

Carbon footprint analysis for an anonymised general practice

Practice R - A rural practice.

The total carbon footprint in 2018 was 80,000 kg CO₂e excluding prescribing

With prescribing excluded, the top 5 contributors are patient travel (51%), staff travel (14%), Gas (11%), professional services (8%) and electricity (7%) (Figure 1).

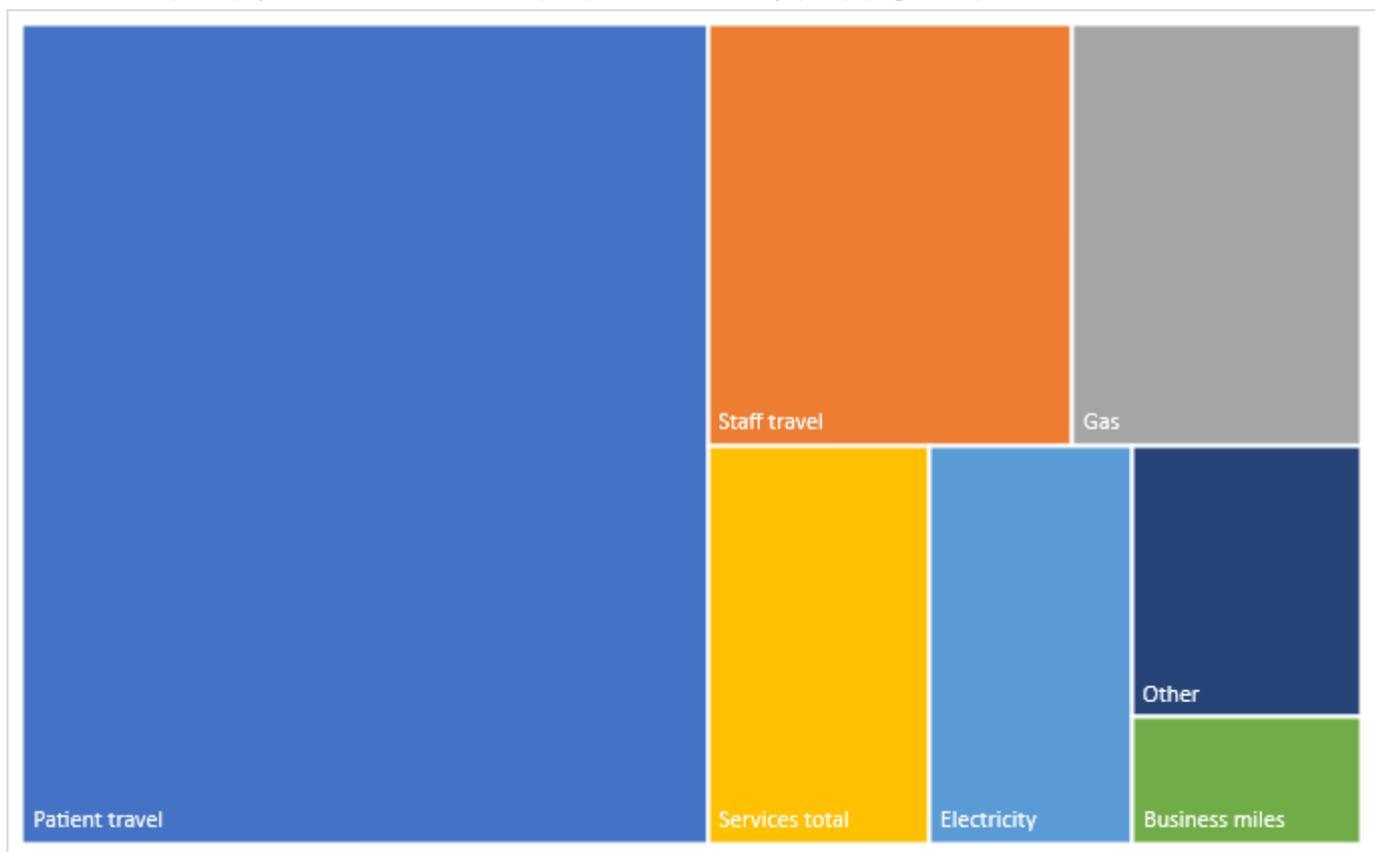


Figure 1. Representation of carbon footprint by area – Practice R.

Introduction

Practice R is a rural medical practice on the outskirts of a medium sized town. It has between 4-6,000 patients. It runs from a purpose built predominantly single storey building of approximately 450 m². There are 3 GPs, with a total of 8 clinical staff and 14 nonclinical staff.

The total carbon footprint of running Practice R is 80,000 kg per annum (80 tons). The CO₂e for each area is shown in Table 1.

Table 1. Total CO₂e by respective area for Practice R

Area	CO ₂ e (Kg)
Patient travel	40,500
Staff travel	11,000
Gas	8,750
Professional Services total	6,500
Electricity	6,000
Business miles	2,000
Medical supplies	1,500
Electrical equipment	1,250
Paper, printing and postage	1,000
Misc (inc food and drink)	400
Cleaning, waste, toilet roll	175
Water	175

Staff and patient travel (including business miles) contributes a total of 54,000 kg or 68% of the total. Providing options to reduce travel, remote working and consultation, using public or shared transport, decarbonising single use transport would all impact on the overall figure.

Gas (for space heating and hot water) and electricity can be decarbonised. If achieved, the carbon footprint of the running of the business would reduce by 14,750 kg or 18%. Options include reduced use, decarbonised heating systems, self-generated electricity or 100% green tariff electricity supplier.

Professional services contribute 8% of the total and are broken down in Table 2.

Table 2. Carbon generated by services used by Practice R

Service	CO ₂ e (kg)
Accountancy	1,700
Telephone	1,200
Servicing	920
Fire servicing	450
Payroll	425
Employers Liability	400
Bookkeeping	260
Grass cutting	200
Oxygen Servicing	170
E Learning	130
Insurance	115
PAT Testing	115
Window cleaning	110
BMA	90
Stocktaking	70

Practice U - An Urban practice.

The total carbon footprint an urban practice was 83,000 kg excluding prescribing

With prescribed medicines excluded, the top 5 contributors are patient travel (32%), professional services (19%), staff travel (18%), Gas (16%), and electricity (10%) (Figure 3).

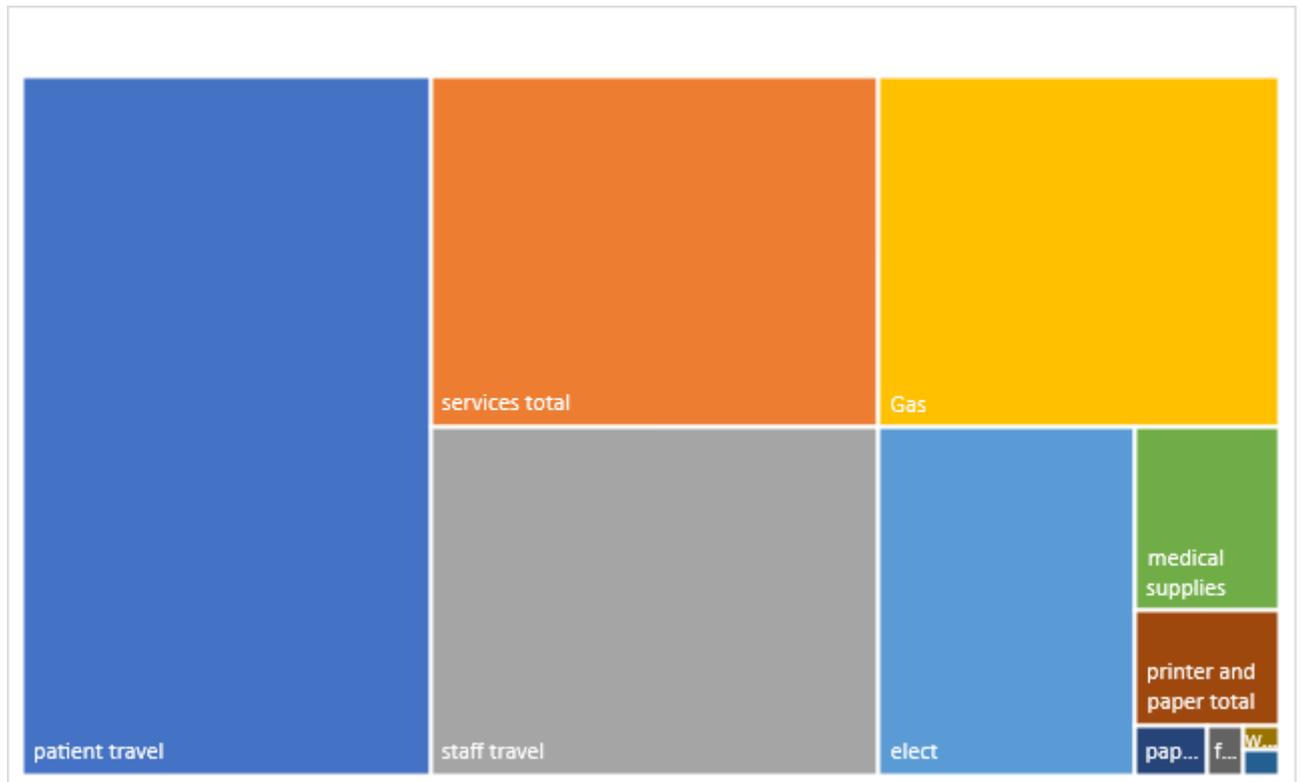


Figure 3. Representation of carbon footprint by area - urban

Practice U is urban medical practice with 8-9,000 patients. It runs from a purpose built two-storey building of approximately 655 m². There are 8-12 GPs with four doctors in training and additional 6-10 clinical staff and 10-14 non-clinical staff.

Table 4. Total CO₂e by respective area - Urban

Area	CO ₂ e (Kg)	%
Patient Travel	25,500	32
Services Total	15,250	19
Staff Travel	14,000	18
Gas	12,500	16
Elect	8,000	10
Medical Supplies	2,500	3
Paper Towels and Toilet Roll	1,250	0.5
Printer and paper total	1,500	1.8
Food and Drink	150	0.2
Water	100	0.1
Electrical Equipment	100	0.1

Staff and patient travel contribute 40,000 kg or 50% of the total (business miles are excluded at present until data is available). Providing options to reduce travel, enable active transport, remote working (staff) and consultations (patients), using public or shared transport and decarbonising single use transport would all impact on the overall figure.

Gas (for space heating and hot water) and electricity can be decarbonised. If both were achieved, the carbon footprint of the running of the business would reduce by 20,500 kg or 26%. Options include reduced use, decarbonised heating systems, self-generated electricity or 100% green tariff electricity supplier.

Professional services contribute 19% of the total. Using influence to start conversations with services supplied to the business, reducing their carbon footprint will have gains for the practice carbon footprint

Urban compared to rural

	Rural CO ₂ e (Kg)	%	Urban CO ₂ e (Kg)	%
Patient travel	40,500	51	25,500	32
Staff travel	11,000	14	14,000	18
Gas	8,750	11	12,500	16
Professional Services total	6,500	8	15,250	19
Electricity	6,000	7	8,000	10
Business miles	2,000	2	*	*
Medical supplies	1,500	2	2,500	3
Electrical equipment	1,250	2	80	0.1
Paper, printing and postage	1,000	1	1,500	1.8
Misc (inc food and drink)	400	0.5	150	0.2
Cleaning, waste, toilet roll	175	0.2	1,250	0.5
Water	175	0.2	100	0.1

*figures not available

How could a GP Practice achieve a 50% reduction by 2030?

If the footprint of a practice was 80,000 kg CO₂e per annum, the following would lead to a 50% reduction in carbon footprint within the decade. However, this is the 'easy' 50%, with changes to the business model, behaviour by patients and staff being the more complex next 50%.

Year	What to do	CO ₂ e savings (kg)	% reduction*
2020	Change to 100% green energy supplier	8,000	10
2021	All patients living within 1km walked 50% staff under 4km use bikes	4,600 500	6.4
2022	80% patients living within 2km walked (additional saving to 2021)	6,500	8
2023 and 2024	Install air source heat pump in place of gas.	8,500	10.5
2025	80% staff over 7km to work have electric cars, electric bikes	6,500	8.2
2026	Influence 20% of service suppliers to reduce their footprint	3,000	3.8
2027	Reduced single use packs, couch roll and rubber gloves Reduce printing and postage by 50%	500 750	1.6
2028	Practice consortium lobbies for better public transport for patients and staff – 10% increase in use	2,000	2.5
Total		40,850	

*May not reach 100% due to rounding