blood test after blocking		
2,920,008		33,472		57%		
Hep C RNA tests performed		Positive Hep C RNA tests		Proportion of Hep C RNA tests which are positive	Number of sites blocking repeat testing	Total number of sites
28,931		3,029		11%	25	28



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Lessons learned



Spend as much time initially as required to achieve both clinical and programmatic consensus about the data required to avoid changes to dataset questions later on.



Avoid the temptation to collect data with no clear use in mind – collect only what you need for the task at hand, and nothing more.



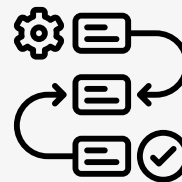
Give stakeholders access to data to inform local decision making, monitoring and benchmarking against other sites and seek routine feedback on how to improve access, presentation and submissions



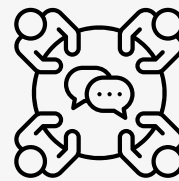
Build in chart/run series illustration functions so that users can quickly create visual material to show progress to other stakeholders in their hospital.



Bring data and analytics experts into the programme from the outset so they have the context knowledge needed to develop the most effective technical and reporting solutions.



Ensure flexibility in data fields, interface design and technology from the beginning, allowing reporting and products to evolve as programme requirements become clearer.



A multi-disciplinary team of clinical leads, project managers and technical developers are all needed to deliver the most effective data storage, reporting and dashboards solutions that ensure the key business questions are answered in the most user-friendly manner

Source

Correspondence with NHS England emergency department blood-borne virus opt out testing programme team.

Interview with NHS England

Please find below QR code for short interview on the Data Dashboards with Stephen Hindle, Programme Manager at NHS England.

