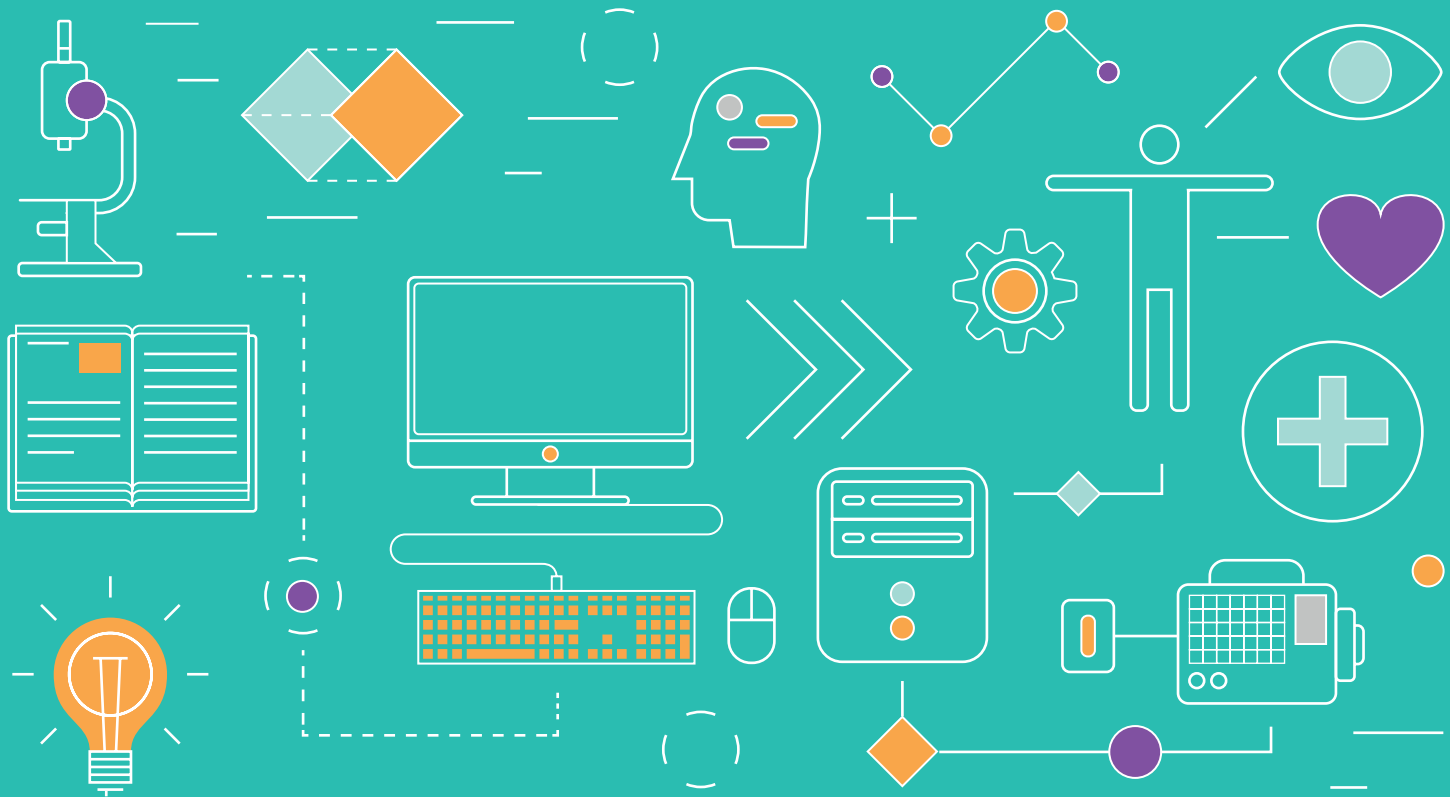
NHS Education for Scotland

NES HEALTHCARE SCIENCE

Annual Report 2019–20



Healthcare Science

At NES Healthcare Science, we commission national training, quality assure training and offer generic CPD to the workforce. In relation to this, we work with UK agencies, Scottish Government and other stakeholders to represent NHS Scotland's best interests.

Contents

A thank you to the core team and colleagues in the Boards who are supporting the development of the next generation of NHS scientific staff.

We are here to help.

Foreword

Dr Robert Farley
NES Healthcare Science Programme Director

We have oversight of training programmes and initiatives to develop the healthcare science workforce, with an aim of ensuring a sustainable fit-for-purpose workforce supply for NHS Scotland.

Our 2019-20 Annual Report is written against the backdrop of the 2020 coronavirus pandemic, yet the reporting period it reflects was largely unaffected by the emergency state we are currently in. For 2019-20, our core activity remained focussed on training commissions, quality assurance of that training and a mixed CPD offer in both the classroom and digital space

With NES Executive Team endorsement, we opened a dialogue with Scottish Government in mid 2019 to explore training resources available to NES Healthcare Science for commissioning. Workforce suppply challenges in some medical consultant specialties and its intersection with the laboratory service have prompted discussion around how healthcare science staff can contribute to advance roles. A significant laboratory workforce survey in Autumn 2019 by colleagues at NSS and the Diagnostics Steering Group has coincided with a broader intention that NES will be taking a greater role in workforce intelligence for the NHS.

Scottish Government's Health and Social Care Workforce Plan (Dec 2019) also specifically cited cardiac physiology for trainee investment; we anticipate involvement in the implementation of these initiatives pending resolution of the pandemic.

In commissioning training, our clinical scientist intake in 2019 remains stable with **30** supernumerary training places requested and resources allowing **21** to be supported.

Our in-service postgraduate bursary support have covered **31** recipients of **62** applicants; average support was a **£1600** contribution to course fees.

All trainees receive a national training number and are tracked using the NES TURAS Training Programme Management (TPM) system. To year end we had around **175** trainees. Significantly, this year we have reached out to the clinical physiology community, which now accounts for over **25%** of our National Training Numbers compared to **13%** in 2018-19. This proportion of physiology trainees feels right for our training base; trainees and supervisors are to be commended for their enagement with us.

Our approach to Annual Review of Competency Progression is an intergral part of our monitoring regime. By year end, around **95%** of eligible trainees (about **140**) for an ARCP had responded to our monitoring requests.

For our Clinical Scientist trainees we now have a well-established on-line viva system using Go-to-Meeting in partnership with the Academy for Healthcare Science. The digital platform has avoided time and finance costs associated with remote face-to-face vivas, and is broadly well-received by participants. Our quality activity is specifically reported by the Academy in its own annual monitoring return as education provider to the Health and Care Professions Council, reflecting the importance of this aspect of our activity.

Meet the NES Healthcare Science Core Team

Left to Right:
Simon Petrie — business support, Owen Mills — Principal Lead Scientist, Rob Farley — Programme Director, and Principal Lead Scientist, Claire Cameron, James Logie, Lorna Crawford, Andrew Dunne and Bianca Brownlee, (not pictured).

We support the training and development of postgraduate scientist staff and other key groups in the healthcare science workforce. Our Role at NHS Education for Scotland is shaping and supporting Healthcare Scientist training through the three core workstreams

We have oversight of training programmes and initiatives to develop the healthcare science workforce, with an aim of ensuring a sustainable fit-for-purpose workforce supply for NHS. The team here at NES Healthcare Science, act as a national focus for healthcare science education and training in three ways:

- we commission Healthcare Science training
- we quality monitor training, trainees and departments
- we offer generic CPD both face-to-face and online

Farewell and good luck to our former NES colleague Andrew Davies, who supported the core team for 2 years as a HCS Principal Lead. Andrew has now returned to service and we would like to pass on our gratitude for all his contributions to the Healthcare Science core team.

Our Healthcare Science Workforce

The Healthcare Science Workforce Healthcare Scientists are the 4th largest clinical-registered group of NHS staff with approximately 6500 staff in post across NHS Scotland.

- Life Sciences
- Physiological Sciences
- Physical Sciences

At NES Healthcare Science, we act as the national focus for healthcare science education and training in three ways: we commission training, we offer generic CPD and we quality monitor training departments

Healthcare Scientist training comprises of several pathways. This diversity in training pathways is a strength, it ensures a varied workforce and reflects the broader approach of science to improve the health and well-being of patients and the public.

The pathways are:

- Clinical Scientist STP training and non-STP training
- Independent equivalence portfolio development towards Clinical Scientist registration or Higher Specialist Scientific registration (HSSR)
- Bursary-supported postgraduate training (for example specialist / higher specialist portfolios and MScs) irrespective of funding source
- Practitioners / Technologists training towards professional registration

80% of all patient journeys in the NHS depend on Healthcare Scientists' work

Healthcare Science Training Commision

	SERIAL	COMMON CORE LIST (CCL)
DELIVERY OF THE SCIENCE	1	Fundamental science: acquaintanceships beyond specialist area
	2	Case studies, multi-disciplinary case-based review opportunities
	3	Multidisciplinary work experiences, partnering and shadowing allied groups
	4	Frontline service / lab awareness skills / practical skills
	5	Clinical / interpretive skills
PEOPLE AND ORGANISATION	6	The patient perspective
	7	Train-the-Trainer / HCS as teacher skills
	8	Leadership, management preparation, communication skills
	9	Teamwork (in the discipline, in the HCS division, the wider HCS workforce, other groups)
	10	Planning and business skills / budget skills / procurement skills
	11	Clinical governance, corporate governance
SAFETY AND IMPROVEMENT	12	Health and Safety
	13	Regulation and compliance, e.g. CPA, GMP, CE rules
	14	Risk analysis and risk management
	15	Incident management — Significant Event, Root Cause, Failure Modes
	16	Quality Improvement and Quality Control tools
THE FUTURE	17	Ethics, forming a research proposal
	18	Commercial development, intellectual property, income generation
	19	Foresight, new technologies, service and workforce re-profiling

NES commission our scientists in training all have a National Training Number and develop attributes on our Common Core List. All trainees are subject to Annual Review of Competence Progression (ARCP) monitoring and submission of a training plan.

Our Common Core List (CCL) identifies shared attributes for NHS scientists, across four domains:

- scientific practice
- leadership and management
- safety and improvement
- the future

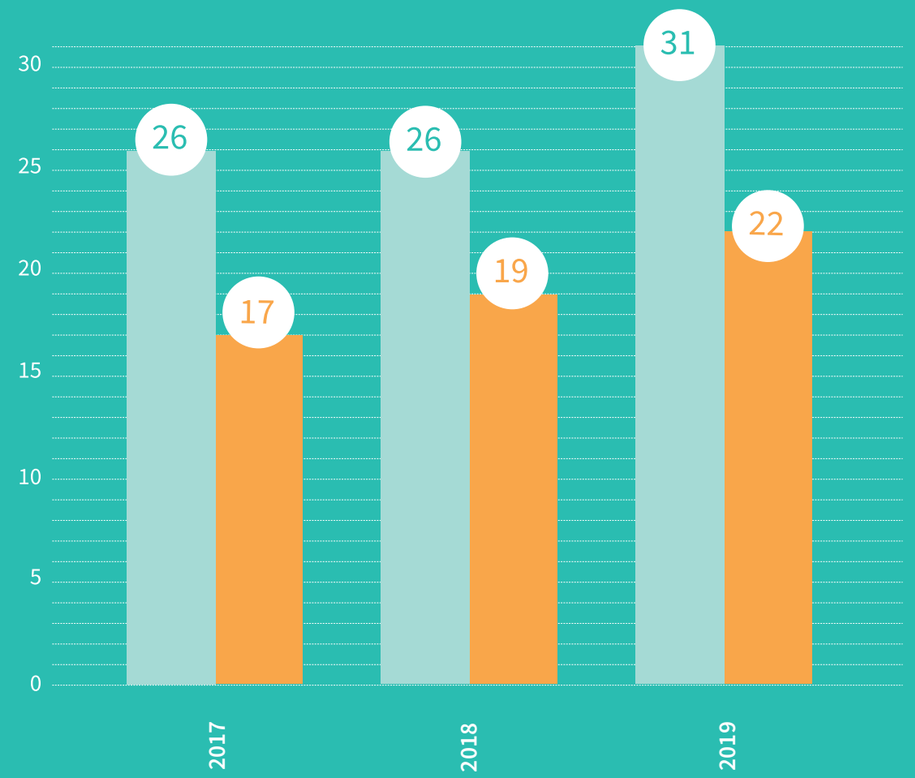
CCL does not specify format, level or content of development within the domains. Instead, it challenges trainees to consider their wider development as future scientist-leaders. Engagement with CCL is central for approval of NES postgraduate support.

CLINICAL SCIENTIST TRAINEES

Our Healthcare scientist trainee cohort includes Pre-registration Clinical Scientists and Practitioner-level (graduate) staff undertaking advanced-practice scientist development. Training involves either **3-year STP** or an equivalent Masters level programme.

As of Feb 2020 we are supporting 79 clinical scientist trainees, 19 on STP pathways.

TRAINEE CLINICAL SCIENTIST NES COMMISSIONS



The demand for clinical scientist training places annually is about **one third greater** than can be currently supported by us.

Post–Graduate Bursaries Supported at NES

Every year NES support bursary funding for our postgraduate Healthcare Scientists and their career development to contribute to the scientific workforce and our patients

These awards are open to HCS staff from the life sciences, clinical physiology or the physical sciences, and who are:

- based in a department recognised via NES
- self-assessment as a postgraduate training centre
- HCS Practitioner-level 1 staff and seeking post-registration/ postgraduate development

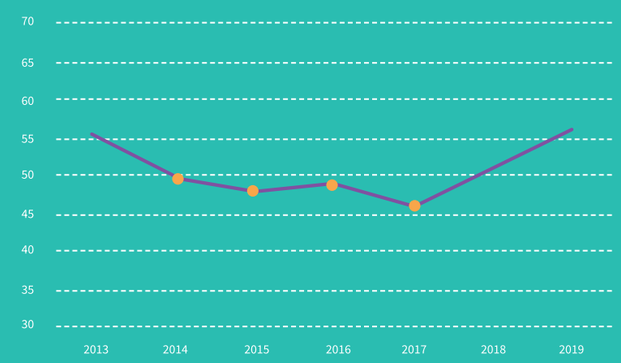
At present candidates complete a scored section on the application form which reflects the four domains of the common core list. Scoring is done by **7–10** independent assessors with forms anonymised.

Irrespective of subsequent year's support, candidates retain their National Training Number throughout their planned programme.

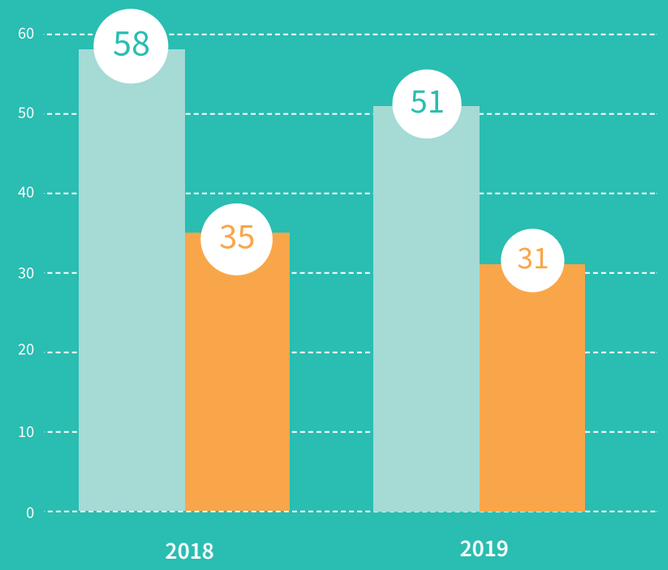
A basic mapping document illustrates the alignment between Good Scientific Practice and the Common Core List — available **here.**

We provided 31 Postgraduate Scientist Awards in 2019 from 51 bids, with awards of up to £2000.

2013–2019 PASS MARK RATE



2018–2019 BURSARY AWARDS



Bursaries are annually awarded, requiring reapplication in subsequent years.

We anticipate around 30 awards in 2020, with the process likely to start end March 2020.

Bid request
Supported

Practitioner Training

A Clinical Physiology programme in Scotland is available from Glasgow Caledonian University which involves block release of salaried NHS practitioner–level trainees.

The programme is largely work-based with 2 days/week term–time academic contact. Intakes from 2015 onward are eligible to join on graduation the Academy for Healthcare Science PTP accredited register as the programme is recognised for PTP equivalence.

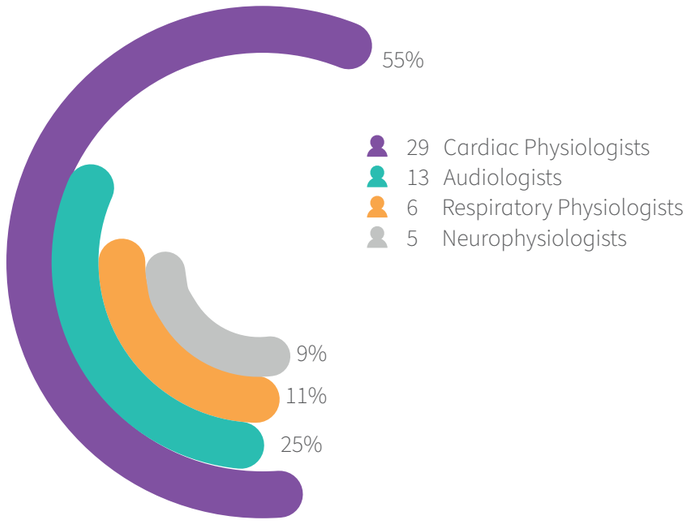
Recently, some NHS Departments have developed graduates in house via a pathway called "equivalence" to a point where they meet the standards of the AHCS Register.

Training timescales depends on the prior learning of the individual and the department's approach to developing along this route. All clinical physiology trainees, irrespective of pathway, are subject to NES monitoring throughout training.

We have supported **15** NHS–employed Clinical Physiologist practitioners (NHS undergraduate) who were recruited in September 2019 as part of a wider **20**-strong intake to begin part-time academic programmes at Glasgow Caledonian University

NES Healthcare science provides a training grant to assist service with year–1 cost; the grant is limited to **15** training places, so any other trainees in the cohort are fully funded by local Boards.

2019 CLINICAL PHYSIOLOGISTS IN TRAINING



Healthcare Science Training Commissions Funding Update

In September 2019 NES Executive Team endorsed a presentation to the Scottish Government's Access Board for increased training post.

Our assessment highlighted the pressure for additional clinical scientist posts; support for consultant-level Higher Specialist Training; support for practitioner trainees including physiologists, technologists and others. Scottish Government has requested for specific detail around how this bid fits with our Annual Operational Plan 2020–21.

Annual expressions of interest exercise from service for clinical scientist training posts are oversubscribed and some specialties have resorted to employment of pre-registrants ahead of completion. Medical physics is one example, which is also consistently listed on the Migration Advisory Committee shortage occupations list. Neurophysiologists in the clinical physiology stream are another example.

As an example of the detail we have uncovered, the genetics consortium requested **20** supernumerary trainees during the period 2018-2020; we were able to support **12**.

In clinical physiology, trainees replace experienced physiologists as they retire - impairing service capacity.

Vacancies in half of cardiac physiology units is **15%**, with a comparable fraction within five years of retiring. Entry-level vacancy is **20%**. Most departments (**70%**) have 1 or more vacancies, an acute shortage felt as some departments have establishments of less than **10**.

In the last decade, the medical consultant per physiologist ratio has risen from **8.5** to **9.3;** it is medical consultants that largely drive the referral workload.There is no funded higher training in Scotland for consultant Clinical Scientist training, nor central selection, assurance or tracking of the nascent future leadership of our scientific workforce.

This gap challenges the workforce's ability to provide alternatives to medical consultant shortages in laboratory disciplines. In December 2019, the Scottish Government's Health and Social Care Workforce plan specifically referenced support for **30** cardiac physiology trainees over 4 years

At the time of this publication the coronavirus pandemic has disrupted the dialogue we expected to continue with Scottish Government on these Healthcare science matters. We hope to continue to do so later in 2020.

CASE STUDY

Supporting Trainee
Clinical Scientist
Programme

Laura Cluny
Clinical Scientist Nuclear Medicine, NHS Lothian

I am a Clinical Scientist working in Nuclear Medicine Physics.

Towards the end of my undergraduate degree in Maths and Physics at the University of Edinburgh, I began to explore possible career options. On reading about Medical Physics a career I had previously heard very little about, I was immediately fascinated by the application of Physics in healthcare.

After graduating in 2014, I was lucky enough to be offered a 6 week placement in the Nuclear Medicine department. During this placement I was given a number of projects which served as my first introduction to nuclear medicine imaging and radionuclide therapies. I was also able to visit different areas of Medical Physics, learn about patient pathways and gain a better understanding of the role of Clinical Scientists. The 6 weeks flew by and by the end I was determined to pursue a career in Medical Physics.

I applied for the NES funded Scottish Medical Physics and Clinical Engineering training scheme in 2015 and was thrilled to be successful. For the first year I undertook an MSc at the University of Glasgow, which included taught and project elements.

The lectures enabled me to apply my knowledge from my undergraduate degree to healthcare and medicine, in subjects such as radiation physics and medical statistics, and also covered new topics such as anatomy and physiology. Following the lecture. I then completed a 3 month project which helped to improve my research techniques, scientific writing and understanding of a specialist area.

My training continued with a year of placements in four key areas of Medical Physics; imaging with ionising radiation, radiotherapy, radiation protection and diagnostic radiology and imaging with non ionising radiation.

Each of the placements built on the theoretical knowledge gained during the MSc and gave an opportunity for developing practical skills and undertaking projects. Understanding was assessed throughout these placements through case based discussions and written work and a portfolio was produced to demonstrate the highlights from each placement.

The final aspect of my training was an 18 month period of specialist training which I undertook in Radiation Protection. Throughout this period I worked in one area, integrating into the department and gaining more in depth knowledge. During this time I was able to be involved in and take a lead on a large number of pieces of work, from small scale investigations and optimisation work to large reviews and projects.

All of my work was mapped to a training plan to ensure the required competencies were covered but I was actively encouraged to take ownership of my training.

I also undertook an innovation project involving 3D printing models of anatomical structures to use for image optimisation in Nuclear Medicine. This project built on the research skills developed during my MSc project and my work was presented at a national meeting.

At the end of my specialist training, I produced a final portfolio detailing the knowledge and skills I had developed throughout my training. My knowledge and understanding of the role of a Clinical Scientist was then assessed through VIVA. On successful completion of this I was awarded my certificate of training, making me eligible to apply for HCPC registration as a Clinical Scientist

Following my training I have now taken a position in Nuclear Medicine. My training has given me confidence in my skills as a Clinical Scientist, allowing me to move from my area of specialist training and identify and remedy any gaps in my knowledge. My job is as varied and interesting as my 6 week placement back in 2014 and I am very much looking forward to my future career as a Clinical Scientist.

CASE STUDY

Practitioners Training Programmes with NES Support

I am Clinical Technologist working in the Radiotherapy department at Western General's Edinburgh Cancer Centre (ECC).

My interest in working for the NHS began after a work experience visit to a hospital showed me how the science that I was interested in school could also be directly applied to helping people through the field of Medical Physics, later leading me to undertake a BSc (Hons) in Physics

During my degree I became interested in various Bio-imaging techniques and the use of radiation that led to me pursuing a career in Radiotherapy. Thanks to NES I was able to undertake a 2 year Supernumerary Clinical Technologist training scheme at the ECC that involved submitting a portfolio of work to IPEM (Institute of Physics and Engineering in Medicine).

I enjoyed the hands on technology side of running up CT's and Linear Accelerators in the morning performing essential QA to ensure the safety of patients receiving treatment that day.In Planning I learnt how to take the areas of cancer from a CT scan an Oncologist has outlined for treatment and use various advancedplanning system techniques to produce a range of plans that target this area with a prescribed dose of radiation, whilst also avoiding and reducing the dose to vital organs (OAR) in any surrounding tissue.

Having a good understanding of human anatomy can play a key role when deciding how a particular area should be targeted with radiotherapy. During my training NES allowed me the opportunity to further refine and hone these skills by being able to complete an SQA course in Anatomy and Physiology at Glasgow's Kelvin College.

Chris Wood
Clinical Technologist in Radiation Physics , NHS Lothian

Dosimetry is another section in the department where I take the complex plans that have been produced in planning and check that they are physically deliverable on the Linear Accelerators before a patient comes for treatment. Making sure the radiation output of the machines are what we expect and calibrated to a central standard through various QA that assess the safety and performance of the Linac's.

The ECC also has a very active Brachytherapy programme instead of using external beams of radiation from linear accelerators to treat from the outside in, uses concentrated radioactive sources to treat often more deep-seated tumours from the inside out.

The training scheme also gave me the opportunity to undertake acquaintanceships in Nuclear Medicine, Diagnostic imaging and Medical Physics seeing other clinical technologist roles outside of the radiotherapy setting further broadening my knowledge.

On completion becoming an RCT registered Clinical Technologist I have since been promoted to a more specialised position split between Planning and Brachytherapy though with my unique mix of acquired skills I still regularly assist in performing machine QA and patient Dosimetry and can effectively liaise between each of the sections in the Radiotherapy department.

Going forward in my career I would hope to continue gaining more specialist knowledge in planning and assisting in the ECC becoming one of the first centres in Scotland to implement and offer HDR Prostate Brachytherapy Treatments. With the potential of using the knowledge I have gained to further advance towards becoming a Clinical Scientist. Continuing my professional development I am looking forward to undertaking one of NES's Train the Trainer courses to help learn how I can effectively pass on the skills and knowledge to new trainees in the department.

CASE STUDY

NES Postgraduate Bursaries supported, MSc Degree Programme

Andrew Bell
Specialist Biomedical Scientist

I am a full time Specialist Biomedical Scientist (BMS) within the Blood Sciences department employed on Agenda for Change Band 6 at Perth Royal Infirmary, NHS Tayside.

The Blood Sciences department has two main sites within the region; the main laboratory at Ninewells Hospital Dundee and a smaller laboratory at Perth Royal Infirmary, Perth. Both sites are currently UKAS accredited to the ISO 15189:2012 standards.

Was it luck or fate?

My career with NHS Tayside was never planned, indeed I ask myself was it luck or fate that got me started; at the age of 26 I had been made redundant at the beginning of 1998 and had worked as a seasonal help at my local golf course over the summer. I signed on the dole for 1 week, hated that and went for the first job going, which turned out to be maternity cover working as a medical laboratory assistant in the Biochemistry Department at Ninewells Hospital, Dundee. So off I went, starting a job I had not a clue about!

Turning a job into a career

My job was made permanent in 1999 and I was fortunate enough that the department sponsored me to do my degree in Biomedical Sciences on day release at Napier University in Edinburgh. On gaining my degree (with honours) I completed my training as a trainee scientist and qualified as a multidisciplinary Biomedical Scientist in 2004. I took up a multidisciplinary (Biochemistry, Haematology and Hospital Transfusion) post at Perth Royal infirmary where I subsequently gained my specialist grading.

My role within the department changed in December 2017 when I was offered, and accepted a secondment opportunity to work in the Core Biochemistry Laboratory at Ninewells hospital. I am using this opportunity to gain valuable clinical and managerial experience with a view to gaining a seniors post within the department.

Working towards my MSc

I started my MSc course in Biomedical Sciences by distance learning at Greenwich University in November 2018. The MSc course is flexible in that the modules can be selected as appropriate to the student. The modules are specifically tailored for laboratory staff and include options that help create future leaders and managers.

I have taken a mixture of clinical and management courses to supplement my learning and better equip me for a future management role, opting for Robotics and automation, Clinical Data Interpretation, Quality Systems management and Governance and Risk Management from the more laboratory specific modules. I have found it hard going at times but very rewarding, and with the help from NES in funding I am well on course in achieving my goal. My final project will be completed before the end of 2020.

The vital role of NES funding

The Blood Sciences department in NHS Tayside strives to continually develop the workforce in order to support and produce motivated, highly trained staff and thus provide an excellent service for our users and patients.

Currently there are 31 BMS staff undertaking higher level qualifications, the department prioritises help for band 5 staff and below, so NES funding is a vital asset that allows staff to undertake MSc and other management qualifications in the current financial climate and ongoing pandemic.

Thank you for your support

As someone who started their career late and did not go through the “conventional” way of training, working my way up from a humble beginning it is fantastic to see others within my department follow my footsteps and starting their careers. This would not be possible without the support of the department and especially NES funding.

CASE STUDY

NES Postgraduate Bursaries supported, Masters of Business Administration

I started my NHS career as a trainee Biomedical Scientist in Haematology and Blood Transfusion in South Tyneside District Hospital in 1994 after graduating from Durham University with a BSc (Hons) in Biological Sciences.

After completing a diploma in Biomedical Sciences at the University of Northumbria and becoming a qualified Biomedical Scientist I went on to study for a MSc Biomedical Sciences, graduating in 2000 and becoming a Senior Biomedical Scientist the same year.

My learning continued and I completed various courses and qualifications including an ILM Management course, BTEC in Information Technology and became an NVQ assessor for Biomedical Support Workers.

In 2012 I moved to Gateshead NHS Foundation Trust as Technical Manager / Deputy Quality Manager in Haematology. I was involved in the creation of a brand new £12M Pathology Centre and the integration of three hospital laboratories, driven by Pathology Modernisation.

In 2015 I also trained as a peer assessor with Public Health England for the antenatal screening Programme and enjoyed working as part of a multi-agency team assessing other laboratories.

In 2016, I moved to Scotland with my family and I took this opportunity to look for something slightly different and was so pleased when I successfully got the job of Associate Service Manager for the Scottish Bowel Screening Service within NHS Tayside. This role involves leading on laboratory aspects of the screening service and working as part of the Blood Sciences Senior team. I also work in collaboration with a wide range of healthcare colleagues across the UK and with organisations including National Services Division, Scottish Government, Public Health Scotland, third sector organisations and public partners.

I was keen to further my education and personal development and in 2017 I successfully applied for a place on the 3 year part-time Masters of Business Administration (MBA) course with the University of Strathclyde.

Allison McPherson
Associate Service Manager for the Scottish Bowel Screening Service, NHS Tayside

I felt that studying for the MBA would support me to develop the business knowledge required in my current role and future career. I chose the part-time route rather than distance learning as I felt that meeting and working with people from other backgrounds and industries would be as extremely valuable. assessments and written exams.

The MBA has helped me build on my leadership and people management skills and covered new areas that I had little experience of including finance, accounting, corporate governance, operational management, strategy, consulting skills and project management. The modules which I thought would be least applicable, marketing and entrepreneurial leadership were surprisingly enjoyable and totally relevant!

I can't overemphasize how much I learned from working with others from different backgrounds and cultures, with alternative points of view, skills and strengths. Working collaboratively as part of diverse teams allowed us to achieve more than we ever could have as individuals.

I would recommend the MBA to anyone in a management role as the knowledge and skills I have gained have helped me in my current role, in life in general and will help me make a difference in my career going forward.

Undertaking the MBA has been a big commitment, both personally and financially and the contribution from NES made an incredible difference. The first two years were extremely challenging, combining working full time, study and family life. I am now in my third and final year and have almost completed my final project which has involved actively researching the capacity issues facing Endoscopy services in Scotland.

The positivity and encouragement of the training team have supported me throughout the last few years and I feel a real sense of achievement getting this far. Learning is a life long journey which shapes who you are, where you go and the difference you make to others. I'm really grateful to have been given this opportunity and for the support from NES which has made me feel valued and has enabled me to continue my own learning journey.

Quality Monitoring of HCS Training in Scotland

Our Purpose in undertaking quality monitoring is to provide assurance that training is secure and safe — and that it will produce the right calibre of Healthcare Scientists.

One behalf of NHS Scotland, NES Healthcare Science monitors workplace training via departmental self-assessment, training group reviews and progression monitoring of individual Healthcare scientist trainees. We do so to assure the state of training, in the same way that medical and other professions' training is centrally tracked.

We work with The Academy for Healthcare Science and the National School for Healthcare Science to help assure clinical scientist training. Our approach is traceable to HCPC standards of education and training as a benchmark for all aspects of healthcare science training. For STP training, the principles below are mandatory.

For other trainee clinical scientist, postgraduate-level trainees and practitioner grades, the principles are good-practice and help cement the identity of the scientific workforce.

Quality Monitoring Processes within NHS Education for Training Healthcare Science include:

- Tracking Trainees in Turas Programme Management
- Annual Review of Competency Progression reporting
- Training Plan submission
- Trainer Resume submission
- Training Centre Recognition
- Supervisor and confidential Trainee Surveys

Tracking our Trainees Through Turas
Programme Management

National Training Numbers (NTN) are a unique training record for our Healthcare Scientist trainees. These are generated after training admission into NHS employment, bursary award beneficiaries or recognition from a training plan submission.

NES Healthcare Science has a key role in giving our employer, NHS in Scotland, the assurance that training is secure.

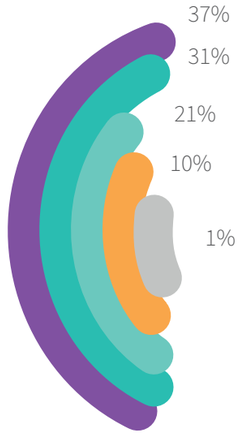
NES does this for other key clinical groups who traditionally are better represented and understood by the system. NES also has developing responsibilities for workforce planning. Healthcare Science is a key group but unlike other essential clinical groups, the tracking of training across it is fragmented.

We can only discharge our quality monitoring duties for the NHS if we know who and where our scientific workforce trainees are. We have a mission to help trainers, trainees and departments share good practice and, where there are problems, constructively contribute to solutions.

Our ambition is that everyone, regardless of HCS profession or training grade should want, at the outset, a National Training Number. Acquiring a National Training Number is easy and should be the norm irrespective of grouping. Possession of a National Training Number helps us track training. Our asks of trainees and supervisors are minimal and light-touch.

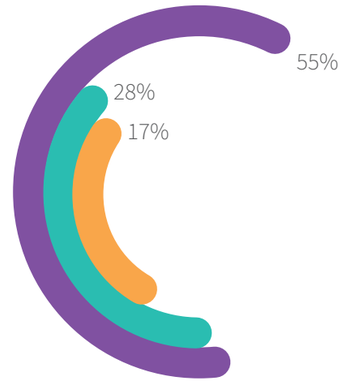
Our guidance document for more information on how to obtain a training number is available on our knowledge network for information.

2019–2020 NTN HOLDERS BY TRAINING CATEGORY



- 65 Healthcare Science Practitioner Training
- 55 STP Equivalence
- 37 Bursary
- 18 STP
- 2 HSST Equivalence

2019–2020 NTN HOLDERS BY DISCIPLINE



- 98 Life Science
- 50 Clinical Physiology
- 29 Physical Sciences

Training Centre Recognition

Our quality monitoring of training centres serves to assure that standards of Healthcare Scientist training are consistent across healthcare science disciplines. Poor quality training can be a proxy for unsafe clinical practise, so our activity also has a patient safety thread.

Training centre self-assessment is important for NES's approach to Healthcare Scientist identity and aligns to the approach of NHS Education for Scotland's Quality Assessment tool 2010 NMAHP, and assurance that HCPC standards of Education and Training are being met**.**

During **2019–20** we began preparations for a refresh of training centre recognition that builds on past work and includes more recent departments, such as departments relating to the clinical physiology group.

Process for Centre Accreditation 2016 Summary
Back in 2016 the NES Healthcare Science team asked training centres to complete a self–assessment against standards that reflected the Health and Care Professions Council Standards of Education and Training.

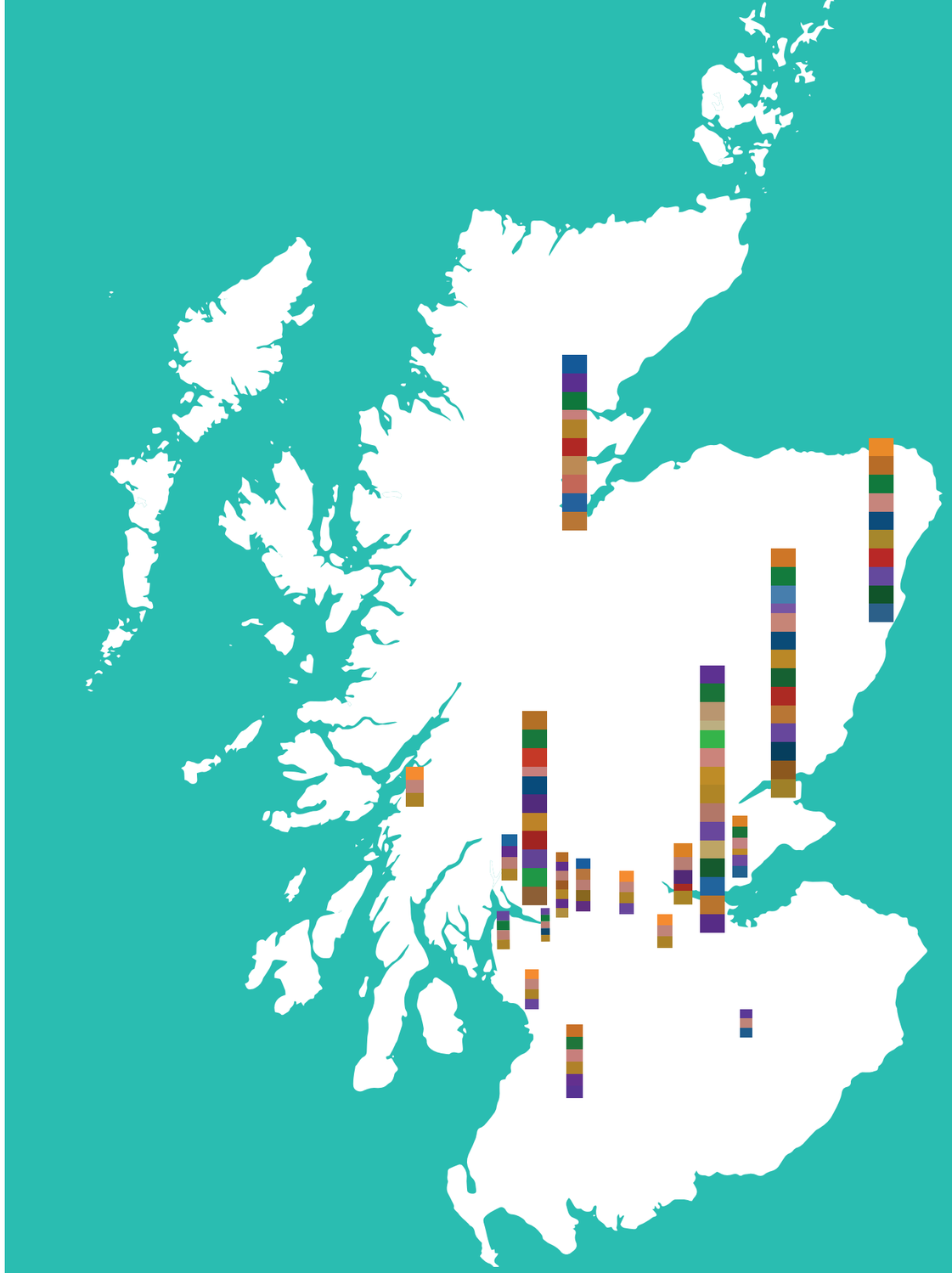
In 2019 we stipulated that NES postgraduate training grants and supernumerary placements would only be supported in those centres participating in self–assessment and the quality monitoring processes.

New process for 2020 Summary
In line with the timescale of 4 yearly accreditation, we will begin the process of centre recognition in 2020. We have engaged with The National School for Healthcare Science who are interested in our approach and who are conducting a similar programme for centre recognition outlined below.

During 2019–20 we began preparations to streamline the process for training centres with a revised self declaration form that the requested Education and Training standards are met and evidence can be made available on request.

Our Advisory Group is content that the approach is viable. We are confident that it will give the assurance required; our confidence is a reflection of the support training centres have given in terms of their engagement with our work.

The next cycle for centre self–assessment will start in October 2020. Guidance will be made available on our Knowledge Network.



Training units are spread across all four NHS Scotland Regions. The colours represent one of 52 healthcare science specialties that combined make up life sciences, physical science or physiology.

Progression of Training

We monitor Annual Review of Competency Progression to help assure training and offer support to trainees.

Annual Review of Competency Progression
Our QA Monitoring processes advocate that all trainees who have been in post for one year or longer are required to submit an Annual Review of Competency Progression (ARCP).

This process (ARCP) has now been running since 2017. Completion of the appropriate Quality Assurance processes are requested for all National Training Number holders, irrespective of whether they are currently receiving funding from NHS Education for Scotland.

All trainees and supervisors are recorded on our Turas Programme Management system and are contacted to inform them of requirements. Guidance is provided surrounding both processes.

Trainees received reminders throughout the processes up until March 2020. The core team has worked hard to engage with initial non-responders; this perseverance has yielded the dividend of an excellent return rate, for which the team is grateful.

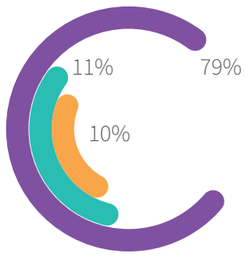
ARCP and Training Plan receipts for 2019 were cross referenced to previous Centre Recognition and Trainer Resume submissions to ensure training accreditation was in place and training supervisors were appropriately trained.

Annual Review of Competency Progression Requests 2019
In total **136 requests** for Annual Review of Competency Progression reports were submitted. All responses were gathered within the Microsoft Forms app within Microsoft Office 365. A response rate of **93.4%** was achieved including submissions, and non-submissions with acceptable reasoning. All ARCP responses have been updated on the Turas TPM system.

Of the 9 trainees who did not submit an ARCP, or contact the team with an acceptable reason for not doing so.

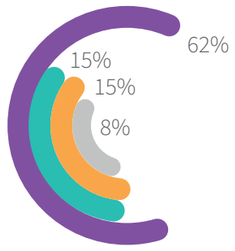
Of **140** eligible trainees, only **10** did not respond, of which **6** were based within NHS Lothian and **7** were clinical physiologists.

ARCP TOTAL SUBMISSION



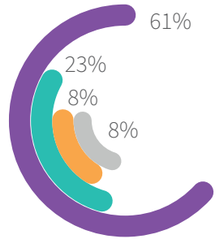
- 108 ARCP Submission
- 15 Response not applicable
- 29 No submission

ARCP NON-RESPONDERS BY SPECIALISM



- 8 Clinical Physiology
- 2 Medical Physics-HCS Clinical Technologist
- 2 Microbiology
- 1 Haematology

ARCP NON-RESPONDERS BY HEALTH BOARD



- 8 NHS Lothian
- 3 NHS GG&C
- 1 NHS Fourth Valley
- 1 NHS Lanarkshire

Training Plans

Training Plans for all registered NTN trainees

Training Plan Requests
Training plans should be completed by the trainee and supervisor together and returned to NES within 2 months into each training year. By having an agreed training plan with the trainee it provides structure and clarity for their training programme and development.

The requests (example represented in the figure below) form part of our role in assuring high quality training programmes across Scotland which is essential in order to maintain standards of training across all disciplines to ensure patient safety.

Conclusions
An overall response rate for the two Quality monitoring processes represented here of **93%** is a good result, however the **7%** of trainees who have not returned a submission are very likely to be the ones with sub-standard training and / or supervision.

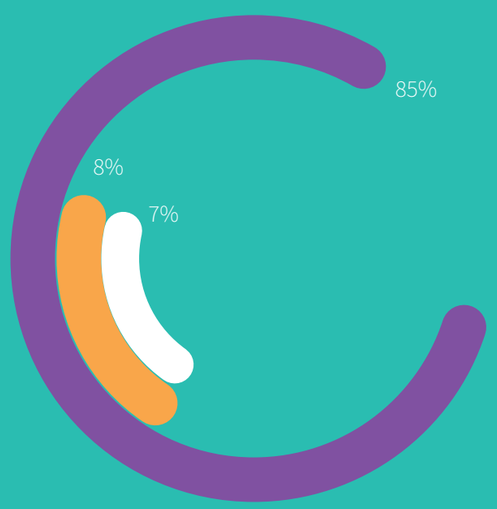
	ACTIVITY	NHS LOCATION	FROM	TO	NHS SUPERVISOR	EMAIL
YEAR 1	MSc Medical Physics, Full-time, Glasgow University	GGC — QEUH Medical Physics	09/18	08/19	Jane Doe	JaneDoe@DummyDept.scot.uk
	Foundation year training — Rotation 1 — Non-ionising radiation	" "	08/19	11/19	John Smith	JohnSmith@DummyDept.scot.uk
YEAR 2	Foundation year training — Rotation 2 — Radiotherapy	" "	11/19	01/20	Jane Smith	JaneSmith@DummyDept.scot.uk
	Foundation year training — Rotation 3 — Nuclear Medicine	" "	02/20	04/20	John Doe	JohnDoe@DummyDept.scot.uk
	Foundation year training — Rotation 4 — Radiation Protection	" "	05/20	08/20	Jack Brown	JackBrown@DummyDept.scot.uk
YEAR 3	Specialist year — Radiotherapy	" "	09/20	08/21	Jane Smith	JaneSmith@DummyDept.scot.uk
	Innovation project	GGC — Clinical Engineering Garthnavel	09/21	03/22	Jane Brown	JaneBrown@DummyDept.scot.uk

316 requests for Annual Review of Competency Progression reports and Training plans were submitted.

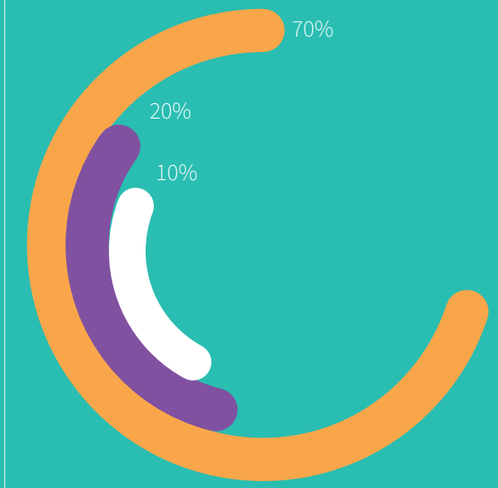
An overall response rate of **93%** was achieved including submissions, and non-submissions.*

*with acceptable reasoning

TRAINING PLAN TOTAL SUBMISSIONS



TRAINING PLAN NON-RESPONDERS BY HEALTH BOARD



180 requests for Training Plans were submitted. A response rate of **97.7%** was achieved including submissions, and non-submissions.*

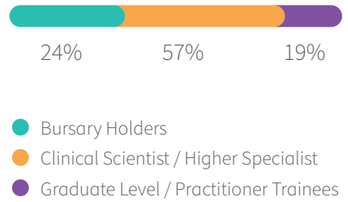
*with acceptable reasoning

Feedback and Annual Surveys
Trainee's Feedback

Individual postgraduate scientist trainees and supervisors are also invited to respondto our annual surveys.

Every year we contact our Trainees and Supervisors as an opportunity for our Healthcare Science community to give us confidential feedback. Questions are related to quality of training in relation to our monitoring processes which provide reassurance that training is going according to plan.

Trainee's Feedback 2019
Our NES 2019 trainee survey involved all trainees in receipt of a NES National Training Number (NTN), and was completed by **69** out of **151** Trainees, i.e. **46%** responding. Our surveys complement the training plan and ARCP cycle as a tool used to gauge the state of training.

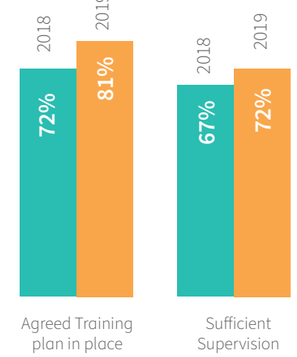


The response rate reflects the nature of a voluntary survey (unlike training planning and ARCP). This year **4.3%** of respondents have reported that they do not have a clear and agreed training plan at the time of survey (Sept 2019). This is a disappointing increase from last year when **1.7%** reported that they had no training plan.

All trainees and supervisors are contacted and asked to provide the NES HCS team with an agreed training plan each year. We encourage any trainee who does not feel they have an agreed training plan to contact us.

The graph below indicates respondents reported they have a full training plan in place and that their supervision is sufficient or at least partly sufficient has increased from in 2019-20; the trend is an increase year on year which is encouraging.

The number of respondents who did not have an ARCP or formal review has decreased from **28.1%** in 2018-19 to **10.1%** in 2019. Whilst this is a welcome improvement, an ARCP is requested of every trainee and supervisor every year; we will be investigating why this the improvement did not go further.



The Trainee's Last word
"...I like that I have very clear goals / expectations from my training, all of which are known from the very start of my 3-year training period..."

Feedback and Annual Surveys
Supervisor's Feedback

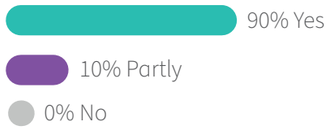
In 2019 the numbers of trainees monitored and issued with NTN increased, particularly as we expanded our reach into the clinical physiology group. For all we requested an agreed training plan and specifically asked supervisors about this.

Our annual survey to the 79 supervisors invited with a response rate of **48%** (39), comprising of **52.6%** from Life Sciences, **30.8%** Physical Sciences and **15.4%** Physiological Sciences.

From past 2018 feedback, respondents wanted clearer guidance on support for Quality Assurance in training. In 2019, we updated our guidance on how to develop a training plan with working examples.

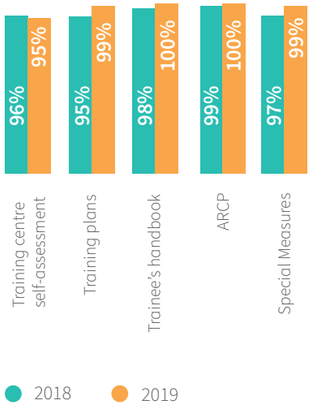
This has proved beneficial with **89%** in 2019 of supervisors responding that they know what is required of the training plans and where to get reliable support for it, compared to **82%** in 2018. In 2019, **62%** stated it is easy to put together a plan.

Question: Do you have a clear and agreed training plan with your trainee(s)?



Our Common Core List describes attributes that postgraduate level scientists should strive to develop irrespective of pathway or specialism. It is reassuring to report that **85.7%** of respondents are sighted on the Common Core compared to **79%** in 2018.

Question: Were you aware of our rules and guidance in monitoring training?



Majority of supervisors responding agreed that the success of the trainee is determined by the support and encouragement received from the supervisor. This is followed closely by respondents who felt it is just as important that the trainee is self-motivated for their own progression.

The Supervisor's last word
"NES is an excellent resource and supporter of training for Scotland. I would quite like some kind of quarterly structured contact re administration of trainees for supervisors. Do feel like we are rather left to get on with it."

Last word from NES
"The HCS team has worked hard to increase communication with both trainees and supervisors in order to ensure everyone is aware of our processes and available guidance. This is reflected in the significant increase in the percentage of respondents who are aware of each process. There are opportunities for improvement; we will continue to communicate directly with trainees and supervisors to increase awareness and engagement."

NES Resources
The Knowledge Network Communities Site

This platform is our principal site for Healthcare Science information for trainees and supervisors.

The Knowledge Network site includes content about training with advisory guidance, CPD opportunities and NES quality monitoring of that training. It is also used as a platform for learning material, posting shared coursework of general interest and for linking delegates and alumni of our courses such as Train the Trainer, Trainees in Difficulty, and leadership courses.

The Knowledge Network site contains information relating to local Healthcare science activity such as the National Leads meetings and events. Trainees are strongly encouraged to become involved in local HCS committees; several Boards operate Healthcare Science trainee networks, which are a good platform to learn about the work of other scientific staff, and to broker rotations, shadowing or collaboration on projects.

During 2019, the NES HCS team improved the accessibility of useful information for training with an individual page for the Trainees and one for the Supervisors.

Welcome Pack for Trainees
A variety of resources of information are available on the knowledge network including a trainee handbook that describes the training process, responsibilities and details of NES's role in supporting training progress through Quality monitoring. This was updated in 2019 and all new trainees registered with a National Training number are issued with this handbook at the start of their training.

NES Guidance and resources available when there is difficulty in training
Our quality monitoring of training progression provides assurances that training is continuing to a satisfactory manner.

Our Special Measures Principles outline NES Healthcare Science approach to cases where either trainees, supervisors or training departments cannot demonstrate satisfactory attainment or maintenance of training standards.

The principles are arranged in order:

- Trainees in difficulty
- Supervisor performance / availability
- Department-level concerns. With each referencing Adverse indicators
- Root cause
- Special measures: action / remediation / outcome

These are available on the **Knowledge Network.**

CPD Short Courses and Additional Learning
Trainer Preparation

Train the Trainer is our one-day generic programme for Healthcare Science trainers and supervisors delivered by the NES HCS core team. We have offered trainer support since 2008 with significant redesign in 2019

The course provides key concepts, principles and techniques of training and learning to help facilitate the design, delivery and evaluation of training and assist training supervisors in applying this within their department. Participants drive the learning as our day is interactive and team-based. It is intended to provide an opportunity to meet and learn from colleagues from across the Healthcare Science community

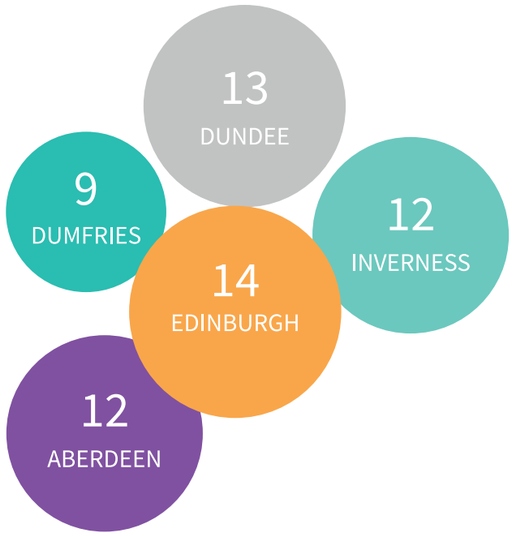
In order to ensure the programme remains fit for purpose and to help inform any future refinements, we summarised participants' views collected in our very brief survey questionnaire 2019.

Participants views
Feedback was gathered from the last **6** cohorts between November 2018 and May 2019 delivered in Glasgow, Edinburgh, Aberdeen and Dundee (**n=22**).

Courses are positively rated, with key benefits being group activities and the ability to share the learning in a collaborative way; In terms of specific content, participants particularly enjoyed the material on learning styles and designing effective learning outcomes.

2019–2020 TRAIN THE TRAINER COURSE ATTENDEES

2019–2020 TRAINEE'S IN DIFFICULTY ATTENDEES



Trainees in difficulty is our one-day generic programme for Healthcare Science (HCS) trainers and supervisors. It has run since 2014 with continuous improvement.

The overarching aims of the programme are:

- To explore why trainees in difficulty arise and the principles underpinning your role as a HCS trainer
- To explore the link with NES Quality Monitoring of training
- To provide pointers for good practice and improvement to ensure resolution of difficulties, and for good trainee and trainer experience

By the end of the session participants should be aware of the main factors of why difficulties arise and mitigating actions and understand our NES role and how we can help.

Participants' views
Feedback from the last **4** cohorts between January and September 2019 in Edinburgh, Glasgow, Aberdeen and Dumfries (**n=19**). The main benefits to reported by participants centred on 2 key aspects;

1 movie clips case studies and
2 group discussions.

Indeed, this delivery format is designed to allow an opportunity to discuss the learning points in an interactive way.

Summary
The Trainees in difficulty programme is viewed very positively by participants with almost universal positive feedback received. There was little evidence that participants felt particular topics should receive more emphasis during the programme which is useful to know.

CPD and Short courses
Additional Learning
Leadership Preparation

Leadership development of health care science staff is an important component of professional development.

Wherever possible we have utilised generic training to support the future leaders during their career progresssion.

In terms of Leadership development, there have been two long-running **4-day** courses for Foundation Leadership and Refreshing Leadership aimed specifically at early and mid-career Healthcare Scientists.

Delivered by the NES Organisational Learning and Leadership Development Unit (OLLD), we have provided considerable input into providing a useful suite of modules.

Foundation / Early Leadership
This programme introduces leadership and management issues and is intended to foster a 'future leaders' mindset. Delivered as part of a cohort, it involves four one-day sessions over several months.

It has four main purposes:

+ Sharing individual leadership development across the healthcare science workforce.
+ Imparting practical skills that are relevant to the challenges in the workplace faced by aspiring leaders.
+ Building HCS identity, unity and visibility.
+ Developing a systematic approach to NHS Scotland's preparation of early career HCS staff to include future learning initiatives

Refreshing Leadership
Refreshing Leadership is intended for more senior HCS staff who are beyond the HCS Foundation/ Early Career stage and perhaps beginning to acquire some managerial responsibilities

The 4-day course articulates with Foundation / Early Career. A key purpose behind the programme is to foster some self-development through action learning and to 'take the lead' in running the final Open Session.

In 2020, NES plans to develop a much more universal Leadership offer which would be available to multiple professional groups such as medicine, NMAHP, pharmacy, optometry, HCS and others.

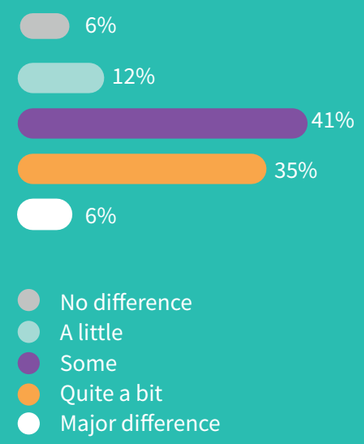
Additional Learning — Leadership Preparation
Feedback Evaluation 2019

Feedback Evaluation Responses
Overall positive feedback from the last 3 cohorts of both leadership programmes responses who have helped shape several rounds of refinement over the years.

The impact of training cohorts over 3 years, n=150 yielded a 25% response.

By how much do you feel the skills you learnt on the course have made a difference to you, your team or the service you provide?

By how much does your role now draw on the learning from the course?



Would you like to add any further comments, for example what the difference attending made to you?

- An excellent, enthusiastc facilitator
- Practical, 'how to' elements of the programme
- Encouragement of participants to consider others' perspectives
- Ability to share learning with other HCS staff
- Consideration of different management styles
- Development of communication, time management, presentation skills and dealing with difficult people/behaviours
- Skills developed being applied

Last word / areas for improvement included:

- The importance of attending the course at the right career stage
- Imbalance in pace of modules (1-3 slower than 4)
- Not all of the skills acquired can be applied in current role (e.g. time management as a band 5 Biomedical Scientist)
- Rescheduling a cancelled module
- More practical learning

CPD Short courses and additional learning
E-Learning / TURAS-Learn

TURAS Learn has a Health care Science specific zone for specialty-authored content. TURAS which is a multi-profession repository for learning material.

In mid-2018, we tested the appetite for a HCS e-Learning zone on TURAS Learn. We have had some interest in this and have started building a set of resources based on content provided by service. Benefits of hosting an e-Learning zone on Turas Learn include a modern, accessible national platform that is tablet / mobile friendly.

Our approach is to offer all disciplines the support required to publish its validated e-Learning content on our platform, thereby making it accessible to a much wider audience and in a controlled manner.

Turas includes single sign on, data sharing capacity and Learn features personalised learning records, reporting and user feedback.

It is a Once for Scotland solution and best of all it's free! In 2019, the team have developed **7** modules which are live and commenced a further **7.**

Links
TURAS | Learn
E-Learning Modules

ELEARNING MODULES SUPPORTED BY HCS NES TEAM

E-Learning Module	Status (March 2020)
Intro-to-Nes	Active on TURAS
Training Plans	Active on TURAS
Self-assessment	Active on TURAS
Radiation Safety in Theatres	Active on TURAS
Medical Devices	In Development
Introduction to Laboratory Genetics	Active on TURAS
Peer review of service	In Development
CPD and Reflective Practice	In Development
How to run a journal club	Active on TURAS
How to run Public Engagements for HCS careers	Not started
Radiation Protection - Radiation Physics	In Development
An introduction to clinical audit	In Development
Genetic and Genomic techniques and abnormalities	In Development
Hereditary Genomics and Cancer Genomics	In Development
MRI Safety	In test phase

Details of how to develop e-Learning on Turas are available as a short how to resource on our **HCS Turas site**.

NES Healthcare Science Events
2019–2020

At NES and our Healthcare Science communities, we continue to promote the amazing work of healthcare science professionals by highlighting the difference they make to patients' lives.

Left to right:
Melissa McNaughton, Clinical Scientist with Poster Winners - Amy Norton, Flora Dix, Michele Rooney, alongside Rob Farley, Programme Director.

HCS National Event
Healthcare Science Annual Event.
Getting and Staying connected,
19 & 20th June 2019,

The Studio, Glasgow. The annual national conference is the key networking and awareness raising event for Healthcare Science in Scotland. The event takes place over 2 days, with the first day focusing on how we can continue to drive the quality of our services for patients.

Day two, highlighted key areas in NHS Scotland Laboratory Medicine that are driving transformation at a national and regional level. Updates were provided on the programmes of work within the Scottish world of laboratory medicine and interactive displays of demand optimisation, digital pathology and emerging business intelligence data.

Healthcare ScienceTrainees and Supervisors
February 7th 2020,
COSLA, Edinburgh

Attended by around 120 delegates, our annual event is in support of our trainees and supervisors in Healthcare Science. This year was also chaired by a trainee and the speakers included some success stories from our emergent scientists - detailing their careers as they develop their advance practice.

Our event is an opportunity share good practise and engage with us in our role in assuring training across Scotland. Our workshops explored issues relating to equivalence and registration – some generic principles, STEM, building a network, and developing resources to support scientific practise. Posters were displayed and prizes for the best poster submissions were provided to showcase trainee projects.

Promoting Healthcare Science

NES is pleased to support many of those Healthcare Scientists who are engaged with science promotion, schools engagement and professional body activities —all an essential part of their development as scientists

Healthcare Science at STEM
Ann McQuiston, NHS Education for Scotland, Specialist Lead, supporting The Prince's Trust

Despite many young people being interested in science, many still see it as "Not for Them" and accordingly, fewer are studying STEM subjects. Ann has supported meetings with Scottish Government and Healthcare Science Leads to discuss upcoming Healthcare Science events Scotland wide and how best to share and promote them using newly created NES Resources.

Careers website for schools for Healthcare Science
Martin Bryce, NHS Education for Scotland Careers.

Between April 19–March 20, the team promoted Healthcare Science careers through a number of activities such as the National Scottish Government recruitment campaign, which included Healthcare Science roles.

Career leaflets for the 3 streams of HCS were created to promote Healthcare Science careers and these were launched at the Skills Scotland events in November 2019. (**FIG 1)**

Working with Healthcare Science colleagues the team also developed new profiles that were previously not available on our website.

Skills Scotland Event 2019
NHS Education Scotland Careers staff, NES HCS team and NES supported Healthcare Science trainees all engaged Skills Scotland Event held in Aberdeen, Edinburgh and Glasgow.

This event brought together young people face-to- face with employers. The event helps young people transition into the world of further study, work or apprenticeships.

FIG 1 CAREER LEAFLETS

Promoting Healthcare Science
Healthcare Science Week

Healthcare Science Week
6th March–15th March 2020

National Healthcare Science Week is celebrated every year to raise awareness of the many diverse and interesting careers in healthcare science

Brings together all the diverse professions and provides an opportunity to promote the vital role they play in patient care, diagnosis and treatment to the public and our future healthcare scientists

Promotion of Healthcare Science week took the form of raising awareness either as stalls set up at local hospitals engaging with the public to using social media to get the message across of the good work we do.

NHS Scotland Careers team at NES helped promote HCS week by publishing career stories, promoting job profiles on their website and asking the Healthcare Scientist community to participate in their placard campaign.

A great response and engagement from our colleagues across Scotland was shared across different Social media campaigns.

During HCS week, on Facebook approximately **1600 people** interact with our posts. This includes shares, likes and people visiting the careers website to read more about job profiles and case studies. On Twitter we had **1450** people interact with our posts, which includes **300** people visiting the website to find out more.

Celebrating Success in Healthcare Science

Several NES supported healthcare sciences trainees and their departments participated in the AHC awards. These are a national exclusive award programme.

The Advancing Healthcare Awards April 2019, The Advancing Healthcare awards are a national exclusive award programme that recognises the work of Allied Health and Healthcare Science professionals. In this year's award ceremony gave recognition to 4 groups of our Scottish Healthcare Scientists for their achievements.

This year the School of Health, Science and technology was recognised for the work carried out in relation to career development and workforce sustainability. The School, sited at St John's Hospital, was established on 2nd February 2013 and is the result of a formal partnership between NHS Lothian Department of Laboratory Medicine and Fife College.

The partnership enabled the Department of Laboratory Medicine to work with an academic provider to start to develop a formal career pathway through which staff could progress in an attempt to overcome the recruitment and retention issue that they faced at the time.

The School currently offers early career programmes to current NHS laboratory staff, employees from external science companies and school students within the West Lothian area. School engagement work carried out has increased student awareness of the variety of career routes within the Healthcare Science.

The partnership is currently working with University of Edinburgh to develop both their full time and part time routes for Biomedical Science.

Winners for the Scottish Government Award: Driving Improvement, Delivering Results:
Yvonne Bay- Fife College, Claire Cameron Education and Training Manager/NES Principal Lead, Sarah Smith, Education and Training Lead, Lynne Taylor, Education and Training Manager NHS Lothian.

Our Scottish Healthcare Scientist Finalists

Viapath award for innovation in healthcare science
Rebecca Pattenden, consultant biochemist &
Catriona Clarke, principal biochemist, NHS Lothian Improving the diagnostic accuracy of Type 1 diabetes using C peptide testing

The Scottish Government Award
Driving Improvement, Delivering Results
Jill MacLeod, senior chief respiratory physiologist &
Tracey Bradshaw, consultant respiratory physician, NHS Lothian.
The earlier use of fractional expired Nitric Oxide (FeNO) — challenge testing improves asthma diagnosis.

Rising stars UK National award winner
Selas Jennings, a recent NES supported trainee
now Clinical Scientist cardiac physiology,
NHS Greater Glasgow and Clyde

NES Healthcare Science
Advisory Group

Our NES Healthcare Science Advisory group Members were able to meet at Westport in February 2020, our last group engagement prior to the pandemic lockdown.

NES has an Advisory Group to act as a key stakeholder group on a range of HCS education and training matters.

Members review and critique NES Healthcare Science activity, and highlight workforce priorities. The group comprises of representatives from the three healthcare science strands, education sector, workforce and government stakeholders

The NES advisory group meeting was attended in February 2020.An overview of the commissions, CPD and quality monitoring work done were the main agenda items to be discussed and advice sought.

The NES team discussed the demand from training places for clinical scientist schemes, for postgraduate bursaries, and arrangements for clinical physiology training. It was emphasized that irrespective of funding stream, NHS Scotland as our employer has the authority and right to understand the state of training in its systems – and that the only agency that can provide such monitoring is NES, irrespective of trainee's funding source.

A summary of the Scottish Government Workforce Plan (Dec 2019) and the expectations from this was discussed.

Actions from our Advisory Group

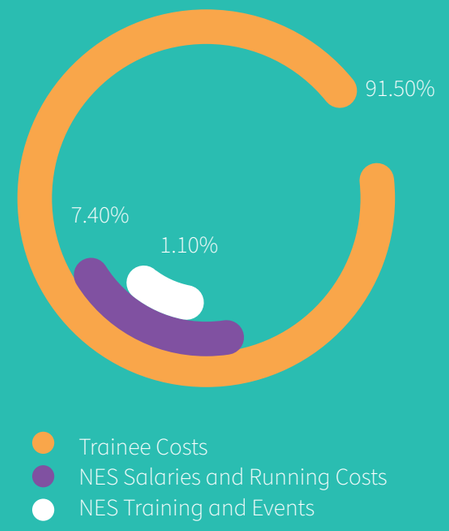
- NES Team to check self-assessment critera against HCPC standards of education and training
- Refine online ARCP and develop a basic resource to guide meaningful reviews
- Continue to develop our Quality monitoring programme and incorporate trainers/ supervisors into the TURAS listing
- Produce a summary of NES HCS financial resources.
- Refine and publish CPD resources regularly

Our advisory group meetings and minutes are available on our **NES website.**

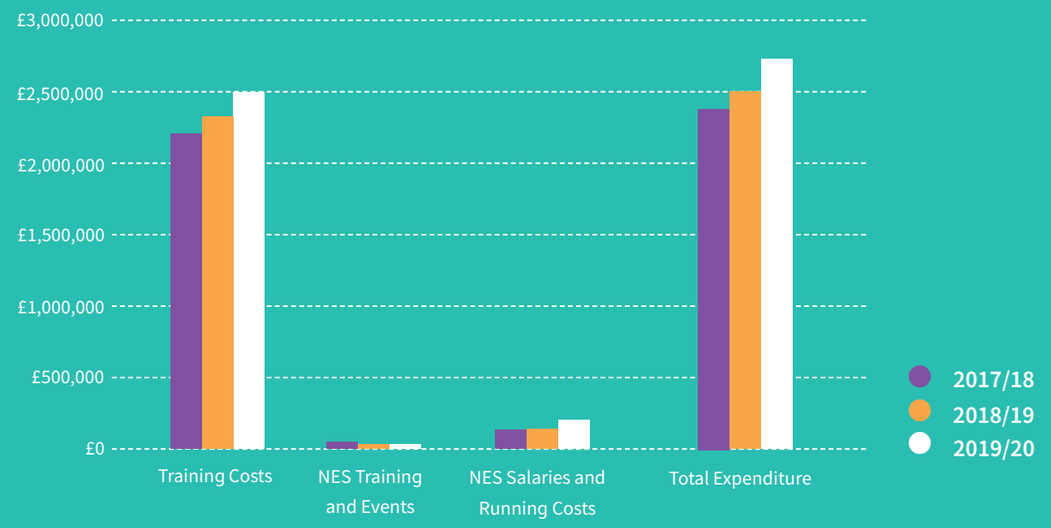
Financial Summary NES HCS
March '19 – April '20

NES HEALTHCARE SCIENCE NET BUDGET

NES HCS RESOURCES SPEND 2019/20 AS % OF TOTAL



NES HEALTHCARE SCIENCE NET BUDGET



Future Objectives
2019–2020

Over the last decade, considerable work has been done to streamline training arrangements through the UK-level Modernising Scientific Careers programme, and to shape the identity of the scientific workforce. At HCS NES, we will continue to support and monitor the quality of training in the Healthcare Scientist workforce.

2019–20 Objectives
To review and improve our centre self-assessments for the next cycle of training accreditation

- National Training Number records to be further expanded to extend our invite to all healthcare scientists in training.
- Development of our CPD offer through e-Learning opportunities for the HCS community on Turas Learn — Healthcare Science e-Learning site.
- Delivery of more face-to-face CPD courses with our revised Train the Trainer and Trainees in Difficulty in various locations throughout Scotland.

At HCS NES, we will continue to support and monitor the quality of training in the Healthcare Scientist workforce.

Main Points
The Healthcare Science workforce does fantastic innovative work daily. Patients and service users entering the healthcare system have the anxiety of "waiting for tests" — their fortune hangs entirely on the Healthcare Scientist's ability to contribute to their pathway safely and accurately.

Irrespective of whether HCS is in a patient facing role or working with patient samples and specimens, their work informs and helps steer medical and surgical decision — making for patients; outcomes in modern medicine rest on safe, accurate tests and measurements.

Acronyms
2019–2020

ACS	Academy of Clinical Scientists
AHCS	Academy for Healthcare Science
ARCP	Annual Review of Competency Progression
CCL	Common Core List
GSP	Good Scientific Practice
HCPC	Health and Care Professions Council
HCS	Healthcare Science
IBMS	Institute of Biomedical Science
IPEM	Institute of Physics and Engineering in Medicine
NES	NHS Education fro Scotland
NSHCS	National School for Healthcare Science
NTN	National Training Number
OSFA	Objective Final Structured Assesment
OLLD	NES Organisational Learning and Leadership Development
SG	Scottish Government
STP	Scientist Training Programme
TPM	Turas Training Programme Management
TURAS	NES app that includes TPM

NHS Education for Scotland
Westport 102
West Port
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