# HPV and head and neck cancer: Are we doing enough to raise awareness?

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## Introduction

In 2018, researchers sent an anonymised questionnaire to the clinical dental students of years three, four and five of a five-year undergraduate dental programme. They were asked to self-report confidence, or lack thereof, in dealing with various dental themed communication scenarios, and while confidence in dental themed scenarios across all years was at a reported 78%, two areas were significantly under. One of those was dental neglect, with only 27% reporting confidence, and the other was an even lower figure: HPV-related scenarios.[1]

Fast forward four years, and those students surveyed will now be part of the workforce, and I'd love to know if their confidence levels have changed. One would hope with the benefit of more experience under their belt, having seen more patients in that time and grown in confidence that they would have improved. Perhaps that's wishful thinking, given they need to, in order to play a role in combatting the rapidly growing threat posed by HPV.

According to the Oral Health Foundation, the number of mouth cancer cases reached an all-time high in the UK, with 8,864 diagnosed last year. These data show the disease has doubled within the last generation[2] and only 11% of the population is aware that HPV is a risk factor. And so, it begs the question, are we doing enough to raise awareness of HPV, its relevance to head and neck cancers and do we have the confidence to tackle those awkward conversations?

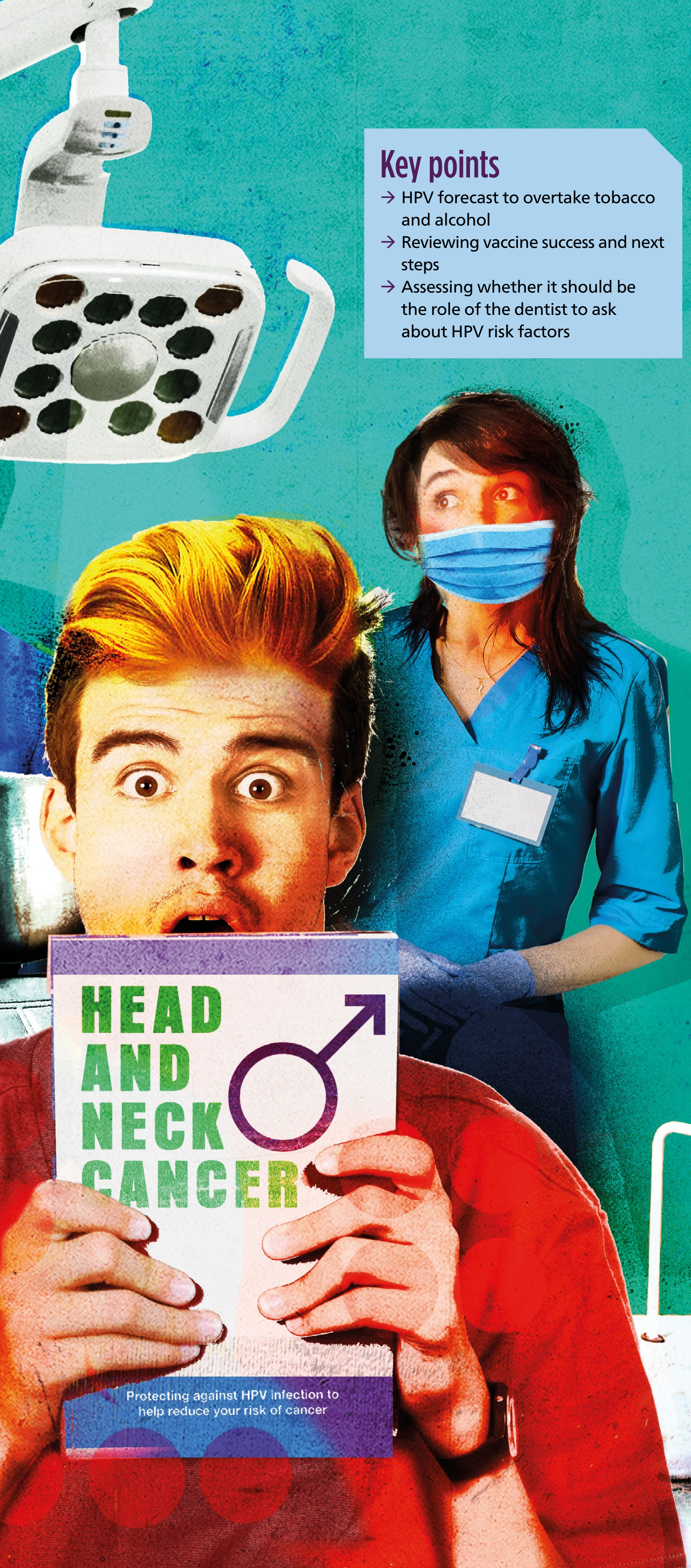
## Building the narrative

On the face of it, it does seem completely illogical for the dental profession to discuss sexual health-related diseases with patients. Research has previously identified that dentists are uncomfortable with doing this, and particularly male dentists talking to female patients.[3] While understandable, if HPV-related head and neck cancers continue to increase, this will need to change. I asked Dr Nigel Carter OBE, Chief Executive of the Oral Health Foundation, Dr Fiez Mughal from East Village Dental and Cat Edney, a dually qualified dental hygienist and dental therapist, whether the dental team needs to address this, and if so how.

'There is a taboo about talking about HPV cancers' Dr Carter said. 'It can be difficult to approach the subject of the patient's personal and sexual life. However, it can be done discreetly, using neutral language or even a leaflet on the subject.

'Remember, one minute of embarrassment, could save a life! This could be made available in a dental practice waiting room or a GP's general area, meaning that it would be available to a wider range of people.'

Dr Mughal explained: 'Of course we should




## Key points

→ HPV forecast to overtake tobacco and alcohol
→ Reviewing vaccine success and next steps
→ Assessing whether it should be the role of the dentist to ask about HPV risk factors

be asking patients about sexual history, given the increase in HPV-related head and neck cancers. Are we used to it? No, of course we're not, but that is a different question. Should we be asking? Yes, because we are best placed. Head and neck cancer is no laughing matter, and with the new figures showing another increase in cases, it is time to ditch the taboo and judgement and start having these conversations. It is OK to talk about oral sex, head and neck cancer and oral hygiene with a patient at their dental appointment. I am comfortable doing it and confident that my patients understand why. The hope is eventually, others will be too.'

Cat pointed to a more specific incidence where it would be appropriate.

'I believe that if a patient is presenting with a possible HPV lesion, it may be worthwhile advising the patient that they may be asked about their sexual history when they are seen on their referral', she said. 'I don't believe that the dental team should routinely ask about sexual history with every patient as it is often sensitive and unrelated information. The best person to ask questions related to HPV would be the clinical team that are dealing with the HPV specifically.'

As Dr Carter alludes to, there is a taboo about having these discussions, and he is not the only dental professional who has used that exact word to describe the scenario. In an ideal world, yes, we dental professionals probably should be having these conversations. If we are to care for our patients in a truly holistic manner, then we should identify all risk factors to oral health in order to deliver the relevant preventative advice. In a climate of increased litigation where so much emphasis is placed on recording patients' smoking status and alcohol intake, should a patient develop a health concern failing to include sexual habits in our histories may be deemed as neglectful.

On the other side of the same argument, there are many who see this question as being fitting for dental professionals and their patients. Patients do not view dentists in the same way as they do their GP, for example. Therefore some questions may be deemed as intrusive. So, how do we address the taboo – within the profession and with patients?

'Life is full of taboo', Dr Mughal said. 'History shows us how dangerous taboo is in stopping society from living healthily and from individuals making informed choices. There are inequalities in society relating to taboo subjects, but correcting that has to come from the individual – being scared

of rejection by society is the fear holding individuals back. It is sad that ostracisation is the price that individuals pay for the sacrifices they make to bettering society, but like many before me, I and I hope others are the ones wanting to make that change.'

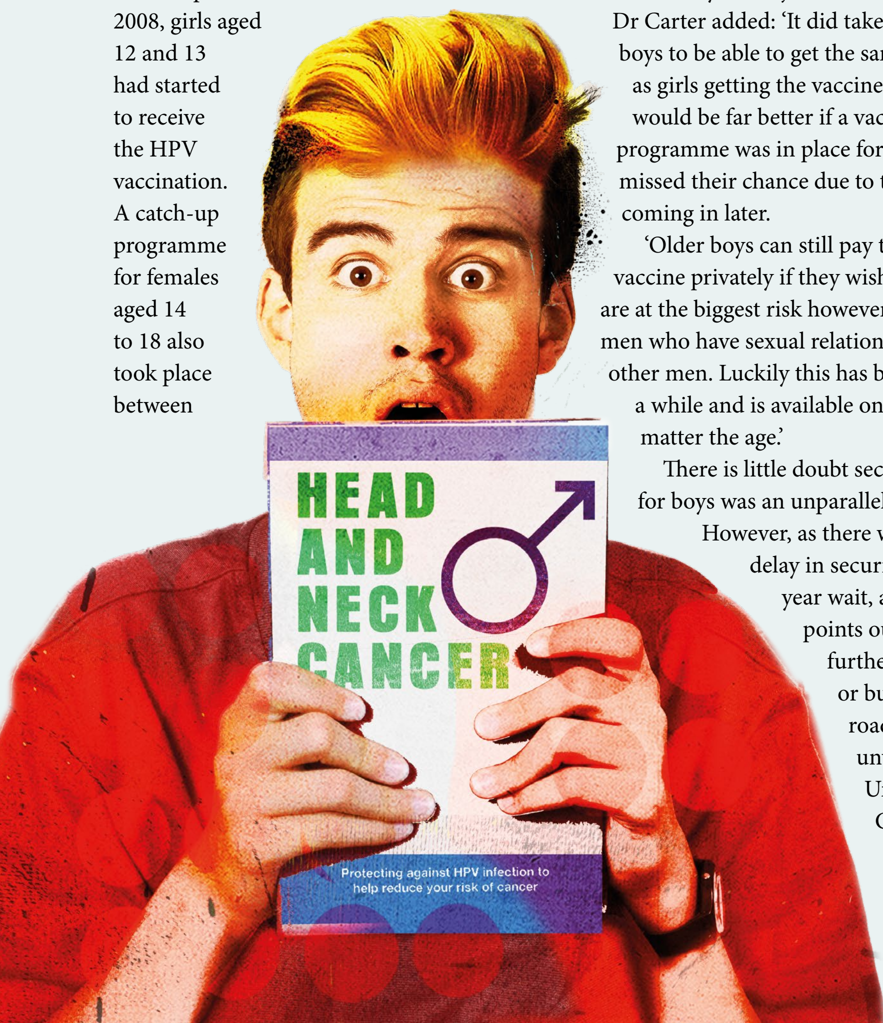
'There may be a lack of understanding and education amongst dental teams as to who is at risk of infection and why', Cat suggested. 'A good way to approach change would be to include diversity and inclusivity training in head and neck cancer CPD, and give professionals the opportunity to understand their subconscious bias and work on improving their understanding of at risk patient groups.'

Dr Carter added: 'There are ways to open the discussion and lessen the embarrassment on both dentist's and the patient's part. It does not even need to be the dentist broaching the subject, it could simply be one of the dental team like a dental nurse or hygienist.

'We believe there should be a question on all medical history forms – asking 'Have you had the HPV vaccine?' If not, why not? HPV can affect anyone and there should be no shame in asking about vaccination status when it can help people in so many ways.'

## Vaccine necessity

From September 1, 2008, girls aged 12 and 13 had started to receive the HPV vaccination. A catch-up programme for females aged 14 to 18 also took place between 2008-10, but the programme excluded boys. This was until 2019, when the JCVI announced the programme would be extended to boys. Given HPV 16 and 18 are high-risk types known to significantly increase the risk of cervical, vaginal, and vulvar cancer in women, as well as penile cancer in men, this was a significant development. However, securing the jab for boys took years, so are we forever going to be playing catch up?




'This is an example of inequality in society, which is deep-rooted' according to Dr Mughal. 'It is an unfair world for girls more than boys, and in this case it happened to be unfair to boys. But as long as there is inequality in society, which includes gender-bias and robbing men and women of working in harmony rather than being pitted against each other, than yes in this case, boys will forever be playing catch-up.'

Cat also highlighted the inequalities that persisted.

'The issue of health inequalities is one that really needs to be in the forefront of our minds', she said. 'I believe that there will come a time where we are no longer playing catch-up but this may require a drive for better education. There are still many people who do not believe they can be affected by HPV and unfortunately this is just not the case.'

Dr Carter added: 'It did take 11 years for boys to be able to get the same protection as girls getting the vaccine in schools. It would be far better if a vaccine catch-up programme was in place for those who missed their chance due to the legislation coming in later.

'Older boys can still pay to have the vaccine privately if they wish. Those who are at the biggest risk however are those men who have sexual relationships with other men. Luckily this has been free for a while and is available on the NHS no matter the age.'

There is little doubt securing the jab for boys was an unparalleled success. However, as there was such a delay in securing it – an 11 year wait, as Dr Carter points out – any further delays and/or bumps in the road are simply unwelcome. Unfortunately, COVID-19 happened, and there followed an understandable disruption of the school-based immunisation programme brought about by the pandemic. According to the UK Health Security Agency, In the 2020 to 2021 academic year HPV vaccine coverage was:

- 76.7% for dose 1 in year 8 females compared with 59.2% in 2019 to 2020, 88.0% in 2018 to 2019, 86.9% in 2017 to 2018 and 87.2% in 2016 to 2017
- 81.8% for dose 1 in year 9 females a 22.6% increase from the reported coverage of 59.2% for the same cohort when they were in year 8 in the previous academic year
- 60.6% for dose 2 in year 9 females compared with 64.7% in 2019 to 2020, 83.9% in 2018 to 2019 and 83.8% in 2017 to 2018
- 71.0% for dose 1 in year 8 males compared with 54.4% in 2019 to 2020
- 77.3% for dose 1 in year 9 males a 22.9% increase from the reported coverage of 54.4% for the same cohort when they were in year 8 in the previous academic year
- 54.7% for dose 2 in year 9 males.[4]

Although the closure of schools has impacted the uptake of the vaccine, there are other factors at play. Confidence in vaccines has declined 'significantly' since the start of the pandemic, according to a new study. Researchers from the University of Portsmouth carried out two anonymous surveys in the winters of 2019 and 2022 to gauge people's attitudes to vaccinations and to look at what factors cause hesitancy and refusal.

After questioning more than 1,000 adults, they found that the post-pandemic group was considerably less confident in vaccines than the pre-pandemic group. The paper, showed a fall in confidence in nearly one in four participants since 2020, regardless of their age, gender, religious belief, education or ethnicity.[5] Should the dental profession be concerned about these factors influencing the take-up of the vaccination?

'Although HPV vaccine update has declined due in part to COVID-19 and pupils missing out on the doses due to not being in school, parents could go and get the vaccine for their children on the NHS', Dr Carter said. 'A catch-up programme is vital to make sure that those who missed out can be vaccinated against HPV if possible. Typically, however, if people are not going to get the vaccine, they probably won't be affected by the recent falls.

'Lack of confidence in vaccinations is not a new thing. Throughout the years, from time to time, a new study comes out that questions the effectiveness of vaccines. These studies

tend not to be robust and are often found to be flawed later. If we want to have definitive answers to the question, we must have a more extensive study with more thoroughness.

'The study in question is a very small study, but more importantly, it wasn't the same group of subjects asked about their confidence in vaccines pre-and post-pandemic. Therefore, it should maybe be taken with a large grain of salt.'

Cat took a different approach to these data.

'Unfortunately, yes, we should be concerned', she explained. 'There is overwhelming evidence that post pandemic vaccine confidence is low and the concern is that there is apathy particularly amongst younger groups who perhaps feel that they are less at risk, rather than just less confident in the vaccines themselves. This is a particular concern regarding the HPV vaccine as it is in fact younger people who are most at risk of contracting HPV.'

Dr Mughal agreed with Cat's concern.

'The fact that people are reading this article is testament to medical advances in society. The first recorded use of 'variolation', a precursor to modern vaccinations, was in 16th century China and India. The only reason humans are still alive in 2022 is because of public health measures like vaccines, so yes, I am concerned about any hesitancy that filters down to girls' and boys' uptake of the HPV vaccination.'

When asked what dental professionals can do to help increase the uptake of the HPV vaccine, Dr Carter pointed to information as the main facilitator.

'Dentists have a responsibility to discuss head and neck cancer', he said. 'They are in a prime position to discover and talk about its signs, symptoms, and causes, this includes HPV. A candid conversation or at the least pointing in the right direction through leaflets or online resources about the risks of HPV could save a life.

'The more information a patient has, the better they will be placed to make an informed decision about all their choices. It is always their choice to decide what they want to do. If they can recognise that they are at high risk of various factors, they can take steps to help themselves. Checking their mouth frequently or regularly attending dental appointments would also help.'

Cat also pointed to the responsibility within the team, adding: 'Dental professionals are in a fantastic position to educate their patients on the merits of young people having the HPV vaccination.

'With the majority of oropharyngeal cancers now viral HPV related, the dental team plays a vital role in education, screening and early diagnosis. The easiest way to do this would be to vocalise to the patient the fact that we are performing a cancer check when we see them. Many patients may not realise that this is done with their dental professional and the notion that we are concerned about head and neck cancer could lead to further conversations about higher risks for unvaccinated individuals.

'We are also able to extend this education to patients who are parents and carers who may not have previously considered the oral implications of HPV infection.'

For Dr Mughal, he suggested one of the basics of the profession.

'Public information campaigns that are big on showing evidence can go a long way', he said. 'If you have multiple organisations collaborating with each other, to send a unifying but simple message, there's a greater chance of cutting through with the general public. If you look at the success of HPV Action where the BDA, Oral Health Foundation, and sexual health bodies all worked together to bring boys the jab, this is a great template for replicating success.'

## Additional responsibilities?

It seems odd to ask whether dentists and their teams should take on more responsibility with HPV-related head and neck cancer questions, especially with the backdrop of NHS dentistry as it stands today. I'm sure any dental professional currently struggling with their workload reading this may think 'oh joy, something else I don't have time for'. If cases continue to increase, it'll be a conversation that becomes a necessity, which begs the question, where should the bulk of the responsibility lie in having these discussions with patients, what messages should be given to patients, and are those messages realistic?

Dr Carter said: 'Many people at not aware of the link between HPV and head and neck cancer, so it is important to share the information about who is eligible for the vaccine free on the NHS and why it is important that they take this opportunity.

'The dental team can do this, and it doesn't always have to be the dentist. Anyone who is trained to deliver the information and is comfortable approaching people on the subject can do so. The messages that should be given to patients are to be mouth aware and if you can, protect yourself do so. Checking your mouth once a month is a realistic goal to maintain your dental health. Know the signs and symptoms of mouth cancer and how you can contract HPV.'

Dr Mughal added: 'All humans deserve and should enjoy healthy sex without judgement; we can't pretend that people don't have oral sex. This is not about shaming people, rather the opposite – it is to empower all men and women to get the HPV vaccine, to stop head and neck cancer, not stop oral sex. The more boys and girls that get the vaccine, equally, the better for us all. The dentist, the wider dental team and all the staff should be supportive of these messages, in an environment that is encouraging.

Cat added: 'I don't believe that this is adding any responsibility to the team – head and neck cancer screening has been part of the dental examination for decades. The change is that all clinicians should ensure we communicate what we are doing and why; the conversation can easily be started in the few minutes it takes to perform a check. The main message should be that dental checks are not only for teeth, but for oral health as a whole. That now, the majority of oropharyngeal cancers are HPV-related, and some HPV viruses can be prevented with vaccination. Dental teams can encourage HPV vaccination using posters and literature available and also ensure that the wider team understand the connection between HPV and head and neck cancers.'

There's no doubt that HPV is a sensitive topic for many to approach. As Dr Mughal says, the perception of HPV prevention is one practitioners understandably aren't comfortable discussing. And yet, as HPV-related head and neck cancers continue to increase in prevalence, there will come a time where it must become a topic fully incorporated into a patient's visit. Lives very well could depend on it.

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