

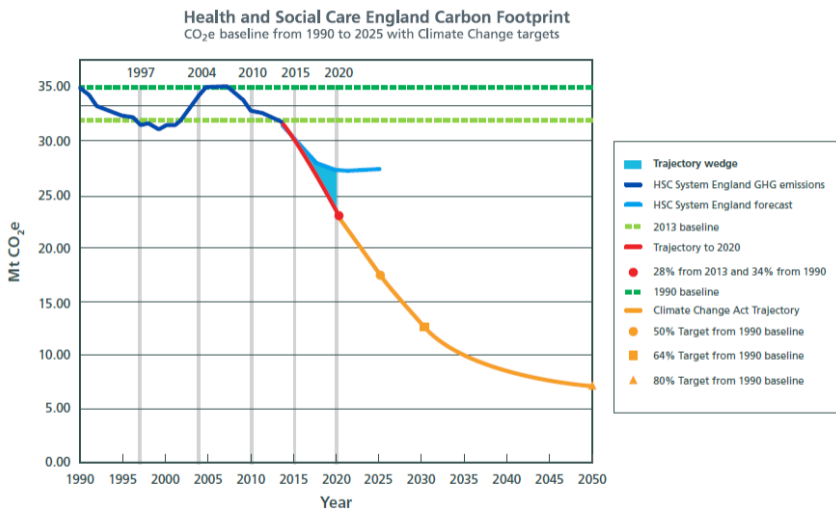
Brent and Harrow LDC - Promoting Sustainability in Dentistry

Climate change and sustainability are a significant issue, not only for the United Kingdom but globally. Commitments at national and international levels have been set in place to ensure significant global reductions in greenhouse gas emissions, and these permeate into every industry.

- The 2008 Climate Change Act commits the UK to 80% net carbon emissions reduction by 2050 from the 1990 baseline.
- The Paris Climate Change Agreement aims to keep the global temperature rise for this century well below 2 degrees celsius.

Climate change, at the rate that it is developing, is predicted to be a major public health problem, and already in many parts of the world people are suffering consequences.

Great efforts have been made in many fields to reduce the nation's carbon footprint since 2008. The targets set still require a lot of work at the present rate of carbon reduction, if they are to be met however.



Graph showing current carbon emissions levels from healthcare with projections and targets. (Sustainable Developments Unit - Goods and Services Carbon Hotspots Report 2012)

The estimated carbon footprint of NHS Dental services is 675 kilo tons of carbon dioxide equivalent per year (that's the equivalent of 50,000 flights on a passenger airline between the UK and Hong Kong) and until now there has been no real collective effort in reducing carbon footprints in the field of dentistry. (B Duane et al. 2017)

When it comes to dentistry, sustainability does not only have to be about net carbon reductions but, by identifying key areas of waste it is possible to streamline and make many different elements more cost effective, thereby contributing to improved patient care.

The London Local Dental Committees have been closely working with the national Dental Sustainability Advisory Group to promote sustainable dentistry as a collective effort to reduce the carbon footprint of dental care.

A recently published guide focuses on key areas of sustainability in which dental practices can help reduce their collective carbon footprints in areas such as:

1. Travel
2. Equipment and Supplies
3. Energy
4. Waste
5. Biodiversity & Green Space
6. Measuring and Embedding sustainability.

Common examples include switching from paper based systems to digital record keeping and adapting to digital radiographs, changes that most dental practices have already made. Sending appointment reminders by text message rather than by letter also makes a difference.

Reducing the use of paper wherever possible can help contribute towards the reduction in carbon footprint, in part by improving communication and thereby reducing low value attendances or duplicate investigations. It is partially for that reason that NHSMail has been rolled out, with Brent and Harrow LDC volunteering to serve as a pilot for the portal. By making a safe and secure standard for referrals, the key components for a practice to become entirely paperless are set in place.

A paperless practice will not only be more sustainable, but will also have a much more consistent audit trail, be more accountable, and that is not to mention the increase in speed from using email as opposed to traditional post.

Other features promoted in the recently published guide that can be taken up by practices to improve sustainability are things as simple as switching to a renewable electricity tariff, or including a recycling bin in the waiting area to give patients the option of recycling their litter.

More than half of the carbon footprint of an average dental practice comes from staff commuting and patient travel. Simple and cost effective measures to improve this could be installing a bike rack at the practice, providing public transport information, and encouraging more staff to walk or cycle.

Prevention, a term which dentists should already be more than familiar with, is also a key method by which carbon emissions could be reduced. It is unsurprising that the total

individual carbon footprint per procedure is highest for treatments that involves lab work; most notably dentures (upto 70 kg of CO2 emissions per individual procedure) and inhalation sedation (Upto 119 kg of CO2 emissions per nitrous oxide sedation). (B Duane et al. 2017)

Focussing on prevention in the present should manifest itself as reduced treatment needs in a future population, which will in turn affect the net carbon emissions produced by dentistry.

Within the Dental Sustainability Advisory Group, the LDCs represent the primary dental care practitioner. The group comprises representatives from many public and industry bodies such as the BDA, GDC, CQC, NHS England and BDTIA. Together we approach a goal of constructing guidelines for dental teams to follow to help cut the carbon footprint of dentistry.

Raising awareness of the sustainability issue in dentistry has been best achieved by the first Annual Conference in Sustainable Dentistry, which was held in June 2018. This Conference was free to attend and included many notable speakers with presentations on what is being done to improve sustainability in dentistry, and what can be done to improve it.

With the help of the LDC Confederation a series of webinars has been organised in promoting sustainable dentistry, the first of which was on the 7th February 2019. These webinars aim to focus on the six previously mentioned sections in the guide.

The LDCs, by advocating and promoting sustainable practice in primary dental care, hope see more general dental practitioners considering the sustainability of their own practice. With the recently published guide we hope to point practitioners in the right direction to taking steps to reduce their carbon emissions, which can contribute towards the entire country's goals for 2050 as set out in the Climate Change Act.

Written by **Dr Robert Zabih**, on behalf of the Brent and Harrow LDC.

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References:

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<https://sustainablehealthcare.org.uk/dental-guide>