



University of Brighton
School of Health Sciences

Sustainability and You

22nd June 2016

Annual Symposium

Sustainability Special

Interest Group



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Venue

Creativity Centre

University of Brighton
Moulsecoomb campus
Lewes Rd
Brighton BN2 4GJ
[Map and directions](#)



Programme

Time	Presenters	Title
09:00 – 09:25 Registration and refreshments		
09:25		Welcome
09:30	Dr. Caroline Jessel NHS England - South Regional Sustainability and Health Network	Keynote address
10:00 - 11:00	Prof Janet Richardson Plymouth University	NurSusTOOLKIT: A Teaching and Learning Resource for Sustainability in Nursing
	Dr. Jane Grose Plymouth University	Health Environment and Resources Toolkit (HEaRT): Sustainability in Healthcare Evidence- based Training Tool
	Dr. Linda East The University of Nottingham	The Professional is Political? Focusing the Sustainability Lens in Nursing Education
11:00 – 11:40 Posters and refreshments		
11:40 - 13:00	Peter Allum Plymouth University	Sustainability Initiatives in Ambulance Services: A Qualitative Exploration of the Experiences of NHS Ambulance Trust Strategic Managers in England
	Hamza Alhamad University of Reading	Toward medicines reuse: a structured review of the different classes and dosage forms of wasted medicines reported in the UK and internationally
	Dr. Enrique Castro Sanchez Imperial College London	Sustainability and infection prevention and control
	Mrs. Scarlett McNally Eastbourne District General Hospital	How sustainable transport could massively reduce ill-health (eg reducing dementia 30%, diabetes 50%)
13:00 – 14:30 Posters and refreshments		
14:30 - 15:30	Dr Tom Pierce University Hospital Southampton NHS Foundation Trust	Sustainability in anaesthetics
	Alison Taylor University of Brighton	Sustainability in the curriculum of health care courses
	Kim Croasdale National Union of Students	Green Impact
	Susie Vernon Sussex Community NHS Foundation Trust	Dare to Care
15:30 – 16:00 Closing remarks		

Welcome

Welcome and thank you for attending the 3rd Annual Sustainability Symposium hosted by the University of Brighton School of Health Sciences Sustainability Special Interest Group.

The programme this year has been designed with *you* in mind. As you hear about how practitioners and educators are working in relation to sustainability you will be challenged and encouraged to consider the impact of sustainability on you and your own practice. You will be able to contribute to the symposium through discussion and use of interactive technology including; Padlet and Twitter (if posting about today's symposium make sure you copy in @SustainSHSUoB). You will also be invited to write a pledge of how sustainability will impact on you, on others and your organisation. Full details of all activities will be available on the day.

The videos of the symposium presentations, PowerPoints and posters will be available on our website afterwards. The website also has further information about the Special Interest Group's activities including our participation with the National Union of Students Green Impact programme for which we were recently awarded the Gold Green Impact award. This was achieved by involving students in our group and by helping to promote sustainability within teaching, research, the physical environment and raising awareness in relation to sustainability issues for staff and students.

We look forward to hearing all about 'sustainability and you' at the symposium today!

Jess Hargreaves, Tania Wiseman, Alison Taylor, Heather Baid

Contact details



[Sustainability Special Interest Group website](http://about.brighton.ac.uk/sustainability/get-involved/school-activities/nursing-midwifery/)
<http://about.brighton.ac.uk/sustainability/get-involved/school-activities/nursing-midwifery/>



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@SustainSHSUoB

SAVE THE DATE 4th Annual Sustainability Symposium 21/06/2017

Lunch sponsor – Low Carbon Europe



Low Carbon Europe offers a wide range of services, supporting both strategic and operational energy management requirements to help organisations reduce their carbon footprint, use less energy and spend less money.

Case studies about Universities and NHS Trusts who have used Low Carbon Europe include:

- [University of Hertfordshire – Retained Energy Management Service](#)
- [University College London Hospital NHS Trust – Operating Theatre Optimisation and HTM 03-01 Review](#)
- [West London Mental Health Trust – Broadmoor Hospital Building Energy Management System \(BEMS\) Control Audit](#)

Many thanks to Low Carbon Europe for kindly sponsoring the lunch at the symposium today.

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[Facebook page](#)



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<http://www.lowco2.eu/>

Lunch provider – The Real Junk Food Project



The [Real Junk Food Project](#) is a global, organic network of 'pay as you feel' cafes. They divert food destined for waste and use it to create delicious and healthy meals.



(Click on image to start video)

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Keynote speaker – Dr Caroline Jessel



Dr Caroline Jessel is the NHS England Lead for the South Regional Sustainability and Health Network. She has been a GP for 30 years in Kent and has always had a strong interest in the relationship between the environment and health. She works for NHS England South (South East) as Lead for Clinical Transformation and Outcomes. In this role she is responsible for facilitating NHS organisations in Kent Surrey and Sussex to develop safe, sustainable and effective services which are designed to meet present and future needs. She is a member of the Kent Surrey and Sussex Clinical Senate Council and supports the Strategic Clinical Networks in the region. She is co-chair of the Kent Nature Partnership. She also chairs the mental health programme board for the South (South East) region and is very interested in the challenges of creatively addressing root causes of mental health difficulties.

As a mother and now a grandmother of five she has always enjoyed being with children and has a strong interest in children's health and wellbeing.

She is the chair and founder of a charity in Kent, Dandelion Time, www.dandeliontime.org.uk which has an innovative approach to helping children with emotional and behavioural difficulties making therapeutic use of the natural environment.

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[South Region Sustainability and Health Network](#)

Presentation - NurSusTOOLKIT: A Teaching and Learning Resource for Sustainability in Nursing



Presenter – Prof Janet Richardson

Professor of Health Service Research, Plymouth University

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Oral presentation abstract

Although the concept of sustainability in nursing has been explored (Anaker & Elf, 2014; Richardson *et al.* 2015), inclusion of sustainability topics in nursing and healthcare curricula is limited, with some innovative examples (Richardson *et al.* 2014). The aim of the European NurSusTOOLKIT project is to enhance the availability of a sound, evidence-based, learning offer in Sustainability Literacy and Competency (SLC) in nurse education by developing innovative teaching and learning approaches and materials.

This paper will present the outcomes of the first two aims of the project:

- To build an evidence-based resource to support sustainability literacy and competency in nursing
- To conduct a Delphi study and thematic analyses of curricula to identify opportunities for embedding sustainability in nursing curricula

Process

A systematic review was undertaken that focused on the two questions: (i) what do nurses need to know about sustainability?; (ii) what pedagogic approaches are used to embed sustainability in curricula in nursing or higher education? A scoping activity focused on the nursing curriculum in partner organisations to identify current sustainability content and opportunities for integrating sustainability. A broader participatory, Delphi survey of curriculum opportunities was conducted with stakeholders across Europe in order to identify how to integrate key sustainability issues and find examples of good practice in nurse education. Students were engaged in this process through social media (Richardson *et al.* *in press*) and focus groups.

Findings

For the systematic reviews a total of 27 papers were found to be relevant. Themes were collated and tabulated, indicating the source of the data. The curricula scoping included a total of 18 selected informants from the different programmes: 6 in Plymouth, 6 in Jaen and 6 in Esslingen. Data from the systematic review and curricula scoping were used to design

the Delphi study for nurse education experts across Europe. A total of 52 experts from different European regions participated in the first round of the Delphi survey, with 80% also completing round 2. For the question 'How important do you believe it is to integrate sustainability related education into the nursing curriculum?' the average score for the 52 respondents was more than 5 (on a scale of 1 – 6, where 1 = very unimportant). The participating experts were also asked to prioritise sustainability topics for inclusion in nursing curricula. Full project findings and details of the next steps will be presented.

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NurSusTOOLKIT – <http://nursus.eu/> @NurSus_EU

Presentation - Health Environment and Resources Toolkit (HEaRT): Sustainability in Healthcare Evidence-based Training Tool

Presenter – Dr. Jane Grose

Research Fellow, Faculty of Health and Human Sciences, Plymouth University

Contributors

All from Plymouth University:

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Oral presentation abstract

Climate change and resource scarcity pose challenges for healthcare in the future, yet there is little to raise awareness about these issues in health and social care organisations or in the healthcare curriculum; healthcare professionals are poorly equipped to practice in a changing climate. Procurement and waste management amounts to 65% of the total NHS carbon emissions in England and health and social care organisations need to engage in mitigation strategies. This symposium will introduce a training approach, based on our own research in health and social care waste management and sustainable procurement, designed to raise awareness about resource provenance and scarcity in healthcare. The training makes direct links with efficiency, savings and appropriate resources use in the context of sustainability.

Our research examining the potential impact on patient care of important items used in the NHS should these items no longer be available led us to develop scenarios linked to potential resource scarcity and waste management. The scenarios have been tested and evaluated with hospital and general practice, multi-disciplinary NHS staff, health professional academics, nursing and design students. The evaluations have demonstrated active engagement with the topic of sustainability, scarce resources and waste management. Working with our 3 D Design students we have developed the Health Environment and Resources Toolkit (HEaRT): a web-based training pack that incorporates a number of scenarios, full training manual and detailed resources / evidence that supports the training.

The presentation will:

- Describe evidence on which the HEaRT tool was developed
- Show how the HEaRT tool works and engage participants in its interactivity
- Explore with participants the evidence gaps that need to be addressed in order to develop further educational materials for sustainability and healthcare / nursing.

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Health Environment & Resources Toolkit (HEaRT) – <http://heart-etools.com/>

Presentation - The Professional is Political? Focusing the Sustainability Lens in Nursing Education

Presenter – Dr. Linda East

Assistant Professor, School of Health Sciences, The University of Nottingham

Oral presentation abstract

When I qualified as a nurse in 1986, sustainability was nowhere on the healthcare agenda. At that time, my engagement with the environmental cause was through personal activism in *Friends of the Earth*, and did not impinge on my professional role. Over the years, however, the interface between health and sustainable development has expanded. The 2015 *Lancet Commission on Health and Climate Change* went as far as to suggest that ‘tackling climate change could be the greatest health opportunity of the 21st century’. Despite the Commission’s observation that almost all of the narrative around climate change is negative, the report identifies *some benefits* in the mitigation of climate change. For example, a shift to walking and cycling results in both less pollution and more exercise, improving population health. This narrative of opportunity further challenges health care educators to embed education for sustainable development (ESD) in our curricula; sustainability has become a professional issue.

My own institution, the University of Nottingham, ought to be well ahead of the curve. It has recently won the accolade of the ‘world’s most sustainable university’ for the fourth time according to the GreenMetric World University Rankings. Such rankings and league tables are highly suspect (Jones, 2015), but one might surely expect to see a structured approach to ESD across our curricula, and at least a basic level of sustainability literacy among our healthcare students? Unfortunately, experience suggests this is not necessarily the case. A recent survey of undergraduate nursing students indicated that more than a third had never heard of the term ‘sustainable development’, and less than a third think it has any place in the nursing curriculum (Evans, 2015).

The aim of this presentation, therefore, is to explore with fellow Symposium participants why ESD might be failing to gain traction in nursing education, at least within my own institution. With reference to relevant research, areas for discussion will include the myth of the ‘green student’ (Butt et al, 2014) and the influence of staff attitudes (Cotton *et al* 2009; Shephard and Funari, 2013). I will turn to concept of the ‘sustainability lens’ in an attempt to find a way forward (Goodman and East, 2014). I hope to learn from colleagues with more extensive experience, but also to explore aspects of the sustainability discourse where rhetoric and reality are failing to meet.

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Presentation - Sustainability Initiatives in Ambulance Services: A Qualitative Exploration of the Experiences of NHS Ambulance Trust Strategic Managers in England

Presenter – Peter Allum

Programme Lead for MSc Pre-Hospital Critical Care-Retrieval and Transfer, Lecturer for BSc (Hons) Paramedic Practitioner / Health Studies, Plymouth University

Contributors

Dr. Andrew Nichols, Lecturer in Nursing Studies, Plymouth University

Prof Janet Richardson, Professor of Health Service Research, Plymouth University

Oral presentation abstract

Research Question

What are the experiences of Sustainability Development Managers of NHS Ambulance Trusts in England, when implementing carbon reduction strategies?

Aim

To investigate the current experiences, attitudes, opinions, behaviour and knowledge of strategic managers in the 10 ambulance trusts located in England, in their approach to sustainability

Background

Sustainable development and carbon management are corporate responsibilities and there is an escalating expectation in the developed world that all organisations and health care providers in particular, will develop strategies to reduce carbon and manage waste (Nichols and Allum, 2015; Gimenez et al 2012; Merriman and Sen, 2012; Augustson and Patow, 2011). Ambulance Trusts can significantly help towards meeting these NHS targets and are overtly making declarations of organisational intent by the implementation of corporate Sustainable Development Management Plans and Carbon Management Plans (Green Environmental Ambulance Network, 2012).

This paper will present:

- The nature of sustainability initiatives that are being employed within NHS Ambulance Service Trusts in England to meet carbon emission reduction targets.
- How confident Sustainability Managers are with their impact and overall measurement of their initiatives
- Sustainability Managers' longer term priorities, aspirations and strategic impetus are, towards meeting carbon reduction targets.

- An understanding of how Sustainability Managers view the level of other employee engagement with strategic objectives within the SDMP (from a strategic viewpoint).

Methods

The study involved semi structured, in depth interviews, using a purposive sample of participants from 10 selected NHS Ambulance Trusts in England. Interviews were audio recorded, transcribed, codified and thematically analysed with descriptive re-presentation and theory generation (using Braun and Clarke's (2013) seven step process of analysis).

Findings

Four themes emerged that capture the essence of the sustainability managers' experiences. These are:

- Essential Leadership
- Willingness of the Workforce to adopt sustainability change
- Impact of Implemented initiatives
- Future Objectives

References

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Presentation - Toward medicines reuse: a structured review of the different classes and dosage forms of wasted medicines reported in the UK and internationally

Presenter – Hamza Alhamad

PhD student, Reading School of Pharmacy, University of Reading

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Oral presentation abstract

Introduction

The causes of medicine waste are thought of as avoidable (e.g. patient non-adherence, adverse drug reactions, medicine accumulation) or non-avoidable (e.g. patient death, prescription changes) {1, 2} and interventions aimed at reducing medicines waste normally target avoidable causes, for example, by improving practices through medicines waste campaigns. 'Medicines reuse', a concept yet to be tested in the UK, could potentially have a wider impact on medicines waste by enabling medicines returned by patients (irrespective of reasons) to be considered for re-distribution to others following quality control. Medicines reuse can reduce the environmental and economic impact of medicines waste, providing a sustainable solution for all causes of medicines waste in the future {6}. However, little is known about the type of medicines being wasted, specifically the therapeutic classes and the dosage forms, which are important components of medicines reuse research.

Objective

This structured review aimed to examine the published literature on medicines waste to report the most common therapeutic classes of wasted medicines and their dosage forms.

Methodology

A comprehensive electronic search of databases including PubMed and Google Scholar was carried out over a one-month period in May 2015 using Boolean combinations of a list of keywords that included medical waste, pharmaceutical preparations, types of leftover medicines, medicines disposal practices and so on.

Results and discussion

Thirty studies published between 2002 and 2015, in English, comprising data from 18 countries from around the world were included and reviewed. Oral solid dosage forms (mostly tablets) were the commonly reported dosage form of all wasted medicines in 11 studies out of the 18 studies that described the dosage form, with percentages ranging from 40.6% to 95.6% of all wasted medicines. Cardiovascular medicines were the most common therapeutic class of wasted medicines in eight out of the 30 studies reviewed (four UK

studies) {3, 4, 5, 6}. In addition, in the UK the second most common class of medicines wasted related to painkillers and drugs acting on the brain.

Conclusion

Although there was variability between the levels of waste reported in different countries, the findings that related to the UK were relatively consistent. In the UK, cardiovascular medicines are one of the most commonly prescribed and amended class of medicine because of the prevalence of cardiovascular disease and changes in prescribing necessitated because of frequently-updated guidelines{1, 3, 4, 5, 6} This study provides a basis for a feasibility study investigating tablets prescribed for cardiovascular conditions as candidates for medicines reuse.

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Presentation - Sustainability and infection prevention and control

Presenter – Dr. Enrique Castro-Sánchez

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Presentation - How sustainable transport could massively reduce ill-health (e.g. reducing dementia 30%, diabetes 50%)

Presenter – Mrs. Scarlett McNally

Consultant Orthopaedic Surgeon, Eastbourne District General Hospital
Elected Council Member, Royal College of Surgeons of England
Honorary Senior Clinical Fellow, Brighton and Sussex Medical School

Oral presentation abstract

In developed countries, the huge burden of ill-health is multiple chronic conditions suffered by older people and people from more deprived socio-economic groups. 70% of NHS funding is on long-term chronic conditions (DH, 2010). Yet this is not inevitable aging. There is clear evidence that most chronic long-term conditions are caused by environmental and lifestyle factors. The 'big 4 proximate causes of ill-health' are: smoking, nutrition, physical inactivity and alcohol excess (AoMRC, 2015). There is abundant evidence that doing moderate physical activity for 150 minutes every week reduces an individual's risk of getting dementia by 30%, diabetes by 50%, depression by 30%, stroke by 30%, high blood pressure by 50% and some cancers by 25-40%; exercise also treats established ill-health (AoMRC, 2015). Yet half the UK population do not do this much exercise (AoMRC, 2015). People over age 60 do dangerously little activity. The effect of exercise is better than most preventative drugs (AoMRC, 2015).

Behaviour change is hard. Different social groups have different barriers (real and perceived). The best way to fit exercise into a routine is active travel: cycling, brisk walking, using a non-motorised scooter or skate-boarding (BMA, 2012). Yet people do not cycle because they perceive that it is dangerous. Other countries have increased their investment in active travel, and reduced their health and social care costs (Aldred, 2014). Exercise is one of only a few interventions that can reduce inequalities in health.

We produced a report collating the evidence and an A4 information sheet for health professionals to help people become more active (AoMRC, 2015). Tips include signing up for a charity ride/run/cycle, using an app or exercising with a friend.

Social care costs are typically £50,000 per year for residential care. Few UK local authorities or public bodies have invested in cycle lanes, cycle parking, road crossings, school travel plans or policies on healthy workers (TfL, 2013). A crucial economic factor is that exercise can reduce the numbers of medical conditions and increase independence over decades, yet only adds a few years of extra total life (King's fund, 2015; Barnett, 2012). The survival curve becomes "rectangularised" (Fries, 1980). This means that lifetime spend on social and healthcare for an exercising person is massively reduced and this far outweighs some increased housing and pension costs. All public bodies and governments should invest in active travel now to prevent imminent catastrophic NHS and social failure.

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Presentation - How do we approach sustainability within courses offered by the School of Health Sciences at the University of Brighton?

Presenter – Alison Taylor

Senior Lecturer, School of Health Sciences, University of Brighton

Oral presentation abstract

The School of Health Sciences outlines a clear commitment to sustainability in our six point strategy. The School delivers a total of 90 health related courses across three campuses. Existing literature is scarce on nursing and sustainability (Richardson et al 2015) which suggests a golden opportunity to shift this issue higher up the agenda, particularly in education. Goodman (2011) emphasises educating nurses to make the connection between human health and the environment with the aim of 'eco-literacy'.

Initiatives such as the Sustainable Healthcare Education network's Priority Learning Outcomes for Sustainability in undergraduate and postgraduate medical curricula showcase ways in which sustainability can be embedded into health care education. Emphasis should be less on a whole new approach and more a "perspective through which to approach existing topics such as health inequalities" (Sustainable Healthcare Education Network 2013).

Are we doing enough in other health care courses?

Course leaders were contacted by email in November 2015 with a follow up in January 2016, to discover how sustainability was approached within their courses.

The following four questions were asked:

1. Please could you let us know how you approach (or envisage approaching) sustainability within your course?
2. Is there any information included in your course learning outcomes, handbook, module site or elsewhere?
3. Do you engage in sustainable partnership working, for example with volunteers?
4. Is there anything else linked to sustainability that you are doing that you would like to tell us about?

The aim of this presentation is to summarise the different approaches to sustainability taken within the various courses on offer in SHS. We will explore ideas such as whether a standardised approach should be taken, where and how sustainability should be addressed in SHS courses, and how to engage colleagues in prioritising sustainability in their course philosophies.

References

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Presentation – Delivering the triple bottom line: sharing learning about sustainable healthcare from Green Impact for Health toolkit

Presenter – Kim Croasdale and Odette Wills

Sustainability Project Officers, National Union of Students

Oral presentation abstract

Green Impact is a behaviour change and engagement programme – it helps people understand sustainability and social responsibility, shows them what they can do to make a difference, and supports them in achieving these actions. It's based on the themes of continual improvement, collaboration and meaningful change to establish new social norms and inspire people with the skills and passion needed to make a difference.

Over 300 organisations have taken part in Green Impact to date. In 2011 we started working with NHS Trusts, with 5 now running the programme. In 2013 we started work with GP surgeries in Bristol and now have 20 practices across the UK engaged. Historically we also worked with over 60 dental practices in the south-west, and hope to continue development of this in the future. Through this work we have learned a lot about sustainable healthcare, much of which has then informed our developments of the programme and helped it to become more successful:

1. It's all about framing:

- NBT very successfully framed sustainability within health and wellbeing for staff;
- The GPs programme focuses on improving patient care to engage staff;
- UHB has separated its sustainability work into working areas, targeting change depending on type and location of staff and work;
- Quality improvement and sustainability are close allies; the 6 priorities of QI (safe, efficient, effective, equitable, person-centred and timely) align well with sustainability work, creating powerful incentives.

2. Staff are motivated and excited about the opportunity to improve things, even if it poses a challenge:

- We have almost 1000 staff in hospitals working on Green Impact teams this year, reaching roughly 5500 people across their departments;
- Due to demand we're now tailoring our work to clinical areas more with the Centre for Sustainable Healthcare (CSH).

3. Students are a key part of change:

- Students are the leaders of the future;
- We have been running a Sustainable Healthcare module as part of the Medicine degree with University of Bristol for the past 2 years and are now developing it further with CSH;
- They are motivated and enjoy the teaching methods embedded in education for sustainable development;
- Including it in the curriculum embeds it into their learning and gets it into their habits at the very beginning of their careers.

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Presentation – Dare to Care: staff engagement and behaviour change campaign

Presenter – Susie Vernon

Head of Environment, Sussex Community NHS Foundation Trust

Oral presentation abstract

In February 2015, Sussex Community NHS Trust launched an innovative, award-winning staff engagement campaign called Dare to Care. Our unique approach provides a fresh and fun way to engage staff collectively, supporting teams and individuals to make simple changes that contribute to their own wellbeing, while at the same time delivering cost and carbon savings. Dare to Care is key to delivery against the challenging targets set out in our sustainable healthcare strategy, Care Without Carbon, and supports the wider Trust values and strategic goals.

Campaign delivery

The Dare campaign asks staff to sign up to pledges (we call them 'dares'). Each dare is designed to support staff wellbeing, environmental efficiencies and cost savings. We engage with staff in a number of ways:

1. **A central website** carewithoutcarbon.org allows staff to take part from any location and with any shift pattern. Staff sign up for their dares online, where they can also track the campaign's progress, get tips and advice on sustainability both at work and at home, and hear staff stories and news.
2. **A series of posters** featuring staff from around the Trust. This encourages participation through peer-to-peer engagement and empowers staff to create the change they would like to see.
3. **Face-to-face events** throughout the year including a two-week roadshow in September visiting six Trust sites.
4. **Competitions and challenges** encouraging staff to feed back on their progress and get involved in challenges as a team, with prizes donated by local businesses. Our most recent competition, the 'Step Up Challenge', aims to get people walking more and cut carbon and fuel costs at the same time.

Dares and posters are refreshed every 6 months to keep the campaign interesting and to allow it to respond to and reflect the changing needs of the Trust.



Campaign results

In the first year we achieved:

- 642 staff signing up to dares;
- 2,364 dares in total ;
- High traffic to the website – over 12,000 visitors in the first year, viewing over 24,000 pages;
- Around 20% of staff fed back to us to update us on their progress with dares; and
- An increase in engagement score in the annual staff survey, putting us above average for community trusts.

What's next?

We'll continue to develop the Dare campaign at SCT, responding to its new status as a foundation trust.

We're also keen to grow the campaign outside of the Trust, in the knowledge that small actions add up to a bigger difference – that collectively we can create a sustainable healthcare system to support patients now and in the future.

Since launching in February, we've grown the campaign to incorporate Brighton and Hove primary care staff. We hope to further increase the reach – and impact – of the campaign with more NHS providers coming on board next year.

Staff feedback

"I have completely changed the way I work over the last 6 months. I no longer drive my car to work and I catch the train and walk from the station. It's much more enjoyable than driving – no parking issues and I get all of the health benefits. If I need a car I use one of the Trust's pool cars – it's easy to arrange and always a friendly service. Without Dare to Care I probably would not have done this, so thank you!"

Andrea Richardson, Occupational Health

"I wanted to let you know how much I have benefitted from the Care Without Carbon campaign. Since daring to make 1 less car journey I've swapped the car for train for two of my evening activities each week, and some extra walking in too. As well as saving carbon I have noticed a marked improvement in my sleep as I am now taking more exercise."

Claire Bird, Speech & Language Therapist

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Poster - Breathe Better Waste Less

Author – Dr. Rachel Cottom

GP and Brighton and Hove Clinical Commissioning Group Clinical Lead, Sustainability

Author – Fionnuala Plumart

Pharmacist and Brighton and Hove Clinical Commissioning Group Pharmaceutical Advisor

Poster abstract

Every year, 73 million inhalers are dispensed across the UK and 63% of inhalers are likely to end up in landfill. We anticipate many of these inhalers are thrown away partially used. Unused medicines cost the NHS nationally more than £300 million a year and respiratory medicines form a large proportion of this. In Brighton and Hove, we spent just under £4 million on respiratory inhalers in 14/15, which makes up nearly 10% of our entire drug budget. The recently published National Review of Asthma Deaths (NRAD)(2014) highlighted avoidable factors in asthma deaths and one of these was that of those that died, there was no evidence that an asthma review had taken place in the last year before their death (43%)

Despite the huge amount of money spent on respiratory medication, studies have found that up to 90% of patients do not use their inhalers properly, meaning that patients are not receiving the full benefit from their medication. Better use of respiratory medication can improve the management of the condition and help to reduce waste. Brighton and Hove CCG launched "Breathe Better Waste Less" a joint working project with GSK which aimed to deliver improvements in adherence, medicines optimisation, plus reductions in medicines wastage, by cultivating the knowledge of community pharmacists, improving communication between health care professionals, as well as encouraging patients to return their used inhalers for recycling.

This project aimed to tackle both the sustainability agenda through the introduction of GSK's inhaler recycling initiative and improve patient outcomes by providing a pharmacist intervention in checking a patient's inhaler technique. The project was launched in March 2015 and will continue until June 2016. Twenty-seven community pharmacies across Brighton and Hove (45%) have signed up and now display the "Breathe Better Waste Less" posters on their windows.

The message that is displayed states: "You could feel so much better- up to 90% of Asthma and COPD patients don't use their inhalers properly. Your pharmacist can check your inhaler technique and make sure you are getting the most benefit from your medicines. Come in and have a chat with your pharmacist today." An awareness campaign was run in the local press informing readers how important it is that asthma and COPD patients get their inhaler technique checked and that their local pharmacist is ideally placed to do this.

Participating pharmacies received their individual inhaler technique training on site in their pharmacy premises. It was decided to offer training in this way rather than a large evening

event, because we wanted pharmacists (and their support staff) to fully engage with the training and feel comfortable to ask questions of the trainer. We also knew pharmacy staff are inundated with evening event invitations and we wanted to ensure they did not miss out on this education by scheduling it at a time that was convenient to them.

The training helped to increase community pharmacist's skills when speaking to patients about their inhaler technique and helping patients get the most benefit from their medication. Pharmacists have fed back that the training has been "very useful and has increased their confidence in speaking to patients about their inhaler technique and advising if another type of inhaler would suit them better".

As part of the project, enhanced feedback forms were developed that gleaned valuable information about the health of respiratory patients when they had their Medicines User Review (MUR). Pharmacists were encouraged to submit all MUR feedback forms to the patients GP surgery. An option for marking "requires action" or "for information" was at the top of each feedback form, which helped direct the forms to the correct individual. Those that "required action" could be forwarded directly to the patients assigned GP, the "for information" forms can go to non-clinical practice staff where information from the form can be uploaded onto the patients file.

Pharmacists have fed back that before the project, they weren't always certain if they should submit feedback forms to GPs if a major intervention was not required. However important information can be gleaned from an MUR consultation and it is valuable when this is shared with appropriate health care professionals for the benefit of the patient. We have received feedback that GPs have received many "enhanced feedback forms" from community pharmacists since the project began.

All participating pharmacies received recycling bins for collecting used inhalers and pharmacists were encouraged to promote the recycling service to their patients. The first collection was in September and over 300 inhalers were gathered and analysed:

- Only 20% of returned inhalers were completely empty.
- 30% of returned inhalers were COMPLETELY FULL
- 50% were <10% and < 90% full.

This information was fed back to the pharmacies involved as well as the breakdown of how much medicine was left in metered dose inhalers versus dry powder inhalers. The pharmacists then fed this information back to their patients to attempt to reduce such high wastage in the future. After analysis the collected inhalers were recycled which reduces what goes to landfill and Brighton and Hove's carbon footprint.

Two more collections are scheduled in March and in June 2016. Information from these will be shared with healthcare professionals and patients throughout the city to demonstrate where wastage is happening. The relationship between GP practices and community pharmacies in the Brighton and Hove area has been developed through sharing of information to improve the level of care that respiratory patients receive.

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