

Genomics Strategic Workforce Plan

Master Actions (for consultation) April 2024

Within these actions, we are using the term 'specialist genomics services' to refer to the All Wales Medical Genomics Service and Public Health Wales Pathogen Genomics Unit, and 'specialist genomics workforce' to refer to the NHS staff working in these services. This includes:

- Technical laboratory workforce
- Clinical scientist laboratory workforce
- Biomedical scientist laboratory workforce
- Bioinformaticians
- Genetic Counsellors
- Clinical geneticists (medical workforce)

The Wales Gene Park staff are employed by Cardiff University, and include researchers (technicians, scientists and bioinformaticians) and the Education and Engagement (E&E) team.

Section 1: Actions relating to the specialist genomics workforce within All Wales Medical Genomics Service and Public Health Wales Pathogen Genomics Unit (PenGU)

No.	Theme	Action	Lead
1	Attraction & Recruitment	Promote the availability of careers within genomics services: (a) Actively promote the availability of genomics careers using available platforms; develop dedicated approach to the promotion of genomics and inclusion within Careersville (b) Target outreach work to sixth form careers fairs across Welsh schools and colleges to promote the awareness of careers within genomics services (c) Target outreach work to science, genomics and biomedical science courses at Welsh Universities, including careers fairs and science societies	HEIW Wales Gene Park E&E team Wales Gene Park E&E team
2		Develop a pathfinder model to enable partnership arrangements with academic institutions and/or industry that allow staff within the specialist genomics workforce to span NHS service delivery and research/scholarship, to support the attraction and retention of skilled staff	Specialist services
3		Through an investment in an upgraded laboratory management system, facilitate flexible and remote working opportunities for specialist staff to support staff recruitment and retention	Specialist services
4		Work with HEI's to include pathogen genomics in the delivery of the Healthcare Science Life Sciences PTP curriculum to promote careers within the pathogen genomics service	HEIW

No.	Theme	Action	Lead
5	Excellent Education & Learning	<p>Strengthen specialist genomics workforce expertise and training, by supporting staff to obtain statutory registration or (if this is not available) voluntary registration:</p> <p>(a) Map equivalence routes with Institute of Biomedical Science (Certificate of Competence by Equivalence) and/or Academy of Healthcare Science (Scientist Training Programme equivalence) for laboratory technicians and genetic counsellors to assess opportunities to develop career pathways, and new education and training required.</p> <p>(b) Ensure access to education and training support to enable all genetic counsellors, bioinformaticians, laboratory technicians, biomedical scientists and clinical scientists to achieve appropriate professional registration to improve patient safety</p>	<p>HEIW</p> <p>HEIW</p>
6		<p>Undertake a detailed review of the education framework for healthcare science to support the development of pathogen genomics services as part of phase 2 of Strategic Review of Education Programmes (SREP2) including:</p> <p>(a) Working with UK partners to ensure appropriate education and training in pathogen genomics for clinical scientists and bioinformaticians including appropriate routes to registration</p> <p>(b) Working with the Academy of Healthcare Science to agree and publish an appropriate equivalence pathway to clinical scientist registration in pathogen bioinformatics.</p>	<p>HEIW</p>
7		<p>Expand the number of people working within specialist services who are supported into employment through healthcare science education and learning pathways (including apprenticeships)</p> <p>(a) implement the learning pathways for healthcare science and ensure that they remain fit for purpose</p> <p>(b) use the learning pathways to develop the role of assistant practitioners across specialist services</p>	<p>HEIW</p> <p>Specialist Services</p>

No.	Theme	Action	Lead
8		<p>Strengthen education and training infrastructure to accelerate training pipelines and reduce training burden on specialist staff:</p> <ul style="list-style-type: none"> (a) Identify how to accelerate training and reduce training time for healthcare science roles within specialist genomics services (b) Ensure that NHS Wales contributes to the NHS England Genomics Training Academy (GTAC) and identify how GTAC resources can be utilised to support accelerated training pathways for key roles (c) Develop an educator development plan that increases the quality of education and training within specialist services 	<p>Specialist services HEIW</p> <p>HEIW</p>
9		<p>Establish a long-term resource to oversee genomics education and training within HEIW and act as a critical link with other UK nations to maximise the benefits of UK shared workforce commitments</p>	<p>HEIW</p>
10	Seamless Workforce Models	<p>Extend multi-professional workforce models within genomics services and work with UK partners to implement a framework for genomic associate/practitioner support roles within the specialist genomic service to support the delivery of prudent healthcare</p>	<p>HEIW</p>
11		<p>Identify how the enhanced, advanced and consultant framework can be utilised within specialist services to provide structured career pathways within the multi-professional workforce</p>	<p>Specialist Services</p>
12		<p>Map current career pathways for all areas of healthcare science, towards creating a career framework/s for all areas of the profession that considers future service need in all regions of Wales and that will improve attraction and retention</p>	<p>HEIW (HCS)</p>
13		<p>Increase the number of genomic biomedical scientists working within specialist genomics services to optimise skills as part of the transition to a fully registered workforce</p>	<p>Specialist services</p>
14	Workforce supply & shape	<p>Review the output from workforce modelling exercise being undertaken in NHS England (Akeso) and consider the future size and shape of the workforce for Wales needed to meet the increased demands for genomic testing and for public health genomics, identifying increases needed through the annual Education and Training Commissioning Plan</p>	<p>HEIW</p>

No.	Theme	Action	Lead
15		Working with Public Health Wales, including PenGU, consider the future size and shape of the workforce needed to meet the increased demands for public health genomics, identifying increases needed through the annual Education and Training Commissioning Plan	HEIW
16	Leadership and Succession	Promote leadership programmes for current and future leaders to specialist genomics services	HEIW
17		Embed leadership development within specialist genomics services for current and future leaders	Specialist services
18	Digitally Ready Workforce	Work with DHCW & individual programmes on digital roadmap for genomics and impact on workforce to identify opportunities for role redesign, new roles and education and training requirements	HEIW
19		Implement a national approach to horizon scanning for innovations and improvement in technology and diagnostic equipment that would provide opportunities for workforce transformation including specific actions arising from Commission on Artificial Intelligence	HEIW

Section 2: Actions relating to the wider NHS workforce

Number	Theme	Action	Lead
20	Excellent Education & Learning	Evaluate the impact of current education programmes and consider further development to ensure they remain relevant: <ul style="list-style-type: none"> • MSc modules • e-learning modules 	HEIW
21		Working with Public Health Wales Pathogen Genomics Unit (PenGU), develop specific education packages that will improve genomic literacy across clinical and public health specifically focusing on pathogen genomics	HEIW
22		Develop additional resources via Y Ty Dysgu to promote mainstreaming including: <ol style="list-style-type: none"> digital resources that help mainstream genomics, eg. how to assess test eligibility, take consent, order test, and interpret and deliver results branded patient resources that clinicians can signpost to patients, reducing time spent answering questions in person a toolkit for planning the implementation of genomic testing (diagnostic testing and pharmacogenomic testing) in a particular service, to identify which healthcare professionals are involved at which stages and signpost to relevant education and training resource for each stage 	HEIW
23		Promote genomic education for the future workforce by: <ol style="list-style-type: none"> Ensuring genomic education is embedded in all undergraduate and/or foundation phase curricula relevant for each professional group Work with HEIs to provide appropriate genomic education within post-registration training as a contractual requirement, in the same way that has been achieved with pre-registration training contracts 	HEIW
24		Work with: <ol style="list-style-type: none"> Multi-professional Primary and Community Care Academy and GP CPD leads to promote availability of education resources to support staff working in GP practices and community pharmacies 	HEIW

		b) postgraduate centres and training departments to promote availability of education resources to support staff working in secondary care	
25		Work with each Health Board, NHS Trust and Public Health Wales to identify a senior/executive lead who will lead on the workforce implications of the mainstreaming of genomics	GPW
26		Identify education and training and competency requirements arising from new genomic testing and pharmacogenomic clinical pathways to support effective mainstreaming	HEIW
27		Working with the National Pharmacogenomic Group, identify the implications of mainstreaming pharmacogenomics and in particular: (a) the need for additional education & training to support multi-professional teams who will need to be competent to deliver pharmacogenomics as part of service delivery (b) the requirement for extended, advanced and Consultant roles to support pharmacogenomics (c) the size and shape of the workforce needed to meet the increased demand for pharmacogenomics (over the medium to long-term), and the increased education and training needs for certain professionals (i.e. pharmacy professionals) which need to be reflected within the annual Education and Training Commissioning Plan	HEIW