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First, do no harm

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The best way to make hospitals green is to keep people out of them

IN JANUARY the National Health Service (NHS) in England calculated its carbon footprint as the equivalent of 21m tonnes of carbon dioxide a year—just short of the amount emitted by the Drax coal-fired power station in Yorkshire, western Europe's largest. Unlike the power station's emissions, though, those of the health service have been increasing: they have grown by half since 1990. Other countries fare no better. A study published in the *Journal of the American Medical Association* estimates that America's health-care industry accounts for 8% of the country's greenhouse gas emissions. In Germany, a study by the Viamedica Foundation showed that a hospital's energy expenditure per bed was roughly the same as that of three newly built homes.

The past few years have seen efforts to make things greener. The King Edward Memorial hospital in Mumbai, for example, was recently remodelled with solar heaters and rainwater-collection units. Many hospitals are switching from standard light-bulbs to compact fluorescent or LED lights. The Dell Children's Medical Center in Austin, Texas, was the first hospital to be certified "platinum" under the Leadership in Energy and Environmental Design (LEED) standards of the United States' Green Building Council—the highest designation there is.

Moves towards energy efficiency are essential to reduce carbon emissions, but they are not enough. "When hospitals start looking at their energy usage, it is only the first step in a long way," says Anja Leetz, executive director of Health Care Without Harm, an organisation whose purpose is to implement more environmentally sustainable health care round the world. The NHS study suggests that energy expenditure is responsible for only a quarter of hospital carbon emissions. Procurement—primarily that of medical equipment and pharmaceuticals—is the main culprit, swallowing 60%. Simply disposing of unused pharmaceuticals contributes over 22,000 tonnes of CO_2 every year.

There are also protocols and procedures which add a lot of carbon without providing a great deal of health. Before the risks of mad-cow disease were understood, the NHS routinely reused its nailclippers. Now the one-in-10m estimated risk of transmitting Creutzfeldt-Jacob disease, the human equivalent of mad-cow, has made it common to use clippers only once. A low risk creates a mountain of waste.

One way to avoid such problems is for people to stay at home and, when necessary, be visited by a podiatrist who uses the patient's own clippers. And this illustrates one of the wisest tactics hospitals and clinics can make use of as they try to become greener: keeping people out and looking after them at home instead. Fewer admissions, lower emissions.

Easier said than done. David Pencheon, the director of the NHS's Sustainable Development Unit, says shifting health care out of hospitals means reworking the system from the inside out. But it is possible. "We have the technology to deliver services in more accurate ways," says Dr Pencheon. Smaller and more efficient machines, for example, make it easier for treatments like dialysis and chemotherapy to take place in the home.

Consultations, too, need not necessarily involve travel. Kidney-transplant patients at the University Hospital of Coventry and Warwickshire are given the option to have three out of four of their quarterly post-operative "visits" conducted by phone. That is a couple of tonnes of CO_2 saved right there.

Like the first wave of environmental responsibility, which focused on energy efficiency and design, moves to decentralise health care in this way can often reduce environmental impacts without sacrificing quality and safety. Much of this greenery could also save money. The Confederation of British Industry, a business lobby group, estimates that £15 billion could be saved by treating chronic diseases at home.