



coleg **sirgâr**

Health Informatics



GIG
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WALES

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Informatics
Service



Levels 3 and 4 Frameworks in Health Informatics

This Apprenticeship Framework is for those currently working in or new to working in the area of Informatics in the Health Sector. Apprentices are employed in the role of Health Information Assistant, Assistant Practitioner (Informatics) or Practitioner (Informatics). Apprentices gain the new skills and learning they need to carry out these job roles as well as preparing them for future employment and career progression within the health sector. It provides progression routes into a wide range of roles in the health sector where information handling is a key responsibility. This work-based programme was designed and developed with employers.

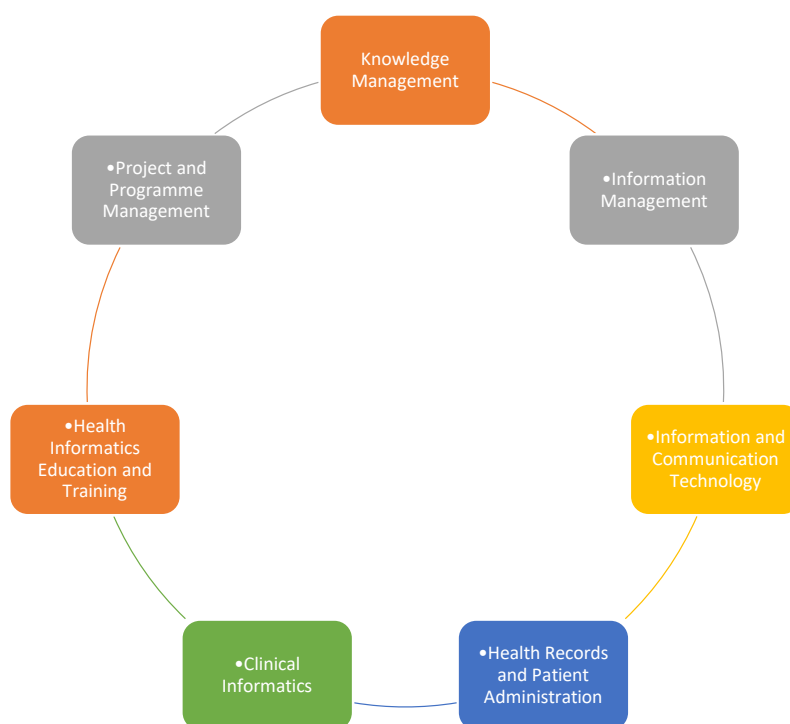
About the role

Health Informatics is an emerging discipline within healthcare, but the recording and communication of information has always been essential to the practice of healthcare. Establishing Health Informatics as a recognised profession in health and care has been central to the national informatics development strategy for the last 10 years.

It is estimated that there are more than 3,000 people working in informatics roles in the NHS in Wales. There are now qualifications to support Health Informatics roles at Career Framework Levels 3 and 4. Apprenticeships are seen as being key to supporting recruitment and retention at this level of the profession and to providing the first step of a career pathway.

The following definition is generally agreed to sum up the scope of health informatics, "The knowledge, skills and tools which enable information to be collected, managed, used and shared to support the delivery of healthcare and to promote health" (NHS Careers, 2011).

Health Informatics is concerned with the effective use of data, information, knowledge and technology to support and improve health and health care delivery. As a profession, Health Informatics includes people working in a wide range of roles, which have been grouped together into seven disciplines:



Informatics in health and care is becoming an increasingly important profession as information and ICT systems become more and more part of the way services are delivered and supported.

Work is being undertaken to continually refine and define roles within Health Informatics and to develop the qualifications needed to support occupational competence in those roles. More information about the Health Informatics Career Framework can be found at <https://www.hicf.org.uk>

Government policy in the area of health and care focuses on the need for an “information revolution” which provides further incentive to drive up informatics knowledge and skills across the workforce. Importantly, this impacts on the capacity and capability of informatics specialists to support and enable new ways of working. Establishing career and qualification pathways in health informatics is a central strand of informatics policy.

This Apprenticeship framework is the first for Health Informatics roles and sits under the Information Management domain of the Health Informatics Career Framework <http://www.hicf.org.uk/>

Traditionally people have tended to move into Health Informatics from other fields in health e.g. admin. This Apprenticeship framework has been developed to provide a direct entry route into the discipline of health informatics for people with little or no experience of the health sector or informatics. It can lead on to an exciting and fulfilling career.

Apprentices will work in Health Informatics in a Health Information Assistant, Assistant Practitioner (Informatics) or a Practitioner (Informatics) role. Actual job titles may vary.

Aims and objectives of this framework (Wales)

The apprenticeship framework will contribute towards developing a health sector with a skilled, flexible and effective workforce whilst maintaining high quality and safe care for patients.

Through completion of this apprenticeship learners will gain:

- Broad base training in the chosen occupational area
- Work experience that leads to competency in the work place
- Transferable Skills

Employers have endorsed the apprenticeship programme as it gives the broad base training in the skills for the occupational area through the completion of qualifications which are based on National Occupational Standards. This programme leads to better productivity, retention and a qualified workforce which aids the employer. Job role and outline can be viewed later in this document (see section 'Jobs').



Level 3 Framework Qualification(s):

- Level 3 Diploma in Health Informatics
 - Level 2 Communication *
 - Level 2 Application of numbers *
 - Level 2 IT *
- * Proxy can be awarded based on prior learning, such as GCSE.

Job title(s)

Assistant Practitioner (Informatics)

Job role(s)

Involved in the handling and management of electronic and paper based data and information, using IT and manual systems. This could include day-to-day management of patient records, validation and coding of data and the analysis, reporting and use of data to support the quality of information.

Progression from this pathway

Learners may progress from this pathway onto a Level 4 Health (Informatics) Apprenticeship. Learners may also progress into other areas such as IT, Customer Service or Library and Information Services. These may include qualifications or other work-related education and training to support Continuing Professional Development. Learners may also progress from this pathway into Higher Education undertaking a range of Informatics related degrees.

Progression should not just be seen as vertical. In some instances progressing into another role at the same level may be just as rewarding as it offers the opportunity to develop new skills and knowledge.

Examples of progression: Claire

Claire was contemplating what to do after her 'A' levels, she wasn't sure university was for her. She thought about working in health as quite a few of her family worked for the NHS: her Mum was a Midwife; her Dad worked in IT at the local hospital; her auntie was a Physiotherapist. On the NHS Jobs website, she saw an Apprenticeship in Health (Informatics) opportunity with the local Health Informatics Service. The role was Trainee Project and Programme Support Officer which sounded interesting, so she applied and was successful. Much of the role involved admin support and assisting the management team on the delivery of projects. Her daily tasks included maintaining project documentation; maintaining filing systems; and producing regular and ad hoc project reports. As well as learning on the job, Claire went to college one day a week and completed her apprenticeship. She was put forward for the Apprentice of the Year award by her employer and came runner up. She stayed in project and programme management and went on to be a Junior Project Manager, then Project Manager. During this time, she received on the job training and also achieved a Foundation Degree which she later topped up to a BSc (Hons) in Health Informatics. She's now considering which path she would like her career to take and is exploring roles such as Benefits Manager, Change Manager, or possibly Business Intelligence.

Examples of progression: Ben

When Ben left school he wasn't sure what he wanted to do, but knew he needed to get a job! He had 6 GCSEs and an 'A' level in Biology. He searched the job adverts in the newspapers and online until he came across a vacancy for a Health Records Assistant at the local Community Health hospital. He applied and got the job. He did this role for about ten months, deciding that working in the NHS was for him, but he was keen to advance his career prospects. He saw an internal advert for a trainee clinical coder. The role involved undertaking an Apprenticeship in Health (Informatics), as



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Top Tips

Organising your research and documents can be a challenge! Rules are not set in stone but check out these tips.

Select each icon below to learn more:

- Paper or Digital?**
- Write a Summary Map
- Use Subheadings
- Use Files and Folders
- Prepare a Draft
- Always Maintain Confidentiality!

It's unlikely that any organisation will exist on a paperless environment! Both hard copies and digital formats will probably be part of your research and organisation will be important for both.

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Organising Raw Data

Numerical information can be listed in tables but this may require further analysis to make its sense more clear.

Pie charts are the most effective way to present data that is organised in categories.

Research is often prepared and presented in a report style. Subheadings help to organise information in a logical way.

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Mandatory Units

Unit Code	Title	Level	Credits	Unit ID
PT13CY018	Promote Good Practice in Handling Information in Health and Social Care Settings	Three	2	CCY301
AF22CY006	Manage own performance in a business environment	Two	2	CCY465
PA13CY045	Identify information requirements in a health context	Three	4	CCY577
PA23CY006	Managing Health Informatics in Healthcare Settings	Three	3	CDC729
PA22CY003	Principles of Managing Information and Producing Documents	Two	3	CDC730
PA23CY007	Communication Skills for Working in the Health Sector	Three	3	CDC731

Optional Units

Learners may select a minimum of 35 credits from the list of optional units, with a minimum of 20 at level 3. Learners may only select units which can be evidenced during their normal role.

Unit Code	Title	Level	Credits	Unit ID
PA13CY042	Maintaining quality standards in the health sector	Three	2	CCY521
PA13CY043	Service Improvement in the Health Sector	Three	3	CCY522
BA33CY003	Deliver, monitor and evaluate customer service to external customers	Three	3	CCY529
PA13CY046	Analyse and present health related data and information	Three	4	CCY578
PA13CY044	Produce coded clinical data for external audit purposes	Three	5	CCY579
PA13CY047	Prepare, conduct and report the results of a clinical coding audit	Three	5	CCY580
GC83CY008	Deliver training through demonstration and instruction	Three	3	CCY584
FM33CY003	Understanding Bilingualism in Work	Three	2	CDB516



Unit Code	Title	Level	Credits	Unit ID
CP42CY002	Specialist Software	Two	3	CDC706
CN31CY001	IT Security for Users	One	1	CDC707
CR52CY008	Using Collaborative Technologies	Two	4	CDC709
CP62CY004	Project Management Software	Two	4	CDC714
CQ12CY057	Word Processing Software	Two	4	CDC715
CP32CY018	Spreadsheet Software	Two	4	CDC716
CL42CY009	Creating an Object Oriented Computer Program	Two	7	CDC717
CK32CY008	Creating a Procedural Computer Program	Two	7	CDC718
CK32CY009	Creating an Event Driven Computer Program	Two	7	CDC719
CP22CY018	Database Software	Two	4	CDC720
CN13CY006	Quality Management of ICT Products and Services	Three	12	CDC721
AY53CY002	Principles of Managing Information and Producing Documents in a Business Environment	Three	4	CDC722
AF73CY004	Contribute to Decision-making in a Business Environment	Three	3	CDC723
AF33CY013	Analyse and report data	Three	6	CDC724
CM33CY003	Data Management Software	Three	4	CDC725
AG64CY001	Plan and manage a project	Four	8	CDC727
CY24CY001	Manage and Evaluate an Information System	Four	6	CDC728
HC42CY026	Principles of Working in the Public Sector	Two	5	CDC768
AF33CY014	Communicate in a business environment	Three	3	CDC769



Level 4 Framework Qualification(s):

- Level 4 Diploma in Health Informatics
 - Level 2 Communication *
 - Level 2 Application of numbers *
 - Level 2 IT *
- * Proxy can be awarded based on prior learning.

The qualification is currently aligned for the following roles, however this is in review and additional modules may be added to include additional pathways for those who wish to progress from Level 3.

Job title(s)

ICT Support Technician

Job role(s)

Assist in the delivery of ICT support. Including resolving IT support calls, performing installations, configurations, relocation and decommissioning of computer hardware and software; fault-finding and rectifying problems; promoting good practice in the use of hardware and software and IT security.

Job title

ICT Test Analyst

Job role(s)

Develops testing plans, scripts etc; Systems and Integration Testing (SIT), Operational Acceptance Testing (OAT), User Assurance Testing (UAT), Regression Testing and Performance. It might also include: hands-on testing to build application expertise and ensure project deadlines are met.

Job title

Information Analyst

Job role(s)

Provide analytical support to facilitate clinical decision making, service development and performance management. Facilitating data quality; communicating effectively with stakeholders; providing advice and support which might also involve providing education and training to others.

Job title

Senior IT Specialist

Job role(s)

Develop, maintain and support relevant systems for Infrastructure Support Operations Centre in own area and in accordance with specifications and operational requirements. The Infrastructure Support Operations Centre team are responsible for providing, monitoring, reporting and gathering data.



Progression from this pathway

Learners may progress from this pathway onto further qualifications specific to their work context which may be in other areas such as IT, Data Analysis or Library and Information Services. These may include qualifications or other work-related education and training to support Continuing Professional Development. Learners may also progress from this pathway into Higher Education undertaking a range of Informatics related degrees including the University of Wales Trinity St David Digital Degree Apprenticeship in Health Informatics.

Examples of progression: Aled

Aled left sixth form with a BTEC qualification in Business Studies and started work in the NHS as an HR administrator. He found he enjoyed analysing the HR data and producing reports and so when the opportunity arose to use and develop these skills in the Information department, he jumped at the chance. On commencement of the role, Aled began a health informatics level 3 apprenticeship. He found that this gave him the perfect opportunity to demonstrate his competence and encourage him to learn new skills whilst giving him an understanding of best practice within health information management. It also gave him the confidence to apply for an Information Analyst post. On completion of the level 3 qualification, Aled decided to continue on the health informatics pathway to complete level 4. Applying his newly acquired skills on the job meant that he could share his knowledge with others and that his colleagues were able to give him plenty of guidance in how to apply his learning to areas of work within his current job. Aled has since taken up a part-time degree and has recently taken up a Lead Specialist role in Data Analysis.

Examples of progression: Sophie

Sophie left school with a desire to learn more about IT and computing. After spending a year in further education, she was keen to start work and learn in a more practical on-the-job way. She sought out the opportunity of work experience within the NHS in her spare time and soon became aware of an apprenticeship opportunity. She was successful in being recruited in an IT Apprentice role and worked alongside experienced IT technicians whilst she was completing her IT apprenticeship qualification. She was keen to develop and took the opportunity to apply for an IT Support Officer role. Sophie continued to develop and 3 years after starting in the organisation was promoted for a second time into an IT Support Technician role, working alongside those she had learned so much from. She was offered an opportunity to undertake a Health Informatics level 4 apprenticeship which developed the technical knowledge she needed along with the health context in which this work sits. This gave her a broader understanding of health informatics and a greater appreciation of the wider health informatics profession. This broader knowledge has since helped her gain a supervisory role within the team and she is now working towards a management qualification whilst encouraging junior staff to undertake apprenticeships in health informatics.

Delivery Method

The Level 4 qualification is delivered over 36 months, via a blended learning approach where learners engage, in person, with a training advisor at least once every six weeks - at the learners place of work. Learners are set a rigid scheme of work with set tasks completed on a week by week basis. Online tutors converse via forums, email and telephone on a regular basis, feeding back individually on assignments submitted each Friday and introducing each week via online forums. Where possible all assessments are carried out within the apprentices' local area, via Video Conference (such as Skype or Google Meet) or via written submission. Where group work based assignments need to be carried out learners may be brought together to a health board location that suits all candidates. Blended learning modules are delivered via "Storyline" learning objects which include interactive learning material, voice overs and formative assessments.



Online Storyline Examples



Lesson Two

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What is Legislation?



The purpose of legislation is to regulate standards in the UK in order to protect individuals and organisation. Legislation is law, and as such has been passed by parliament following an initial proposal and then an in depth consultation.

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Multiple Choice Question 01

In what year was the data protection act replaced?

- 2008
- 2018
- 1994
- 1974

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Lesson One

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Guidelines, procedures and codes of practice

- Throughout the NHS guidelines and codes of practice will be put into place to ensure the smooth and efficient delivery of the health service, as well as to make sure any legal requirements are met.
- Guidelines and codes of practice will help you to manage your work effectively.
- By putting into place sets of procedures these guidelines and codes of practice will be met.

Let's take a look at these in more detail.

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Mandatory Units

Unit Code	Title	Level	Credits
CY24CY002	Develop Own Effectiveness and Professionalism	Four	12
CY24CY005	Analyse and Report on Health Related Data and Information	Four	6
CY24CY006	Promote Good Practice in Handling Information in Health Settings	Four	5
CY24CY008	Quality Management of Digital Products and Services	Four	9
CY24CY007	The Principles of Knowledge and Information Management in the Health Sector	Four	5
CJ34CY001	IT System Operation 2	Four	14
CK23CY018	Networking Principles	Three	10
CK24CY002	Software Design	Four	10

Please Note: It has been recommended that in order to increase the pathway options, the units in Networking Principles and Software designed be moved from Mandatory to Optional. At August 2018 these units are currently Mandatory and so those enrolling should assume these will be mandatory within their Individual Learning Plan. If you wish to enrol on the Level 4 Qualification and are not working in an environment where you can show evidence of IT Networking or Software Design, please register and interested and you will be informed once the qualification specification is updated.

Optional Units

Learners may select a minimum of 35 credits from the list of optional units, with a minimum of 20 at level 3. Learners may only select units which can be evidenced during their normal role.

Unit Code	Title	Level	Credits
FM33CY003	Understanding Bilingualism in Work	Three	2
CM44CY001	Principles of Data Management Infrastructure	Four	18
CM34CY001	Data Analysis Tools	Four	18
RB74CY001	Data Analysis: Data Science	Four	24



Unit Code	Title	Level	Credits
CM44CY002	Data Management Infrastructure	Four	18
RB74CY002	Statistical Analysis of Data Sets	Four	15
CY24CY003	Investigating & Defining Customer Requirements for ICT Systems	Four	15
XM14CY002	Testing the Security of Information Systems	Four	15
CK84CY002	Manage a Digital Content Development Project	Four	9
CK84CY001	Develop Interactive Multimedia Digital Content	Four	12
CK24CY001	Creating Event Driven Software	Four	20
CK24CY004	Creating Object Oriented Software	Four	20
CK24CY005	Creating Procedural Software	Four	20
CY74CY005	Principles of Secure System Development	Four	7
CY74CY006	Principles of Information Security Testing	Four	10



For further information on these courses please contact:

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