

Are STPs the future of technical services?

1 Introduction

How is your workplace coping with the stress of staff shortages?
Are fewer people interested in a career in technical services?
Do you need to expand your workforce?

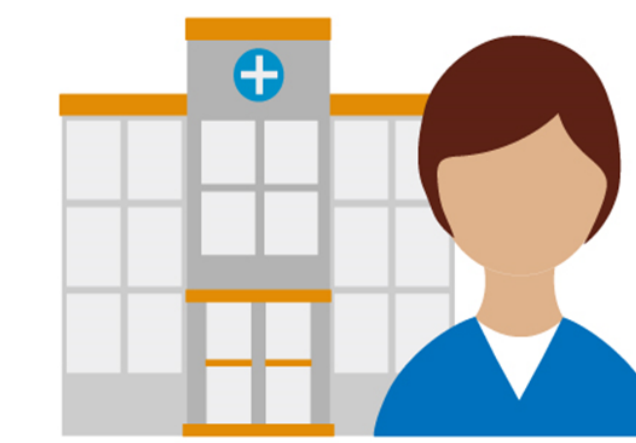
The STP is an NHS training course aimed at recruiting highly skilled scientists into Healthcare Scientist roles. The programme has recruited multiple cohorts into the specialism of pharmaceutical science and the course has evolved over time. In this review, the aims of the programme are explored, examples of project work that STPs have conducted are displayed and feedback is shared from current and previous trainees.

- An overview of the STP programme and how it can be utilised to its full potential: The Scientist Training Programme (STP) is a hybrid 3-year course consisting of university study and placements within NHS technical services. The Pharmaceutical Science specialism covers the areas of Quality Assurance, Aseptics, Production and Radiopharmacy. Trainees develop their leadership skills and professional practice, with the aims of becoming scientists who can lead in innovation and research within the NHS.
- A delve into past and current STP trainee experiences, project work and their contributions to NHS technical services: examples of STP trainee project work are showcased, demonstrating how they have contributed to and benefitted their host Trusts.
- Feedback from current and alumni trainees: This data is key for understanding STPs' technical backgrounds, their opinions of the programme and demonstrates how the training equips them for a future in NHS technical services. This information can be used to inform understanding of the role of pharmaceutical scientists within the NHS. Healthcare science is a growing field, with ambitions set out in the NHS long-term workforce plan to increase training places by 32% by 2031/32(1).

2 Scientist Training Programme Structure



- University**
- MSc in Pharmaceutical Science
 - Academic Teaching and Assessment



- Employer**
- Work-based training
 - Practical training and Assessment
 - Contract of Employment

STP Rotations

During their 3 years of training, STPs will rotate around different areas of technical services to give them broad experience and to ensure that they are well-rounded in their training. Areas of rotation include:

- Quality Assurance
- Quality Control
- Production
- Aseptics
- Radiopharmacy

They conduct a research project for their masters qualification and carry out professional development activities. They are assessed through training assignments, observed clinical events and demonstrations of practical skills.

At the end of the course they are assessed in a viva-style format, where they are asked questions and need to be able to respond to example scenarios.

3 Objectives

What? In this review, data has been gathered on the backgrounds, experiences, career pathways and project work of both past and current trainees; with the aim of exploring how the programme has prepared them for a role in technical services.

Why? This data can help to better inform employers on how to best utilise the skills and knowledge of STP graduates, in a time of rising pressures on the technical services workforce.

4 Methodology

Data has been gathered using an online questionnaire sent out to past and current Pharmaceutical Science STP trainees. This questionnaire was formulated to gather a trainee's perspective on the training programme, exploring how it prepares them for a role in technical services and also providing an insight into the type of project work they carry out.

5 STP Backgrounds & Experience

STPs, both current trainees and alumni, were asked to complete a questionnaire which included questions on their backgrounds and experience prior to starting the course.

It was found that the majority of trainees come from a chemistry background. This degree typically lends itself to analytical skills, critical thinking and problem solving skills. However, STPs are not exclusively from this background and there is a wide array of relevant degrees which STPs apply from.

It is a requirement for hire to the STP that you must have a relevant scientific degree. Many trainees have additional skills and a knowledge from other experiences such as further study/PhD and industrial experience. Very few trainees had experience in pharmacy or aseptic services highlighting how the programme is an integral route for people from a scientific background to gain access to careers in technical services. It may also be beneficial to consider how the STP is advertised to ensure that NHS technical services is seen as a viable career path.

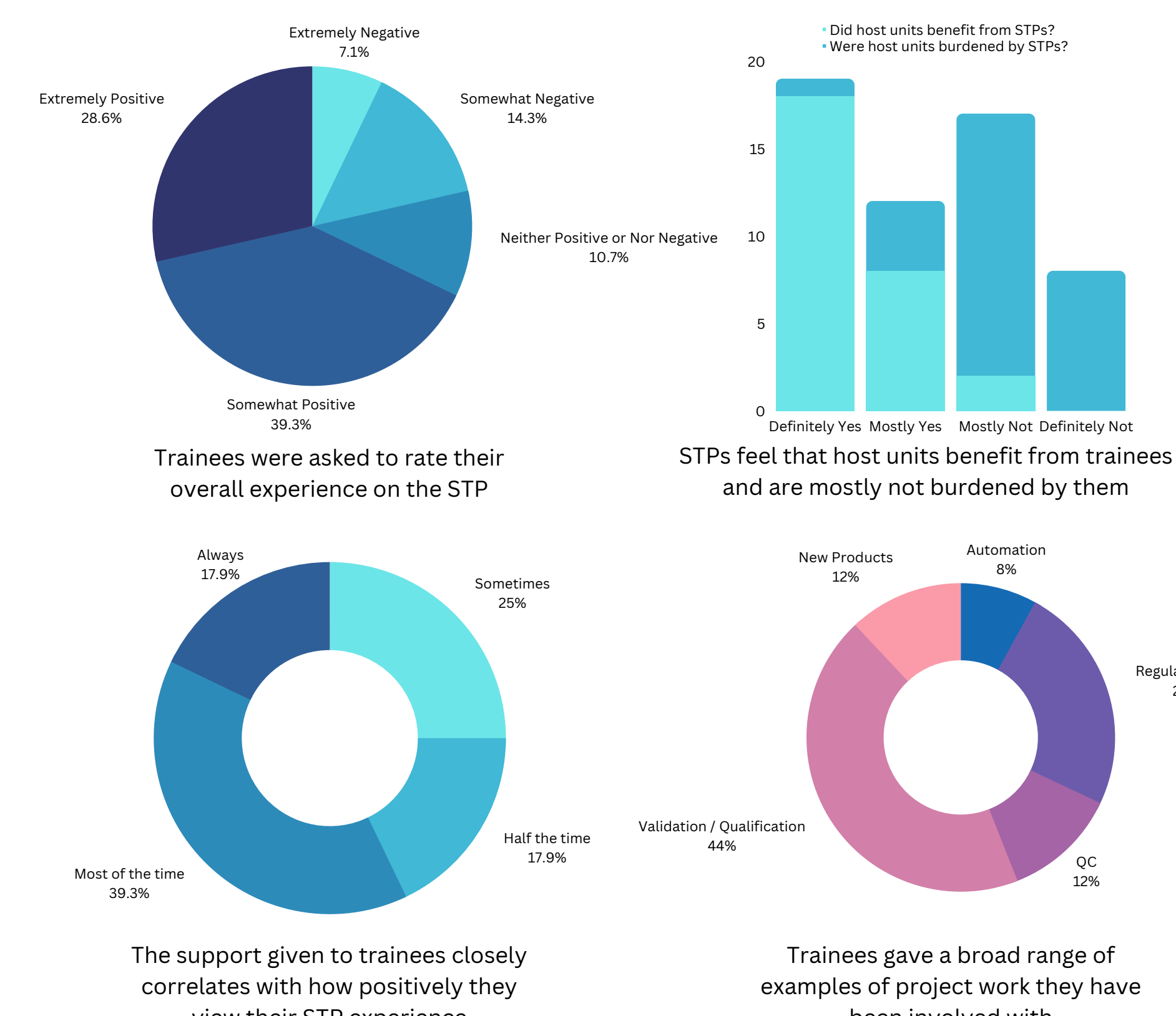


6 STP Programme, Projects & Training

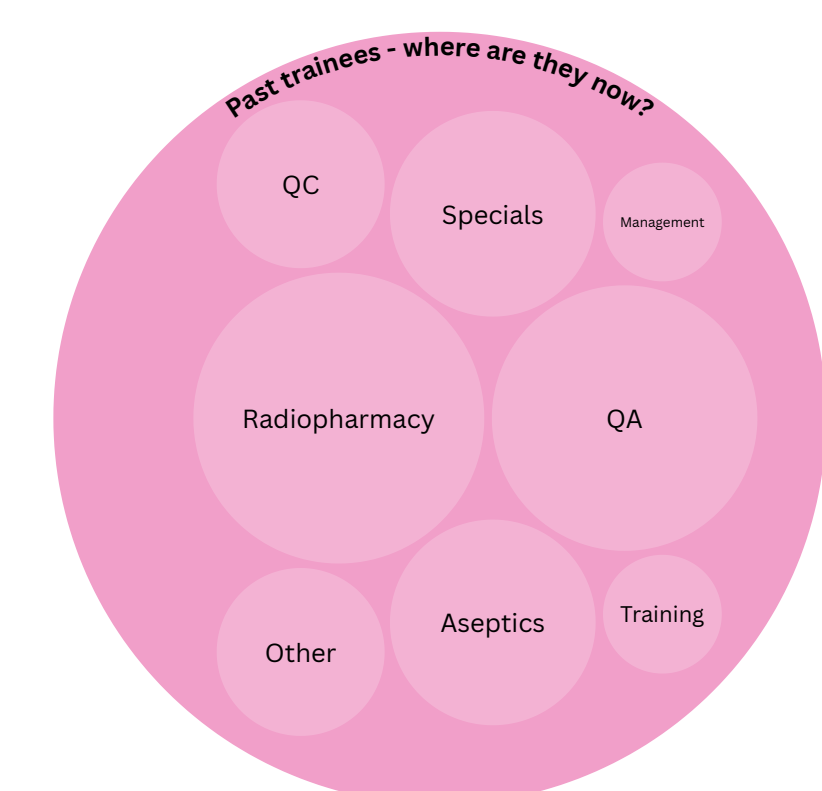
Trainees were asked to give their opinions of the STP programme and to rate their overall experience from extremely positive to extremely negative. Around 70% of trainees have a somewhat positive or extremely positive experience. This is reflected in the number of STPs that would recommend the course to a friend or colleague (75%). Interestingly, there is a direct correlation between trainee satisfaction and the support they receive whilst on the course. This indicates that for this to be a sustainable workstream trainees must be supported in their training.

The vast majority of STPs within the specialism feel that their host units have greatly benefited from their contribution over their training period, with very few feeling that their host unit was burdened by having a trainee.

During their training, STPs have carried out an array of project work; from working upon the qualification and validation of new equipment within their respective units, to the development of formulations for new products. This further supports the conclusion that trainees have a diverse set of skills on completion of the course.



7 Workforce: STP Alumni Roles & Future Opportunities

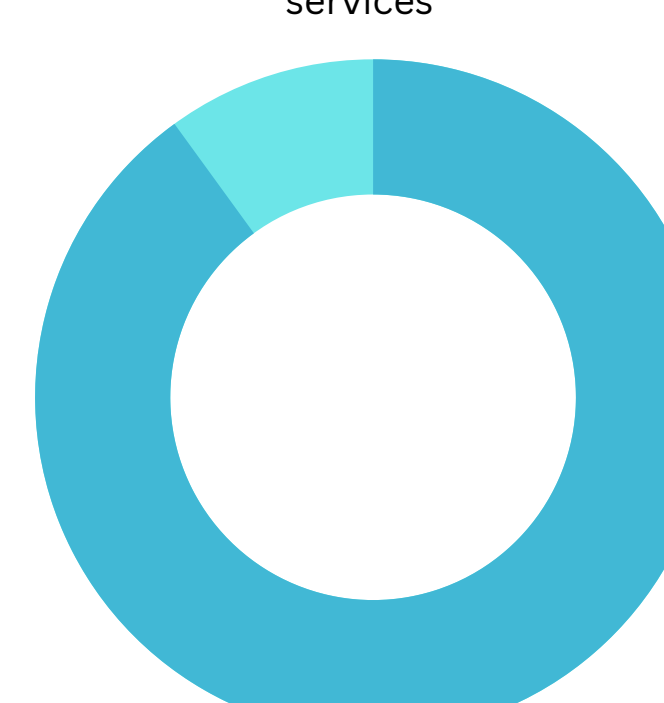


Of those surveyed, the majority of STP alumni have gone on to work in NHS technical services. Of those who now work in the NHS, 75% are based in Radiopharmacy. Roles tend to have a strong focus on QA and they are heavily involved with quality system management. 72.8% of previous trainees felt that the STP had prepared them either extremely well or very well for their current role. This indicates that the course is good at training scientists for future roles within technical services, however it does leave some room for improvement.

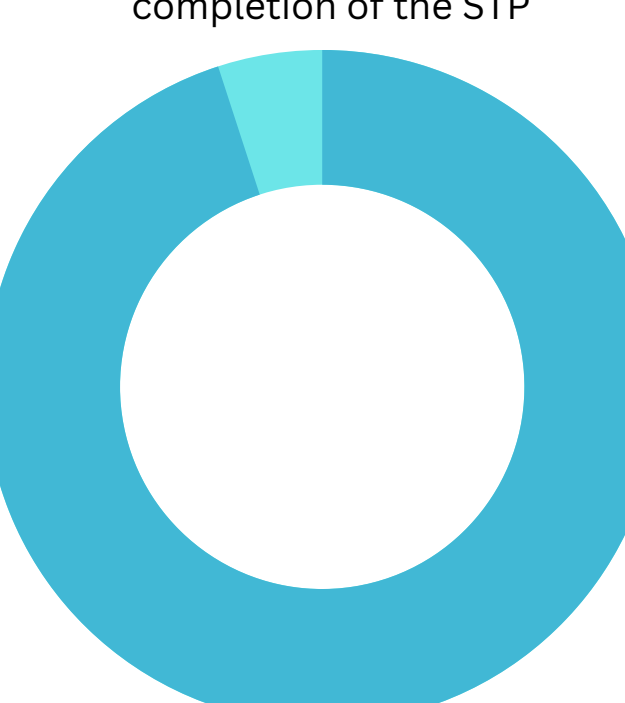
STPs were asked to give feedback on where they felt the STP programme could improve. The responses were varied and therefore difficult to categorise effectively. One area for improvement that was mentioned was communication and organisation for the university aspect of the course. This is reflected in the results showing less than half of the trainees feel the university aspect of their training was very useful or extremely useful.

Conversely, when STPs were asked to give feedback on the most beneficial aspects of the training they highlighted on the job learning, project work and rotations around different specialty areas. A number of trainees said that the hybrid nature of the course, ie. workplace exposure alongside the academic learning, was helpful for their learning.

90% of STPs feel their training is relevant to a future in technical services



95% of current trainees are open to or want to work in NHS technical services following completion of the STP



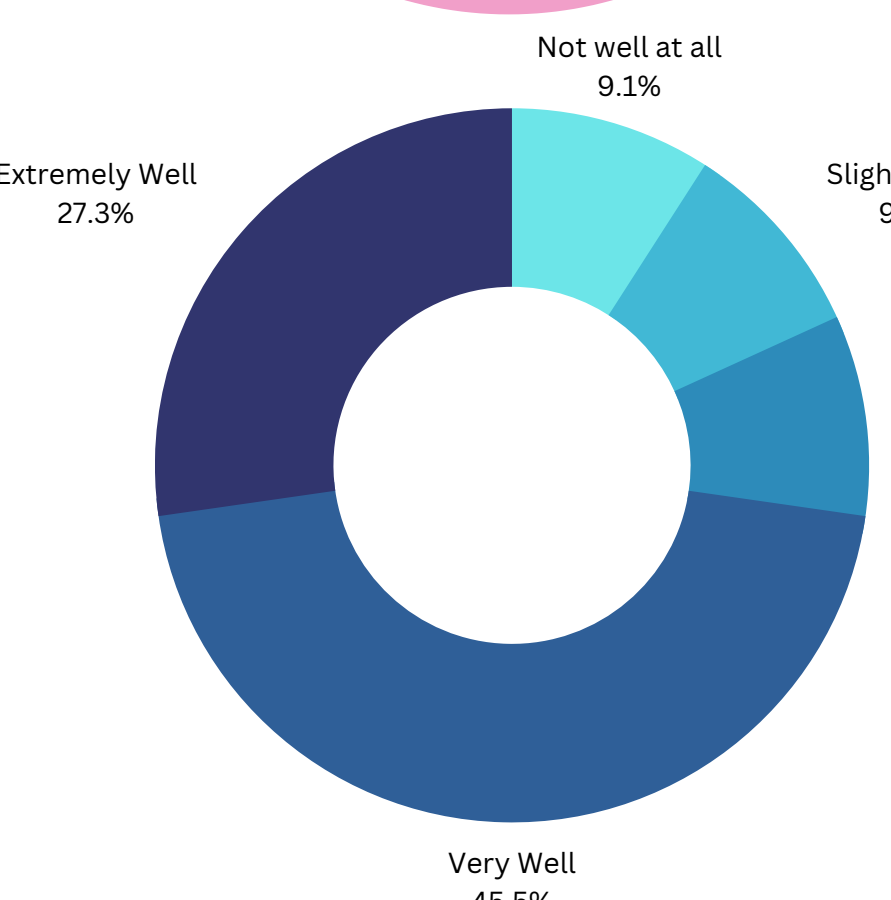
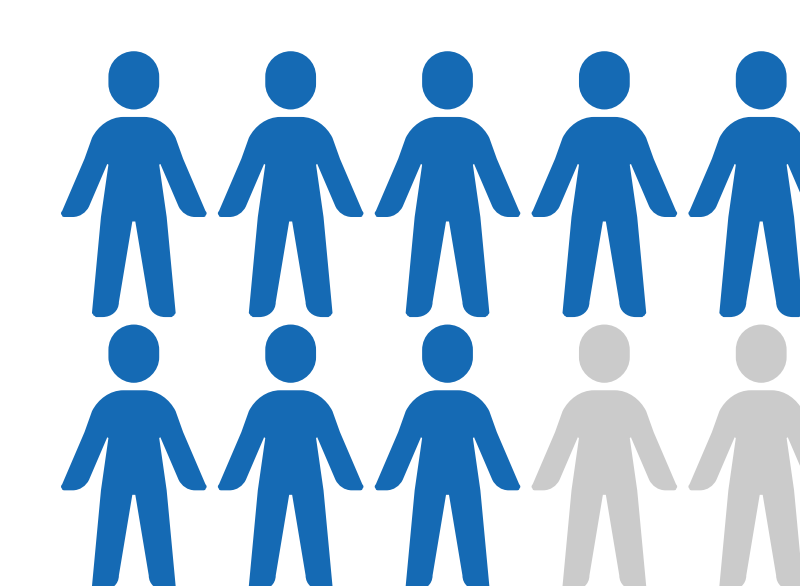
Approximately 95% of current trainees can see themselves working within NHS technical services following completion of the course. This means that the NHS has the possibility of a retention rate much higher than is currently seen.

There is however, mixed opinion of the career opportunities for pharmaceutical scientists in the NHS. Two thirds of STPs think there is probably or definitely roles available for pharmaceutical scientists within the NHS, however this is a low level of confidence when compared with the number of trainees who are open to working in technical services following completion of the STP. This was reflected in the comments by some of the trainees when asked where they thought the STP could improve.

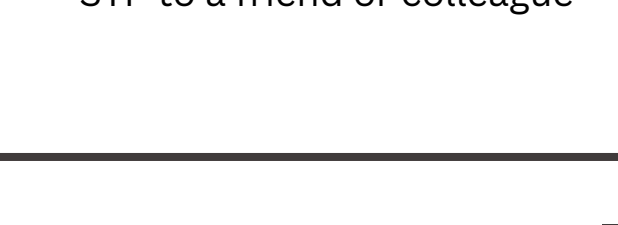
"There does not seem to be many (if any) jobs currently advertised on NHS jobs." Quote from trainee.

The NHS workforce plan outlines a 30% increase of training places by 2031/32(1). This naturally lends itself to a discussion of roles for STPs following completion of the course. If the NHS wants to address staffing shortages in Specials and Aseptics units by utilising STPs there needs to be suitable roles available for them. As demonstrated by the feedback, the STP programme provides scientists with many transferable skills and the knowledge of pharmaceutical quality systems. Arguably, if the knowledge, skills and time invested in training is not utilised by the NHS, it will be utilised by the pharmaceutical industry.

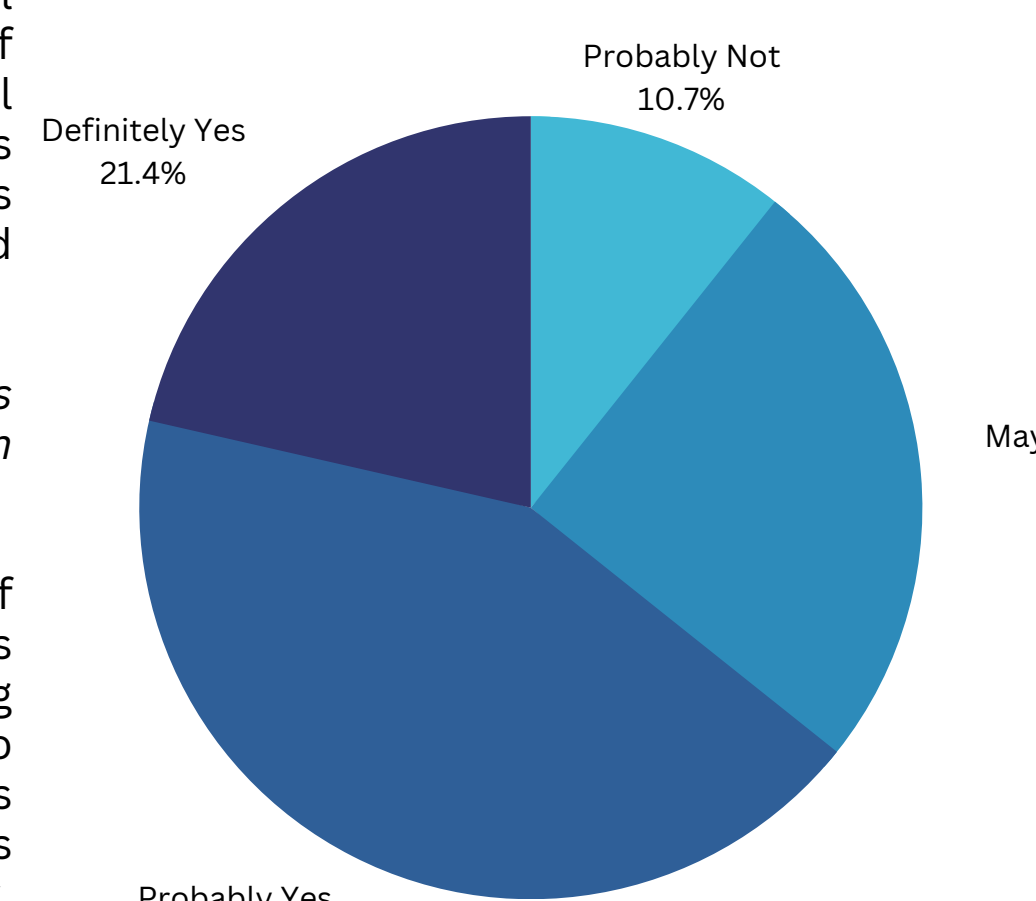
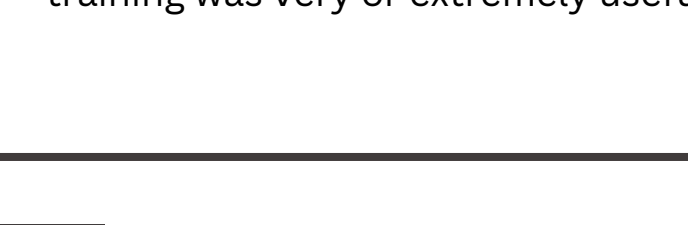
80% retention of trainees within technical services



75% STPs would recommend the STP to a friend or colleague



43% feel the university aspect of their training was very or extremely useful



8 Conclusions

When utilised to its full potential, the STP programme is a beneficial and rewarding scheme, promoting a symbiotic relationship between the trainees and host units. Data gathered indicates that it can be an excellent route for gaining technical workforce within the NHS. The survey results prompt an interesting discussion regarding workforce development with pharmaceutical scientists, and how STPs could be effectively employed following training.

9 Future Work

Broadly speaking, this research gives a good indication of the experiences of STPs and how they may be utilised within technical services. To improve the reliability of the data, the sample group needs to be expanded and it would be interesting to reach out for feedback from units about how they anticipate STPs could be utilised in the future. This data could then be used to help develop roles suitable for pharmaceutical scientists which might address the needs of the unit. Alongside this work, it would be helpful to consider how technical services may need to evolve with a changing landscape and the introduction of pharmacist independent prescribing within the degree course, which may cause further pressures on workforce(2).

References:

1. NHS England (2023) NHS England » NHS Long Term Workforce Plan. <https://www.england.nhs.uk/publication/nhs-long-term-workforce-plan/>.
2. General Pharmaceutical Council (2023). <https://www.pharmacyregulation.org/education/standards-pharmacy-education/faq-reforms-initial-education-and-training-pharmacists>.