



# Working in Genomics in Wales

Our plan to have a strong workforce to deliver genomic services from 2025 to 2028



This document was written by **Health Education Improvement Wales** and **Genomics Partnership Wales**. It is an easy read version of 'Genomics Strategic Workforce Plan'.

## How to use this document



This is an easy read document. You may still need support to read it. Ask someone you know to help you.



Words in **bold blue writing** may be hard to understand. You can check what the words in blue mean on **page 28**.



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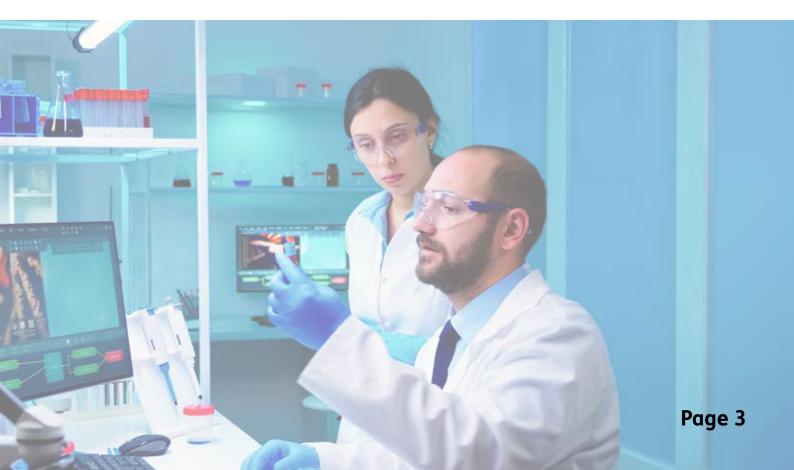


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## **About this plan**



We are **Genomics Partnership Wales** and **Health Education Improvement Wales**.



We wrote this plan to make sure:

- we have enough staff working in genomics as demand grows.
- Our staff have the right training and skills.
- Our staff feel valued.



**Genomics** is about how **genes** work and how we look at them.



They decide things like our hair colour, eye colour, our height, and how our body works. They affect our health.





**Genomics** is changing how we think about healthcare.



It is changing how we diagnose, treat and manage diseases.



**Genomics** has grown a lot in the past 20 years. It is already helping people in Wales.



Our job is to make sure Wales has the workers it needs by working with NHS Wales.



We need staff with many different skills. This includes science, medicine and support roles.



Staff will also need training as we learn more about **genomics**.



This plan includes 33 actions and looks at what needs to be done to make all this happen over the next few years.

# **More about Genomics**



**Genomics** is very important for healthcare because it can:



 Look at the person's genes to see what treatment they need.



• Help prevent health issues.



• Help treat health issues.



• Improve health and quality of life.

## Types of genomics:

## **Human genomics**

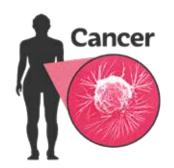


This looks at people's **genes** and how they work together.



It also looks at how the world around us can affect our **genes**.

## **Cancer genomics**



This looks at how someone's **genes** might increase their risk of getting cancer.



It teaches us about the **genetic** information of the cancer itself.

## **Medicine response**



We can learn about how a person's **genes** respond to medicines.



This can help stop bad reactions, and make sure people get the most effective medicine for them.

## Rare disease genomics



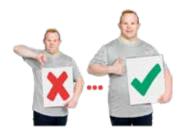
This looks at rare diseases that start in the **genes**. It can help us find issues early and treat them.

## Pathogen genomics



This looks at the **genes** of things that cause disease. For example, this was very important during COVID-19.

## How genomics helps in healthcare



- Improves diagnosing conditions.
- Supports earlier treatment.



- Improves treatment options.
- Improves medications.



- · Reduces bad reactions to medicines.
- Helps us understand health risks better.



- Helps with planning to have a baby.
- Makes health better for everyone.



To get the best results there needs to be more **genomic** testing done by staff in different roles. Not just those who work in **genomics**.

## How genomics will be used in the future



**Genomics** is developing very quickly. It is likely to impact many areas of healthcare, including:

• More genomic tests in patient care.



- Studies on how populations could be affected by diseases.
- Screening of newborn babies.



- Better understanding of illnesses.
- New types of treatment, like **gene** therapy.

#### The workers



As more testing is required there will be more demand for staff.

Many workers in **genomics** are needed, including:



• Technical laboratory staff – they work with blood and other samples to look at the genes.



• Bioinfomaticians – they use computers to find changes in **genes**.



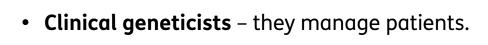
• Clinical scientists – they look at test results and try to understand what they mean.

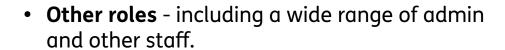


• Family history coordinators – they collect family and medical information from patients.



• Genetic counsellors – they give patients advice and support about **genomic** testing.







Some of these roles need a lot of training and skills in science, maths, computer science and other areas.



Testing will needs to happen in many NHS departments, not just in the **genomics** department.



Other NHS workers will need to know about **genomics** and health.

# Getting more genomics workers in Wales



Testing can be hard to do and some is getting harder.



As **genomics** continues to develop, it is hard to know what will be needed in the future.



**Artificial intelligence** may help with some of the work.

**Artificial intelligence** is when machines, like computers, can be made to think and learn like people. They can solve problems and make choices.



We need to decide how many staff we think will be needed in the future. This is hard because there is a lot we do not know.

## How we wrote this plan



Because this plan covers such a wide number of services and staff, it was important to work on it with others.



We have done a lot of work to make sure we hear from as many staff as possible to hear their views.



We did a lot of research. We looked at what our workforce was like now. And looked at what **genomic** services will need to be like in the future.



We heard ideas from people to write the 33 actions for this plan.



The actions are important to **everyone** that has a role in providing **genomics** services.

## **Workers in genomics**



We need workers and the right type of jobs



There are jobs available now, both in Wales and across the UK. This means there is competition for staff.



We make a training plan every year. This helps us see what groups of staff are needed, like scientists and lab staff.



We will make sure staff get the right training and funding when they start these jobs.



We will also work with Health Boards to help keep staff.



# The actions will help us meet our aims under 7 important areas of work:

### 1. A Healthy, Engaged and Motivated Workforce



This means a staff team who are happy in their jobs.



Staff said they have too much work. This is causing stress and people to be off work sick.

Many jobs are not filled.



Many staff need training and support. This puts pressure on others.



Staff usually need to work on-site rather than from home. This may change as digital technology changes.

It is important to think about staff health and wellbeing. This affects how well they do their jobs.

#### To make this better we will:



• Give more support for working from home and more flexible working options.

#### 2. Attraction and recruitment



This means finding staff who want to do the jobs and stay in them.



Working in **genomics** needs staff with very specific skills.



It is important to talk to people about the benefits of working in **genomics** in Wales.



We need to make sure people know about jobs working in **genomics** in Wales. Especially young people.



There could also be different ways to start a career in **genomics**, like an **apprenticeship**.

An **apprenticeship** is when someone works and learns at the same time.



Staff have said there are often not enough chances to develop in their career.



Work has been done to change this. But this is still a problem in many parts of the NHS.

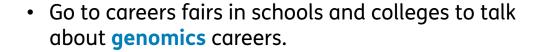


We need to do more work to support staff in their career development.

#### To make this better we will:



 Promote careers in genomics on the website Careersville.





 Ask people who have left their careers in genomics to come back.

### 3. Excellent education and training



Staff working in many special roles in the NHS must be registered. This means they are checked to make sure they are well trained.



Work needs to be done to make training and registration clearer and easier to access.

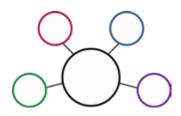


Some training can be done online.

#### To make this better we will:



• Support staff with registration.



• Show staff the training routes to become qualified for different **genomics** jobs. Making this easier to understand.



Make sure staff have good access to training.





• Improve training so it causes less pressure.



 Make sure staff know about any money they can get to help with registration.

#### 4. Seamless workflow models



This is about making sure teams work well together.



Many jobs in **genomics** are very specific so not everyone understands them. This makes support harder.



If all staff were registered it would be easier to know everyone's skills, and for people to take on different tasks.



When staff understand what their team do, it helps them work together better.



## To make this better we will:



 Work with other organisations to plan how workers in other jobs could help in genomics.



- Make it easier for staff to see what other jobs they could have in genomics in their career.
- Make sure that scientists with different training can work in **genomics**.





This means looking at the how many staff are needed and in which jobs.

It is difficult to know how many jobs might be needed in the future. Things that can affect this include:



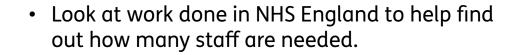
- How many health departments offer **gene** testing.
- How quickly research makes new services.



It is important to find the right balance, but this is hard. It is important that Wales does a lot of research in **genomics**.

#### To make this better we will:







• Work with Public Health Wales to learn more about the workers needed.

 Make sure there are staff who can help with research.

## 6. Leadership and Succession



This is about management. Staff said there has been an increase in manager jobs. But this means fewer people are doing science jobs.

#### To make this better we will:



• Promote management training programmes to help make future leaders.



• Make sure management development is an important part of the **genomics** service.

## 7. Building a digitally ready workforce



This is about making sure staff can work with technology now and as it develops.



This will include working on how information is shared and following laws about confidentiality.

#### To make this better we will:



• Understand the skills needed for the workers and look at jobs and training.



 Keep checking technology and how it could help workers.

## **Other NHS workers**



**Genomic** medicine is growing fast as an area of healthcare.



There will need to be much more **genomic** testing for patients in many areas of health.



This means more health staff will need training in **genomic** testing. Even if they do not work directly in **genomics**.



More training is needed to give health staff the skills they need.



Staff will also need regular training because **genomics** is developing quickly.



It is important to work closely with staff who work in **genomics**. We need their advice to develop new job roles.

#### Some of the things we will do are:



 Look at the training that is available and see if it needs to change.



 Work with Public Health Wales to find the best ways to train staff.



• Make online learning to support staff.





 Work with Health Boards and Public Health Wales to find people to lead on staff development.

## The future



**Genomics** keeps on changing.



We will keep checking what we need for **genomics** in the NHS.



We will change this plan when we need to.

## **Hard words**

## **Apprenticeship**

An apprenticeship is when someone works and learns at the same time.

### **Artificial intelligence**

Artificial intelligence is when machines, like computers, can be made to think and learn like people. They can solve problems and make choices.

#### Genes

Genes are the instructions inside our bodies. They decide things like our hair colour, eye colour, our height, and how our body works. They affect our health.

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Genomics is about how genes work and how we look at them.