

NHS Health Education England

HEE's Advancing Dental Care Review: Final Report

Blueprint for future dental education and training to develop a multi-professional oral healthcare workforce





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Joint Foreword

Dental care became part of the NHS in 1948 and remains integral to the service. Much of the NHS has transformed since its creation and that continues today as the Government moves to deliver its vision for an integrated NHS set out in the 'Integration and Innovation' White Paper¹. The White Paper proposes to reform the NHS architecture in England so health and care services can work more closely together and focus on the health of the population, not just the health of patients, building on the commitments in the NHS Long Term Plan². This principle of reform also applies to the training of the current and future workforce: HEE has an ambitious professional healthcare education reform agenda to ensure the future integrated healthcare service has an agile, multi-disciplinary workforce to help address health inequalities and the causes of ill-health.

Population health has a dual focus on improving health and reducing health inequalities. This includes inequalities in oral health. The evidence from the three-year ADC Review is clear: there are inequalities in population oral health in different parts of England, oral health needs are changing, advances in technology and innovation are changing the delivery of NHS services, workforce expectations and priorities are changing and to train a world class, modern dental workforce requires reform of the current dental education and training infrastructure.

This concluding report of the Review sets out HEE's blueprint for reforming the postgraduate dental training structure and developing and optimising the skills of Dental Care Professionals (DCP) through the education and training pipeline. The current training models are outdated and siloed, preventing learners and trainees from receiving a holistic experience across secondary, primary and community sectors. Our ambition is for a dental education and training model that enables opportunities for greater movement of dental trainees and DCPs to gain a breadth of skills and experience in different clinical environments. This will help to produce well-rounded clinicians who can work alongside different professions and deliver team-based care to patients safely. We therefore consider the ADC Review proposals as evolution, not revolution, of dental education and training.

The blueprint for HEE's programme of reform has been shaped by patients and trainees who participated in the ADC Review. There is evidence that patients support the move towards team delivered dental care and increasing the use of DCPs in delivering oral healthcare, especially if this helps increase access to NHS care. Patients also want training to have a stronger focus on addressing communication skills, prevention and behaviour change as well as traditional practical skills. Trainees want training models which offer leadership training, more flexibility in how they train and a breadth of experience in different training environments. DCPs told the Review they wanted more opportunities to develop their skills and train and work in multi-professional environments.

At the heart of our proposals is working with partners, in an evolving NHS context, to achieve our vision for an agile multi-professional oral health workforce. In proceeding with our plans for reform through a four-year Dental Education Reform Programme, it is imperative that the design and delivery of future postgraduate dental training models align with the Integrated Care System (ICS) architecture³. Alongside the ongoing work to reform the 2006 NHS dental contract⁴, it will be critical that ICS devolved commissioning powers support the dental education and postgraduate dental training pipeline to evolve into one which is receptive to population oral health need; enabling oral health care to be integrated into the primary care landscape.

¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/960548/integration-and-innovation-working-together-to-improvehealth-and-social-care-for-all-web-version.pdf

² https://www.longtermplan.nhs.uk/publication/nhs-long-term-plan/

³ https://www.gov.uk/government/publications/working-together-to-improve-health-and-social-care-for-all/integration-and-innovation-working-together-to-improvehealth-and-social-care-for-all-html-version

⁴<u>https://www.england.nhs.uk/primary-care/dentistry/dental-commissioning/dental-contract-reform/</u>

The ADC Review reform proposals come at a time when the NHS is recovering from the greatest health challenge of a generation. The impact of COVID-19 has tested every part of the UK infrastructure, particularly the NHS. The global pandemic has severely limited access to dental services and disrupted dental workforce education and training. According to Healthwatch⁵, many people struggled to access routine and urgent dental care. The pandemic has also exposed health inequalities and had a disproportionate impact on Black, Asian and Minority Ethnic patients and NHS staff. The time needed to recover both services and lost training time is significant and the pressures from the pandemic will be felt beyond 2021. Supporting both the recovery of NHS dental services and patient access to it will require a future world class dental workforce working as a team with the right mix of specialist, generalist and extended skills distributed equitably across England.

The importance of oral health has not always been recognised as a priority, but the ADC Review puts a welcome spotlight on how reform can be effected to ensure that, in the following decades of the 21st century, a well-trained and educated dental workforce that works as a team, integrated with other parts of the NHS and care sector, continues to be available to meet the changing needs of the population in England.

Finally, we would like to thank the Chief Dental Officer Dr Sara Hurley and the ADC Assurance Board for supporting and guiding the Review throughout its duration. Similarly, the level of engagement with the Review across the dental sector has been truly impressive with everyone displaying a shared purpose to develop a world class future dental workforce.

Professor Wendy Reid, Executive Director of Education and Quality and National Medical Director, HEE

Professor Simon Gregory, Deputy Medical Director and Senior Responsible Officer for the ADC Review, HEE



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Foreword from the Chief Dental Officer

The COVID-19 pandemic has undoubtedly challenged the delivery of safe dental care as much as it has proved a challenging time for the dental sector. Throughout the pandemic the profession has demonstrated its adaptability in stepping up to the challenges, stepping into new roles, applying their skills and training with compassion in a variety of care settings. The acknowledged commitment of the dental profession across the health and social care sector throughout COVID has created a paradigm shift in an appreciation of the contribution of the dental profession to wider healthcare imperatives.

Whilst no one can say with certainty what the consequences of this pandemic will be many assumptions, long taken for granted, have been displaced and many lessons learnt. In March, the Government asked NHS England and NHS Improvement to take forward the next stages of dental system reform with a focus on addressing inequalities, preventive dentistry and evidence based care for patients with the most needs. As this work continues it is clear that the intent and ambition of the HEE ADC reform proposals is aligned with the anticipated transformation, supporting the profession with a clear line of sight for the development of career portfolios, with learning and training opportunities that will drive the transformation, improve quality of care as well as add to professional satisfaction.

With the publication of the final report of the Advancing Dental Care Review we can confidently commence the shift from concept to implementation. This is both timely and necessary if we are to future proof and support the various NHS system reforms and Long-Term Plan population health goals. In setting the conditions for the preparation and further expansion of the role of our multidisciplinary dental teams operating across the broader spectrum of care environments the ADC Review complements the NHSE/I People Plan. Critically the ADC deliverables ensure that the enhanced oral health clinical leadership roles that emerged through the COVID response are robustly ingrained into the Integrated Care Systems (ICS) and Primary Care Networks (PCN) as they develop.



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From the outset of the ADC Review the founding ambitions for social mobility and diversity, ensuring talent is nurtured and potential is realised with a wider range of entry routes into training, agile lifelong learning with increased opportunities for research and continuing career development have been sustained. In meeting our patients' needs the demands on the multidisciplinary team continue to increase and we must ensure that every individual's scope of practice is optimised. The report has not wavered from these ambitions and clearly sets the conditions for supporting a capable and motivated dental workforce that reflects the diversity of the population it cares for, preparing a dental workforce that can confidently and competently operate across healthcare, leading on oral health as an integral element of general health; putting the mouth back in the body of the patient and back into the body of the health and social care system.

The culmination of endeavours from inception of ADC to the publication of the 'road map' for education and training is testament to the benefits of co-production. I am fully aware that all the contributors to the ADC Review have juggled a myriad of responsibilities and I am grateful for their due diligence and commitment which has led to the timely publication of this vital piece of work. I would also like to acknowledge the debt we owe to Nicholas Taylor, former post graduate Dental Dean HEE NW and former Chair of HEE Postgraduate Dental Deans, for his foresight and perseverance as the originator of the concept and design of Advancing Dental Care.

Dr Sara Hurley, Chief Dental Officer for England



Preface

As a dentist and a member of the 'heavy metal' generation, so-called among dentists not because of our musical tastes but because of the number of fillings put into our teeth, I am very aware of the significant changes to oral health and the need for dental treatment in the last decades. In the 21st century, many of the younger generations have little or no experience of tooth decay. The evidence of a link between poor oral health, socio-economic influences and a number of medical conditions is also becoming increasingly established. We must adjust accordingly to develop the dental and oral health workforce to meet current and future needs.

Parts of the country – particularly rural, coastal and deprived communities – and some segments of the population – especially older people – have complex dental treatment needs, while for many people the main need is for the necessary knowledge to keep their mouths healthy and some basic maintenance from dental and oral health professionals.

What is more, government and society are beginning to recognise that the boundary between dentistry and medicine is an artificial one. The mouth is part of the body! Multi-professional working is increasingly required to give patients the best health outcomes. The future workforce will consist of a multi-disciplinary team including Dental Nurses, Dental Hygienists, Dental Therapists, dentists and other professionals involved in oral health, working alongside physicians and other medical colleagues.

Education and training in the sector must be reshaped to supply this new workforce. The old model is too rigid, focused on developing technical clinical skills rather than a holistic approach to oral healthcare. The new models outlined in this Report will be more flexible, giving trainees experience across a range of settings and offering more opportunities to develop skills in leadership and management. Working with the support of NHS commissioners where necessary, and subject to the availability of resources, placements will be created to match the level of patient need, so that there will no longer be communities without the access to the level of dental care available to most people in the country. Trainees will be able to study on a less-than-full-time basis if they wish, giving them greater opportunities to work and earn alongside training and take career breaks. It will be easier to access further training and develop new qualifications throughout your career. Entry to the profession will not be confined to traditional and academic routes, allowing greater diversity and widening access.



This is our vision

It is built on reliable evidence, much of which is presented in our 2020 Interim Report⁶. We cannot accomplish it alone, and we look forward to working collaboratively with stakeholders to bring it to fruition.

The last year of our work has taken place during the COVID-19 pandemic, which caused unprecedented challenges and disruption to the NHS, including dental services, education and training. It has also accelerated changes already under way and put greater focus on the importance of integration throughout the health system. Closer cooperation between the various organisations involved in NHS dentistry and oral health is already apparent and the outcomes of the ADC Review will have a pivotal part to play in future developments and the need for service transformation.

We have now carried out most of the groundwork and are now at the start of the journey to implement the necessary changes. Some of this will take time and HEE will also need to be responsive to future priorities and developments as they occur, including the management of short-term educational needs resulting from the COVID-19 pandemic. What this report provides is a national framework or 'road map' for education and training to be developed flexibly to meet the local needs of patients, commissioners and the workforce. I do not underestimate the challenges ahead, but am nevertheless optimistic that, with goodwill and collaboration from all the partners concerned, we can now turn this blueprint for reform into lasting positive improvement in dental education and training.

I would like to express my sincere thanks to all my colleagues, HEE's clinical fellows and the ADC Review team for their unstinting hard work in conducting this Review, and my appreciation to all those stakeholders who have given their time to inform our thinking.

The actions set out in this review will be carried forward through the four-year Dental Education Reform Programme (DERP) and I look forward to continuing to work co-operatively with colleagues as we enter into this important piece of work.

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Malcolm Smith, Chair, Advancing Dental Care Review

⁶ https://www.hee.nhs.uk/our-work/advancing-dental-care/advancing-dental-care-phase-ii

Executive Summary

The ADC Review has established that reform of the education and training of the dental workforce is required to match skills and competencies to patient and population needs; and to be receptive to demographic and technological changes. Throughout the three-year Review, HEE has worked and engaged with key partners to inform the Review's evidence base and test our thinking on developing a future dental education and training infrastructure that produces a multi-professional oral health workforce skilled to respond to the needs of patients.

HEE's proposals for reform are shaped by the collaboration and engagement with partners, patients and learners; and underpinned by the qualitative and quantitative evidence from the Review. In summary, these are:

- Oral health of the general population is improving, but oral health inequalities exist across population groups. In particular, older, vulnerable people and deprived communities require targeted or specialist dental care.
- Integration of oral health into a multi-professional model of healthcare and Integrated Care Systems, to give people better overall health outcomes.
- Better use of the skill mix of the dental workforce and multi-disciplinary team working, enabling better matching of patients' needs to practitioners with the appropriate level of qualification and allowing dental care professionals to work to their full Scope of Practice.
- Co-ordination and distribution of postgraduate training posts so that it is better aligned to areas with the highest levels of oral health inequalities.
- Changing expectations among learners and trainees towards non-linear careers, who often want the opportunity to earn while they train, avoid having to move home frequently and to have the option to take career breaks.
- More flexible entry routes into training, to widen access and participation and to provide more dental professionals in areas of greatest need.
- Embed academic training opportunities in every level of postgraduate dental training to ensure the system has sufficient academics to deliver cutting edge research with impact, support advances in dentistry and teach the pre-registration dental workforce.
- Flexible options for qualified dentists and dental care professionals to increase their knowledge and skills, allowing them greater professional satisfaction and meeting demands for new capabilities and competence, including leadership, management and research.



Delivery of these proposals will be through a four-year programme of work, the blueprint for which is discussed in this Report in the form of clear actions for HEE to take forward. Some of these actions will be part of HEE's statutory responsibilities for commissioning postgraduate dental training and securing continuous improvement in the quality of education and training; some outside of HEE's scope of responsibility, such as pre-registration dental education and training. In moving to the delivery phase, HEE is clear that partnership working will be critical to successfully reform the structure of dental education and training to develop a multi-professional team-based approach to oral healthcare.

Postgraduate dental training structure

Reforming dental postgraduate foundation, core and specialty training models

The Review has found that the postgraduate training model is too rigid and often unable to meet the expectations of trainees and the changing oral healthcare needs of the population. An expanded training structure is required that provides trainees with a diverse experience of managing complex care, co-morbidities and a stronger understanding of the communities they serve in changing care models and pathways. We will introduce and further develop two new models of postgraduate training: the Early Years and the Middle Years programmes.

The Early Years programme

- This will run for two years after graduation. It will offer training in a mix of settings: dental practice and/or salaried primary care dental services (Community Dental Services – CDS) and/or secondary care. A minimum of one year must be in primary care (General Dental Services – GDS /Personal Dental Services – PDS). Completion will meet the requirements for recognition of Satisfactory Completion of Dental Foundation Training.
- These posts will align with the curriculum currently covered by Dental Foundation Training (DFT) and the first year of Dental Core Training (DCT1) and any changes to it.

The Middle Years programme

- This will comprise one or two years of formal training in a mixture of secondary care and CDS or specialist/Level 2 service⁷ practice, with participation in at least two areas of practice. Two years in the programme will meet the requirements for entry into Specialty training or contribute to recognition for Level 2 service.
- The posts will align with the curriculum currently covered by DCT2 and DCT3 and any changes to it.

Current DFT and DCT training routes will run in parallel with the Early Years and Middle Years programmes, where appropriate. Existing DFT and DCT models will be broadened and improved, to give trainees wider experience of different clinical and non-clinical environments, pathways and patient types whilst allowing more opportunities to undertake a greater range of training than at present. Issues of funding, commissioning and distribution will be considered with other stakeholders and over time the intention is the balance of training opportunities may transform to the new models as the expected outcome of implementing the reform programme.

⁷ Level 2 implies that dentists have developed enhanced knowledge and skills in an area of dentistry as defined by the Commissioning Standards and are competent enough in this area to receive referrals from other dentists.

HEE is proposing to make use of existing resources to take a phased approach to improving and expanding the postgraduate training model to offer additional pathways of dental training that provide a holistic, diverse training experience which instils professionalism and a deep understanding of team-based approaches to oral health and dental care.

Flexible rotation of trainees to developing inter-professional working relationships and promoting multidisciplinary team working

To facilitate greater flexibility in the rotation of trainees, we propose to develop a Lead Employer Trust (LET) model for both Early and Middle Years programmes, commissioning lead employer arrangements with an NHS Trust through either a national contract or regional contracts.

We will work with NHSE/I, local dental networks and other key partners to ensure that our reforms are supported by the commissioning of dental services and a contractual framework which embeds training to develop skill mix and a whole team approach to oral health.



To help align the distribution of dental training posts with population oral health need and inform the commissioning process, we will seek to establish a national workforce data collection and model allocation of training posts to areas with the highest levels of oral health inequalities.

Building on best practice from the COVID-19 pandemic, we will also work with stakeholders to review how the greater use of Technology Enhanced Learning (TEL) and blended learning approaches can be shared and enhance learning outcomes.

Explore the concept of Centres for Dental Development to bring together education and training at all levels with service delivery models, particularly in areas of identified need

To help overcome the difficulties in attracting and retaining the dental workforce in certain areas of the country, which is partly a result of the geographic imbalance of universities with schools of dentistry, we propose that the concept of Centres for Dental Development be explored. These centres would bring together in one locality the later stage of undergraduate training, enhancing student experience through a broader range of placements in different clinical environments, support the transition from undergraduate to Dental Foundation and Early Years training and co-ordinate the development of Middle Years and Specialty training in parallel with service provision in areas there is a shortage of dental workforce relative to need. This concept will require infrastructure investment and as infrastructure costs emerge, HEE will bid for investment through the Spending Review process.



Explore with the General Dental Council (GDC) how previous experience and prior learning can be recognised to enable entry onto the GDC Specialist List

HEE recognises that many dentists, such as those working as Specialty and Associate Specialist (SAS) or as community dentists in Community Dental Services (CDS) have a breadth of experience and transferable skills that can support entry into Dental Specialty Training (DST). The General Dental Council's (GDC) Standards set quality requirements for all UK education and training programmes leading to inclusion on one of the GDC's specialist lists. We will continue to consult and work with the GDC to consider whether previous experience and prior learning can be recognised to facilitate more flexible entry to specialist lists.

Improve the training structure to embed digital learning, provide better induction, flexible training, and career progression opportunities for dental trainees

In supporting the NHS response to the COVID-19 pandemic, HEE has learnt there are opportunities in education and training that can be enhanced by Technology Enhanced Learning (TEL). A review of how TEL can be integrated into postgraduate training will be undertaken to make it more accessible and inclusive to learners and allow training to take place in parts of the country remote from existing establishments. There will also be a need to support digital literacy of the workforce and train the whole dental team in areas such as management of e-records and e-prescribing.

To support workforce retention and career progression, we will work with key partners to identify those training pathways which can be adapted to develop more flexible, 'step on, step off' training models and opportunities for part-time/ less-than-full-time training where possible.

To give practising dentists the chance to achieve additional capabilities in a flexible way, we will explore with stakeholders mechanisms which enable dentists to evidence their competence to provide Level 2 dental services.

To retain a strong focus on improvements in the quality of care, HEE will work with the National Institute for Health Research to continue to embed academic training opportunities across the training structure to provide opportunities for trainees to experience evidence-based dentistry and innovative research to support innovation in dentistry.

Improve the quality management of Performers List Validation by Experience (PLVE) model with NHSE/I

Graduates from UK dental schools who have not satisfactorily completed Dental Foundation Training and all overseas dentists who have passed their Overseas Registration Examination are required to complete a period of employment to demonstrate satisfactory completion of foundation training to join the NHS Performers List. This is through an assessment process under the Performers List Validation by Experience model. We will work with NHSE/I to improve the current model to standardise the quality threshold required of applications to ensure patient safety.

Dental pre-registration education and training

The evidence from the Review highlights a need to adopt a seamless approach to skills development of the dental workforce across the entire education and training pipeline, connecting pre-registration undergraduate and apprenticeship routes to postgraduate or post-registration training and learning. This is to ensure new graduates and registrants are better prepared for dental practice and have the confidence deliver care to patients with varying levels of oral health needs.

Strengthen the interface between preregistration and post-registration training

We will work with NHSE/I, the General Dental Council (GDC), Dental Schools Council (DSC) and other stakeholders to strengthen the connection between pre-registration education and postregistration training programmes, and promote the concept of inter-professional learning. This will include identifying how team-based approaches to learning can be adopted across clinical placements and apprenticeship programmes, preparing learners for delivering integrated care to patients. The proposal to explore the concept of Centres for Dental Development, within HEE's funding envelope, will encompass this work as part of the objective to connect and integrate training into service delivery models, particularly ICSs as these become statutory entities.

Work with key partners to identify apprenticeship routes which can widen access and participation into dental careers and respond to oral health skills need

An important element of our proposals is widening access and participation into dental careers to support the growth of a local dental and oral health workforce. Focusing on the undergraduate route, we will work with the Dental Schools Council to identify and promote successful initiatives which widen access and participation into dental careers; and consider how HEE's regional workforce intelligence and data can inform student recruitment strategies. Through the HEE Talent for Care programme, we will also support the development of apprenticeship routes into the workforce through joint working between HEE's regional apprenticeship leads, employers and education providers. The aim is to develop a step on, step off 'skills escalator' for Dental Care Professionals to have a career pathway to progress into roles involving more advanced skills.

Create post-registration skills development opportunities for Dental Therapists and Dental Hygienists

To further support the development of a multi-professional NHS oral health workforce, HEE will work with stakeholders to develop a national Dental Therapy Foundation Training scheme with a standardised curriculum, based on the experience of HEE regional schemes to date. This will help further develop the newly qualified Dental Therapist from undergraduate to working effectively in a general dental practice environment. HEE has developed a Return to Therapy programme to help DTs who have been working as hygienists to refresh their DT skills and will work with NHSE/I to create opportunities for this training where workforce needs are identified by ICSs and/or commissioners.

To increase the scope and range of training opportunities available to Dental Hygienists and Dental Therapists, we will work with stakeholders to develop a new qualification – the Advanced Clinical Practice (ACP) in Oral Healthcare. This will be designed to support DHs and DTs to develop a transferable skill set that cannot only be utilised within many spheres in dentistry but also as part of the wider healthcare system, providing additional training opportunities within the current Scope of Practice with a greater focus on leadership and management training.

We will also consider the development of dental credentials which respond to patient and service need for workforce skills in clinical and non-clinical areas of dental service.

Summary Table: HEE's Proposals

Proposal	Actions	Who HEE will work with
1. Reform postgraduate dental training	Develop a two-year Early Years Programme to broaden trainees' experiences and to support career progression.	Association of Dental Hospitals (ADH); NHS Acute Trusts, Community Dental Services (CDS) and NHS Primary Dental Care providers.
	Develop a Lead Employer Trust model to deliver flexible rotations of trainees.	NHSE/I; ADH , NHS Acute Trusts, NHS Primary Dental Care providers, CDS.
	Develop models for 'Middle Years' training posts to meet patient and workforce needs.	NHS Trusts; Dental Deans.
	Improve the existing Dental Foundation Training model.	NHS Trusts.
	Develop flexible models of Dental Specialty Training to support workforce retention and career progression.	General Dental Council (GDC), NHS Trusts.
	Explore how flexible entry onto the GDC Specialist List can be facilitated for SAS and Salaried Dentists.	GDC.
	Develop the Performers List Validation by Experience model to validate the skills and experience of overseas dentists on the NHS Performers List.	NHSE/I.
	Produce an equitable model for distributing postgraduate dental training places and work with stakeholders to improve the quality of available data.	HEE & NHSE/I Regions; NHSE/I; UK Health Security Agency.
	Embed academic training and research activity across postgraduate dentistry.	DSC; NIHR; Higher Education Institutions; NHS Trusts.
2. Improve the delivery of	Review how the greater use of Technology Enabled Learning and blended learning approaches can enhance learning outcomes.	Dental Clinical Fellows; NHSE/I.
postgraduate training	Strengthen the induction process for postgraduate trainees.	DHSC, NHSE/I, DSC, GDC.
training	Explore the concept of Centres for Dental Development to bring together education and training at all levels with service delivery models, particularly in areas of identified need.	DSC; GDC and NHSE/I.
3. Strengthen the interface between pre- registration education and post-registration training	Review with partners how we can better prepare undergraduate dentist students for postgraduate training and pre-registration Dental Hygienists and Dental Therapists for clinical practice.	DSC; GDC and NHSE/I.
4. Widen access and participation in dental careers	Support the utilisation of the apprenticeship model offer to diversify and grow a multi-professional dental workforce that responds to skills need in England.	Institute for Apprenticeships and Technical Education; NHSE/I; HEE Talent for Care Programme and Employers.
5. Create post- registration skills	Explore models of accredited training to allow practising dentists to demonstrate Level 2 competencies.	GDC and NHSE/I.
development opportunities	Work towards a standardised Dental Therapist Foundation Training model for all newly qualified Dental Therapists working in NHS primary care.	GDC; DSC.
	Work with NHSE/I to support Dental Therapists working as hygienists to refresh their skills through Return to Therapy programmes.	NHSE/I, DSC, BDA.
	Explore Advanced Clinical Practice in oral healthcare models for dentistry.	NHSE/I; Employers and HEIs.
	Review the evidence to consider credentials which respond to patient and service need for dental workforce skills.	HEE Advanced Practice Programme; NHSE/I.
	Consider how postgraduate dental training could be adapted to enhance the generalist skills of dental trainees.	HEE Education Reform Programme.

1. Introduction

The Advancing Dental Care (ADC) Review of dental education and training is the most significant analysis of postgraduate and post-registration dental training since the Department of Health's Modernising NHS Dentistry – Implementing the NHS Plan report of 2000⁸.

The model for dental workforce training pathways has remained relatively unchanged for over 30 years.

Dentist Supply Pipeline



⁸ Department of Health. Modernising NHS Dentistry – Implementing the NHS Plan. London: DH; 2000.

Dental Care Professional Supply Pipeline



*Includes students graduating from a Dental Hygiene and Dental Therapy BSc and dual registering as both a Dental Therapist and Dental Hygienist.

By contrast, population oral health has improved substantially over the last few decades. Most people now retain their natural teeth throughout life⁹. For the general population, a shift in care towards a focus on prevention and basic oral health maintenance is required.

As the NHS moves to a devolved system of commissioning through the joining up of health and care services under Integrated Care Systems, a whole team approach to oral healthcare through a personcentred pathway model is required. Teams will increasingly need to become multi-disciplinary and multi-professional, which implies significant reform of the primary care dental services contracts. The evidence from HEE's patient engagement events shows patients support the move towards team delivery, especially if this helps increase their access to NHS dental care. While complex dental treatment needs may be declining in the younger population, sustained demand remains in deprived areas and among disadvantaged communities. Forecasts point to continuing need among these groups and also the need to increase access to ongoing complex treatments to include provision, re-cycling and repair of complex restorations as the population ages. Older people are also likely to be living with frailty and have underlying medical conditions which requires the intervention of a dentist as part of a wider multi-professional team.

To compound the issues, the current distribution of the dental workforce, particularly with regard to dentists and specialists, does not match the need or demand for dental services; supply is concentrated in metropolitan areas, around dental hospitals and schools, and the skills mix, still orientated to past needs, is out of kilter with present and future need.

Currently, formalised HEE-funded training opportunities for dentists after Dental Foundation Training (DFT) and Dental Therapists do not match the need for services in either primary or secondary care, exacerbating shortages of specialist and specialised skills where patient need is greatest. The dental education and training infrastructure is linear and inflexible, which inhibits the development of multi-disciplinary and multiprofessional teams and the upskilling of the workforce post-registration. Nor does it fit the lifestyle preferences and needs of today's trainees or workforce, which threatens their long-term retention in the NHS. It is imperative that a future dental workforce be trained with an optimal skill mix and geographic distribution to meet the health needs of the general population and the specific treatment needs of the older and disadvantaged cohorts, informed by and joined up with local and regional delivery of integrated care. This must include a comprehensive oral health improvement programme delivered by the appropriate members of the dental and wider healthcare team, including the delivery of dental care to populations outside traditional workplaces. The ADC Review: Case for Change report and the ADC Review: Interim Evidence report presented qualitative and quantitative evidence that established the current dental education and training model could not deliver the required level of NHS oral health and dental care in the future. As part of the final year of the Review, an extensive programme of modelling and evaluation was carried out to test the viability of different models of training. This considered users' experience of existing pilot schemes, the viability of scaling up or further developing them and the financial implications of the changes proposed. We are grateful to the ADC Assurance Board members, key partners and ADC Review Senior Stakeholder Forum¹⁰ for informing the work to build the Review's evidence base through regular engagement, sharing of data and participation in a number of stakeholder events, task and finish groups and bilateral meetings.

These findings alongside the evidence presented in the ADC Interim Report have informed the blueprint for reform to equip the future workforce to address the totality of a NHS patient's oral health needs, and thus improve the overall experience of dental care.



2. Training the Future Workforce: Key Themes from the Review

The evidence gathered through the course of this Review, set against the policy drivers, lead to a set of conclusions that amount to a strong case for change in the way that dental education and training should in future be offered in England. Across the Review, six key themes emerged which have shaped our programme for reform. The Key Actions and Recommendations from these themes are set out in Section 3.

2.1 Flexibility in training and careers

Lifestyles have changed radically since the present system was created. Evidence – particularly from younger members of the profession – demonstrates that trainees of all descriptions, from Dental Nurses, Dental Hygienists and Dental Therapists to postgraduate dentist trainees, increasingly seek flexibility in their future career, particularly wanting options to work part-time or to engage in 'step on, step off' training and development models¹¹.

Apprenticeships for Dental Care Professionals (DCPs) represent an important opportunity for flexible training, while also meeting local needs for DCP skills. A recent evaluation of 18-month Dental Nurse apprenticeship in three London Dental Schools found the programme offered the potential to support transition into general dental practice and make career development opportunities more explicit¹². The current piloting of the Oral Health Practitioner apprenticeship has shown that it can be part of a skills escalator approach to developing the DCP workforce.

Lack of recognition of activity provided by Dental Therapists in the General Dental Services (GDS) practice contract has resulted in a reduction in the opportunity to practise all the skills in their Scope of Practice. Pilots of upskilling or Return to Practice programmes have proved to be essential in improving their confidence and enabling them to understand and fulfil their role in multi-professional teams when the opportunity arises¹³.

With regard to postgraduate dental training, the interim report from the evaluation of six innovative training pilots¹⁴ found all trainees on the pilots perceived the variety and flexibility of their training to be beneficial. They found being able to experience different specialties and settings an advantage, and the Academic Clinical Fellows (ACFs) at DCT level appreciated the opportunity to be able to undertake research whilst putting their knowledge into practice. Trainees also noted that because their posts were new, they were able to work with their supervisors to tailor the post to their own needs and interests. ACF trainees valued the fact that their posts were longer than traditional Dental Core Training (DCT) posts, giving them 3-4 years to develop their skills and knowledge and build relationships with colleagues.

If the NHS is to retain sufficient dental practitioners, it will need to offer training pathways and career structures which meet modern patterns of demand and social values.

¹¹ Bullock, A, Bartlett S, Cowpe J, Dickenson AJ. The Dental Core Training Experience: the views of trainees and their postgraduate training leads. British Dental Journal 2020; 228: 952-956

¹² Morris, C. (2019). Evaluation Report: Dental Nurse Apprenticeships

¹³ Advancing Dental Care: evaluation of dental education and training pilots, SQW, December 2020

¹⁴ Advancing Dental Care: evaluation of dental education and training pilots, SQW, December 2020

2.2 Multi-professionalism

A key ambition of the NHS Long Term Plan and People Plan is for a more multi-professional and adaptive workforce. HEE's work has demonstrated that DCPs could play a bigger part in the coordination and delivery of oral health promotion and disease prevention than is currently the case. They frequently find themselves unable to exploit their full Scope of Practice – often for historic or contractual reasons. The potential for dentists – particularly in primary care – to share workload with DCPs in line with their Scope of Practice and experience is greatly under-utilised. This opens opportunities for securing an adaptive workforce, particularly in rural and coastal areas, where dental access is a challenge.

This cannot only be frustrating for DCPs but also places constraints on service delivery as evidenced by models in Wales and countries outside the UK. The Interim Review of Literature on Delegation of Clinical Procedures to and Substitution by Dental Care Professionals¹⁵ concluded that both Dental Therapists and Dental Hygienists have high levels of clinical competence, within their Scope of Practice that have the potential to match those of GDPs. If more care and treatment within NHS funded general dental practices were to be delivered by Dental Therapists and Dental Hygienists by optimising the use of their Scope of Practice there could be significant benefits to the delivery of patient care.

As a result, deskilling can occur among those who are not able to practise the skills for which they have been trained; and bottlenecks ensue for more complex treatment, since the dentists who can perform them have less time available than if they had delegated other work appropriately.

Evidence from our engagement events indicates that patients would be willing to see any member of the dental workforce if they were competent to provide the treatment needed, especially if this increased their access to care. One of the consistent issues identified by patient engagement events was a lack of understanding among patients of the roles of the whole dental workforce, which has contributed to the situation.

Training models that allow different roles and professions within the dental workforce to train and learn together can play a big part in fostering a culture where multi-disciplinary team approaches to patient care become commonplace. For example, training dentists in the effective use of DCPs could be key to allowing these professionals to exercise a greater range of competencies within their Scope of Practice. Such an approach will also help develop closer integration of oral health services within primary care networks and Integrated Care Systems.

2.3 Equitable distribution of training places

Distribution of HEE's investment in postgraduate training across healthcare professions is a key part of HEE's education reform agenda to reduce health inequalities across England.

In regard to dental training, a significant proportion of undergraduate and postgraduate dental training (except DFT) is delivered in secondary care and based around the location of universities which have a school of dentistry. The University of Central Lancashire (UCLan) and the University of Plymouth are an exception because they are not affiliated to a dental hospital. The distribution of dental schools across England is uneven, with six schools in the North, two in London, two in the South West, one in the Midlands and none in the East of England.

As a result, postgraduate training tends to be focused in a similar way. London has a very high proportion of trainees in all areas of training for a number of reasons, both operational and historical. In particular, the level of specialty training and also specialist provision in other parts of England is very variable.

¹⁵ ADC Interim Review of Literature on Delegation of Clinical Procedures to and Substitution by Dental Care Professionals, 2019

There are difficulties in attracting trainees at any level to more remote areas, including Cumbria, Lincolnshire, East Anglia and some parts of the South West. Retaining dentists in these areas on completion of foundation training can be problematic after foundation training. There is evidence from medicine that the longer a trainee is based in an area, the more likely they are to 'put down roots' and remain.

The competitive model for appointment of training practices in Dental Foundation Training also results in an uneven distribution of these posts and national recruitment of DFT trainees also results in further fragmentation.

Current demand already outstrips supply and need is forecast to grow, partly because of an ageing population. Certain areas of the country – such as the West Midlands, Milton Keynes and East London – are predicted to grow more rapidly than others in future years, and the challenge will be to align patient need with workforce, particularly in regions where attracting and retaining a dental workforce is more difficult.

The imbalance can be reduced if postgraduate dental training posts are distributed more equitably across England. This will help reduce the geographic disparities in workforce distribution and improve patient access to dental care in the future.

In conjunction with NHSE/I, we will explore the training and service provision needs across England to develop a patient-centred approach to future training provision and, where necessary, make the case for new posts. As part of this work, we will, in conjunction with partner organisations, explore opportunities to create Centres for Dental Development to enhance training opportunities linked to service provision where there is an identified need.

2.4 Opening new routes into oral health

Changed and changing population oral health needs mean that demand for and supply of appropriate professionals are out of sync. There is an increasing need for practitioners to work in the community with elderly and vulnerable people who may have poor dentition or dentures and whose poor oral health may be contributing to problems associated with cardiac disease, diabetes, obesity and pneumonia. Similarly, there is a growing need for professionals in salaried primary care services, for example to advise on focussed oral health improvement for children, adolescents and young adults in the more deprived communities. These needs do not require fully gualified dentists, but a mixture of highly trained dental care professionals working as a fully integrated team to address the oral health needs of the population it serves.

Not all the above roles require a traditional undergraduate degree to enter into training and education and indeed practical experience, gained through apprenticeship for example, can play an important part in developing required workforce skills. At the present time there is insufficient flexibility around entry routes, recognition of the value of experiential and apprenticeship models and the availability of training schemes. What is required is a model that allows DCPs to step on and step off a 'skills escalator', which would enable DCPs undertaking additional training to move more seamlessly into training for other roles. For example, DNs with additional skills who have completed the OHP apprenticeship should have these skills recognised if applying to train as DHs and DTs and, for these groups to have their skills recognised if proceeding to train as Dentists.

The current policy context serves as a catalyst for real change in scaling up high quality apprenticeships across the NHS as part of the Government's vision set out in the Skills for Jobs White Paper¹⁶. This sets out a blueprint for a post-16 education system that will ensure everyone can gain the skills they need to progress in work at any stage of their lives through five key measures to:

- give employers a greater say in the development of skills
- provide higher level technical skills
- provide a flexible, lifetime skills guarantee
- simplify and reform funding and accountability for providers
- support outstanding teaching

The Lifetime Skills Guarantee will offer tens of thousands of adults the opportunity to retrain in later life, helping them to gain in-demand skills and open up further job opportunities. This includes the chance for adults without a full level 3 qualification to gain one from April 2021 – for free – in a range of sectors, including health.

Widening access into the oral health professions will both help to meet new population demands and be desirable in its own right to help increase social mobility and create a more diverse and inclusive workforce. Existing cultural norms mean that the socio-economic and ethnic mix of undergraduates intending to go into dentistry is very different from the mix of those becoming DCPs.

There are likely to be many school leavers who could make a significant contribution to dental care who are put off by the perceived exclusivity of undergraduate programmes and the 'professional' label. Initiatives aimed at breaking down these barriers are to be welcomed. There is therefore a strong case to develop more apprenticeships, the concept of which is not yet well understood or accepted in dentistry. Their range should be revised and expanded, and work will be required to promote the benefits both educationally and financially to employers.

We also want to work with the Dental Schools Council to widen participation of underrepresented groups into undergraduate dentistry. Of the 4,995 young people entering study for medicine and dentistry in 2017/18, just 6.3 per cent were from the most underrepresented groups¹⁷. There are already many good examples of outreach programmes and engagement activities delivered by universities in England to give potential students a better understanding of applying for a place in dentistry. We want to build on existing good practice and consider how this can be part of standard recruitment and marketing practice of universities that offer undergraduate dentistry programmes.

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2.5 Learning beyond registration

Changing patient needs requires a workforce with a different mix of skills that cannot be supplied alone from the training of new entrants: there are currently limited opportunities for established DCPs and GDPs in primary care to be able to develop their skills within the NHS. Our findings show that many DCPs and dentists in this group want to gain further skills to enhance their career progression and improve their job satisfaction; but it can be difficult to do so without having to abandon their practice temporarily while they go into a full-time formal training course. There are also likely to be financial implications which potentially limits choice and options for the individual who wishes to progress. Moreover, it is difficult for dentists in primary care to become specialists without first going through the traditional route of undertaking Dental Core Training, which is predominantly secondary-care focused and increasingly specialtyspecific. The training of the future workforce also depends on a sufficient supply of clinicians with the skills to train, including clinical academics.

To provide the needed flexibility, training models that support fluid and equitable access to accredited specialist learning, academic training and credentials in dental care can make an important contribution towards creating a workforce of the future that better supplies the qualified practitioners to meet patient needs. Alongside this, advanced practice education and training and post-registration apprenticeships with employers who offer the NHS contract represent an important solution to skills shortages in areas of the country where it is hard to recruit and retain qualified professionals.

2.6 Innovation in the delivery of dental education and training

The 2019 Topol Review¹⁸ showed how technological advances can improve the care and treatment that NHS staff are able to give if they are now provided with the support, education and training they need. To be ready for this exciting future, NHS organisations will need to collaborate in creating a learning environment in which staff can embrace these technological leaps throughout their careers. It is therefore important to upskill the entire workforce in digital literacy skills.

Dentistry has been a leader in learning by simulation. The new opportunities that present themselves now are virtual supervision and virtual clinics, which have been piloted by the Eastman Dental Hospital in London for learners in the East Midlands who are physically distant from existing training centres.

There are also many examples of how blended learning techniques support teaching of nonclinical skills and inter-professional learning. For example, clinical simulation emerged as a useful teaching strategy in the prevention and long term success of the treatment of periodontal diseases, which depend on patient compliance with oral healthcare measures¹⁹.

In regard to inter-professional learning, the Teaching Oral-Systemic Health (TOSH) Program Interprofessional Oral-Systemic Health Clinical Simulation and Case Study Experience was effective as a standardised, replicable curriculum unit using oral-systemic health as a population health exemplar to teach and assess interprofessional competencies with nurse practitioner/midwifery, dental, and medical students²⁰.

¹⁸ The Topol Review, Preparing the healthcare workforce to deliver the digital future, February 2019

¹⁹ A Codeco, European Journal of Dental Education, 2020

²⁰ J Haber, Journal of Dental Education, vol 81, February 2017.

HEE has a long history of supporting blended learning in oral health. Dental trainees, Dentists, Dental Nurses are an active group within the 1.9m users registered on HEE's e-Learning for healthcare hub. HEE has also provided e-learning for over 1,2000 dental foundation trainees via the e-Den programme, a national flexible online tool encompassing dentistry's foundation years. The programme is a collaboration between the Royal College of Surgeons of Edinburgh, the Royal College of Surgeons of Edinburgh, the Faculty of General Dental Practice (UK).

HEE has had 29,162 launches of the e-Den programme during 2020, up from 14,378 in 2019. The hub also has the Children's Oral Health e-Learning programme which has had 8,640 launches in 2020 and a new programme called Mouthcare Matters which has had 7,392 launches between January and July in 2021.

More widely, the use of the Learning Hub, launched in 2020 will play an important role in supporting the multi-professional oral health workforce. As the national learning platform for health and care it will provide access to high quality, expert authored learning resources and the ability to share locally made resources at scale together with the ability to connect through communities of practice.

Building on the HEE national Simulation-Based Education (SBE) Framework, HEE published a national vision for the role of simulation and immersive learning technologies in health and care²¹. The learning from the COVID-19 pandemic and concerns about delivering face-to-face training have meant that options for digital alternatives, including simulation through immersive technologies, need to be considered and accelerated. Oral education will benefit from all of HEE's activities in this space, such as support to postgraduate dental educators for virtual teaching through its Virtual Instructor Led Learning programme, which is a faculty development programme for effective virtual teaching through online platforms.

Using digital tools, blended learning and simulation with appropriate commissioning will allow students to train flexibly wherever they are in the country, helping to overcome the reliance on dental teaching hospitals in large cities and by building workforce in outlying areas, reducing existing geographical health inequalities. Moving forward, the dental education and training reform programme will work with the wider HEE Digital, Innovation and Transformation Directorate to implement the evidence-based guidance report that informs investment, development and delivery of effective blended learning health programmes across all healthcare education and training.



²¹ HEE, National Strategic Vision for Simulation and Immersive Technologies, November 2020 https://www.hee.nhs.uk/our-work/technology-enhanced-learning/simulation-immersive-technologies

3. Blueprint for reform: HEE's proposals

This section sets out HEE proposals to address the issues raised by the Review through reforming postgraduate dental training together with partnership working with the NHSE/I, the GDC, DSC and other stakeholders to strengthen the interface between dental pre-registration education and post-registration training.

HEE's vision for a reformed dental education and training model is illustrated below.

Vision on a page



Shared responsibilities

The blueprint for reform recognises that HEE does not have statutory responsibility for the entire dental education and training pipeline, which is split between different government departments and agencies. HEE has a statutory responsibility for planning, education and training of the future NHS workforce and to exercise its functions to secure continuous improvement in the quality of education and training. As part of this, HEE coordinates and quality assures training places for postgraduate Dental Foundation, Core and Specialty training in England. Through HEE's workforce development funding, HEE also supports employers to develop the existing workforce and address workforce shortages through expanding the skills of existing professions.

The number of dental undergraduate places for dentists available in the UK is regulated by the Government and controlled through intake targets set by the Office for Students. In the UK, the undergraduate curricula for dentists, Dental Hygienists and Dental Therapists are set and regulated by the General Dental Council (GDC) and delivered in universities. HEE administers the clinical placement tariff for these three undergraduate programmes.

HEE does not commission the majority of DCP education or training, which is increasingly a mixed model of diploma and apprenticeship routes.

The majority of registered dentists work in primary care dentistry, where a mixed NHS and private model pertains. Recruitment and retention of qualified dentists is currently difficult to assess as there is very limited workforce data for primary care dentistry. There is a real need for reliable contemporaneous dental workforce data collection to fully understand the composition of the existing NHS workforce and to be able to predict the workforce numbers needed in the future. This is particularly relevant currently as the effects of the COVID-19 pandemic on the delivery of dental care, may have implications for the retention and career intentions of the current NHS dental workforce.

Dentistry is one of the four pillars of Primary Care. The NHS Long Term Plan actively supports the integration of oral health into care pathways and has set a clear direction for national and local level recognition, calling for the adoption of a more holistic approach to 'good oral health' provision. HEE's work to implement a four-year dental education reform programme will need to work closely with HEE and NHSE/I regional offices to ensure the inclusion of dentistry within ICS workforce plans once they become statutory entities; and ensure the development of placebased approaches to commissioning dental education and training strengthen local dental workforce planning.

Given the organisation of pre-registration and postgraduate dental education and training and the changing NHS landscape, the design of the reform programme is based on strong partnership working with key stakeholders. HEE cannot deliver this in isolation: collaboration, co-production and consensus are key to achieving success.

3.1 Reform of postgraduate Dental training

3.1.1 Development of a Postgraduate Dental Early Years Training Programme

Informed by existing pilot schemes, we will introduce over a four-year period two new training programmes parallel to the existing training structure: the Early Years and Middle Years Programmes.

This Early Years Programme will comprise two years' formal training in a mix of settings: dental practice and/or salaried primary Dental Care Services (CDS) and/or secondary care. Completion will meet the requirements for recognition of Satisfactory Completion of Dental Foundation Training and also for entry into the Middle Years Programme or the current second year of Dental Core Training (DCT2).

Most new dental graduates currently undertake the standard 12-month Dental Foundation Training (DFT) programme. The new Early Years Programme brings together elements of that programme, combined with a more broad-based training experience over two years across a number of other dentally based disciplines. This includes training in secondary care settings and primary Dental Care Services. Variations on a two-year model have been running for some years in the North East and the Yorkshire and Humber regions. A further variation was offered in the North West for the first time in 2020.

The value of early years training within different clinical settings to produce dental care professionals capable of interprofessional collaboration and providing patient-centred integrated care has been highlighted by a recent qualitative study. This explored perceptions and experiences of the two-year Longitudinal Dental Foundation Training (LDFT) three post-qualification dental training pathways provided by HEE Yorkshire and Humber (DFT, DFT + DCT1 and LDFT). The study found the development of transferrable skills, interprofessional collaboration and appreciation of patient care pathways appears to be enhanced within the LDFT programme; when training simultaneously across different clinical settings²².

²² Coleman A, Finn G Post-qualification dental training. Part 2: is there value of training within different clinical settings?, British Dental Journal, Vol 227 No 11, December 2019

A benefit of this training model, with placements in dental practices, CDS clinics and hospitals in tandem, is that learners build their skills by exposure to more complex cases, including medically compromised patients, gaining knowledge of and confidence in managing human disease, patients with co-morbidities and those taking multiple medications as well as more advanced dental treatment techniques. Given the increasing emphasis on the connection between oral and general health and the increasing dental health needs of an ageing population, together with the emphasis in the NHS Long Term Plan on the shift of treatment from secondary to primary care, such experience is valuable in enabling the right care being given by the right dental professional and in the right place, thus reducing the need for patients to be referred elsewhere for some treatments.

A two-year programme also gives greater stability, both to learners and to underpin the posts which they occupy during their training. Gaining experience of both primary and secondary care is also credited with enabling trainees to consider their future career goals from an earlier stage²³. Posts will need to be approved for training by a Postgraduate Dental Dean.

The new model of undertaking Early Years training over two years will mean that more trainees will receive a more varied experience than in the current standalone model. The additional experience gained by dentists at the beginning of their careers should enable them to be increasingly confident in the level of care they are able to offer patients. It is recognised that, in developing the Early Years model, the number of standalone DCT1 posts may be reduced, and care will need to be taken to avoid unintended consequences. The transition towards the Early Years model will be managed gradually and carefully through national agreement. Another element that needs to be considered in the development of Early Years posts is the opportunity to redistribute training posts towards the areas of highest oral health need to mitigate existing NHS workforce recruitment and retention problems.

Many of the current pilots can be assimilated within the new programme and some existing models can be adapted and realigned in the future as and when they meet the necessary criteria.

ACTION: We propose to develop a cost-neutral two-year Early Years Programme to broaden trainees' experience by 2024, to prepare them to deliver 21st century oral healthcare and to support career progression.



 $^{\rm 23}$ Advancing Dental Care: evaluation of dental education and training pilots, SQW, December 2020

3.1.2 Improve the quality and flexibility of dental trainee rotations

To allow the greater flexibility in the rotation of dental trainees that the Early Years Programme will require, we will commission a national or regional lead employer arrangement with an NHS Trust through a national contract. To simplify commissioning, we will also consider how all HEEfunded dental training posts can be incorporated into a LET model in the future.

HEE will work with NHSE/I to consider how local commissioning arrangements can enable Early Years placements in primary Dental Care Services and secondary care to provide different training environments for trainees and facilitate recruitment into salaried services. We will also review how training can be embedded in national contracting and commissioning in line with NHSE/I's Standards for Level 2 commissioning. We will also produce national guidance for English Dental Deans on the allocation of posts in dental training programmes to respond flexibly to patient and service needs with their regions.

ACTION: We propose to develop a Lead Employer Trust (LET) model for the commissioning of training posts to enable flexible rotation of trainees to provide greater exposure to different learning environments and care pathways.



3.1.3 Development of a Postgraduate Dental Middle Years Training Programme

To meet the need for developing dental competencies and skills to support the management of more complex conditions, we will establish a new Middle Years training programme alongside what is currently provided by DCT (Dental Core Training) 2 and 3 training pathways. The focus will be on training and working within a number of different environments during the training period, mainly in secondary care or CDS clinics, providing the opportunity for additional experience in the management and treatment of dentally and medically compromised children and adults.

Initially, the existing DCT pathways will run in parallel with the new programme and the new posts will align with the existing DCT curriculum and any changes to it. Over the duration of the four-year Dental Education Reform Programme, the Middle Years training model will be scaled up incrementally so that the balance of training opportunities can be merged into the dental training infrastructure in stages whilst avoiding unnecessary disruption to the legacy pipeline.

The Middle Years Programme will be offered over one or two years. Two years' experience (or one year in the Middle Years Programme and one year in DCT2 or DCT3) will meet the requirements for entry into Specialty training or contribute towards Level 2 service recognition. It is the intention that these posts will evolve to be a pipeline into different specific areas of clinical practice, such as the inclusion of a paediatric dentistry element as preparation for DST, Level 2 or roles in CDS.

By creating the opportunity to work in a range of posts and environments, including in academic roles and research through NIHR ACF²⁴ programmes, this programme will not only achieve the goal of more multi-disciplinary training but also

better meet trainees' expectations and preferences. The programme is likely to be designed to enable trainees to work on a less than full-time basis or with stepon, step off opportunities, but without disrupting service provision.

This model is in contrast to the current DCT programme where the flexibility described above is often not available and where many posts are based in Oral and Maxillofacial Surgery (OMFS) departments, some of which include additional commitments, resulting in restrictions on the ability to deliver the curriculum.

It is recognised that this model may create pressures on service capacity elsewhere in the system, and any transition of existing posts to the new model will require careful consideration of funding implications, of the geographic distribution of posts and the delivery of patient care. As such, the new model will be within HEE's funding envelope to ensure sustainability and avoid any adverse financial impact on the dental training budget.

However, Middle Years Training posts will provide the opportunity for dentists to develop wider skills – for example, through rotations in paediatric or restorative dentistry, in outpatient settings and as Fellows working in academia or linked to ICS settings. This degree of flexibility is essential to expand clinical, research and management opportunities; to improve quality outcomes; to meet trainee career expectations; and to enable dentistry to meet holistic patient health needs in keeping with the philosophy of integrated care in the NHS.

In addition, by broadening the range of career opportunities through more options, including roles in leadership and management, these posts will create more rounded clinicians and allow trainees to make a more informed decision about their own career progression. Analysis by SQW²⁵ showed that, at DCT1 and DCT2, the top 10 most popular posts in 2020 (based on the number of applications per post) were all based on this alternative training model. SQW research also found that trainees in the current alternative DCT posts appreciated and benefited from the variety and flexibility of their role and learning experience and over half indicated that they would recommend their post.

ACTION: We propose to introduce 'Middle Years' training posts into the dental postgraduate training infrastructure to meet the needs of the NHS, the workforce and the provision of high quality oral and dental healthcare.





²⁵ Advancing Dental Care: Interim findings, SQW evaluation of dental education and training pilots, Nov 2020

3.1.4 Improve the existing 1-year DFT programme

Alongside the development of the 2-year Early Years Programme, we will broaden and improve the educational value of the existing 12-month DFT programme by undertaking a curriculum review in conjunction with stakeholders. The blueprint retains the DFT year but there will be a transition from DFT to early years via a run through to DCT route over time. Continuing to keep the DFT year will allow choice for trainees and allow capacity to be built in to accommodate more 2-year Early Years programmes.

We will aim to give DFT trainees exposure to more than one educational supervisor, so that responsibility for their coaching, mentoring and clinical support is shared more widely during the year. They will be allocated to different practices and training environments to experience a range of clinical leadership. Models to accomplish this include two-site practice working, and placements in the Community Dental Service (CDS), secondary care or in public health settings, which will also lead to a broader range of clinical experience.

By exposing trainees to more than one NHS practice workplace, to a variety of patient case mixes (high and low needs) and to broad clinical experience, the model will better allow trainees to deliver high quality holistic care to meet the needs of the population.

ACTION: We will improve the existing Dental Foundation Training model to broaden trainee experience in the NHS to deliver high quality holistic care.

3.1.5 Developing Dental Specialty Training

Evidence from trainee surveys tells us that more flexible training options would be preferred by many dental specialty trainees, to give them a better work-life balance or to enable them to better manage other commitments. Flexible options which need to be explored would include part-time working and 'step on, step off' training opportunities where possible.

HEE is committed to encouraging the widening of access to all its commissioned training programmes, including specialty training. We will continue to work with our specialty training providers to ensure that any in-programme, barriers to training are not an obstacle to this commitment.

In discussion with the GDC, we will work towards the recognition of parallel or prior learning at specialty training level and continue to work with the GDC on Specialist List Application by Assessment (SLAA) which will facilitate more flexible entry to specialist lists. It is intended that there should be open access to examinations, and this will also support Specialist and Associate Specialist (SAS) dentists who can evidence the specialty curriculum requirements to gain full Specialist status.

ACTION: We will further develop flexible models of Dental Specialty Training to support workforce retention and career progression.

3.1.6 Quality management of the Performers List Validation by Experience (PLVE)

The PLVE model was developed by HEE in cooperation with NHSE/I to provide a structured approach to applications to join the NHS Performers List from dentists who were required to demonstrate equivalence to Dental Foundation Training and had recent experience of working to the full Scope of Practice as a dentist²⁶. In view of the number of dentists applying to join the Performers List who do not have the required recent experience, there appears to be a need to explore models to manage such applications in the interests of patient safety and service delivery.

ACTION: We will work with NHSE/I to further develop the PLVE model, where necessary to ensure overseas dentists demonstrate the required experience and skills to join the NHS Performers List.

3.1.7 Distribution of Postgraduate Dental training posts

The distribution of the NHS dental workforce is not aligned to the oral health and dental care needs of the local population which can compound oral health inequalities. The data necessary to map need against provision with confidence is not currently available.

On the one hand, reportable waiting lists are a poor measure of need, not least because expressed demand is not equivalent to actual need since some people do not have access to care or treatment. On the other hand, provision is also difficult to assess accurately. This is partly because there is no central register of private provision and, even for NHS provision, Units of Dental Activity (UDAs) consumed are a poor proxy for detailed information on the types of services provided and their availability. HEE awaits the findings of the PHE adult oral health survey in 2022/23, which will help to clarify the picture to some extent and recommend that a mechanism should be put in place to keep information up to date on a regular basis.

To aid the alignment of the future dental workforce to areas with the highest levels of oral health and dental care need, dental training posts should be distributed based on population health data so that dental care could be uniformly provided to all according to need, both by specialty and geography. To address this, HEE is undertaking scoping work to identify the dataset required to establish a contemporary workforce data collection model.

To help meet the needs for specialist treatment in poorly supplied locations, particularly in paediatric dentistry and special care dentistry, we will seek to develop more flexible models of Specialty Training and to develop the infrastructure necessary to support it. Where an existing support mechanism is not present, improvements in digital technology may make it possible to deliver training and supervision remotely for experienced trainees.

The distribution of training posts across specialties is based on historic commissioning decisions that do not accurately reflect the needs of the population or the best make-up of the specialty workforce. We will seek to commission specialty posts according to patient need, including the development of NHS mono-specialty programmes to deliver improved access to this care.

ACTION:

- Working with NHSE/I, we will aim to improve the quality of data to enable better mapping of NHS provision against patient need and therefore better planning of the distribution of training posts.
- We will seek to produce an England-wide model for distributing dental foundation, core and specialty training posts to areas with the highest:
 - a) need for oral health care and treatment
 - b) levels of deprivation
 - c) demand for workforce skills; and
 - d) workforce retention issues.

²⁶ For a minimum of three months full-time, or the equivalent period part-time within the previous two years.

3.1.8 Embed academic training across postgraduate dental training

Dental practice is under continuous evolution. A key driver of this evolution is new discoveries about the nature of disease, new means of clinical investigation and the development of new treatments. HEE wants to ensure trainees have opportunities to undertake academic training and develop as future researchers and educators to advance innovations in dentistry. We will work with the DSC, National Institute for Health Research (NIHR) and the Clinical Academic Training Forum to promote academic career pathways for dental registrants, including Integrated Clinical Academic (ICA) opportunities for DCPs.

Across the postgraduate dental training structure, we will work with Higher Education Institutions (HEIs) and Trusts to embed research training and opportunities at every stage of training (Dental Foundation, Core and Specialty) outside of academic training posts. Working with practices and other stakeholders, we will also promote and develop NHS research activity which is related to the primary care clinical practice. We will also explore the concept of mentoring for trainees considering an academic pathway and mechanisms to support DCPs considering an academic career path.

ACTION: We will work with NIHR and the Dental Schools Council to continue to embed academic training and seek to provide better co-ordination of recruitment to NIHR funded posts, also taking into account factors such as specialty workforce data, the balance of different specialities needed and any geographic need in England for senior academics.

3.2 Improve the delivery of dental training

Explore the concept of Centres for Dental Development to bring together education and training at all levels with service delivery models, particularly in areas of identified need.

To overcome the geographic concentration of training posts around existing dental schools and the unequal access of patients to care that comes with it, we propose to explore with partners the concept of integrated Centres for Dental Development to bring together training and service provision in a co-ordinated way. Where funding was available, these would be located in areas which are remote from dental schools where training opportunities are limited and where access to specialist and, sometimes, generalist, care is limited and where recruitment of dentists to provide patient care is difficult. The proposed Centres would be tailored to suit the local workforce requirements in addition to the education and training needs and would support the premise for developing and delivering education and training in areas where there is a deficiency in the availability of dental services at generalist or specialist level, or both.

Each Centre would provide an opportunity to bring together in one locality the later stage of undergraduate training, Early Years and Middle Years Programmes and Specialty training facilities, together with generalist and specialist services. Elements of this model already exist in undergraduate programmes delivered by UCLan and the University of Plymouth.

We note that there may be infrastructure, financial and other implications in this model which are outside the remit of HEE and that a co-ordinated partnership approach would be necessary to achieve the desired outcome.

ACTION: We will work with DHSC, NHSE/I, ICSs, the Dental Schools Council, the Association of Dental Hospitals, and other stakeholders to explore and further develop the concept of integrated Centres for Dental Development in suitable areas.

3.2.2 Promote digital literacy and embed blended learning across dental training

Blended learning is the use of a combination of learning approaches supported by technology and is increasingly being adopted to develop the capabilities of learners. HEE will evaluate how the shift to more online learning by education providers of non-clinical elements of pre-registration dental programmes during the COVID-19 pandemic has changed trainees' quality of learning.

We will work with the General Dental Council and Dental Schools Council to review how blended learning approaches can be recognised and fully utilised across pre-registration programmes. We will seek to understand the best balance between simulation and direct patient care for early years learners.

In partnership with HEE's Digital and Innovation Directorate, we will identify best practice in simulated learning environments and how these can be introduced in postgraduate dental training models. Alongside this, we will work with the HEE Digital and Innovation Directorate on implementing the guidance report for blended learning across pre and post-registration training and consider which effective evidence based technology and techniques can improve the delivery of postgraduate dental training.

ACTION: Building on best practice from the COVID-19 pandemic, we will work with the stakeholders to review how the greater use of technology enabled learning (TEL) and blended learning approaches can enhance learning outcomes across postgraduate dental and post-qualification dental training; whilst not losing sight of the importance of patient contact, peer support and teamworking in the educational process.

3.2.3 Further develop a supportive learning environment for postgraduate and postregistration dental trainees

Work with the NHSE/I's Dental Diversity Action Group, we will review how postgraduate recruitment and training programmes can be improved to support equality, diversity and inclusion for all learners and how a more diverse range of placement experiences can be created. HEE will also work with training providers on in-programme barriers that might impact on this group and discourage widening access.

ACTION: We will work to further develop an inclusive and supportive postgraduate dental training learning environment and to promote diversity.

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3.3 Strengthen the interface between pre-registration education and post-registration training

HEE is responsible for distributing undergraduate clinical placement funding and postgraduate dental training, however the ADC Review has identified imbalances across the whole of oral healthcare which needs to be addressed by an education and training pipeline that better prepares new graduates and qualified dental professionals for dental practice, supports the delivery of team-based care and develops a deeper understanding of the local health economy amongst learners and trainees. This is considered further below.

3.3.1 Support undergraduate dentist, Dental Hygienist and Dental Therapists to prepare for dental practice

Undergraduate dental, Dental Hygienist and Dental Therapist pre-registration programmes are eligible for clinical placement tariff funding. HEE has responsibility for administering clinical placement tariff funding²⁷ which aims to ensure that providers are reimbursed consistently for the training placements they provide, that placements are high quality and ensure that learners develop the required skills and knowledge to meet their respective professional competencies.

HEE will work with HEE's Education Funding Team to develop a national undergraduate and postgraduate dental clinical placement tariff for undergraduate dental students and consider how the tariff regime for all undergraduate Dental Hygienists/Dental Therapists and BDS dentistry can be reviewed to recognise the educational support required for each group.

In partnership with the Dental Schools Council, we will consider how current initiatives to improve and increase the clinical experience of undergraduate dental learners can be further developed. Initiatives that could be explored include the creation of relationships with local training practices linked to Early Years training placements through the Centres for Dental Development concept and ensuring that the level of support in Early Years training is matched to the needs of the trainee.

ACTION: We will review with partners how we can better prepare undergraduate dentist students for postgraduate training and preregistration Dental Hygienists and Dental Therapists for clinical practice.

3.4 Widen access and participation in dental careers

To meet growing demands for a wider range of dental professionals working in multi-disciplinary and multi-professional teams and to increase opportunities for under-represented groups to train in the field, HEE proposes that the range of dental apprenticeships be revised and scaled up. Offering these in areas of poor provision and care and in more deprived parts of the country where there is a relatively high rate of tooth decay will increase the range of dental skills to address population oral health needs.

Apprenticeships can offer an attractive option to students wishing to undertake flexible training and to widen access to dental careers to people from disadvantaged communities. The Social Mobility Commission report of 2020 recognised apprenticeships were 'one of the few indisputably effective tools of social mobility²⁸'. Several apprenticeship programmes have been piloted by HEE – see Appendix 3 – and we want to work with regional apprenticeship leads to consider how these can be part of local apprenticeship plans which have strong connections with employers.

 ²⁷ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/906634/Education_training_2020_to_2021_Tariff_Guidance.pdf
 ²⁸ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/894303/Apprenticeships_and_social_mobility_report.pdf_

3.4.1 Develop a skills escalator approach to dental apprenticeships to widen routes into dental careers and support employers recruit and retain a local workforce

Apprenticeships offer a strong model for growing the dental workforce, supporting local recruitment and career progression through a 'skills escalator' approach. This can provide a secure pipeline of a locally trained workforce, removing barriers to progression through tailoring the design and delivery of the apprenticeship to meet the needs of both employers and learners.



Having apprentices from a range of dental professions training and working together is also recommended to help build greater understanding and acceptance of multi-disciplinary team working. For example, buddying schemes within a practice or setting may help to break down cultural barriers, build longevity into some supervisor and trainee relationships, and encourage geographic stability.

To gain the maximum benefit from the DCP contribution to oral health and dental care, and to bring about the opportunities that these programmes can offer, requires the development of new courses by education providers as part of a broader inclusive local economic strategy. We will work collaboratively with regional apprenticeship leads to consider how HEE's ambition for growing DCP apprenticeships can be linked to ICS or regional apprenticeship plans.

Recognising that HEE is working with the Institute for Apprenticeships and Technical Education to facilitate the development of a medical doctor apprenticeship, we will work with key partners to consider whether there might be a role for a pre-registration degree apprenticeship in dental hygiene.

ACTIONS:

In order to develop a skills escalator approach to the development of apprenticeships for the dental workforce, HEE will work through its regional offices and its Talent for Care programme to consider:

- scaling up the Oral Health Practitioner apprenticeship so that it is piloted more widely with a view to creating a substantive national model
- how apprenticeship places for clinical dental technicians are developed, based on an assessment of the role they could play in the delivery of NHS care
- how orthodontic therapist training posts can be developed to support the delivery of efficient orthodontic patient services
- the evidence for developing a Dental Hygiene apprenticeship model. This would introduce the current career progression 'missing link' between Dental Nurse/OHP and Dental Therapist training

3.5 Create post-registration skills development opportunities for the dental workforce

3.5.1 Supporting the development of Level 2 accreditation for practising dentists

To give practising dentists the opportunity to further develop their skills and be available to deliver more complex treatment in primary care, HEE proposes to introduce a flexible 'Middle Years' model in conjunction with key partners. This will help reduce the pressure of referrals to the Community Dental Service (CDS and secondary care - as well as increasing professional fulfilment and reducing the risk of de-skilling. It will also help develop a network of potential clinical mentors and trainers for the future.

In the pilot model being developed in the North West, training associated with Level 2 recognition will be delivered on a less than full time basis within a range of settings dependent on the landscape of the services in the region. The primary setting of training delivery will initially be the Community Dental Service, but there may be clinical attachments in other settings – for example, dental services in District General Hospitals. This will help ensure that trainees can achieve a comprehensive range of clinical experience to successfully complete competencies required to achieve Level 2 accreditation by NHS commissioners.

This model will contribute to the requirements for recognition as competent to provide Level 2 dental services, which is more complex care delivered by dental practitioners who have demonstrated competency beyond that of a dentist, and have satisfactorily completed DFT (or equivalent), but not at the level of a registered specialist.

To support the commissioning aim of delivering Level 2 NHS services in primary dental care, HEE in Thames Valley and Wessex and the South West has already piloted a practice-based training model jointly with NHSE/I, to accredit practitioners so that they can deliver NHS services that are not covered by GDS mandatory services via a referral service within a local managed clinical network (MCN).

SQW examined the above pilot which, from October 2019, has funded general dental practitioners to undertake certificated training leading to a Diploma after two years. It found that former trainees felt well supported with good opportunities to undertake practical training and they improved their skill set and their confidence levels. They considered the model had the potential to improve patient accessibility to Level 2 care and cost effectiveness.

Going forward, HEE will build on this initiative and work with NHSE/I to enable the specific inclusion of a supported training element within all future Level 2, enhanced and specialty commissions (such as Orthodontics) within the existing funding envelope.

ACTION: Working with stakeholders, HEE will explore models of accredited training, including the funding options available to allow practising dentists to demonstrate competences relating to the provision of Level 2 dental services.

3.5.2 Introduce a national Dental Therapy Foundation Training model

At the present time, a number of different models of Dental Therapy Foundation Training (DTFT) exist. For example, one DTFT programme comprises a 3-day-a-week training programme whilst another is full-time and includes elements of non-clinical training for part of the week. Research by SQW showed that both programmes helped trainees to build confidence and to enable them to use their full Scope of Practice in patient care. We propose that a standardised model curriculum should be developed to ensure consistency in basic training outcomes.

ACTION:

HEE will explore with the DHSC and NHSE/I:

- how Dental Therapist Foundation Training can best be developed as a requirement for Dental Therapists to practice in NHS primary care dental services
- options for a standardised Dental Therapist Foundation Training model for newly qualified Dental Therapists working in NHS primary care within HEE's funding envelope

3.5.3 Enable Dental Therapists to utilise their full Scope of Practice

HEE wants to create opportunities across each of its regions to optimise the skills of Dental Therapists and facilitate the profession to undertake more simple dental treatments. The London Economics²⁹ study found that potential net economic benefits and, consequently, service benefits would be associated with a greater flexibility in the use of skill mix by creating an environment where Dental Therapists could undertake more Band 1 and simple Band 2 treatments, which would free up dentists to undertake more complex treatments.

SQW³⁰ noted inequalities and inconsistencies in the rates of pay for Dental Hygienists and Dental Therapists, particularly in private practice, which tend to militate against therapists working to their full Scope of Practice. Lack of financial incentives for employers also meant that some practices were unlikely to retain their therapists after training, preferring instead to recruit another DTFT or Return to Therapy trainee.

The transformational commissioning model being developed by NHS England is expected to contribute to enabling Dental Hygienists and Dental Therapists to deliver to their full Scope of Practice within the NHS, by addressing the financial elements which currently inhibit this.

²⁹ Financial modelling and economic impact assessment of dental education and training models in England, London Economics, February 2021 ³⁰ Advancing Dental Care: evaluation of dental education and training pilots, SQW, December 2020

HEE will also continue to support the Return to Therapy programmes which have been run in different HEE regions periodically over the past five years to support workforce transformation. The programme is open to Dental Therapists who have been qualified for over a year, who have not previously undertaken DTFT and are now working as hygienists. HEE supports this programme as a means to enable qualified professionals fulfil the full Scope of Practice for which they have been trained.

ACTION: HEE will work with NHSE/I to support Dental Therapists working as hygienists to refresh their therapist skills through existing HEE Return to Therapy programmes.

3.5.4 Advanced Clinical Practice (ACP) in Oral Healthcare

Advanced practitioners are an integral part of the 21st century NHS workforce as new models of care are transforming the way patients are treated. Advanced practitioners offer multiple benefits to the health service and the population. They bring more holistic care to patients, support continuity of care and extend their Scope of Practice across traditional boundaries. The roles undertaken by advanced clinical practitioners are determined by the needs of the employer and how they require the level of practice to be deployed within their setting.

Non-medical 'advanced clinical practitioner' (ACP) roles are increasingly being introduced to support service transformation across secondary and primary care. We want to learn from best practice and consider how advanced practice models can be developed in primary care and secondary care dental services.

As a first step, we plan to increase the scope and range of training opportunities available to Dental Therapists. We propose, in line with HEE policy, development of a new qualification – the Advanced Clinical Practice (ACP) in Oral Healthcare, which would provide additional training opportunities within the current Scope of Practice. In due course, the principles of the model could be adapted to offer a similar learning experience to Dental Nurses, Clinical Dental Technicians and other DCPs. As proposed, training will take place mainly within the community dental services (CDS) with aspects in primary care. A proportion of the education and training will also take place in an HEI.



The ACP programme will help to support DTs to develop a transferrable skill set that cannot only be utilised within many spheres in dentistry but also as part of the wider healthcare system. It could potentially help dentistry to integrate into the system locally and regionally, since there is scope for DTs working at the ACP level of practice to work in a multitude of secondary care settings – for example paediatric, neonatal and OMFS services. This upskilling of the workforce is expected also to help with recruitment and retention issues.



The possible specialties, settings and roles within which a DT ACP could work

As an additional tool to promote multi-disciplinary working at an early stage in their training and to help with the recognition of DCPs' full Scope of Practice, the existing initiatives created by dental schools to enable dental undergraduates to train alongside DCPs and work with them in teams should be better understood and, when appropriate, further developed across the full education and training spectrum.

As part of HEE's wider work to advance the practice of qualified health and care professionals, further work will be undertaken on credentials for the dental profession that promote inter-professional learning, leadership skills and multi-professional approaches to patient care, thus providing a more flexible approach to acquire recognised skills and competencies.

More widely, HEE will also work with partners to identify the development of an oral health multiprofessional credential which responds to population and service need. A multi-professional credential open to qualified non-dental professionals will help upskill a wider cohort of the NHS workforce in oral healthcare and support the integration of oral health across primary care.

ACTION:

- Working with the HEE Advanced Practice Programme, we will explore cost-neutral Advanced Clinical Practice models for dentistry
- We will work with the existing ADC Review Primary Care Reference Group and other stakeholders to identify the patient and service need for multi-professional credentials

3.5.5 Enhancing Generalist Skills

HEE's Future Doctor programme is developing 'trailblazer' models to embed augmented generalist skills to enable future doctors to feel confident in meeting the everchanging and complex demands of the healthcare landscape. The model is designed to supplement training as part of a wraparound development programme. The training is designed to deliver holistic care to patients as well as developing leaders; understanding population health and care needs; making use of data, technology and contemporary research methodologies, highlighting oral health inequalities and addressing local priorities.

Oral health and dental care providers operate in the same landscape and the acquisition of these skills by members of the dental team will be essential in ensuring that dentistry is able to take its rightful place at the healthcare 'table'.

ACTION: Working with HEE's Future Doctor programme, we will investigate how postgraduate dental training can be adapted to enhance generalist skills of trainees.

4. Delivering the Blueprint: Dental Education Reform Programme

While there is good evidence to support the development of new models of training described above, further work is now planned to ensure that the models can be scaled up and that commissioning and funding are available. Since HEE has responsibility only for postgraduate dental education and training, and system-wide reform is planned, much partnership engagement will be required, including with DHSC, NHSE/I, PHE, GDC and BDA.

We will implement a four-year Dental Reform Education Programme (DERP) programme from 2021/22 to put the proposed changes into effect across each of England's seven regions. This will be divided into three phases:

Phase	Years	Activity	
1: Definition and Planning	2021-22	 All projects and activities defined and agreed Proposed budget scrutinised, agreed and achieved Regular review processes agreed and defined Roles and responsibilities agreed within governance structure Reporting cycle, benefits realisation plan and programme documentation developed and agreed 	
2: Mobilisation and delivery	2022-24	 Individual project managers run the identified projects through HEE regions and lead HEE Dental Deans (HEEDD) reporting to HEE's Directorate of Education & Quality Reform Team. Programme stays aligned with the overall objectives and strategy of the organisation Management of dependencies and interdependencies at national and regional level Reporting structures operationalised 	
3: Benefits realisation and closure	2024-25	 Lessons captured Programme outcomes and capabilities handed over to regional Deans and operational/ business managers Changes made to Medical Dental Recruitment Service (MDRS) where appropriate Benefits realisation report produced to document benefits and propose programme closure 	

The aim of the programme will be to reform English postgraduate dental education and training by 2025 and contribute to the training of the future dental workforce to have the skills and competencies to work in multi-professional teams and deliver high quality dental care to patients.

The four year programme will have five key objectives:

• strengthen the interface between pre-registration routes into dental careers and post-registration learning and training to ensure a coherent approach to skills development

- adopt multi-professional and multidisciplinary approaches to training and learning to ensure effective delivery of high-quality patient care
- working with partners, support innovative, flexible pathways and portfolio careers into different types of specialist areas or care models, such as utilisation of the full Scope of Practice of the dental team
- forge stronger training links with primary and secondary care and recognise the importance of alternative pathways and prior accredited learning
- distribute dental training posts based on intelligence-led understanding of population needs

Four work areas are being commissioned:

1. Pre-registration dental pipeline

This will work with partners on CDT apprenticeships; consider undergraduate tariff, dental school places and placements; develop widening access and participation in undergraduate dentistry/dental hygiene and dental therapy; and scoping work to identify cost neutral models for establishing Centres for Dental Development that offer high quality, multi-professional and diverse undergraduate/postgraduate placements with dental schools/OfS and NHS Providers in areas of high oral health need/low levels of general and specialist dental provision.

2. Future postgraduate dental training models

In partnership with stakeholders, this workstream will test models for dentists who have not chosen the DCT route; consider how to move to Lead Employer Trust arrangements to facilitate flexible movement and rotation of trainees; address regional stakeholder engagement with Trusts and placement providers; and commission economic modelling to identify the appropriate ratio of posts and funding across DFT, DCT and DST.

3. Distribution of postgraduate dental training posts

We will work with stakeholders and HEE regional offices to improve the distribution of training posts so that it is more equitable across England assessing the economic and equalities impacts of distribution. The workstream will focus on the development framework that can be used to model the distribution of postgraduate dentistry training posts. The ADC Training Distribution Development Group has agreed that there are three pillars for the foundation of the framework:

- Short term demands based on key determinants of oral health, such as deprivation
- Long term demands based on data forecasting future population changes
- Accounting for differential needs, including the significant differences between deprivation and the location of practices.

Alongside this, the Group has agreed seven principles underpinning the framework, these are:

- 1. Equitable geographic distribution
- 2. Equitable professional distribution
- 3. Evidence base and flexibility
- 4. Anticipate future workforce demand
- 5. Monitoring and evaluation
- 6. Supporting education and training
- 7. Marginalised populations

To inform future workforce planning nationally and at regional level, we will develop an England-wide dental data collection in consultation with NHSE/I and Integrated Care Systems.

4. Skills development of the dental workforce

NHS dentists

This will scope how to embed academic and leadership training in postgraduate dental training; work with DEQ Primary Care Team on ICS infrastructure; and work with local stakeholders on options to expand placement provision in primary care.

General Dental Practitioners and DCPs in primary care

This will work with the Centre for Advancing Practice to develop Advanced Practice pathways/ credentials for dentists and DCPs and work with the HEE Digital, Innovation and Transformation Directorate to embed digital and blended learning across dental and DCP education and training.

Next Steps

We plan a series of regular stakeholder updates every quarter and will publish a progress report in spring 2023.

Programme Outcomes

The structure of the Dental Education Reform Programme (DERP) has been designed to address the education and training needs of the workforce and NHS dental services to improve the quality of patient care. The programme will work to improve the way we train the dental workforce to ensure it is equipped with the skills that the future NHS needs.



The DERP Benefits Map provides an overview of the programme's intended outcomes and benefits for the NHS and this will be reviewed annually to ensure a rigorous focus on measurable improvements is retained throughout the four year delivery period.

Dental Education Reform Programme (DERP): Benefits Map

ADC Review Findings	DERP Objectives	Business Change	Programme Outcome	Intended Benefits
Significant inequalities in patient oral health between different population groups and geographies	Reform postgraduate dental training to give trainees a diverse experience of clinical placements and multi- disciplinary care	Phased reconfiguration of postgraduate dental training which integrates two years of early years training and middle years training	Postgraduate training develops dentists with a diverse range of clinical and professional skills to work in multi-disciplinary teams	A greater proportion of dental trainees are experienced in working with patients with different oral health and dental care needs A stronger and agile postgraduate training model that reflects the educational and professional needs of learners and the skills needs of the service to deliver more teams based care to patients A greater proportion of the dental workforce are working to their full scope of their practice improving patient access to oral health and dental care Improved capability of the workforce to work flexibly within multi-disciplinary teams, care pathways and have greater career development opportunities
Mismatch of supply of dental skills against patient need	Distribute dental training posts based on intelligence- led understanding of population needs	Develop and test a methodology for distributing dental training posts based on oral health need, deprivation and	Postgraduate training posts are delivered in areas with high oral health needs and access to NHS dental care	
More general oral health and dental care can be delivered by DCPs by optimising the use of their full Scope of Practice	Improve the delivery of postgraduate training to enhance the learning experience for trainees	access to NHS dental care Embed digital tools and blended learning approaches across	The delivery of postgraduate training incorporates innovative digital and online educational methods and a high quality induction process to optimise the learning opportunities for trainees	
The transition between undergraduate education	Strengthen the interface between pre-registration	postgraduate training and strengthen the induction process for trainees		
and postgraduate training needs to be improved to better prepare trainees for the next stages of their development	and postgraduate training to better prepare graduates for the next stage of their development	Identify the key transition points for undergraduates and consider how tariff funding can improve placement experiences in different learning environments and foundation training can better prepare trainees to work in multi-disciplinary teams in dental practice Work with regional apprenticeship leads and employer networks to consider apprenticeship models which respond to local need for dental skills	Improved flexibility for trainees to complete chosen training pathway or move onto another training pathway	
Postgraduate training pathways do not support portfolio careers, modular learning, multi-disciplinary learning or teams based approaches to oral	Widen access and participation into dental education and training through apprenticeships		DCPs have a number of high quality routes into dental careers and options to progress into higher skilled roles	
Postgraduate training pathways need to provide more leadership and academic training opportunities for trainees and embed digital learning	Create post-registration skills development opportunities for the existing dental workforce to support career development and integrate oral health		A number of options for DCPs and dentists to advanced their practice or upskill into different areas of dental care	
across training. There is need to develop a skills escalator approach to DCP careers to enable progression into higher skilled roles and widen access and participation into the dental workforce	into primary care pathways	Working with existing HEE programmes identify how credentials, advanced practice and recognition of equivalence can improve the capability of different dental professions		
Developing the skills of the existing the dental workforce can help improve continuity of patient care and offer a rewarding, clinically facing career option for experienced staff				

5. Appendices

Appendix 1: Overview of the SQW Evaluation of Innovative Training Pilots

- 1. The first phase of the ADC Review programme produced an Education and Training Review (2017) which stated that:
- Flexible pre- and post-registration training pathways would enable commissioners to better respond to service needs, facilitating greater opportunities for career development
- Part-time training following registration would allow dental professionals to develop their careers whilst also retaining existing skills
- The opportunity for trainees to undertake academic research during training would facilitate increased training capacity and the potential for increased innovation
- The dental team should be fully utilised, using their full Scope of Practice.
- 2. The Review made recommendations across four thematic areas, including to pilot and evaluate innovative dental education and training initiatives. SQW was commissioned in 2019 to evaluate innovative training pilots against 'business as usual' training models, examining impacts on training flexibility, skills, future workforce supply and retention, and training commissioning. The list of initiatives evaluated is provided in Table 1 below.

Table 1: Training initiatives to be evaluated by SQW					
Category	Name of training initiative	Approximate length of training	Regions1 where training is taking place in 2019/2020	Evaluated by external supplier	
DCP	Dental Therapist Foundation Training	One year	NW, Y&H, M&E, TV&W, SW, LKSS, NE	\checkmark	
DCP	Return to Therapy	Up to 6 months	LKSS, M&E, TV&W	\checkmark	
DFT/DCT	2-year DFT / DCT	Two years	NE and Y&H	\checkmark	
DCT	Innovative DCT Posts	One year / two years	NE, NW, Y&H	1	
GDP	Level 2 training	One year / two years	TV&W and SW	\checkmark	
Apprenticeship	Dental Nurse Apprenticeships	18 months	NW, Y&H, LKSS	\checkmark	

- 3. The SQW evaluation began in January 2020 and completed in May 2021. The final evaluation report can be accessed on the HEE website.
- 4. The aim of the evaluation is to test and evaluate how innovative training initiatives serve to improve or modify the skills and capabilities of the dental workforce, whilst offering training and workforce flexibility, in comparison to existing training models.

- 5. Key findings from the final report show:
- Trainees engaging in ADC initiatives appear, on the whole, to be enjoying their experiences, welcoming the different opportunities, and enjoying enhanced networks, skills and confidence through participating in the training.
- ADC initiatives have largely developed organically in response to regional need and circumstance; in this respect they offer opportunities for regions to innovate in order to meet the particular challenges or issues affecting their dental care workforce and provision.
- The combined and DCT initiatives under ADC operate alongside business-as-usual training routes. In this respect, the innovative and combined models can be seen to add variety to the options available for trainees and may prove effective in encouraging trainees to remain in Core training for longer than they otherwise would (as evidenced for combined DFT/DCT trainees), leading to an upskilled profession longer term.
- Trainees in innovative DCT posts reflected on challenges in evidencing their progression in academic posts under the current Annual Review of Competence Progression (ARCP) and e-portfolio arrangements and assessment processes should be reviewed in this respect.
- In terms of combined posts, DCT trainees were mostly willing to consider combined posts and could see potential benefits associated with this model of training. Introducing this model more widely for DFT/DCT and/ or DCT 2/3 may well help to avoid the unnecessary anxiety for trainees associated with national selection.
- Level 2 training is a small-scale pilot but is seen as offering real potential to ensuring consistent quality of level two professionals and to standardise routes into this level of care. The current model is perceived to be providing opportunities not available elsewhere, with the group learning aspects and practical opportunities both particularly welcomed.
- The two dental therapy training initiatives which fall under ADC are both designed to upskill therapists, to better enable them to

use their full Scope of Practise in patient care, and to build confidence and networks within localities to enable the skills to be put into use post-training. The evidence emerging so far indicates that they are well set up to deliver against most of these objectives, with positive trainee and programme manager accounts of their experiences and learning.

 The key challenges in Dental Therapists utilising their full Scope of Practise were seen as rates of pay – many Dental Therapists work as Dental Hygienists which attracts a higher salary. A lack of trainer capacity is limiting expansion of initiatives to upskill Dental Therapists; commissioning models which disincentivises practices to continue offering Dental Therapist training and cultural barriers around willingness of dentists to delegate tasks to Dental Therapists.

Appendix 2: Scope of the London Economics Financial Modelling Exercise

- HEE spends over £120m annually on dental education and training programmes for the dental workforce. The majority of this funding is spent on supporting postgraduate dentistry: Dental Foundation Training (DFT), Dental Core Training (DCT) and Dental Specialty Training (DST). Costs associated with training include trainee salary³¹, supervision costs, programme support costs, curriculum delivery costs and placement fees. HEE also provides funding for DCP training and small amounts of funding for apprenticeship development and Dental Nurse apprenticeship and dental technician training programmes.
- 2. In order to develop a future workforce that can respond to the changing needs of patients and services and improve the quality of training and learner experience, HEE's Dental Deans are testing new and innovative postgraduate training models with the existing HEE funding budgets in selected regions. However, there is no robust evidence of the true financial costs (to HEE and the wider system) associated with these new initiatives and how these costs align with the current 'business-as-usual' (BAU)

³¹ HEE funds 100% of Dental Foundation Training. HEE funding towards DCT 1, 2 and 3 varies across each HEE region.

models. Addressing this evidence gap is critical to any future training models that are to be recommended as part of the ADC Review. In light of this, HEE commissioned London Economics to undertake an analytical study with two key objectives:

- a. To examine the full costs of postgraduate dental training to HEE and the wider system if new and innovative training initiatives were implemented on a larger scale in more regions in England and provide a comparison with BAU models. A two-year DFT/DCT programme and a two-year DCT programme were the alternative scenarios modelled.
- b. To assess the wider economic impact associated with a change in the skills mix of the dental workforce, as well as the redistribution of dentists and dental care professionals across England. The potential benefits and costs associated with a change in the dental workforce skills mix, as well as a redistribution of dentists and Dental Therapists and Dental Hygienists across England were assessed against three scenarios.

Appendix 3: Pilot apprenticeship case studies

Pilot work being carried out as described below gives an indication of the scope and opportunities offered by the apprenticeship model.

Oral Health Practitioners

A scheme with 13 apprentices is being piloted in Thames Valley in 2021/22. One day a week of study is combined with four days a week of on-the-job training. The trainees, based in practices, are expected to work in a wide range of settings including care homes, GP surgeries and pharmacies. It is expected that training can be offered by further education colleges as well as dental schools.

Clinical Dental Technicians

One programme is currently offered in the north of England (at UCLan) and one in the south (at Plymouth) and it is proposed that these continue. This will help develop professionals with the specific skills needed to deliver care to denture wearers in domiciliary settings (e.g. in care homes) and where dentists do not always have the time or the opportunity to commit to this important area of care.

Orthodontic Therapists

Experience and feedback suggest that Orthodontic Therapists make a significant contribution to the efficient delivery of orthodontic treatment, and it would be best practice for the role to be included in a multi-disciplinary model for orthodontics; however, there are currently a limited number of providers of orthodontic therapist training.

Dental Hygienists

Dental Hygienists are able to provide advice and treatment linked to a patient's periodontal condition. In recent years, this diploma-based qualification has tended to be subsumed within the Dental Hygiene/Dental Therapy undergraduate training programmes. HEE will work through its national apprenticeship programme to explore a model for developing a dental hygiene apprenticeship.

Appendix 4: Factsheet

The Dental Workforce

The dental workforce in England is made up of roughly 70,969 Dental Care Professionals (DCPs) and 42, 470 Dentists of which there are 4,280³² who hold a specialist title on the General Dental Council specialist list³³. There are six types of DCPs: Dental Nurse, Dental Technician, Dental Therapist, Dental Hygienist, Orthodontic Therapist and Clinical Dental Technician. About 84% of graduate dentists work in general practice³⁴.

Within secondary care, there are 13 dental specialities³⁵: Dental and Maxillofacial Radiology; Dental Public Health; Endodontics; Oral and Maxillofacial Pathology; Restorative Dentistry; Oral Medicine; Oral Microbiology; Oral Surgery; Orthodontics; Paediatric Dentistry; Periodontics; Prosthodontics; and Special Care Dentistry.

DCP training

Dental Hygienist and Dental Therapists usually qualify via three-year pre-registration undergraduate programmes. For Dental Nurses, Orthodontic Therapists, Dental Technicians and Clinical Dental Technicians there are different entry routes to qualification accredited by the General Dental Council (GDC), ranging from BTEC National Diplomas, apprenticeships and foundation degrees to undergraduate programmes.

³² The GDC figures represent the number of specialty registrations and a proportion of

specialists on the Restorative Dentistry register may be registered on more than one list. ³² General Dental Council (2019) registrant figures.

 ³⁴ ADC Interim Evidence Report, HEE, August 2020

³⁵ https://www.gdc-uk.org/registration/your-registration/specialist-lists

Undergraduate dental training

In order to register as a dentist, UK dental students will typically complete a 5-year Bachelor of Dental Surgery (BDS)³⁶ at one of 16 dental schools, allowing them to register with the GDC upon graduation. Following this, graduates will be required to undertake Dental Foundation Training (DFT), allowing them to provide NHS dental services with a valid NHS performers list number.

Dentists that undertook study outside of the UK can register with the GDC through, for example, completion of a recognised qualification from the EEA or completion of the overseas registration examination (ORE), if studying outside the EEA.

Undergraduate Dentistry

Number of students per year



³⁶ Other routes exist, such as the BChD in Leeds

Postgraduate Dental Education

Postgraduate dental training is commissioned and managed by HEE's postgraduate dental deans. 'Standard' postgraduate dental training comprises:

- a. One year of Dental Foundation Training (DFT)
- b. Dental Core Training (DCT; years 1, 2, 3)
- c. Dental Specialty Training

The majority of dentists will complete the DFT year and enter practice as an Associate Dentist, delivering dental services in primary care. Others will continue their training in DCT and DST.

There are 13 dental specialties and the specialty lists are managed by the General Dental Council (GDC).

GDC	Specialist Lists
1	Dental and Maxillofacial Radiology
2	Dental Public Health
3	Endodontics
4	Oral and Maxillofacial Pathology
5	Restorative Dentistry
6	Oral Medicine
7	Oral Microbiology
8	Oral Surgery
9	Orthodontics
10	Paediatric Dentistry
11	Periodontics
12	Prosthodontics
13	Special Care Dentistry

Appendix 5: Link to HEE ADC Academic Training and Leadership Reports

As part of the ADC Interim Report, the Review published the findings of its academic training workstream and leadership workstream in July 2020.

Academic Training workstream

The scope of the Academic Training workstream was to develop an academic strategy to ensure that there are opportunities to develop academic dental clinicians and dental care professionals (DCPs) to lead dental research and innovate in both university dental schools/hospitals and in primary dental care. This is with a view to delivering improvements in the quality of care for patients and the delivery of evidence-based teaching and training of both undergraduate and postgraduate dentists and DCPs.

The key finding of the workstream was that academic training pvathways and academic career options need to be promoted to all dental registrants throughout their careers, by all stakeholders and consideration needs to be given to flexible and run through training. This includes ensuring transparency and consistency of recruitment to academic posts, linking to national recruitment requirements and timelines.

The full report can be accessed <u>here</u>.

And the supplementary evidence can be found <u>here</u>.

Leadership workstream

The Phase I ADC Review report, published in Spring 2018, considered the future challenges that dental services are likely to face and made the following two recommendations in regard to dental leadership and team development:

- HEE to promote and so improve the identification of potential leaders and ensure the accessibility and take up of leadership development opportunities provided by the NHS and Regional Leadership Academies by Dental Professionals linked to supporting team building and wider locality collaboration.
- HEE to develop system leadership from within primary care, identifying and supporting high-calibre individuals to maximise their potential.

A key conclusion of the report was that all dental professionals should have opportunities to be leaders and access training to support their development in leadership skills. This is becoming increasingly important as health professionals are increasingly working in more diverse multidisciplinary teams and are encouraged to work in and within their full Scope of Practice to support patient needs.

The full report can be accessed here.

Appendix 6: ADC Review Senior Stakeholder Forum members

Department of Health and Social Care
NHS England/Improvement
British Dental Association
Association of Dental Hospitals
General Dental Council
Dental Schools Council
NHS Employers
Public Health England
NHS Business Services Authority
British Association of Dental Nurses
British Society of Dental Hygiene & Therapy
British Association of Dental Therapists
British Association of Clinical Dental Technicians
Dental Technologists Association
Royal College of Surgeons (England) Faculty of
Dental Surgery
Faculty of General Dental Practice
The Orthodontic National Group
Schools of Dental Hygiene and Therapy Group
Care Quality Commission
Office of the Chief Dental Officer England,
NHSE&I
Healthwatch
Patient Advisory Forum
British Dental Association Young Dentists
Committee
Society of British Dental Nurses



6. Glossary of terms

- ACF Academic Clinical Fellow
- ADC Advancing Dental Care
- BDA British Dental Association
- BDS Bachelor of Dental Surgery
- BChD Bachelor of Dental Surgery (Leeds)
- CDS Community Dental Services. CDS is primarily a 'referral' dental service for patients unable to be treated in a General Dental Practice because of learning difficulties, mental health issues or very severe dental anxiety
- DCP Dental Care Professional
- DCT Dental Core Training
- DFT Dental Foundation Training
- DH Dental Hygienist
- DHSC Department of Health and Social Care
- DN Dental Nurse
- DSC Dental Schools Council
- DST Dental Specialty Training
- DT Dental Therapist
- DTFT Dental Therapy Foundation Training
- GDC General Dental Council
- GDP General Dental Practitioner
- GDS General Dental Services
- GMC General Medical Council
- HEE Health Education England
- HEI Higher Education Institution
- LET Lead Employer Trust
- NHSE/I NHS England & NHS Improvement
- OMFS Oral & Maxillofacial Surgery
- PDS Personal Dental Services
- SQW SQW is a trading name of SQW Limited, an independent provider of research, analysis and advice in economic and social development
- TEL Technology Enhanced Learning. The TEL Programme's vision is that patients and public in England benefit from a health and care workforce educated using the most effective evidenceinformed technology and techniques
- UDA Unit of Dental Activity



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