



University of Brighton

3 May 2019

5th Annual Conference: Sustainability and Health: Small Steps, Big Changes

School of Health Sciences
Sustainability Special Interest Group



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FUTURES**

Table of Contents

Venue.....	1
Schedule	2
Introduction	3
Social Media.....	3
Keynote speaker – Sonia Roschnik	4
1. Can sustainability sessions in undergraduate nurse education influence practice?	5
2. Sustainable later leisure lifestyles	8
3. Barts Health PVC Recycling Project.....	11
4. Operation Smile.....	13
5. An ethnographic study of sustainability attitudes and behaviour amongst operational NHS Ambulance staff	14
6. Use of consumer-level wearable devices for measurement of health-related data. A bilateral scoping review.....	16
7. Sustainability in acute mental health practice: Tackling waste from the ocean to the ward	18
8. Household disposal of unwanted medicines and environmental pollution	20
9. The carbon footprint of operating theatres: a systematic review	22
10. Getting it right: Towards sustainable solutions in Motivational Interviewing Education for inter professional working.....	25
11. Many actions can create big change	28
Sustainability businesses and organisations	31

Venue

Checkland Building C122 Lecture Hall

University of Brighton, Falmer campus, Village Way, Brighton BN1 9PH

[Map and directions](#)

Parking on campus is not possible without a permit

Save the date: 1 May 2020 for next year's conference

Schedule

Time	Presenters	Presentation Title
09:30	Registration	
10.00	Welcome address	
10:15	Jennie Aronsson & Janet Richardson	Can sustainability sessions in undergraduate nurse education influence practice?
10:35	Tania Wiseman	Sustainable later leisure lifestyles
10:55	Stephen Wythe & Jonathon Groome	Barts Health PVC recycling project
11:15 – 11:40 Refreshments, posters and exhibitor tables		
11:40	Jackie Matthews	Operation Smile
12.00	Peter Allum	An ethnographic study of sustainability attitudes and behaviour amongst operational NHS Ambulance staff
12:20	Fiona McNeill	Use of consumer-level wearable devices for measurement of health-related data. A bilateral scoping review
12:40	Sabrina Carter	Sustainability in acute mental health practice: tackling waste from the ocean to the ward
13:00 – 14:00 Lunch, posters and exhibitor tables		
14:00	Keynote speaker: Sonia Roschnik	Sustainable development in health – small steps and big changes
14:30	Helen Herrera	Household disposal of unwanted medicines and environmental pollution.
14:50	Chantelle Rizen	The carbon footprint of operating theatres: a systematic review
15:10	Movement break	
15:20	Lucy Colwell, Jamie Cooper & Nana Tomova	Getting it right: Towards sustainable solutions in Motivational Interviewing Education for inter professional working
15:40	Hayley Carmichael & Susie Vernon	Many actions can create big change
16:00-16:10	Prof Debra Humphris Vice-Chancellor	Prizes and closing address

Introduction

Thank you for coming to the 5th annual Sustainability Symposium hosted by the University of Brighton School of Health Sciences Sustainability Special Interest Group.

If you are reading this, then you are already committed to a responsible healthy future. This 5th conference welcomes back regulars and introduces some new faces. The speakers range from novice to very experienced, from people beginning their careers, to those that have spent a lifetime committed to changing things for the better. Together we take on that challenge and learn from each other about developments in research, healthcare practice and education of health practitioners.

Today we consider how small steps of many people add up to big changes, we aim to reach into practice, research, and the education of future sustainable practitioners. Today we do not need to struggle or explain our mission, we can enjoy each other's company, and build the networks that will sustain us in our mission.

Social Media



Please use [#smallstepsbigchanges2019](#) if tweeting and copy in [@SustainSHSUoB](#).

The oral presentations videos, 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 award programme. This was achieved by involving students in our group and by helping to promote sustainability within teaching, research, the physical environment and awareness of staff and students in relation to sustainability issues.

We look forward to hearing all about promoting sustainability in healthcare and the small steps and big changes that follow the conference today!

Jessica Mills, Tania Wiseman, Alison Taylor, Heather Baid

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[@SustainSHSUoB](#)

Keynote speaker – Sonia Roschnik

Director of the Sustainable Development Unit



The Sustainable Development Unit (SDU) is a national unit based in Cambridge working on behalf of the health and care system in England. It was established in April 2008. They support the NHS, public health and social care to embed and promote the three elements of sustainable development - environmental, social and financial. The Unit is jointly funded by, and accountable to, NHS England and Public Health England to ensure that the health and care system fulfils its potential as a leading sustainable and low carbon service.

Sonia has worked in health and social care for the past 30 years as a clinician, in senior hospital management and in sustainability. Sonia worked for the SDU from 2008 to 2016 and before coming back as Director, was based in Abu Dhabi as a freelance sustainable health advisor whilst completing a Masters degree in Systems Thinking

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www.sduhealth.org.uk



Sustainable Development Goals sustainabledevelopment.un.org/?menu=1300

1. Can sustainability sessions in undergraduate nurse education influence practice?

Presenters

Jennie Aronsson – Lecturer, School of Nursing and Midwifery, University of Plymouth

Prof Janet Richardson

- Emeritus Professor of University of Plymouth
- Consultant in Research Education for Sustainable Healthcare and Wellbeing

Contributors

Dr Jane Grose – Visiting Research Fellow, School of Nursing and Midwifery, University of Plymouth

Daniel Clarke – Lecturer, School of Nursing and Midwifery, University of Plymouth

Oral presentation abstract

Aims / objectives

The aim of the research was to determine the extent to which sessions on sustainability integrated into the nursing undergraduate curriculum could help students to challenge unsustainable practice and implement change.

The objectives were to:

- Provide interactive sessions in order to raise awareness about the relevance of climate change and sustainability to nursing practice
- Measure changes in willingness to address unsustainable practice in the clinical environment
- Understand what enabled or inhibited the students' ability to challenge unsustainable practice

A cohort study collected data using a self-completion questionnaire measuring agreement with statements on a Likert scale, with open ended questions to explore responses in greater depth.

Outcomes

Comparisons of the responses in year 2 and 3 found significant differences between scores for 'I apply sustainability principles in my nursing / midwifery practice' ($p=0.000$), and 'I challenge unsustainable practice in my work environment' ($p=0.001$). Mean scores for these responses indicated that the change was in the direction of higher scores (more agreement with the statements) in year 3. For 'I feel

unable to challenge unsustainable practice in my work environment' ($p=0.006$), mean scores indicated less agreement in year 3 than year 2.

Thematic analysis of open questions found that students felt unable to change practice due to their position as a student, wanting to avoid confrontation, as well as lack of confidence and knowledge: 'As a student I feel my opinion isn't important'. Those who felt able to challenge or change practice were 'more aware of unnecessary use of equipment/items and being more aware of throwing things away appropriately'. Status as a student was still apparent in the responses in year three, however reflection on what could be done in practice was evident.

Discussion

Nursing education provides an excellent opportunity to influence sustainable clinical practice and students can potentially be sustainability champions. However, they will require significant exposure to the issues that climate change and sustainability present in order to have the confidence and knowledge to challenge unsustainable practice; updating mentors will also require updates. The relevance and impact relates to the extent of the nursing workforce and, therefore, the untapped potential for sustainability leadership in healthcare.

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 NurSusTOOLKIT nursus.eu

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2. Sustainable later leisure lifestyles

Presenter

Tania Wiseman – Principal Lecturer and PhD Candidate, University of Brighton

Contributors

Dr Paul Gilchrist – Principal Lecturer, School of Environment and Technology, University of Brighton

Prof Neil Ravenscroft – Director of Doctoral College, University of Brighton

Prof Andrew Church – Associate Pro-Vice Chancellor Research and Enterprise, University of Brighton

Oral presentation abstract

In the last 30 years the interest in ageing has intensified, with many more people living into very old age (United Nations, 2011). This is new because although ancient people that survived childhood could live long lives, there has never been such a large proportion of the population who lived to over 85. This impacts on work lives, finances, family makeup, property and housing, relations, rhythms of life, and conceptions of the life course. Interest reaches into all domains of later life. Leisure, with its historical resonance with vice and virtue, is an important area of research for later life scholars; both as a remedy for the ‘ills of old age’, and a source of increased longevity and quality of life. People are surviving into later life in greater numbers than ever before (ONS, 2015), many of those people are healthy (Office for National Statistics, 2014a), which is a new phenomenon.

‘Active ageing’ education encourages participation in a wide range of activities by explaining the health and wellbeing gains that can be achieved through mainly leisure-based activities. In the UK volunteering (Department for work and pensions 2012) was a key focus, but research demonstrating the life-long nature of volunteering has turned the focus to young people (Cooney, 2017; Lindsey, Bulloch, & Metcalfe, 2016). Current strategies for older people include active sports participation (Sport England, 2016) and continued work (Department for Business Energy and Industrial Strategy, 2019; Department for Work and Pensions, 2015) to support healthy ageing. Health guidelines promote the benefits of leisure-linked interventions such as walking groups and balance training (Sherrington et al., 2019 NICE 2015), and social prescribing of leisurely activities is core to the new long-term NHS plan (NHS 2019). Content analysis of the most recent guidance on ‘living well for longer’ from the Department of Health and Social Care, UK features volunteering twice, exercise twice, leisure twice and work 108 times (Department of Health and Social Care, 2018). There is a strong ‘return to work’ agenda, and retirement, as we know it, is under threat.

My thesis asks how people negotiate a leisurely later life in the context of active ageing.

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3. Barts Health PVC Recycling Project

Presenters

Dr. Stephen Wythe – Anaesthetic Registrar, Barts Health NHS Trust

Dr. Jonathan Groome – Anaesthetic Registrar, Barts Health NHS Trust

Founders of GASP – Greener Anaesthesia and Sustainability Project

Oral presentation abstract

The NHS is wasteful. In 2006, 400,000 tonnes of solid waste were collected from hospitals. This amounts to 1% of all solid waste produced in the UK. This wastefulness is not an intrinsic characteristic of healthcare either; this is a particular affliction of the NHS. A British patient, a French patient and a German patient walk into hospitals in their respective countries for an overnight admission – the British patient leaves 5.5kg in the bin, the Frenchman 1.9kg and the German just 400g. This is no joke.

There are many complex reasons for the UK's poor performance, which is, in part, due to waste disposal regulations which hospitals are bound by. With an NHS that is financially struggling and a planet that is being choked by waste and pollution, it is clear that more should be done to be sustainable. At Bart's Health – the UK's largest Trust – there is a waste management team to who oversee the disposal, re-use and recycling of 6000 tonnes of waste per year. Alongside this team and a specialist recycling scheme, RecoMed, we have established a quality improvement project with the aim of recycling all clean medical PVC from hospitals within Bart's Health.

Recomed is run by a firm specialising in circular economy called Axion. It is funded by the PVC industry as part of their corporate responsibility activity and therefore costs the trust nothing. Bins, bin bags, PVC collections and even training within the trust are provided for nothing. All clean PVC anaesthetic masks, oxygen tubing, nasal cannulae and some fluid bags are recycled into products for the horticultural industry.

Initially, the scheme was trialled at Newham hospital, with dedicated bins solely for PVC placed in theatre recovery and has since expanded to Whipps Cross. We have monitored our progress with frequent audits of the contents of the PVC bins and also recorded data on the weight of the PVC collected.

Data from the scheme has been collected and recorded using LifeQI, a website which provides a platform for quality improvement projects to be documented, shared and collaborated on. At Newham there was a steady increase in the weight of PVC collected from 2.5kg in week 1 to 7kg in week 12 but we also noticed an increase in the number of non-recyclable items being disposed of in the PVC bin. The first 10 weeks at Whipps Cross showed a strong start with around 8kg per week which has now settled to 3-4kg per week and only 2-4 non-PVC items seen during spot audits.

In total over 100kg of PVC has been recycled from Newham alone since the scheme began. We aim to expand to further locations in both hospitals as well as to Barts and the London. We are recruiting trainees in each hospital to help champion the project to improve

participation, expand to other areas, record data and hopefully start projects of their own to make Barts Health a greener organisation.

References

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4. Operation Smile

Presenter

Jackie Matthews – Clinical Nurse Specialist, South Thames Cleft Service and Guy's and St Thomas' NHS Foundation Trust

Oral presentation abstract

I am a Clinical Nurse Specialist, working in Cleft care with South Thames Cleft Service (STCS) at Guys and St Thomas. I am also a medical volunteer for the international charity Operation Smile (OS), completing numerous missions with them, offering surgery to babies, children and adults in third world areas. I am an ambassador for the charity, giving talks and presentations for raising awareness (and fundraising) and sit on the Medical Committee as their nurse adviser.

Sustainability and building for the future are important and integral parts of Operation Smile's strategy; there is a robust program of investment for developing student leadership, clinical training and Fellowships. Additionally, programs are being developed *in country* to support a local team, working to recruit patients from the most rural areas, offering surgery and dental care to a population who would otherwise go undiscovered. OS's direction has changed – moving from just a cleft charity. The model now is operating on clefts as part of a sustainable surgical charity, with initiatives from the Lancet commission and others to make surgery accessible to 80% of the population by 2030. Our initiative is to enable countries to become cleft free. We ensure our Global Standards of Care are followed and OS has close links with the World Health Organisation (WHO) and the World Health Alliance (WHA).

Despite all the good intentions, we need to consider the ethics of 'parachuting' in for a brief period; we are training local staff, working together for their future clinical skills and giving them the opportunity to become self-sufficient for future missions; we need to consider the cost of the missions and how to spend the 'donated dollar' in the most appropriate and efficient way, sowing seeds to 'grow' the next generation of health care professionals and supporters.

I give presentations to schools in the UK, encouraging our students to consider joining our growing International Student Program, where they learn Leadership and Life skills, fundraise to join missions and participate in a global network. Volunteering for OS has been a truly life changing opportunity for me, both personally and professionally, opening so many doors and giving me a truly amazing and privileged chance to make a real difference - nursing at its best. I would welcome the opportunity to share some of the experiences of volunteering and the charity's views on the importance of sustainable healthcare, ethical and practical considerations.

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5. An ethnographic study of sustainability attitudes and behaviour amongst operational NHS Ambulance staff

Presenter

Peter Allum – Lecturer and PhD Candidate, School of Health Professions, University of Plymouth

Oral presentation abstract

Aim

To observe and explore the activities, attitudes and behaviours of operational ambulance personnel in English NHS Ambulance Trusts in their approach to sustainability.

Objectives

- To observe ambulance staff in their professional activities and clarify the current level of commitment towards sustainability.
- To evaluate the level of awareness of operational ambulance staff with Trust organisational policies and current sustainability initiatives.
- To critically discuss the perceived attitudes and behaviours of the operational workforce with the policies and how cooperative staff are when translating organisational objectives into current practice.

Relevance / Impact

This phase of research aims to improve the understanding of;

- How and when carbon reduction management principles are being adopted and implemented 'on the ground'.
- What evidence there is of strategic policy influencing the workforce.

This may lead to the development of strategies which could further motivate ambulance employees as individuals with the RRR philosophy, educate an EMS labour force to be more 'sustainably aware' and innovate new strategies to meet organisational aims. In turn, this may possibly help to reduce organisational costs, encourage an EMS contribution towards reducing carbon emissions and encourage changes in attitude, behaviours and wellbeing outside of a working environment

Selected Outcomes

Waste

- Despite waste segregation between clinical waste and domestic waste taking place within patients' houses, the same behaviour is not adopted within the back of an ambulance. Domestic waste facilities existing but they either do not know where it is or choose not use it. No recycling takes place within peripatetic practice.
- Little guidance on what can and should be segregated into the domestic waste streams or what can be recycled.

- Domestic and mixed recycling bins are on stations, but these were not always used for purpose intended and issues around appropriate waste collection by contracted companies.

Fuel use

- Diesel engines with heavy chassis weights being used
- Engine idling needed to keep equipment charged
- Little evidence of hybrid / alternative fuel sources being used.

Utility use

- Electrical Lights and appliances are left permanently on 24/7, even when there is no one on station. Evident in crew rooms, garages, store rooms, toilets, locker rooms and sluice rooms.

Discussion (small steps big changes)

- Cognitive dissonance between the attitudes towards waste segregation and the behaviours of waste segregation. Where waste facilities exist, they are either not advertised, or are not used due to inconvenient position / location or lack of appropriate sized liners. Position, availability, lidded or open and size of bin are important factors when waste disposal behaviours are observed and discussed.
- Lack of recycling symbols on consumable equipment displaying or guidance on items that can be recycled – Procurement and Trust guidance should be improved.
- The Prehospital care environment provides unique challenges to sustainable and Reduce, Reuse and Recycle behaviours...time starved and space starved. Vehicle design is a factor. (links with National Ambulance Procurement)
- Battery management systems in the rear of ambulances are needed to be recharged by engines running due to 24/7 use and little 'non-operational' time. – need for alternative charging opportunities.
- The method and manner of communicating green issues are vitally important to staff attitude and the success of adopting better practices. Local leadership (green champions) are needed for peer influence in adopting change.
- Building design and layout of stations are important with natural light, ecosystems for utility use and kitchen / crew room facilities.

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6. Use of consumer-level wearable devices for measurement of health-related data. A bilateral scoping review.

Presenter

Fiona MacNeill – Student and Learning Technologies Adviser, Information Services, University of Brighton and School of Computing, Engineering and Mathematics

Oral presentation abstract

Objective

To investigate the use of consumer-level wearable devices for measurement of health-related data and to consider the representation of this data/information.

Design

Scoping review.

Databases

ACM Digital Library; Health Research Premium and British Nursing Index (ProQuest); CINAHL Plus; PubMed; ScienceDirect [Computer Science, medicine and Dentistry, Health Professions]; Scopus; Web of Science (WOS); IEEE [IEEE, MITP, Wiley]; MEDLINE.

Studies

Bilateral streams were considered during the literature search. The first stream focused on technical research where off-the-shelf wearable devices were used, analysed or discussed. The second stream focused on health-related research and interventions where off-the-shelf wearable devices were used or considered.

Data extraction

One reviewer identified potential studies through search of databases and screened studies for eligibility. Factors such as population, the types of data/information gathered from the wearable devices, technologies used, context of care, study type, and the use of user experience or qualitative methods were catalogued for each eligible source. Technical factors such as user trust in the system, privacy and security and the outcomes for each study were also recorded.

Results

Seventy-four studies were reviewed. The technical stream included thirty-four studies and the health stream featured forty studies. Among the health studies ($n = 40$), the most common use of wearable devices was to support preventative care and condition management (17/40; 42.5%). This was followed by activity recognition or tracking and patient vital signs monitoring, both at 15% (6/40). The majority of health-related studies involving participants were completed in free-living circumstances (18/40; 45%). Activity and heart rate were most frequent measurements sought from wearable devices across all studies. The needs of Healthcare Professionals require more investigation as their needs pertaining to the representation of information differ from those of patients. Across all studies

including reviews: 57% (42/74) had positive outcomes, 28% (21/74) had neutral outcomes, 9.5% (7/74) had negative outcomes and 5% (4/74) were classed as *not applicable* (N/A).

Outcomes and Discussion

Among studies that cited positive outcomes the research was often speculative and therefore should be considered as an indication of future potential as opposed to a demonstration of clinical or technical success. There remain a number of issues related to use of wearable devices such as the interpretation of information from such devices, accuracy of measurement, socio-economic barriers, usability, connectivity, as well as workplace, economic and environmental sustainability. The reviewer also identified areas of opportunity to provide a solid foundation for further research.

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7. Sustainability in acute mental health practice: Tackling waste from the ocean to the ward

Presenter

Sabrina Carter – Registered Mental Health Nurse, Regency Ward, Millview Hospital, Hove

Oral presentation abstract

Background

While the National Health Service (NHS) is a significant carbon emitter, it has made progress in reducing its carbon footprint over recent years, particularly with regards to energy and water use, as well as cutting waste costs. Sustainable practice is increasingly becoming a part of core work within health organisations, with increasing efforts to provide guidance on how health professionals can improve their workplace through changes to procurement and waste management.

While staff awareness of sustainable healthcare appears high, 71% of staff has stated they feel their organisation actively supports the environment. A staff engagement programme 'Dare to Care' was launched within Sussex Partnership NHS Foundation Trust aiming to provide easy ways for staff to play their part in creating a greener NHS.

Currently little is known regarding the benefits and challenges that come with improving sustainable practice within inpatient mental health settings; including for its staff, service-users and carers.

Aims

To consider the concept of sustainability within the context of an acute mental healthcare ward, exploring how frontline staff, in partnership with service-users have been inspired to lead change through the Care Without Carbon's 'Dare to Care' campaign; making small changes to adopt a more sustainable approach to clinical practice. This aims to explore some of the observed benefits and challenges to change implementation.

Main Discussion

Following concerns raised by stakeholders, a 'Sustainability Lead' was developed, which has helped guide the ward in eliminating the use of harmful disposable polystyrene cups, cutlery and plates; instead adopting the use of reusable alternatives to reduce single-use waste.

Due to higher acuity levels and limited time, initially it proved challenging to adjust behaviours that favoured 'quicker options'. Nevertheless, consistent communication, education and role modelling has helped alter the existing ward culture. To promote engagement, it has also been crucial to embed a culture of 'leader-leader' style leadership where all stakeholders feel inspired and supported to make improvements; using the 'Dare to Care' campaign as a platform for discussion.

The experience has equally shed light on the importance of safe, effective risk assessment in identifying alternative materials that maintain safety, and the impact this has had on staff understanding of presenting risks, as well as service-user empowerment to lead positive change.

Conclusions

Efforts have now been made to set ward goals and an overarching vision to further develop sustainable practices. By adopting a collaborative, leader-leader approach to engagement, it has been possible to empower stakeholders in all areas to think critically and make valuable contributions to change; continuing to educate and maintain a consistent message in the process. Celebrating the small changes and sharing best practice through social media has equally been a powerful tool in inspiring others to follow suit.

While in its infancy, such initiatives highlight the importance of exploring how key stakeholders can lead sustainable practices within inpatient mental health settings that improve not solely our impact on environment, but also service-users' associated health and recovery outcomes.

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8. Household disposal of unwanted medicines and environmental pollution

Presenter

Dr Helena Herrera – Senior Lecturer, School of Pharmacy and Biomedical Sciences, University of Portsmouth

Contributors

Prof Alex Ford – Professor of Biology, School of Biological Sciences, University of Portsmouth

Dr Stephanie Lasalle – Visiting Researcher, School of Earth and Environmental Sciences, Research and Innovation, University of Portsmouth

Ms Séverine Villabessais – Service Circular Economy and Waste, Région Normandie

Ms Emmanuelle Hasson – Cyclamed Association, France

Oral presentation abstract

Aim

The aim of this project is to investigate behaviours of the public with regards to household disposal of medicines no longer needed, and their views with regards to the impact of this the environment in the regions on both sides of the English Channel. This will be used to inform the development of public health initiatives to promote the use of existing “take back” schemes and educate the public to return these medicines to pharmacies for safe disposal, reuse or recycling.

Relevance / impact

Previous research in the UK has identified that household waste, the sink or toilet have been used as the main routes for disposing of unwanted. (1) Data collected in France also indicate these as the likely main routes, with only 164g per inhabitant / year being returned in some regions. (2) With regards to medicines packaging, it is known that, in France, only 76% of those returned to pharmacies are being properly sorted and recycled. (3)

Outcomes

As a result of growing concerns with regards to the impact on aquatic environments and carbon footprint of health services, (4) a working group involving different stakeholders in the south of England and the north of France was created. Preliminary results of their work show that there is limited awareness within the public, both in France and the UK, of the availability of the “take back” schemes. Promotion of these could increase uptake, particularly for certain groups of medicines which are perceived by the public of potentially

more pollutant. There is interest but lack of knowledge with regards to other aspects of sustainability affected by the inadequate disposal of pharmaceuticals.

Discussion

While this project is still work in progress, different areas of best practice to share across the two sides of the channel have been identified. The UK leads with regards to innovative healthcare service provision, including public health initiatives, and France is at the forefront of practices for disposal, recycle and reuse of medicines and packing. Lessons can be learnt to jointly improve the environmental impact of the use and disposal of medicines.

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9. The carbon footprint of operating theatres: a systematic review

Presenter

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Oral presentation abstract

Background

Operating rooms are typically the most resource-intensive area of a hospital,(1, 2) generating 21-30% of hospital waste(2-4), with theatres 3-6 times more energy intensive than the rest of the hospital.(5) Carbon footprinting can be used to estimate the direct and indirect greenhouse gas emissions associated with a given process (such as an operation).

Aims

The primary objective of this systematic review was to evaluate existing literature calculating the carbon footprint of operating theatres (or components within), determining opportunities for improving the environmental impact of surgery.

Methods

A systematic review was conducted in accordance with PRISMA guidelines. The Cochrane Database, Embase, Ovid MEDLINE and PubMed were searched and inclusion criteria applied. The study endpoints were extracted and compared, with the risk of bias determined.

Results

4,062 records were identified, and 16 were eligible for inclusion. Nine studies used 'bottom up' process-based carbon footprinting approaches, one used a 'top down' environmentally extended input out model, and the remaining five used hybrid approaches. This systematic review supports evidence that surgery plays a role in greenhouse gas emissions; national surgical pathways identified contributed 63,000-355,925 tonnes of carbon dioxide equivalents per year. The studies found that major carbon hotspots within the examined operating theatres were a) electricity use, b) procurement of consumables and c) anaesthetic gases.

Studies demonstrated that it is possible to reduce the carbon footprint of surgery through several mechanisms:

- Use of reusable over disposable products: for example reusable scissors(6), laparotomy pads(7) and suction receptacles(8) have a footprint of just 3-50% of disposable equivalents
- Streamlining surgical instrument trays: estimated to reduce the carbon footprint of a hysterectomy by 46%(9)
- Reprocessing of single use surgical instruments: modelled to reduce the GHG emissions of an entire operation by 9%(9)
- Opting for traditional approaches (laparotomy or laparoscopy) over use of robotics: reducing the carbon footprint by up to two thirds (1, 10)

There were significant methodological limitations within included studies, reflective of the evolving field of carbon footprinting.

Conclusions

This systematic review indicates that surgery holds a large carbon footprint. This must be balanced against patient and population outcomes, in light of the impact of climate change on the health of future generation. Further research should focus on optimising the carbon footprint of operating theatres through leaning operations, expanding LCAs to other contexts and improving the eco-efficiency of theatre design.

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10. Getting it right: Towards sustainable solutions in Motivational Interviewing Education for inter professional working

Presenters

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Jamie Cooper – Senior Lecturer in Mental Health Nursing, School of Health Sciences, University of Brighton

Nana Tomova – Lead Community Pharmacist, Sussex Partnership NHS Foundation Trust

Oral presentation abstract

Background

Health and social care practitioners are expected to have an understanding of the principals underlying behaviour change for use in practice (NMC 2018, HCPC 2018). Motivational Interviewing (MI) makes a significant contribution in that it works to resolve ambivalence in making lifestyle changes that impact on physical and mental health including cardio vascular disease, substance misuse, eating disorders and concordance with longer term care (Lundahl et al 2013, Martins and McNeil 2009). MI is often a part of the curriculum in both pre and post registration health and social care education programmes. Embedding and sustaining proficiency in MI practice requires structures to support the practice, however, mechanisms for the effective delivery of education in MI are rarely described (Bohman et al 2012, Ostlund et al 2014).

Aim

To identify the effective aspects of motivational interviewing training within multi professional learning environments.

Method

A supervision group of MI educators from a pharmacist, mental health and primary care nursing backgrounds was established, meeting for 3 hours on a bi-monthly basis. There are 3 parts to the supervision process:

1. The group considers evaluations of MI workshop participant experiences paying attention to areas for development.
2. MI educators undertake live Motivational Interviewing Treatment Integrity (MITI) observations of teaching and learning practice in a variety of inter professional learning environments which are discussed during supervision.
3. Educators practice MI within the supervision session to embed, plan and consider MI training practices.

Results

Identifying parts of the training that will significantly influence participants practice enables educators to consider the parts of MI that are mentioned least by participants. This along with MITI observations enable educators to consider issues of pacing, variety of teaching and learning methods and sharing of best practice. MI practice towards the end of supervision focuses on areas for development recognised during MITI observations from which MI educators can take bold steps to develop MI education practice. Educators develop a flexible confidence which creates sustainability in a practice which promotes change and growth within multiple contexts. Developments include creating a range of workshops for different participant groups, introducing music, story and dance to the learning.

Conclusion and recommendations

An infrastructure that includes ongoing observation, reflexivity, critique and participant feedback creates possibilities for deepening and developing MI education practice within multi professional learning environments. This mirrors MI practice in that proficiency and adherence to the model is linked to effectiveness in creating behaviour change when supported within communities of practice with a shared interest in MI. To sustain quality in MI education, educators benefit from identifying arenas for receiving peer supervision, support and practice observations within a setting which encourages trust, support and collaboration. Small steps for big changes.

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11. Many actions can create big change

Presenters

Hayley Carmichel – Communications Manager, Care Without Carbon

Susie Vernon – Associate Director Sustainability, Sussex Community NHS Foundation Trust, Care Without Carbon

Oral presentation abstract

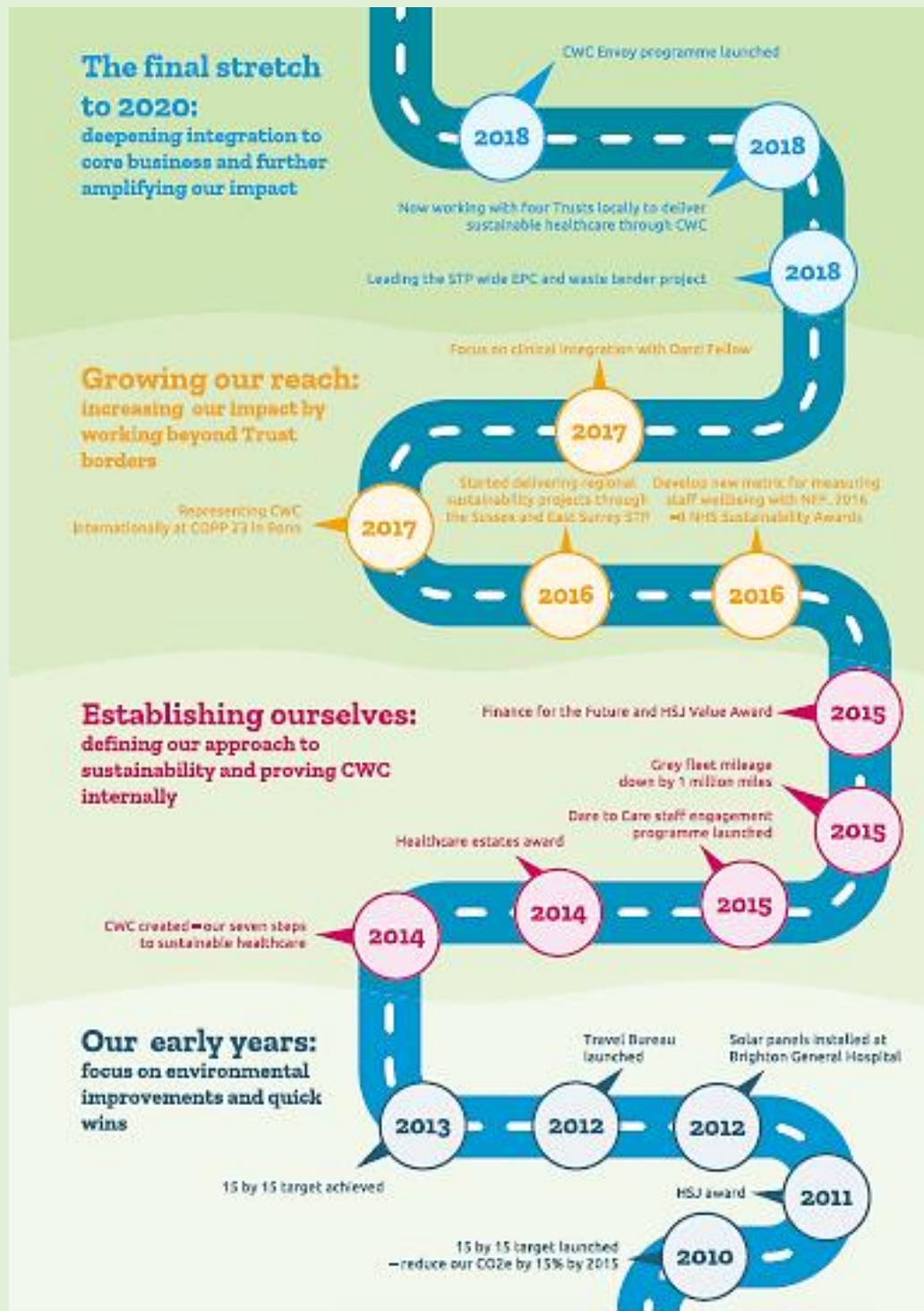
Sussex Community NHS Foundation Trust's Care Without Carbon (CWC) programme is leading the way across the South East in creating a greener NHS. We're aiming to provide the best possible patient care while at the same time balancing our efforts with three key aims in mind:

- Working towards long term financial savings
- Minimising our impact on the environment
- Supporting staff wellbeing to enable a happy, healthy and productive workforce

These aims are self-reinforcing – healthy lifestyles are sustainable lifestyles and vice versa. We created a 'virtuous circle' graphic to illustrate this important message.



The Trust launched its sustainability programme in 2010. Since then we've created significant change – £7.13m cumulative net savings to the Trust, 2452 tonnes CO2e saved and staff wellbeing increasing year on year. But this change hasn't happened overnight; we've worked to develop the programme step-by-step over eight years. And gradually we have seen real progress.



In the early years our focus was on environmental improvement and quick wins, but making fast progress, the programme soon developed into a broader sustainability programme with CWC's seven step framework launched in 2014. The next step was to establish ourselves

within the Trust in particular through our bespoke staff engagement programme, Dare to Care. The Dare to Care engagement programme is designed to promote small actions ('dares') that collectively can add up to big change. Since 2015 over 1,400 staff have signed up to over 6,300 dares at Sussex Community alone.

Having established the programme internally, we have now grown our reach outside of Trust borders. We're working with other Trusts in Sussex, Surrey and London to deliver both Care Without Carbon and Dare to Care, aiming to maximise the impact of the programme to create a greener NHS.

Working across the Surrey and East Sussex Sustainability and Transformation Partnership region, Care Without Carbon and Dare to Care, can collectively deliver:

- A reduced carbon footprint by 24,000 tonnes of CO₂e
- Saving to the NHS worth around £10 million
- A better working life for a 25,000 strong workforce

Creating a more sustainable NHS is the responsibility of everyone who works within it, from those who design services to those who deliver them, and ultimately of course the communities that use them.

The more we can work collaboratively, the more change we can deliver to ensure our healthcare system is sustainable – supporting a greener NHS and a healthier, happier working life for our people.

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[@CareWithoutCO2](https://twitter.com/CareWithoutCO2)



carewithoutcarbon.org

Sustainability businesses and organisations



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- SDMP Delivery
- SDAP Sustainable Development Action Plan
- Sustainability group
- Sustainability reporting
- Assessment tool
- Value added services



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inspire • empower • transform

sustainablehealthcare.org.uk

Registered charity helping the NHS fulfil its commitment to reduce its carbon footprint by 80% by 2050:

- Sustainable specialities programmes
- NHS Forest
- Carbon footprinting and triple bottom line analysis
- Sustainable healthcare education
- Green Ward Competition



www.sduhealth.org.uk

Supports the NHS, public health and social care to embed and promote the three elements of sustainable development - environmental, social and financial.



www.rcn.org.uk/small-changes

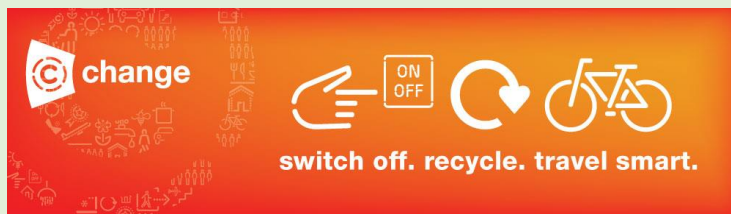
RCN Small Changes, Big Differences Campaign

- Started March 2015 to promote unique contribution that nursing staff can bring to decisions about procurement.
- Now broadened the scope to include how nursing staff can positively contribute to making care more sustainable.

www.rcn.org.uk/get-involved/campaign-with-us/glove-awareness

RCN Glove Awareness Week – 29 April to 3 May 2019

- To coincide with World Hand Hygiene Day on 5 May, Glove Awareness Week will raise awareness of skin health and appropriate glove use.
- Key messages around appropriate glove and the importance of all healthcare workers understanding when gloves should and should not be worn and how to protect the skin on your hands.



blogs.brighton.ac.uk/sustainability

c-change

- University of Brighton's award-winning internal carbon reduction campaign.
- Designed to engage, inspire and support our staff and students to cut carbon, both on and off campus.