



Devon Care Homes
Collaborative

Digitisation in Residential Care Homes and Environmental Sustainability

Case Studies



Overview:

Climate change is widely acknowledged as a significant threat to global health. The NHS is estimated to account for approximately 4% of England's carbon footprint, and the Health and Care Act 2022 mandates NHS organisations to achieve net-zero emissions by 2040. However, the social care sector, which is highly fragmented, lacks comprehensive carbon data. As a result, carbon estimates for this sector are often bundled into the broader '5% NHS and social care' figure.

For the social care sector to achieve net-zero emissions, numerous independent organisations must each develop their own sustainability strategies and action plans. These case studies illustrate how actions like digitisation can play a vital role in this process, even though the digital platforms and tools are often seen primarily as effective methods for improving care quality and operational efficiency.

Environmental Sustainability:

The CQC Environmental Sustainability Quality Statement outlines the following expectations for care homes -

- "Staff and leaders must have Green Plans and take action to ensure that the environments in which they provide care are as low-carbon as possible, promote energy efficiency, and utilise renewable energy sources wherever feasible."
- "Staff and leaders must actively work to integrate the principles of net-zero care into the planning and delivery of services. Low-carbon care is resource-efficient and ensures that care is provided in the right place, at the right time."



These case studies demonstrate that although digitisation was not initially driven by a carbon reduction goal, it is evident that it plays a crucial role in any care home's sustainability action plan.

Measuring Carbon Saving:

Understanding the carbon footprint of a home is a crucial first step in assessing the impact of various actions. However, accurately measuring carbon savings, especially when complex supply chains are involved, is not always straightforward or even feasible. While digital technologies hold great promise for reducing emissions, they also contribute to carbon footprints through the manufacturing of devices and the energy used in data processing.

This complexity underscores an important point: not all sustainability efforts can be easily quantified, but that does not diminish their value. Care homes should still acknowledge and document these actions as part of their environmental achievements, even when exact carbon savings cannot be calculated.

CASE STUDY 1

Impact of changing staff rota scheduling to cloud-based software

Context:

The Grange, South Devon, is a residential care home supporting 17 elderly individuals with dementia. The home employs 21 staff, both full-time and part-time and is run by a Registered Manager. Managing rotas was a time-consuming manual process with handwritten rotas.

The paper-based system required the Manager to complete the weekly rota on paper and pin this up to the staff board in the office. However, any absence or change in shift resulted in the paper rota being messy and difficult to understand. Additionally, staff would often take pictures of the rota on their mobile so that they knew which shifts they were completing. However, staff wouldn't be able to view this in 'real-time'. Ensuring shift coverage required the Manager or senior staff to spend a significant amount of time on the phone.

Motivations for Digitisation:

The key driver for change was to save time, improving operational efficiency for management and the staff team. It would remove the uncertainty of knowing staff knew which shifts they were working, that the rota changes were processed and provide better accuracy on payroll. The impact on the carbon footprint was considered but not the primary driver.



Digital Solution:

The software selected for adoption was Planday. Planday is a management software tool designed to simplify everyday scheduling and workforce management. The software allows an organisation to see the number of hours staff are scheduled to work, the salary they will be paid, the spacing in between shifts, attendance, lateness and absences. It can be used for payroll and can link to Xero accounting system.

Once the initial rotas are input, staff can choose additional shifts via the app on their phone to pick up without requiring the manager/senior to action. When arriving on shift, the staff member 'accepts' the shift on their phone. As the software has GPS tagging and geo-fencing built in, the staff member needs to be on site to do so. Geo-location can be amended for staff members who may be working at more than one site.

The manager will do an approval of all shifts at the end of the month prior to payroll.

Costs: There was no initial set up fee and no requirement to purchase additional devices as staff access the software on their personal mobile phones. It costs £100 per month/£1200 p.a.

Benefits:

TIME SAVING

The Manager estimates that since moving to Planday it has saved an average of 1 hour per day, 365 hours per year, equating to **£10,950 p.a.** This time is reinvested into other management duties for the care of both residents and staff.

STAFF EMPOWERMENT

Staff value the better visibility for picking up shifts. All staff can see what is available rather than those who are on site more often. Staff are confident that they know which shifts they are working.

BETTER SHIFT COVERAGE AND IMPROVED PLANNING

Shifts are covered quickly and efficiently. It has improved the forecasting forward to identify potential issues ahead of time. The number of agency staff has been reduced by an average of 1 shift per week saving the home **£6240 p.a.**

HOLIDAYS

It provides an accurate calculation of holiday and greater ease of management.

GREATER ACCURACY

As each staff member needs to log in and out, there is a greater accuracy on times worked and payroll.

REDUCTION IN CARBON EMISSIONS

Although not the driving force behind the decision, the reduction in carbon footprint was a welcome positive effect of the change.

Impact on Carbon Footprint: Three primary areas for carbon reduction were identified -

1. Cutting down on travel by agency staff, as fewer agency workers were needed to cover shifts.
2. Reducing the purchase of stationery.
3. Minimising printing.

Number of agency staff 1 shift per week x 52 x 20 miles = 274kg CO2e

3 reams of recycled paper = 2.49kg CO2e

2 x Inkjet Printer cartridges = 0.92kg CO2e

Total reduction in carbon footprint = 277.41kg CO2e per annum



"It has saved so much time. Staff find it easy to use and it's a far better way to ensure shifts are covered quickly, sickness and holidays are managed easily and payroll is more straightforward"

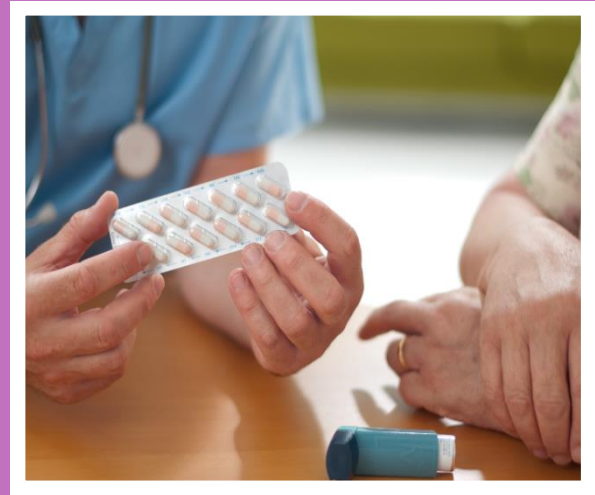
Testimonial: M Sutton, Operations Manager
Ogwell Grange Care Home

CASE STUDY 2

The introduction of e-MAR to manage medicines more effectively

Context:

Ridgecourt Residential Home in Totnes provides care for up to 17 elderly individuals with dementia and employs a team of 19 staff members. After successfully using digital care planning for several years, the transition to an electronic Medication Administration Record (e-MAR) system was a natural next step. When NICE guidelines were issued advising of the improved efficacy through use of original packaging rather than pop-out packaging, it nudged the change.



With the paper-based system, the MAR sheet tracks residents' personal details, medication information, including strength and dosage, as well as the date and time the medication is administered by staff. As a manual process, this system is prone to potential errors.

e-MAR systems are software solutions designed to help care homes and other social care providers manage residents' medications more efficiently. They aim to enhance medication safety, improve operational efficiency, and ensure better compliance, while reducing errors and facilitating the seamless sharing of information with GP practices and pharmacies.

Motivations for Change:

The main driver behind the switch to e-MAR were the NICE guidelines advising of improved efficacy.

Digital Solution:

The chosen software solution was Access Medication, through Boots. It is accessible via both desktop and mobile apps. e-MAR systems are specifically designed to reduce the risk of human error, streamline medication administration, and provide real-time information with built-in alerts to ensure timely medication delivery. Additionally, e-MAR systems support inventory management, prompt regular and ad-hoc stock checks, and can generate reports to demonstrate proper management to regulatory bodies such as CQC or safeguarding authorities.

Costs: The additional equipment purchased for the system was one laptop for the meds trolley, £370. Annual cost of Access is £1560 per year.



Benefits:

TIME SAVED

It was estimated to save 2 hours per week of senior care assistants' time at **£1560 per annum.**

VALUE OF REPORTS GENERATED

The manager uses the daily report on medicines administration to monitor and identify issues and remedy quickly.

PEACE OF MIND

The digital system helps give peace of mind to the manager and providers.

SMOOTHER, MORE EFFICIENT WORKFLOW

Stock management and medicine administration seemed to run more smoothly once the system was established.

DATA SECURITY

There is a back-up through the digital system; information cannot get lost.

REDUCTION IN WASTE

Waste has been reduced by approximately one 360 litre bin per week @ 7 per lift, **£350 p.a.**

REDUCTION IN CARBON FOOTPRINT

Although not the primary motivator to change, there is significant carbon savings in switching from the pop-out packaging supplied to original packaging used with the digital system. This has not been possible to quantify through the supplier. **In addition,** the reduction in stationery used, and confidential waste management was noticeable.

Impact on Carbon Footprint:

Two primary areas for carbon reduction were identified -

1. Switching from blister packs to original packaging.
2. Reducing the use of stationery, A2 MAR sheets and confidential waste.



The reduction in carbon footprint by the switch to original packaging was not possible to quantify via the third-party supplier.

Reduction in confidential waste, 1 x 360 litre bin = 80kg paper = 107 kg CO2e per week

Total reduction in carbon footprint = 5,564 kg per year

"With 17 residents and an average of 4 prescriptions each, having a system that improves efficiency and accuracy and gives us the evidence is vital for safe and effective running of the home and provides peace of mind"

Testimonial:

Manager, Ridgcourt Residential Home