**Genomic Test activity**

**March 2024 Statistical Commentary**

**Main Findings**

This section will focus on main findings at a national level. Sub-national level data is available within the data set.

**Activity**

* The total number of reports in December 2023 is 63,591, which is an increase of 5,433 (9%) in comparison to April 2023. This is a combined total of 597,548 reports year to date.
* The total number of cancer reports in December 2023 is 35,771, which is an increase of 4,146 (12%) in comparison to April 2023. This is a combined total of 336,898 reports year to date.

	+ The total number of paediatric and TYA cancer reports in December 2023 is 3,773, which is an increase of 348 (10%) in comparison to April 2023. This is a combined total of 36,777 reports year to date.
	+ The total number of adult cancer reports in December 2023 is 31,944, which is an increase of 3,793 (13%) in comparison to April 2023. This is a combined total of 298,493 reports year to date.
* The total number of rare and inherited disease reports in December 2023 is 26,667, which is an increase of 1,131 (4%) in comparison to April 2023. This is a combined total of 246,312 reports year to date.

	+ The total number of paediatric rare and inherited disease reports in December 2023 is 9,560, which is an increase of 443 (5%) in comparison to April 2023. This is a combined total of 86,190 reports year to date.
	+ The total number of adult rare and inherited disease reports in December 2023 is 16,816, which is an increase of 749 (5%) in comparison to April 2023. This is a combined total of 156,357 reports year to date.
* The total number of cancer whole genome sequencing reports in December 2023 is 251, which is an increase of 46 (20%) in comparison to April 2023. This is a combined total of 1,999 reports year to date.
* The total number of rare and inherited disease whole genome sequencing reports in December 2023 is 2,598, which is an increase of 590 (26%) in comparison to April 2023. This is a combined total of 20,748 reports year to date.

**Background**

The national genomic testing service is delivered through a network of seven NHS Genomic Laboratory Hubs (GLHs), each responsible for coordinating services for a particular part of the country.

The seven NHS GLHs are:

* Central and South Genomic Laboratory Hub led by Birmingham Women’s and Children’s NHS Foundation Trust
* East Genomic Laboratory Hub led by Cambridge University Hospitals NHS Foundation Trust
* North West Genomic Laboratory Hub led by Manchester University NHS Foundation Trust
* North Thames Genomic Laboratory Hub led by Great Ormond Street Hospital for Children NHS Foundation Trust
* South East Genomic Laboratory Hub led by Guy’s and St Thomas’ NHS Foundation Trust
* South West Genomic Laboratory Hub led by North Bristol NHS Trust
* North East and Yorkshire Genomic Laboratory Hub led by The Newcastle upon Tyne Hospitals NHS Foundation Trust

The published dataset includes monthly genomic test activity delivered by the 7 GLHs. This statistic commentary presents activity delivered during December 2023 and highlights comparison with April 2023 data.

Activity data is shown as the number of reports (“completed pathways”) by the month they were reported in. This is further broken down into cancer and rare disease, and then subcategories as shown within the National Genomic Test Directory.

**Methodology**

This data set is comparison of April 2023 to December 2023 PLCM datasets from all 7 GLHs.

Non-Genomics unit commissioned activity was removed from the data set which includes:

* Screening specialist test group
* Highly Specialised commissioning category
* Specific codes from the 6+1 commissioning group (M3.2, M3.3 and M3.4)

*Note: Test codes for screening and highly specialised groups can be found within the National Genomics Test Directory.*

Activity not related to the testing pathway were removed from the data set which includes:

* Activity related to the storage of samples (R322.1, R346.1, R373.1 and R374.1)

Activity data is based on “testreport” for the count of “completed’ activity.

Categorisation of cancer sub-categories are as indicated in the National Genomic Test Directory split into HaemOnc and Solid Tumour (which is a combination of solid tumour, neurological tumour and CNS as these are all defined as solid tumour).

Identification of paediatric & TYA age bracket for cancer is taken from clinical discussion as patients aged <25 at the point the genomic test is requested.

Categorisation of rare and inherited disease sub-categories are as indicated in the “Specialist Test Group” field within the National Genomic Test Directory.

Identification of paediatric age bracket for rare and inherited disease is taken from clinical discussion as patients aged <18 at the point the genomic test is requested.

Activity data for whole genome sequencing has been calculated using the defined technology outlined in the National Genomic Test Directory.

At sub-National breakdowns, any activity that is ≥7 has been replaced with a \* and all other activity has been rounded to the nearest 5 to reduce the risk of identifying individuals from small numbers.

Only valid test codes have been used with this data set. Invalid test codes have been removed from the activity.

For clinical indication code specific data, the following clinical indication codes were used:

* Acute Leukaemia – M80, M81, M89, M90, M91
* Lymphoma – M93, M95, M96, M97, M98, M99, M100, M101, M102, M103, M104, M105, M106, M107, M110, M111, M112, M114, M115, M116, M182, M225
* CNS Cancer – M20, M21, M22, M23, M24, M25, M26, M27, M28, M29, M30, M31, M32, M33, M34, M35, M36, M37, M38, M39, M126, M130, M132, M133, M137, M138, M139, M145, M146, M147, M148, M150, M153, M155, M156, M158, M159, M160, M168, M169, M170, M171, M172, M179, M183, M184, M185, M186, M189, M190, M191, M192, M193, M194, M195, M213
* Sarcoma - M42, M43, M44, M45, M46, M47, M48, M49, M50, M51, M52, M53, M54, M55, M56, M57, M58, M59, M60, M61, M62, M63, M64, M65, M66, M67, M68, M69, M70, M71, M72, M73, M74, M75, M76, M77, M78, M79, M120, M124, M167, M196, M197, M198, M199, M200, M201, M202, M203, M204, M205, M206, M207, M208, M209, M210, M211
* Colorectal Cancer – M1
* Lung Cancer – M4
* Melanoma – M7
* Endometrial Cancer – M215
* Inherited Cancers - R207, R208, R210, R21, R212, R213, R214, R215, R216, R219, R220, R224, R225, R254, R358, R359, R363, R364, R365, R366, R367, R404, R414, R422, R423, R430, R444

**Data availability**

Genomics patient level contract monitoring (PLCM) data used for this publication is based on the M09 2023 (December 2023) data submissions from each provider.

Central and South GLH has one provider not included within their data. This is being worked on for future publications.

**Revisions**

Revisions on this data is released quarterly as providers submit year to date data each month. There are currently no revisions to this data, however future revisions to this data will be highlighted here.

**Glossary**

* **6+1 Commissioning:** Specific tests including NRAS/KRAS, BRAF, KIT testing, ALK testing (1 and 2), Oncotype DX, PD-L1, Prosigna and EnoPredict.
* **Activity:** A count of the number of genomics tests for which test reports have been produced during the month.
* **NHS Genomics Laboratory Hubs (GLH):** A national network of seven NHS Genomics Laboratory Hubs, each responsible for coordinating services for a particular part of the country. More detail on the GLHs can be found here: https://www.england.nhs.uk/genomics/genomic-laboratory-hubs/
* **Highly specialist test:** a test that is commissioned by NHS England as part of a Highly Specialised Service
* **Local point of delivery code:** The code within the PLCM specification that determines the activity stage being reported (see, testprep, testtest and testreport). More details on the current PLCM specification can be found here: <https://www.england.nhs.uk/publication/genomics-testing-reporting-specification/>
* **Paediatric and TYA:** Paediatric and teenagers and young adults which is patients aged <25 at the point the genomic test is requested for cancer activity.
* **Patient Level Contract Monitoring dataset**: a dataset containing patient level identifiers used for analysis and monitoring of contractual information.
* **Specialist Test:** a test that is not provided in all 7 NHS Genomic Laboratory Hubs due to low volume of genomic tests undertaken for the condition/disorder and/or specialist knowledge required for interpretation of results, aligned to a specialist clinical group (e.g. endocrinology, cardiology etc) and provided by designated NHS Genomic Laboratory Hubs.
* **Testprep:** One of the local points of delivery codes as outlined within the PLCM specification. This represents the “preparation” part of the sample pathway and includes the extraction of DNA/RNA. Testprep activity is not reflected within the published dataset.
* **Testreport:** One of the local points of delivery codes as outlined within the PLCM specification. This represents the dry lab activity from receipt of testing data through to distribution of a final report. Testreport is the activity reflected within the published dataset.
* **Testtest:** One of the local points of delivery codes as outlined within the PLCM specification. This represents the wet lab testing of the prepared sample to the generation of data for interpretation and reporting. Testtest activity is not reflected within the published dataset.
* **Year to date:** refers to the period of time beginning the first day of the current financial year up to a specified date.

**Feedback Welcomed**

We welcome feedback on this publication. If anyone has any comments on this, or any other issues regarding Genomics data and statistics, then please contact us at england.genomics@nhs.net

**Additional Information**

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