



NHS Imaging and Radiodiagnostic activity

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2013/14 Release

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1 Executive summary

This report presents a summary of imaging and radiodiagnostic examinations or tests carried out in the NHS in England during the financial year 2013-14 by organisation and split by imaging modality (type of test).

These figures are collected to support the provision of radioactive emission data for a European Commission directive measuring the background radiation emitted (see below).

Council Directive 96/29/Euratom (the Basic Safety Standards Directive) requires in Article 45 that the competent authority shall ensure that dose estimates from population doses are available for the population as a whole and for reference groups of the population (such as medical exposures). In addition, Council Directive 97/43/Euratom (the Medical Exposure Directive), Article 12 requires that 'Member States shall ensure that the distribution of individual dose estimates from medical exposure..... is determined for the population and for relevant reference groups of the population as may be deemed necessary by the Member State'..

The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

Important Announcement about the future of the KH12

Due to the introduction of the Diagnostic Imaging Dataset (DID) in 2012, which collects similar information, it has been proposed that this annual publication should cease after this publication. The DID, developed by The Department of Health, NHS England and the Health and Social Care Information Centre, is a patient level dataset designed to collect more detailed information on the imaging tests performed in the NHS. Submissions began in April 2012 and information has been updated monthly on the NHS England website at the link below.

Data for the financial year 2013-14 will be finalised in a DID publication around October / November 2014. Provided that data quality is at a sufficient level, it is intended that the DID publication will replace this current publication as the source of data on imaging tests. In order for this to happen a public consultation needs to be carried out after the DID publication. If users have any comments or queries about this proposed change, please contact us using the details on page 9.

<http://www.england.nhs.uk/statistics/statistical-work-areas/diagnostic-imaging-dataset/>

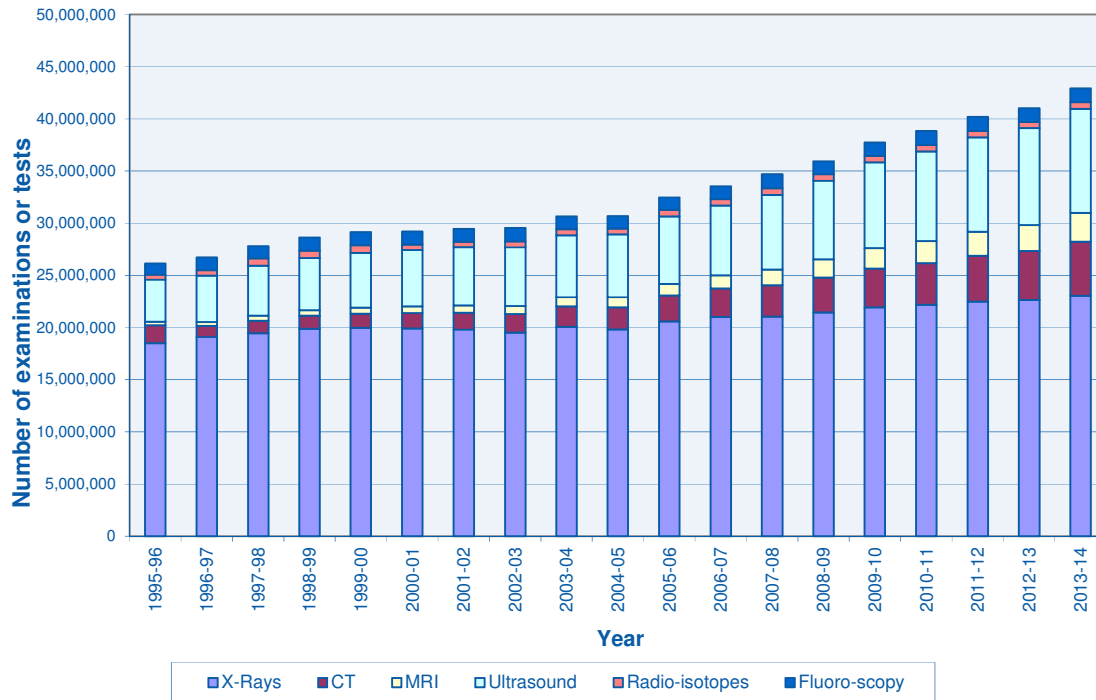
2 Key Findings

- The total number of imaging examinations or tests, covering the period from 1st April 2013 to 31st March 2014 was 42.9 million, compared to 41.0 million imaging examinations or tests in the period from 1st April 2012 to 31st March 2013. This represents an increase of 4.6%.
- Of the imaging examinations or tests, 23.1million were X-Rays (radiographs), 10.0 million were Ultrasound, 5.2 million were Computed Tomography (CT), 2.7 million were Magnetic Resonance Imaging (MRI), 1.3 million were Fluoroscopy and 0.6 million were Radio-isotopes.
- The tests showing the highest growth over the past year are MRI (12.1%) and CT (10.0%)
- Over the last 10 years, the overall number of tests has increased by 40%, representing an average growth of 3.4% per year.
- The volume of MRI scans has increased by 220%, and the number of CT scans by 160% over this 10 year period. These represent average growths per year of 12.3% and 10.1% respectively. This reflects both the increasing availability of these tests over the recent years and the aim for earlier diagnosis of conditions such as cancer.
- Table 1 shows a summary of the number of examinations by modality, and Graph 1 shows the trend since publication began in 1995-96, with Graph 2 charting the tests with the largest rises over the years.

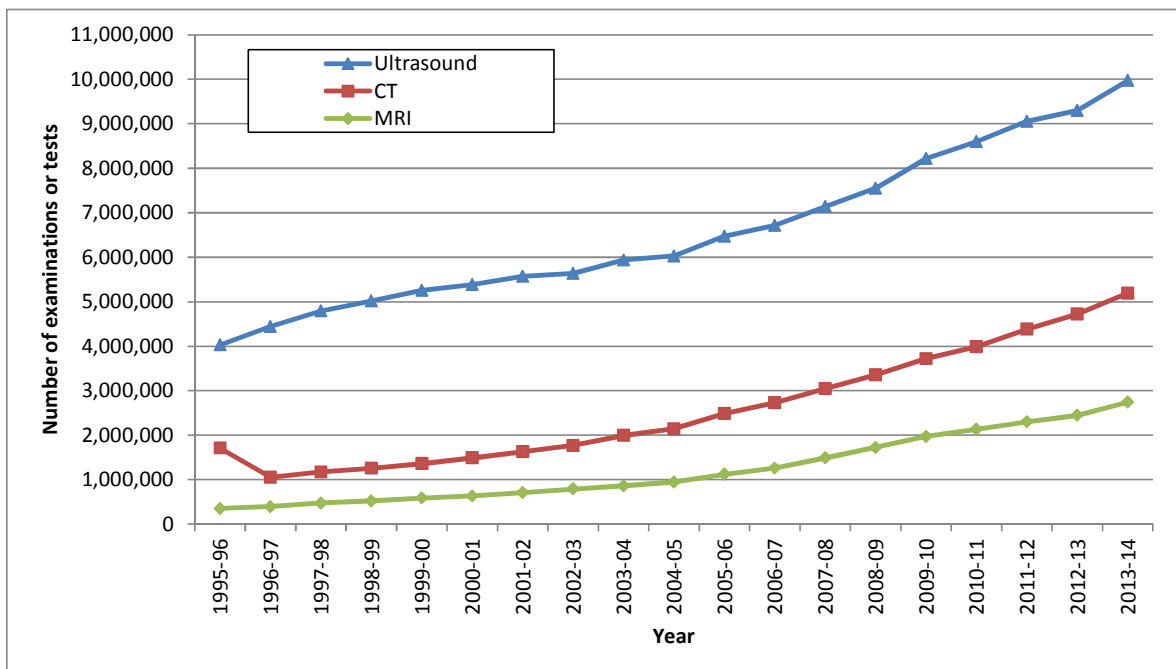
Table 1: Number of tests (000s) by imaging modality 2012-13 and 2013-14

Modality	2012-13	2013-14	Percentage growth in last year	Average growth per year since 2003-04
X-Rays	22,636	23,054	1.8%	1.4%
Ultrasound	9,302	9,972	7.2%	5.3%
CT	4,723	5,193	10.0%	10.1%
MRI	2,447	2,741	12.1%	12.3%
Fluoroscopy	1,314	1,335	1.6%	0.9%
Radio-isotopes	598	625	4.5%	0.7%
Total	41,019	42,921	4.6%	3.4%

Graph 1: Total number of imaging and radiodiagnostic examinations or tests, by imaging modality, England, 1995-96 to 2013-14



Graph 2: Growth in number of Ultrasound, CT and MRI imaging and radiodiagnostic examinations or tests, England, 1995-96 to 2013-14



Full tables by organisation and modality, plus a national time series are available here:

<http://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/imaging-and-radiodiagnostics-annual-data/>

3 Annex

3.1 Methodology

Data Collection

NHS England compiles annual data from an aggregate return (KH12) collected from all NHS providers of imaging and radiodiagnostics via Unify2, the online tool for the collection and sharing of NHS performance data.

This information provides a count of imaging and radiodiagnostic examinations or tests by imaging modality, that is CT, MRI, radiographs, obstetric ultrasound, non-obstetric ultrasound, radio-isotopes and fluoroscopy. The return covers the 12 month period between 1 April of one year and 31 March of the following year.

NHS England performs some standard validations on the data submitted before publication to test data against previously submitted figures and that figures are in the correct levels.

University College London Hospitals failed to submit any data for 2013-14.

Data Revisions

Revisions to published figures are released on a six-monthly basis (annual for this publication) and in accordance with the NHS England Analytical team's revision policy. The revisions policy can be found here:

<http://www.england.nhs.uk/statistics/wp-content/uploads/sites/2/2012/04/Unify2-revisions-policy.pdf>

This release contains some minor amendments to the 2012/13 statistics, which affect the following organisations.

- Alder Hey Children's NHS Foundation Trust
- University Hospitals Coventry And Warwickshire NHS Trust

They have a very small impact on England level figures. The total number of tests has decreased by around 33,000, mainly in ultrasound.

3.2 Glossary

Area Team

A geographical area of NHS England with direct commissioning responsibilities for GP services, dental services, pharmacy, and certain aspects of optical services.

CT

Computed tomography (CT), sometimes called CAT scan, uses special x-ray equipment to obtain image data from different angles around the body, then uses computer processing of the information to show a cross-section of body tissues and organs.

Fluoroscopy

Fluoroscopy is an imaging technique commonly used by physicians to obtain real-time images of the internal structures of a patient through the use of a fluoroscope. In its simplest form, a fluoroscope consists of an x-ray source and fluorescent screen between which a patient is placed.

Imaging and Radiodiagnostics

A set of examinations or tests including CT, MRI, radiographs, obstetric ultrasound, non-obstetric ultrasound, radio-isotopes and fluoroscopy.

Intervention

An application of radiology that enables minimally invasive surgery to be performed with the aid of simultaneous radiological imaging of the field of operation within the body.

MRI

Magnetic resonance imaging (MRI) is a method of producing extremely detailed pictures of body tissues and organs without the need for x-rays. The electromagnetic energy that is released when exposing a patient to radio waves in a strong magnetic field is measured and analysed by a computer, which forms two- or three-dimensional images that may be viewed on a TV monitor.

Nuclear medicine

Nuclear Medicine is a diagnostic medical imaging and treatment speciality. It combines elements of applied anatomy and physiology, chemistry, physics, mathematics and computing with patient care skills.

Radioactive tracers are administered to patients in order to diagnose and/or treat disease. Nuclear Medicine differs from other imaging techniques such as X-ray and CT by giving different information about the function of the systems of the body.

Provider

An organisation that provides NHS treatment or care, for example, an NHS Acute Trust, Mental Health Trust, Community provider, or an Independent Sector organisation.

Radio-isotopes

Radioactive materials (radioisotopes or radionuclides) used to pinpoint disease. It reveals the size and shape of the target organ and whether any part of it is failing to take up radioactive material, usually an indication of disease. The speciality known as nuclear medicine makes use of the affinity of different chemical elements for certain parts of the body.

Radio-graph

An image produced on a radiosensitive surface, such as a photographic film, by radiation other than visible light, especially by x-rays passed through an object or by photographing a fluoroscopic image.

Ultrasound

The use of ultrasonic waves for diagnostic or therapeutic purposes, specifically to image an internal body structure, monitor a developing foetus, or generate localized deep heat to the tissues.

3.3 Feedback Welcomed

We welcome feedback on the content and presentation of these statistics and those published on the NHS England website. If anyone has any comments or feedback, then please email Unify2@dh.gsi.gov.uk

3.4 Additional Information

Full details of data for individual organisations are available at:

<http://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/imaging-and-radiodiagnostics-annual-data/>

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