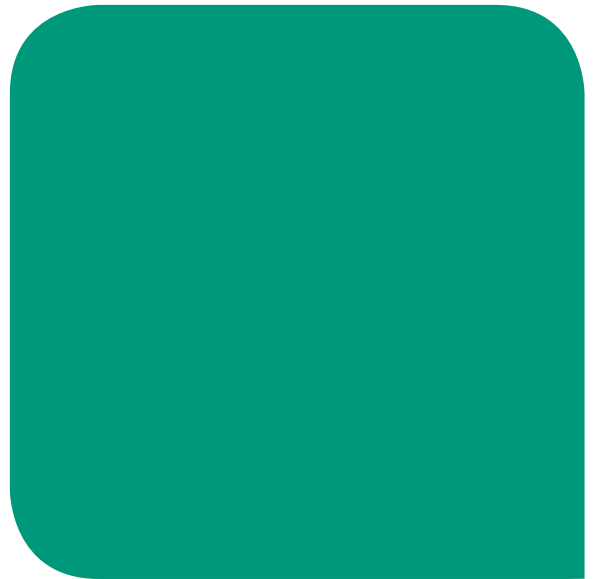




The ethics of sustainable health and social care: Towards a framework for decision-making



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First published in Great Britain in December 2011

by the Social Care Institute for Excellence

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The Sustainable Social Care Programme encourages commissioners of adult social care to promote sustainable development across the sector, particularly to reduce carbon emissions and adapt to climate change. For further information about the programme and related resources, please visit www.scie.org.uk/adults/sustainablesocialcare/index.asp

This report is available online at www.scie.org.uk

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1	Introduction	1
2	Environmental ethics: an overview	3
2.1	Origins	3
2.2	Seminal works	3
2.3	Ethical principles for environmental protection	3
2.4	Environmental economics to existence values	4
2.5	Theories of justice	5
2.6	Sustainable development	5
2.7	Environmental principles for an ethical framework	6
3	Climate change ethics	8
3.1	United Nations Framework Convention on Climate Change	8
3.2	Consequentialism	9
3.3	Principle of 'fair chore' division	9
3.4	Subsistence emissions and luxury emissions	9
3.5	A perfect moral storm	10
3.6	Allocation of future emissions	10
3.7	Individual choices	11
3.8	Buenos Aires Declaration 2004	11
3.9	Climate change principles for an ethical framework	12
4	Social care, health and sustainability: seeking ethical principles	13
4.1	Department of Health and the NHS	13
4.2	Social Care Institute for Excellence	13
4.3	Possible relevant principles for an ethical framework	14
4.4	Deliberations of the expert seminar	16
4.5	Future directions: 'do no harm' versus the responsibility to act?	19
4.6	Way forward	20
	Bibliography	21
	Appendix: Expert seminar participants	25

1 Introduction

In October 2010, the Social Care Institute for Excellence (SCIE), in partnership with The King's Fund and The Ethox Centre (University of Oxford), convened a multidisciplinary expert seminar 'Valuing the environment'. The event aimed to stimulate discussion about the tough but necessary economic and ethical questions posed by steps to factor environmental outcomes into all levels of health and social care decision-making. The starting point was climate change and measures to reduce carbon emissions, but wider impacts on the environment were also considered. Questions considered in the seminar included:

- What are the ethical and economic implications of costing environmental impacts properly in allocative, treatment and priority-setting decisions in health and social care?
- If health and social care costs are to include costs to the environment, what should the benefits include?
- What 'currencies' can we use to account for environmental impact and is it sufficient to use carbon emissions?

With funding from the Department of Health, SCIE is taking this thinking forward via a number of workstreams within or associated with its Sustainable Social Care Programme. This paper presents the headline findings of a literature search relating to some of the ethical themes in particular that emerged from the seminar, a list of potential principles for ethical decision-making and an overview of a second seminar convened to consider them.

Broadly, in terms of the ethics of sustainable health and social care, SCIE is interested in the following areas:

- Issues of contemporary health inequalities and inter-generational justice.
- The challenge of weighting different social values and the interplay between them (such as 'not all carbon emissions are morally equal').
- Opportunities and risks associated with current health and social care reforms (which include a renewed emphasis on prevention and a drive towards increased integration of health and social care systems in the context of productivity and efficiency requirements).
- Democratic legitimacy and the perspective of patients and people who use services.
- Broadening the discussion beyond climate change mitigation to adaptation and other environmental impacts, including costs and benefits (for example, other forms of air pollution, biodiversity, use of natural resources).

This paper is not a detailed or exhaustive review of the literature. Rather, the intention is to summarise key findings as they relate to distinct ethical principles that can be applied to the specifics of decision-making in health and social care if environmental sustainability is taken into account. From this review, a 'long list' of principles relating to environmental and climate change decision-making is identified that may form the basis for selecting relevant principles applicable to decision-making in health and social care.

In May 2011, a second expert seminar was convened by SCIE to explore some of the issues from this work. The expert group considered the question of the extent to which health and social care professionals should take environmental sustainability into account in decision-making about the care of patients and clients. The group also reflected on a series of different scenarios that presented particular challenges regarding integrating such thinking into everyday practice. The deliberations of this seminar are discussed in the final section where ways forward are also proposed.

2 Environmental ethics: an overview

2.1 Origins

Environmental ethics has emerged as a distinct and distinctive field of philosophy in the past 60 years. Various authors in the western liberal tradition have traced the sources of increasing concern for the morality of humans' relationship with nature, some to the Magna Carta and others to the 19th-century US conservationists, such as Theodore Roosevelt and Gifford Pinchot (Nash, 1989). Yet another source is the relationship with nature that various Indigenous communities have developed over millennia, notably Australian Aboriginal communities and Native Americans. This could be summarised as stewardship of the environment rather than ownership or dominion over it (Suzuki and Knudtson, 1992).

2.2 Seminal works

The seminal work of modern environmental ethics is recognised as *A sand county almanac* published in 1949 by the US environmentalist Aldo Leopold. At the end of this book about natural history, Leopold expounds his views on 'the land ethic'. His concept extends the traditional notion of an individual's membership and responsibility to a human community to an enlarged community, the boundaries of which 'include soils, waters, plants, and animals, or collectively: the land'.

In another seminal work, Hardin (1968) introduces the concept of the 'tragedy of the commons'. The part of the article that became a metaphor for many environmental problems was his discussion of the over-grazing of common land. Hardin (1974) made the connection with the ecological concept of 'carrying capacity', which is the level of species population an ecosystem or habitat can sustain. Others have used the term 'social carrying capacity' (Taylor et al, 1995) which widens the concept to encompass a community's living standards and livelihoods.

2.3 Ethical principles for environmental protection

Goodin's (1980) work is a good example of simple principles for policy making that could be applied to environmental and natural resource policy. He contrasts what he calls orthodox utilitarianism ('the greatest good for the greatest number') with a number of alternative principles. The reversibility criterion is expressed as 'keeping options open'. Comparing the alternatives principle is embodied in cost-benefit analysis and environmental impact assessment. The principle of protecting the vulnerable is a recurring one in the literature. This can take a number of forms. It could refer to vulnerable aspects of the environment or particularly exposed groups in the population. It also extends the principle to moral obligations to future generations (Brown Weiss, 1984, 1990).

Goodin advocates a principle of selecting the least possible worst outcome ('maximin' or maximising the minimum pay-off) where the usual cost-benefit rules are difficult to apply (Berry and Steiker, 1974). He particularly suggests this principle when untried technologies with high risks are being assessed. This could be viewed as a rational approach to risk aversion.

Ethical principles for environmental policy

- Maximising expected utility, the orthodox principle.
- Keeping the options open, reversibility.
- Comparing the alternatives.
- Protecting the vulnerable.
- Maximising the minimum pay-off.
- Maximising sustainable benefits.
- Avoiding harm.

Source: Goodin (1980)

Goodin's final two principles relate to maximising long-term net benefits. Maximising sustainable benefits means seeking to deliver the benefits of an action indefinitely – with each succeeding generation being guaranteed roughly equal benefits. The avoiding harm principle recognises that benefits and harms (costs) are not symmetrical. It is better to avoid a harm than to gain a benefit of the same value. This is contrary to the orthodox position of utilitarianism.

2.4 Environmental economics to existence values

Beatley (1994) expands on the above principles. The ones to focus on here are maximal public benefit, distributive justice, preventing harms, environmental duties and obligations to future generations. The maximal public benefit principle looks beyond utilitarian or narrow economic reasoning to wider social benefits and the public interest more broadly. For Beatley, there is an overall environmental duty to protect and conserve the natural environment and ecosystems for both people and other forms of life.

The approach of environmental economists provides a useful link to the economic component of the wider programme of which this paper is a part. A good example is the work of Ekins and Max-Neef (1992). They state that the environment should be an integral component of how economists view the world, that is, beyond a narrow conception of markets, producers and consumers. They advocate an approach that enables decision-makers to 'see the whole economy'. At a more micro scale, such concepts have been translated into whole life costing, embodied energy and embodied carbon.

Finally, there are various ethicists and others who focus on existence values or environmental virtue ethics. Existence values pertain to 'a value placed on the environment independent of any actual or potential use of the goods' (Rolston, 1988, 1989; Izmir, 1993; Cafaro, 2001). Some economists have tried to estimate existence values through techniques such as contingent valuation. This is a survey-based technique which elicits from respondents a hypothetical monetary value for something that is generally not traded, usually of the form 'what would you be willing to pay to preserve a national park?' (Knetsch, 1993; Sugden, 1999).

2.5 Theories of justice

Theories of justice and environmental ethics are closely connected. One of the most influential contributions is John Rawls' *A theory of justice* (1972). Rawls developed a comprehensive scheme of distributional obligations based on his hypothetical standpoint of an 'original position'. From this perspective, Rawls advocated principles of an extensive system of basic liberties with positions allocated on the basis of fair and equal opportunities. He went on to define the 'difference principle' whereby socioeconomic inequalities were permitted if they provided significant benefits to the least well-off. Recently, Gardiner (2011) has critiqued the applicability to a Rawlsian approach to climate change issues.

Amartya Sen, in *Development as freedom* (1999), identified five types of freedom as integral to development. These were political rights, economic facilities, social opportunities, transparency guarantees (openness and trust) and protective security (social safety nets). Sen differentiated between 'income poverty' and 'capability poverty'. The latter is a lack of the capabilities encapsulated in the five freedoms to improve one's living conditions and quality of life.

These issues have come together powerfully in the environmental justice movement (Shelton, 1991). This has its roots in minority communities in the US with campaigns around the siting of power stations and hazardous and municipal waste facilities in poor urban predominantly African-American neighbourhoods (Matsuoka, 2003). This resulted in President Clinton's 1994 Executive Order 12898, which directed federal agencies to develop strategies to help identify and address issues related to environmental racism. In Europe, environmental justice tends to refer to procedural rights. This specifically relates to the three pillars of the Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (UNECE, 1998). In a developing country context, the most celebrated case of an environmental justice movement is the work of the 2004 Nobel Peace Prize recipient Wangari Maathai. She founded the Kenyan Green Belt Movement, which focused on addressing Kenya's widespread environmental degradation through tree planting, environmental conservation and the promotion of women's rights.

2.6 Sustainable development

The concept of sustainable development first appeared as an international policy principle in the report of the World Commission on Environment and Development, *Our common future* (1987). This report contains the often-quoted definition: 'Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs'. Jacobs (1991) has developed this into the concept of a 'sustainability boundary', which is an estimate of the environmental limits of economic growth. This accords with the view of sustainable development as 'a duty to protect and restore ecosystem integrity' (Bosselmann, 2008). Policy development in the European Union (EU) has tended to move towards a 'balanced decision-making model', which seeks to find a balance between economic, social and environmental objectives (Aldson, 2010). Sustainable development, or more accurately 'sustainability', has

also been defined as resilience, both in terms of ecosystems and societies (Swedish Environmental Advisory Council, 2002).

The United Nations Conference on Environment and Development held in Rio de Janeiro in June 1992 has been hailed as the 'high water mark' of international environmental law. The conference produced the Rio Declaration on Environment and Development, which is generally regarded as 'soft law'. Some of the more significant principles for this study are shown below.

Rio Declaration on Environment and Development

- Principle 6: Special situation and needs of developing countries, particularly the least developed and most environmentally vulnerable, shall be given special priority.
- Principle 7: In view of the different contributions to global environmental degradation, states have common but differentiated responsibilities.
- Principle 15: The precautionary approach shall be widely applied by states according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.
- Principle 16: The polluter should, in principle, bear the cost of pollution, with due regard to the public interest....

Source: UN General Assembly (1992)

2.7 Environmental principles for an ethical framework

This has been a brief survey of a broad and extensive literature. While not exhaustive, it has attempted to capture some of the key principles of ethical decision-making from an environmental perspective. These will be further developed in the next section about climate ethics.

The following key principles are considered relevant to the development of an ethical framework for sustainable decision-making in health and social care:

- Protecting the vulnerable and benefiting the least advantaged in society.
- Respecting differing capabilities.
- Avoiding harm and maximising the minimum pay-off (least worst solution).
- Polluter pays and has culpability for environmental harms.
- Obligations to future generations (inter-generational equity).
- The precautionary principle.
- Reversibility and keeping options open.
- Recognising the sustainability boundary and adopting an approach to decision-making that includes an allowance for uncertainties (a margin of safety).
- Balancing economic, environmental and social objectives.
- Seeing the whole economy and the entire life cycle.
- Building resilience.

- Respecting the environment for its own sake.
- Procedural rights.

3 Climate change ethics

This section takes a similar approach to the previous one. It presents a review of salient themes in climate change ethics, rather than claiming to represent an exhaustive review. Climate change ethics is an extension of environmental ethics. Consequently, many of the themes and perspectives are similar to the previous section. This is particularly the case with the development of the international legal regime to address climate change. It should be noted that the majority of the literature references the international policy debates rather than specific domestic policy considerations. This is due not only to the global nature of the problem itself but also to the fact that solutions to the problem have to be globally operationalised. This presents somewhat unique policy challenges, as well as ethical dilemmas.

3.1 United Nations Framework Convention on Climate Change

The United Nations Framework Convention on Climate Change (UNFCCC) was signed by 155 states and the European Commission (EC) in June 1992 at the Rio Conference on Environment and Development. The Preamble acknowledges that 'change in the Earth's climate and its adverse effects are a common concern of humankind'. The principles embodied in the Convention have strong echoes of the Rio Declaration. Parties are urged to protect the climate for the benefit of present and future generations. Actions should be on the basis of 'equity and in accordance with their common but differentiated responsibilities and respective capabilities' (Article 3.1). There is special mention of countries that are vulnerable to the effects of climate change (Article 4.8). Precautionary measures are advocated to 'anticipate, prevent or minimise the causes of climate change and mitigate its adverse effects' (Article 3.3). Similarly, lack of scientific certainty should not be used as a reason to postpone such measures. However, the right of states to promote sustainable development is clearly stated as a principle. These principles continue to underpin international efforts to address climate change.

United Nations Framework Convention on Climate Change

- Acknowledging that change in the Earth's climate and its adverse effects are a common concern of humankind.
- Acknowledging that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response, in accordance with their common but differentiated responsibilities and respective capabilities and their social and economic conditions.

Source: UNFCCC (1992, Preamble)

The necessity for sound judgement and appropriate ethical principles followed the promulgation of an international climate change regime and the fairly slow implementation of measures in developed economies over the succeeding 20 years.

3.2 Consequentialism

Hurka (1993) examines consequentialist ethical principles in relation to climate change. Put at its simplest, if actions or policies have good consequences they are to be ethically approved; if they have bad or disastrous consequences they should be ethically disapproved. For some consequentialist ethicists, this evaluation is all that is required. Hurka argues that other considerations, particularly relating to rights, constrain a pure consequentialist approach. Linking this principle with the environmental ethics discussion leads to complicating issues around distributive justice and avoiding harms or minimising the maximum pay-off. This is especially relevant in choices between adaptation policies and avoidance or mitigation policies.

Hurka draws on the earlier work of Singer (1972) relating to famines in affirming that the location of the harm does not matter from an ethical standpoint (although proximity might influence the likelihood of action). Hurka extends this to the temporal dimension and so develops the encompassing principle of the consequences to 'humans-everywhere-at-all-times'. This is in stark contrast with the usual national policy reference of the 'humans-here-and-now' principle. Hurka allies the former principle with that of the 'environment valued for itself'.

3.3 Principle of 'fair chore' division

Traxler (2002) discusses the concept of a 'fair chore' division of responsibility in climate change policy. He focuses on the allocation problem in dividing the costs of adaptation and mitigation policies in climate change. He identifies two universal moral obligations: a duty of non-maleficence (not doing wrong to others) and a duty to assist those who need help to avoid harm or suffering. In terms of climate change, the first obligation leads to obligations to provide compensation. The second obligation applies to all and can be separated into a duty of responsibility and a principle of fair allocation. Traxler concludes that the most effective way to deal with climate change is to divide the task into 'equally burdensome shares' (fair chores), estimated using an opportunity cost approach. This is preferable to the non-maleficence (compensatory) approach, which will tend to result in parties opting out.

3.4 Subsistence emissions and luxury emissions

Shue (1993) has made a very significant contribution to the debate around climate ethics. He grapples with the same issues as Traxler, regarding fair allocation of the costs of coping with the social consequences of climate change. He cites the 'least-cost-first' (implementing the cheapest mitigation measures first) approach to climate change mitigation as requiring an equity qualification. In Shue's opinion, this approach ignores a central distinction between necessities and luxuries. Essentially, 'it is not equitable to ask some people to surrender necessities so that other people can retain luxuries' (Shue, 1993, p 56). Hence, Shue argues for a 'partitioning' between subsistence emissions and luxury emissions; however, he does acknowledge that there may be more than two partitions.

3.5 A perfect moral storm

Gardiner (2006) argues that the peculiar nature of the climate change problem means that hard policy choices are extremely difficult to make, since they are susceptible to 'moral corruption'. Hence, he calls climate change the 'perfect moral storm'.

He identifies three attributes of the problem that render it difficult to address: dispersion of cause and effect (multiple sources with global impacts), fragmentation of agency (multiple individuals and institutions) and institutional inadequacy (such as weak global coordination). This creates a tension between the collective rationality to cooperate to reduce emissions and the logic of an individual not acting to limit pollution. This is a classic example of the tragedy of the commons.

Gardiner refers to the 'intergenerational storm' where these tensions play out, inducing moral corruption. He lists eight types of corruption: distraction, complacency, unreasonable doubt, selective attention, delusion, pandering, false witness and hypocrisy. Gardiner concludes that the complexity of the problem provides the present generation with the 'cover' for adopting weak and ineffective climate change policies.

3.6 Allocation of future emissions

Fundamental to much of the literature on climate change ethics is the issue of the allocation of future emissions (Garvey, 2008; Gardiner, 2010). This concern has already been touched on in the discussion on 'fair chores'. Gardiner (2010) provides a useful summary of the four main positions that have underpinned the arguments of various country groupings in the ongoing climate change negotiations.

The first proposition is termed 'equal per capita entitlements'. Put simply, this means that any agreed threshold of future emissions should be divided equally among the world's population. So a person in the US would have an identical entitlement to a person in Burkina Faso. The main objection to this approach relates to the role emissions play in different countries' livelihoods (subsistence versus luxury emissions).

The second proposition is that people should have an inalienable right to subsistence emissions in order to achieve a minimum quality of life. Consequently, a certain level of emissions is morally defensible such that they may be akin to self-defence (Traxler, 2002). However, the subsistence level may be difficult to establish and it may also lead to 'entitlement creep'.

The third proposition is that allocation policy should seek to maximise the benefits to the least well-off. This is generally the approach that seeks to give greater responsibility to OECD (Organisation for Economic Co-operation and Development) countries to assist the least developed nations. However, according to Gardiner, priority arguments can easily be captured by climate sceptics.

Finally, Gardiner discusses the 'fair chore division', which he summarises as equalising the marginal cost of those seeking to prevent climate change, although Gardiner

is not convinced that this approach will in fact achieve Traxler's aim of obtaining a consensus on action. Shue (1999) persuasively argued that complex ethical theories need not be invoked to guide the allocation problem as the commonsense ethical principles of responsibility, ability to pay and the right to an adequate minimum standard of living would all lead to a similar result.

3.7 Individual choices

Paavola and Adger (2006, p 600) state that adaptation to climate change comprises both 'individual and collective choices taken at different levels of decision-making'. They argue that all such decisions need to be informed by values that guide choices based on social concerns and priorities. The key is to find a morally acceptable compromise among competing, inconsistent and morally ambiguous claims (Müller, 2001; Paavola and Adger, 2002). Such justice dilemmas involve the level of burden sharing, responsibility and fair participation in decision-making.

Garvey (2008) asks some important questions about individual responsibility. As noted above, much of the discussion around climate change ethics is focused on the international level or government policy. In a similar vein to Gardiner, Garvey lists ten reasons for individual inaction, ranging from disbelief and denial of responsibility to disempowerment. These barriers would obviously apply at any level of decision-making, not just the personal level. He cites a Swiss study (Stoll-Kleeman et al, 2001) into the psychological barriers relating to individual action on climate change. The four main obstacles are a general unwillingness to change habits, the hope for a technological 'fix', uncertainties around costs and general distrust of government. Perhaps Garvey's thesis could be distilled into 'the responsibility to act'.

3.8 Buenos Aires Declaration 2004

In December 2004, the Penn State University's 'Collaborative program on the ethical dimensions of climate change' adopted the Buenos Aires Declaration on the Human Dimensions of Climate Change. This occurred at the 10th Conference of the Parties to the UNFCCC (Brown and Tuana, nd). The Buenos Aires Declaration identified a number of specific ethical issues and associated questions concerning climate change. This is a useful checklist and also highlights ethical issues relating to procedural fairness and responsibility to act.

Buenos Aires Declaration 2004

1. *Responsibility for damages.* Who is ethically responsible for the consequences of climate change (adaptation and compensation)?
2. *Atmospheric targets.* What ethical principles should guide the choice of specific climate change policy objectives?
3. *Allocating GHG (greenhouse gas) emissions reductions.* What ethical principles should be followed in allocating responsibility among people, organisations and governments?
4. *Scientific uncertainty.* What is the ethical significance of the need to make climate change decisions in the face of scientific uncertainty?
5. *Cost to national economies.* Is the commonly used justification of national cost for delaying or minimising climate change action ethically justified?
6. *Independent responsibility to act.* Is the commonly used reason for delaying or minimising climate change action that any nation need not act until others agree on action, ethically justifiable?
7. *Potential new technologies.* Is the argument that we should minimise climate change action until new, less-costly technologies may be invented in the future, ethically justifiable?
8. *Procedural fairness.* What principles of procedural justice should be followed to assure fair representation in decision-making?

3.9 Climate change principles for an ethical framework

This brief survey of an expanding literature on climate change ethics reveals some of the common threads from environmental ethics. A great deal of the debate has centred on international obligations. However, some principles are readily transferable to a domestic policy level. There are clear points of reinforcement from the preceding section, especially around social justice.

The following key principles are considered relevant here:

- Protecting the most vulnerable, including those vulnerable to the effects of climate change.
- Respecting differing capabilities and differing responsibilities.
- Principle of burden sharing and fair chores in allocation policies.
- Recognition that all emissions are not morally equivalent (subsistence emissions and luxury emissions).
- Obligations to future generations and effects of emissions everywhere (consequences to 'humans-everywhere-at-all-times').
- The responsibility to act.

4 Social care, health and sustainability: seeking ethical principles

This component of the literature review has not revealed any significant research or policy that relates directly or explicitly to the development of the sustainable health and social care ethical framework. However, there are a number of key documents from the NHS and SCIE to keep in mind, and these are outlined below.

4.1 Department of Health and the NHS

The Department of Health's *Climate Change Plan* (DH, 2010). This was published in March 2010 and brings together the requirement for a Carbon Reduction Delivery Plan and a Climate Change Adaptation Plan. It indicates the carbon reduction targets for the period 2008–12 for the entire health and social care sector, including the NHS, social care and arm's-length bodies. This followed on from *Saving carbon, improving health: NHS carbon reduction strategy for England* published by the NHS Sustainable Development Unit in January 2009 (2009b) with an update published in January 2010 (NHS Sustainable Development Unit, 2010b).

NHS Sustainable Development Unit: *Fit for the future* (NHS Sustainable Development Unit, 2009a). This study was published in 2009 and builds on previous work conducted by Forum for the Future in 2008. It develops four hypothetical scenarios for the healthcare system in England in 2030 and is designed to help healthcare organisations think about the medium and long-term future in terms of the challenges of climate change and preparing for a low carbon health economy. It was updated in 2010 (NHS Sustainable Development Unit, 2010a).

NHS Sustainable Development Unit: *Route map for sustainable health* (2011). This was published in February 2011 and is a framework for action to develop a sustainable health system. It looks at the wider context of health and social care and the collaborations necessary to achieve the transition to a more sustainable health system.

4.2 Social Care Institute for Excellence

Sustainable Social Care Programme. SCIE has been commissioned by the Department of Health to lead an innovative programme of work bringing together adult social care, health and sustainable development. The aim of the programme is to encourage commissioners to promote sustainable development across the sector, particularly to reduce carbon emissions and adapt to climate change.

SCIE Adult Services Report 35: *Sustainable systems of social care* (Evans et al, 2010). This was a scoping and mapping exercise focusing on key strategies, policies, frameworks and initiatives that relate to the sustainability agenda and how these relate to adult social care. It identified a small sample of instances where an holistic sustainable development approach was evident in adult social care practice.

SCIE Workforce Development Report 33: *Independence, community and environment* (Bradshaw et al, 2010). This project was a report of the Sustainable Social Care Learning Network delivered by the Local Government Information Unit. The key objective was to strengthen the capacity of commissioners to embed sustainable development in the sector by contracting services according to sustainable development principles. Among other things, this report developed a set of social care user principles related to sustainable development.

Social care user principles

- *Economic principle.* Increasing self-reliance means recognising the importance of the environment for maintaining the equilibrium that keeps the individual as a free acting agent.
- *Social principle.* Increasing self-reliance means recognising the value of the environment as a tool to increase sense of worth and personal contribution to better enable the development of personal relationships.
- *Environmental principle.* Wellbeing is also enhanced by contact with the environment.

Source: Bradshaw et al (2010)

SCIE has also produced two At a Glance briefings: *Sustainable social care: Climate change* (2010a) and *Sustainable social care: The natural environment* (2010b).

4.3 Possible relevant principles for an ethical framework

Evans (2011) notes that much progress has been made in public services in terms of addressing the challenges of climate change and sustainability. However, although a range of strategies and tools have been developed to address these issues for health services, the sustainability agenda is far less developed in the social care sector. He observes that increased personalisation of services, particularly greater use of personal health and social care budgets, will lead to more individuals in effect commissioning their own services which may or may not support environmental sustainability. He also highlights the key concept of environmental justice, with particular reference to the aim of supporting the most vulnerable in society. Some of these opportunities and risks are being further explored as part of the 'Sustainable Social Care Programme', in collaboration with Bristol City Council.

The box overleaf displays a 'long list' of principles that may have a bearing on sustainable decision-making in the context of health and social care. Adger and others (2009) caution that it is important to consider factors that may limit the range of choices relating to climate change policies. For instance, the ethics and values of society itself as well as attitudes to risk and uncertain knowledge may preclude some policy options.

There is a need to be aware of procedural justice in decision-making. The Aarhus Convention 1998 has already been mentioned regarding procedural rights relating to environmental policy. Procedural justice is a well-developed field in its own right

but such principles should be incorporated into any ethical framework (NICE, 2008). Such principles form part of comparable ethical frameworks, such as the Department of Health's framework for the response to the influenza pandemic (2007a, 2007b). Finally, there is a need to test the framework in its own terms – whether it will achieve the objective of contributing to sustainability or climate change mitigation. This is sometimes characterised as the identification of 'environmental sufficiency criteria' (Brown, 2011).

In health ethics, a common move in situations where it is clear that there is either a great deal of diversity of values or many potentially conflicting principles is to adopt a procedural approach to decision-making. So, if it is not possible for everyone to agree on values or principles, it may be possible to reach agreement about what might count in a particular case as a reasonable and fair way of deciding between values or principles. This is called 'accountability for reasonableness' (Daniels, 2000; Daniels and Sabin, 2008) and is useful in deliberative approaches to ethical decision-making (Parker, 2007). This entails transparency about the grounds for a decision, substantive rationales for agreed decision-making criteria and procedures for revising decisions if challenged.

Potential principles for a sustainable health and social care ethical framework

Distributive justice

- Protecting the vulnerable and benefiting the least advantaged in society.
- Respecting differing capabilities and differing responsibilities.
- Avoiding harm and maximising the minimum pay-off (least worst solution).
- Principle of burden sharing and fair chores in allocation policies.

Environmental justice

- The responsibility *to* act regarding environmental problems.
- Polluter pays and culpability for environmental harms (responsibility *for* actions).
- Recognition that all greenhouse gas emissions are not morally equivalent (subsistence emissions and luxury emissions).
- Environmental sufficiency of actions.

Intergenerational equity

- Obligations to future generations.
- Acknowledging the effects of emissions everywhere and at all times (consequences to humans-everywhere-at-all-times).

Sustainability

- The precautionary principle.
- Reversibility and keeping options open.
- Recognising the sustainability boundary within a margin of safety.
- Balancing economic, environmental and social objectives.
- Seeing the whole economy and the entire life cycle.
- Respecting the environment for its own sake.

Resilience

- Building resilience.
- Increasing self-reliance by maintaining the equilibrium that keeps the individual as a free acting agent.
- Community resilience.

Procedural justice

- Procedural fairness.
- Access to information.
- Right of review and challenge (access to justice).
- Participation in decision-making.

4.4 Deliberations of the expert seminar

In May 2011, an earlier version of this discussion paper was disseminated to participants invited to an expert seminar convened to consider the draft set of principles and to deliberate ethical issues for sustainable health and social care decision-making. Participants were presented with ethical questions and areas of possible tension between principles as a starting point for facilitated discussion. The following is an analysis of the issues that were either presented explicitly or emerged through the discussion, particularly as they related to the potential principles for decision-making.

Issue 1: To what extent, if any, should health and social care professionals take environmental sustainability into account in decision-making about the care of patients and clients?

The debate in the expert group reflected the real tensions regarding the delivery of health and social care, especially concerning policy choices around treatment or prevention and the likely reality that care will always be sub-optimal in the context of resource limitation. Individual clinicians and care providers will not always have the necessary knowledge to make judgements relating to environmental sustainability. However, with the devolution of commissioning to Clinical Commissioning Groups, resource allocation will in future be the responsibility of practitioners. This means that some individuals will be required to perform the dual function of resource allocation prioritisation and direct provision of care to patients.

The significance of procurement processes was emphasised and it was suggested that a more sectoral approach to environmental sustainability might be more effective. This would focus on key inputs such as transportation, pharmaceuticals and estates management. Furthermore, it is not necessarily the case that 'high tech' or intensive treatment choices will have the highest environmental impact; 'low tech' regimes delivered frequently over a long period of time may have significant impacts too. There were areas of more complex ethical decision-making such as end-of-life care that require careful consideration. The expert group were agreed that there needs to be more public debate on these issues and this crucially related to the type of future health and social care service that the community wanted.

A number of principles came to the fore in this discussion. The principle of 'common but differentiated responsibility' is central in defining the responsibility of the health and social care sector as opposed to other sectors of the economy. This principle is linked with the distinction between luxury emissions and subsistence emissions. Underlying the consideration of the appropriate role for health and social care professionals are the related principles of 'protecting the vulnerable' and 'doing no harm'.

Issue 2: Conflicts between sustainability principles and health and social care practice

The expert group considered that it was necessary to develop policies and procedures based on decision-making levels (national, institutional, local). There are inevitable financial implications involved that could be addressed in future through a distributive carbon tax. Alongside this, there is a necessity to ensure that democratic accountability and transparency are incorporated into the process. Potentially NICE could incorporate environmental factors into its evaluations, possibly through extending the *Social value judgement* framework (NICE, 2008). It was stressed that this last proposal should not be seen as the only route to adopting environmental and sustainability principles into the health and social care sector, although it could have considerable symbolic as well as practical significance.

Issue 3: Environmental impacts and the assessment of the effectiveness of drugs, treatments and social care interventions

This is a complex issue and it was recognised that clinical effectiveness is not the only determinant in such decisions. Assessing the environmental impact of intervention choices will add greater complexity and raise further issues regarding the validity of evidence. A number of strategies were discussed including an upstream regulatory approach targeting pharmaceutical research and manufacture. The identification of resource-hungry interventions is a possible first step as well as incentivising changes at different levels, from the national level to personal behaviour.

Issue 4: The legitimacy of intergenerational equity considerations

The expert group recognised that the boundaries and reach of intergenerational equity are not easy to define. Furthermore, intergenerational equity is complicated by priority setting and may conflict with the principle of 'protecting the vulnerable'.

Issues of uncertainty abound in considering future generations. In addition, responsibilities to the current generation in countries with inadequate healthcare should also be within the boundary of decisions around healthcare resources. Some in the expert group considered that the responsibility to share health resources beyond national boundaries could outweigh the responsibility to reduce the environmental impact of services within a given country.

Tensions around intergenerational impacts are increasingly evident in the present, such as between different needs and resource demands from older age groups as opposed to younger age groups. Sacrificing the satisfaction of current health needs for uncertain future gains was perhaps the most challenging dilemma in the set of ethical principles.

Issue 5: Restricting personal choice on environmental sustainability grounds

There was agreement that some restrictions on choice are justified, both in terms of financial considerations and carbon budgets. The issue of governance is crucial here, particularly in relation to who makes these decisions and at what level (individual, service provider, community). Although social care assessment is changing, the skills are available in the system to make such informed choices.

Issue 6: Are all carbon emissions morally equivalent?

The final issue that the expert group considered was the moral equivalence of carbon emissions. This was an issue raised in the first seminar in October 2010. Although the luxury versus subsistence emissions distinction is notionally persuasive, the real differentiations may be more complex. There may be distinctions within the health and social care sector, as well as between sectors. There are related problematic distinctions between the 'deserving' ill and the 'non-deserving' ill that should be avoided. In addition, treatment choices may differ with more of a focus on quality of life rather than a narrower imperative on life-saving interventions. There may be cross-cutting considerations of effectiveness, such as the choice between a more sustainable but less effective treatment and one that is more effective but environmentally damaging.

Following discussion of the above set of issues, the expert seminar did not conclude with an agreed set of principles. However, the deliberations did indicate a number of 'foundation principles'. These include protecting the vulnerable, common but differentiated responsibility, avoiding harm and also the responsibility to act. Other principles of relevance were moral equivalence (luxury emissions versus subsistence emissions), the precautionary principle and intergenerational equity.

Procedural principles were repeatedly referenced throughout the expert group's deliberations. The main principles were procedural fairness, access to information and participation in decision-making. Procedural justice needs further elaboration in relation to a sustainable health and social care ethical framework. This would necessitate procedural principles for different levels of decision-making. Overall, procedural principles are a necessary but not sufficient component of an ethical framework that addresses sustainability.

SCIE's report of the Sustainable Social Care Learning Network (Bradshaw et al, 2010) advocates the promotion of a 'sustainable development mindset'. This encompasses an evolutionary approach of shifting thinking in commissioning. This may be more effective in the long run than big policy moves. The deliberations of the expert group certainly would endorse this type of approach to change. This would be particularly effective alongside the changes to procurement that were highlighted in the seminar.

4.5 Future directions: 'do no harm' versus the responsibility to act?

Members of the expert group considered areas and themes where further ethical discussion would be most valuable, and also made practical suggestions for promoting environmental sustainability more broadly in health and social care. These can be summarised as follows:

Locus of clinician/provider responsibility: This will always be an area of contention. However, it may be more about the degree to which environmental impacts are taken into account. In a future of more localised and clinician-led commissioning, judgements beyond financial constraints will likely play a more important role. Environmental considerations will be unavoidable.

Procurement: Public sector procurement has been a major focus of policy to reduce environmental impacts and carbon emissions. This is an opportunity for the health and social care sector given the significant purchases of transport services, building services and pharmaceuticals and other therapeutic supplies. Ethical principles, such as the ones identified in this paper, would enhance the procurement process to ensure that the most vulnerable are protected. There is a useful parallel here with the British Medical Association's 'fair medical trade' position as set out in their *Overview* paper and accompanying *Workbook* (2011a, 2011b). These have a particular focus on labour standards but are explicit about environmental as well as social consequences of purchasing decisions, including risks to reputation and security of supply.

Adaptation: Social care, in particular, lends itself to a focus on climate change adaptation as much as mitigation. Clients of social care will be affected by changes in the climate, the increased incidence of extreme weather events such as snow and heat waves being the most obvious example. This is partly addressed under the principles of protecting the vulnerable and building individual and community resilience. This issue needs to be emphasised in any ethical framework that is developed.

Health promotion and public health and the case for a whole system approach: There are clear links with the social determinants of health. The Marmot Review (2010) highlights the close relationship between climate change and health inequalities. Both impact disproportionately on the poor and disadvantaged. Marmot concluded: 'both health inequalities and the negative impacts of climate change give extra urgency to putting sustainable development at the heart of creating a fairer society' (p 39). Moving to a more sustainable health and social care system necessarily entails a shift from 'business-as-usual' to an approach that emphasises health promotion and public health interventions. This should result in win-win solutions that are better for patients and clients as well as for the environment.

Precautionary principle: There are many complexities with decision-making in health and social care that respect sustainability and environmental considerations. The uncertainties were reflected in the deliberations of the expert group. The precautionary principle needs to be better understood in order to inform decisions that will necessarily be based on incomplete evidence on future impacts. It may have a particular resonance in a professional culture founded on the principle of 'first, do no harm'. However, uncertainty abounds with considering the needs of future generations where a proactive stance may be the ethical one, as is underscored by the final theme below.

Responsibility to act: Is this the overarching principle? There was consensus on one aspect of an ethical framework for sustainable health and social care: the responsibility to act. Resolution of some of the complex decisions involved will be assisted through a rigorous understanding of the principle of 'common but differentiated responsibility' – what the health and social care sectors can and should do in relation to the economy as a whole. No single metric will provide a quick and easy answer. The role of an ethical framework is to enable a decision-maker to weigh and balance different principles in order to achieve the best possible outcome.

4.6 Way forward

Climate change is a highly complex phenomenon that touches every aspect of life and is having a growing impact on patients and people who use health and care services. It is an issue that is not going away, whatever the economic and financial context, and remains a policy priority for the UK government. As the Stern Review (2007) ably demonstrated, the costs of taking action only increase over time – delay is costly both in financial terms and in the real effect on the lives of people now and in the future. Given all this, the need to take into account both environmental and wider sustainability considerations will come more to the fore in making decisions about health and social care.

In this project, we have made a start on developing a set of principles regarding environmental and sustainability concerns that can guide ethical decision-making in health and social care. These principles were derived from both the policy and academic literature, and have been 'tested' through two sets of workshops with senior practitioners and policy makers. It seems clear, however, that, while we may have mapped out an ethical 'landscape', there are too many principles to be genuinely action guiding. The next steps, therefore, are: first, to refine these principles and, likely, develop a smaller set of high level principles capable of encapsulating the fundamental issues at stake; and second, to provide some suggestions as to how these principles can assist those confronted with decisions about funding, resource allocation and day-to-day care, so that they can make choices which are environmentally and economically sustainable as well as socially just.

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The ethics of sustainable health and social care: Towards a framework for decision-making

This report breaks new ground in examining the ethical challenges potentially posed by factoring environmental outcomes into different levels of health and social care decision-making, including resource allocation and treatments. The environmental and climate change ethics literatures are considered in conjunction with health and social care ethical principles in order to inform the development of a new sustainable health and social care ethical framework. It also reports the deliberations of two expert seminars convened to help devise and review these principles, jointly hosted by SCIE, the King's Fund and The Ethox Centre at the University of Oxford.

This publication is available in an alternative format on request.

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