



NHS Imaging and Radiodiagnostic activity in England

2012/13 Release

August 2013



Commentary

This National Statistics release covers Imaging and Radiodiagnostic examinations or tests carried out in the NHS in England during the financial year 2012/13 by organisation and split by imaging modality (type of test).

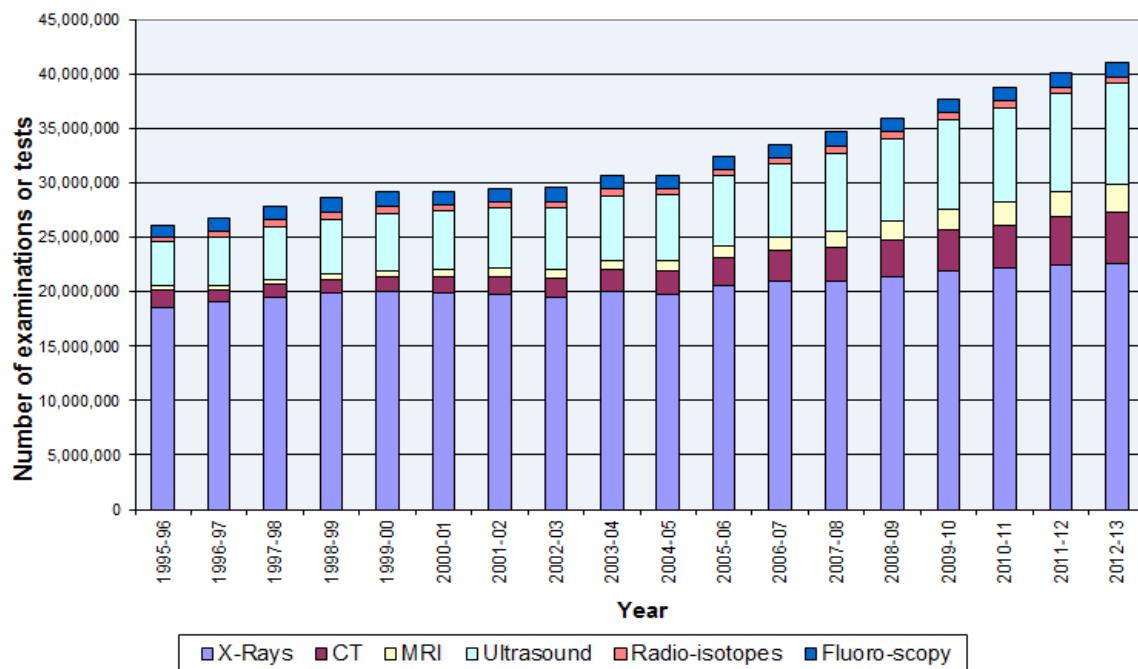
Main Findings:

- The total number of imaging examinations or tests, covering the period from 1st April 2012 to 31st March 2013 was 41.1 million, compared to 40.2 million imaging examinations or tests in the period from 1st April 2011 to 31st March 2012. This represents an increase of 2.2%.
- Of these imaging examinations or tests, 22.6 million were X-Rays (radiographs), 9.3 million were Ultrasound, 4.7 million were Computed Tomography (CT), 2.4 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 CT (7.9%) and MRI (6.5%)
- Over the last 10 years, the overall number of tests has increased by 39%, representing an average growth of 3.3% per year.
- The volume of MRI scans has increased by 211%, and the number of CT scans by 167% over this 10 year period. These represent average growths per year of 12.0% and 10.3% respectively. This reflects both the increasing availability of these tests over 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.

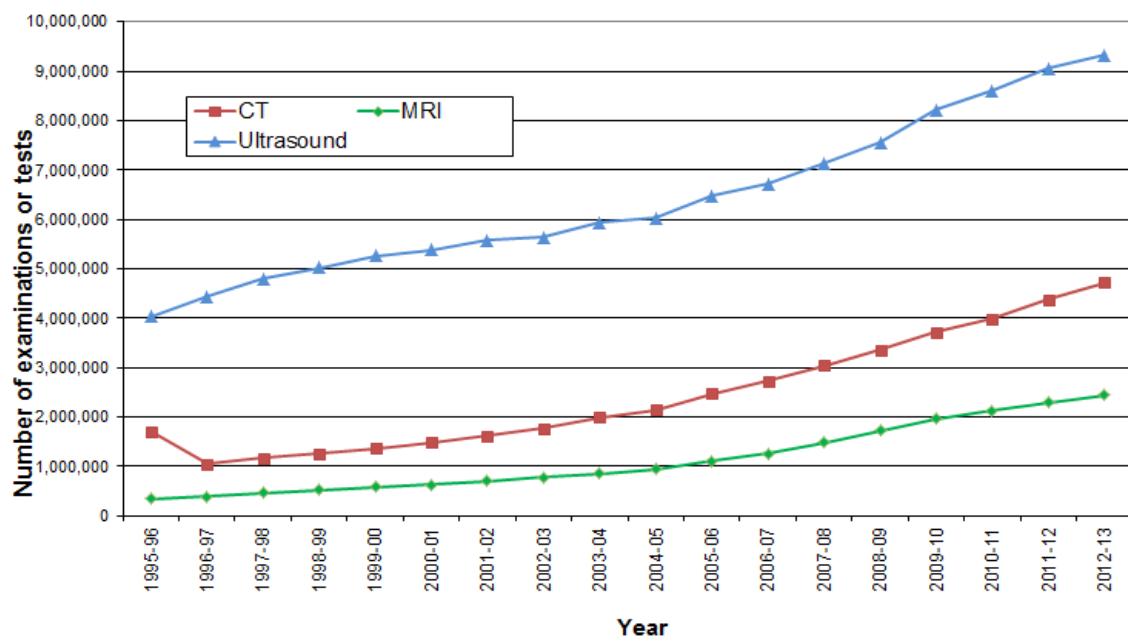
Table 1: Number of tests (000s) by imaging modality 2011-12 and 2012-13

Modality	2011-12	2012-13	Percentage growth in last year	Average growth per year since 2002-03
X-Rays	22,485	22,640	0.7%	1.5%
Ultrasound	9,054	9,324	3.0%	5.2%
CT	4,381	4,726	7.9%	10.3%
MRI	2,299	2,447	6.5%	12.0%
Fluoroscopy	1,347	1,315	-2.4%	0.2%
Radio-isotopes	614	599	-2.4%	0.8%
Total	40,181	41,052	2.2%	3.3%

Graph 1: Total number of imaging and radiodiagnostic examinations or tests, by imaging modality, England, 1995-96 to 2012-13



Graph 2: Growth in number of Ultrasound, CT and MRI imaging and radiodiagnostic examinations or tests, England, 1995-96 to 2012-13



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/>

1. Background

This report presents a summary of imaging and radiodiagnostic tests undertaken in England during the financial year 2012-13.

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.

2. 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.

This publication has used 2011-12 figures for Barts Health NHS Trust, who could not supply 2012-13 figures to NHS England in time for publication. This is noted in the data downloads on the website

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 2011/12 statistics, which affect the following organisations.

- Hampshire Hospitals NHS Foundation Trust
- Croydon Health Services NHS Trust

They have a very small impact on England level figures. The total number of tests has increased by around 62,000, mainly in X-rays and ultrasound

Diagnostic Imaging Dataset (DID)

The Department of Health, NHS England and the Health and Social Care Information Centre have developed a new 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 2012-13 will be finalised in a publication scheduled for 28th October 2013. Once 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.

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

3. Glossary

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 radionucleides) 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 fetus, or generate localized deep heat to the tissues.

Strategic Health Authority (SHA)

During 2012/13, the NHS in England was split into ten SHAs. SHAs lead planning for improving health services in their local area and ensuring that national priorities are integrated into local health service plans.

4. 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

5. Additional Information

Full details of data for individual organisations is 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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