

CLIMATES & CHANGE

The Urgent Need to Connect Health
and Sustainable Development



This is a working document and will be subject to change and development as the campaign progresses.

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I. Health in the 21st century

Background - from public health to sustainable development

Way back in 460 BC Hippocrates identified the profound influence of "Airs, Waters and Places" on human health. Earlier still Aristotle talked of the importance of "Eudamonia" - the wellbeing of the whole person. Although not then termed 'public health', it is clear that the health of the whole person within a healthy community and environment was seen by these two visionaries as a fundamental tenet of a flourishing human society

Fast forward to the 19th Century and we again see visionary 'out of the box' thinkers - Chadwick, Snow, Bazalgette, Chamberlain and other pioneers who identified good sanitation, the provision of safe drinking water and decent housing as the fundamentals of public health, thereby acknowledging that ill-health is rooted firmly in poor environmental and social conditions.

Public Health in the 20th Century

During the 20th Century, however, environmental and social conditions slipped into the background of public health thinking. Whole new branches of clinically-based medical and nursing professionals developed and grew. The foundations were laid for this by the emergence of the 'Germ theory' from which bacteriology and epidemiology developed. Medical intervention was seen as being more scientifically quantifiable than social interventions, and the creation and subsequent development of the National Health Service added to this medicalisation of health, increasingly focusing upon cure rather than prevention. At the same time there was only a very minimal awareness amongst 'public health' professionals of the genesis of those 'dis-eases' and conditions which arise as a consequence of degraded and polluted environments and unhealthy economic systems. In the latter half of the 20th Century consumerism, driven by global economics, fuelled the growth of cultural and lifestyle-related disorders in the developed world and malnutrition and diseases of poverty in the developing world. Yet in the UK public health remained resolutely medicalised and person-focused, viewing population health through an NHS lens.

The Environment in the 20th Century

During the early part of the 20th Century there was very little acknowledgement of the damaging impacts of industrialisation or of an increasingly intensive agricultural industry.

In the 1960s Rachel Carson's 'Silent Spring' alerted the world to the long-term damage caused by the use of pesticides (DDT etc.) and towards the end of the century the death of forests through acid rain, the Chernobyl disaster and the hole in the ozone layer brought the realisation that the health of the planet was under threat. This led to an intense political reaction around the world resulting in the UN Conference on Environment and Development in Rio de Janeiro in 1992, producing a series of Conventions to protect the natural environment globally, as well as Agenda 21, 'An Action Plan for implementing Sustainable Development'.

Sustainable Development

'Agenda 21', an Agenda for the 21st Century, acknowledges that the health of the people and the environment (planet) are inextricably entwined. It identifies poverty and global inequities as the main underlying causes of environmental degradation.

It seeks to achieve worldwide economic development which actively promotes social justice and equity and which protects and enhances the natural environment. Agenda 21 identifies access to knowledge, information and to the decision-making process as being of fundamental importance in empowering local communities worldwide to work towards achieving sustainable development.

What are the human health consequences of unsustainable development ?



I. From environmental degradation

(i) A proliferation of toxic/harmful residues in the environment which are absorbed, metabolised or stored within the human body

- Dioxins
- Organophosphates
- Oestrogen mimics
- Volatile Organic Compounds
- PM_{10s}
- Radionuclides

Affecting the function of the -

- Immune system
 - Nervous system
 - Reproductive system
 - Respiratory system
- and capable of inducing carcinogenesis

(ii) Loss of green space and contact with nature leading to reduced physical activity and mental ill-health.

2. From Climate Change

- (i) Flooding causing disruption of infrastructure resulting in deaths from injuries, water-borne diseases, and psychological stress
- (ii) Increase in vector-borne diseases
- (iii) Water shortages
- (iv) Loss of productive land for cultivation and livestock
- (v) Pressures from the movement of populations towards rapidly reducing productive land areas.
- (vi) Significant increase in heat related deaths

3. From economic development

- (i) Inequitable distribution of resources
- (ii) Over-consumption in the developed world (obesity and the diseases of affluence)
- (iii) Under-consumption in the developing world (malnutrition) driven by the unequal use of resources and powerful global economic interests
- (iv) Poorly-controlled land use planning leading to degraded and degrading built environments and transport infrastructure.

4. From social disintegration

- (i) Loss of community, pride of place and self-esteem affecting mental health
- (ii) Gross economic disparities within and between populations.

It has therefore been evident, if unacknowledged, for many years that sustainable development is essential to achieving local, regional, national and international public health.

It is only recently that the building awareness of climate change has concentrated political, professional and public minds on the urgency of acting together to avoid the breakdown of the ecological and social support systems essential to sustaining human health throughout the 21st Century and beyond.

Current Climate of opinion

During the first part of 2007 alone the following alarm bells have been reverberating.

Intergovernmental Panel on Climate Change

This panel reported in February that average temperatures could increase by as much as 6.4°C by the end of the century if emissions continue to rise, with a rise of 4°C most likely. An average global temperature rise of 4°C would wipe out

hundreds of species, bring extreme food and water shortages in vulnerable countries and cause catastrophic floods that would displace hundreds of millions of people.

Warming would be much more severe towards the poles, which could accelerate melting of the Greenland and West Antarctic ice sheets.

Royal Commission on Environmental Pollution

The Commission reported in March that air pollution is responsible for 24,000 premature deaths in Britain every year. Sir John Lawton, chairman of the Commission, said the Government had consistently failed to tackle rising levels of chemicals in the atmosphere in cities.

World Wide Fund for Nature

The Fund reported in March 2007 that some of the world's largest and best-known rivers are at risk of drying up as a result of climate change, pollution and bad planning.

The Report stated that the world is facing a massive freshwater crisis, which has the potential to be every bit as devastating as climate change. It emphasises that the conservation of rivers and wetlands and the security of water flows must be seen as part and parcel of national security, health and economic success.





2. The Health and Sustainable Development Initiative

Since 2003 the UKPHA -whose three main missions are combating health inequalities, challenging anti-health forces and promoting sustainable development- has been working towards a recognition of the pressing need for a new concept of and practice of Public Health. This has involved working with major partners to develop awareness and action, through the opportunities offered by the UKPHA Annual Public Health Forum, as well as close collaboration with UKPHA Scotland in developing their work on Healthy Future Generations.

What is required to create a new Public Health?

- ◆ Visionaries for the 21st Century, i.e. policy-makers and practitioners who recognise that the sustainable development and public health agendas are inextricably linked and, in many vital respects, indistinguishable from each other
- ◆ Practitioners who can see the whole picture and the inter-relatedness of the social, economic and environmental factors that form the bedrock of a healthy public
- ◆ Practitioners who work across boundaries and who liberate the energy of others to 'heal' themselves
- ◆ Practitioners who are enriched by their professionalism but not hide-bound by it
- ◆ Practitioners who can share their knowledge and power to bring about creative change.
- ◆ Practitioners who work collaboratively in pressurising for 'joined-up' government at the local, regional and national level.

To take forward this thinking and action the UKPHA brought together key associate organisations (Faculty of Public Health, Sustainable Development Commission, The Greater Nottingham Health and Environment Partnership and the Regional Directorate for Public Health North West) in early 2006, to work on the development and implementation of a vision for public health, which genuinely crosses the boundaries between the social, economic and environmental components of good health and which is grounded in a collaborative and joined-up working culture. This resulted in:

(i) the calling of a national expert Think Tank in Birmingham on 1st February 2007, from which a 'Call for Action' document was produced (Appendix A) and which laid the foundations for the National Symposium on Health & Sustainable Development.

(ii) The National Symposium on Health & Sustainable Development in Edinburgh on 30th March 2007, which considered presentations from Jill Rutter on Defra's Sustainable Development Strategy, from William Bird of Natural England on Nature and Human Health, and from Geof Rayner and Tim Lang on Ecological Public Health. The Think Tank Call for Action was also revisited and re-assessed in workshop groups resulting in a call for urgent action as follows.

3. Main outcomes of the Health and Sustainable Development Symposium

The need for the following was recognised:

- ◆ Campaigns and advocacy across the public health community which are focused upwards, laterally and towards the public; spreading ideas, knowledge and identifying meaningful action.
- ◆ Networks of knowledge-sharing and action which link the local, regional, national, European and international spheres of influence, and which amplify and radiate groundswells of energy and influence through political and community spheres.
- ◆ Indicators which range from the global to the very local and personal, by which progress towards sustainability can be measured.

What is the basis of the campaign?

The urgent need to reduce carbon footprints and to alert governments and the public about the impacts of climate change and global environmental degradation on human and planetary health

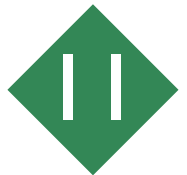
What are the basic tenets of the campaign?

- ◆ A concept of Public Health based on the ecology of the planet and the ecology of human society (Ecological Public Health).
- ◆ A rebalancing of the relationship between the community, the environment and the individual.
- ◆ Achieving a quality of governance at all levels which reflects the above principles and which works in partnership with communities to generate systems of decision-making and implementation that will deliver joined-up thinking and action across all spheres and levels.

Key Priorities

- ◆ That those actively participating in the Symposium should form the Health & Sustainable Development Action Group. This Group must recognise the role it can play in profiling the issues and tracking progress in key identified areas, and should promote the principles of Ecological Public Health amongst all those contributing to the public's health.

- ◆ UKPHA and organisational partners should target those at national, regional and local levels as well as at the level of the individual, so that all of these groups understand the magnitude of the issues and influence governments as well as responding with personal commitment and lifestyle change.
- ◆ To work with the Departments of Health and of the UK in taking forward the 'Health is Global' strategy authored by the UK Chief Medical Officer.
- ◆ To explore with Defra in England and with the Sustainable Development Commission where UKPHA can add most value in implementing the Sustainable Development strategy 'Securing the Future'.
- ◆ To influence the UK Government to take a lead on implementing carbon allowances based on global equity.
- ◆ That each of the four countries of the UK link health and sustainable development and create actions plans which are monitored at the highest level and are overseen by senior posts with cross-Government responsibility and accountability.
- ◆ To mainstream performance management through the Local Area Agreement mechanisms in England and through comparable systems in the other three UK countries, such that Health funding targeted for primary care is used to improve population health by taking a Sustainable Development approach.
- ◆ The NHS good corporate citizenship toolkit should be advocated and implemented.
- ◆ The Sustainability Manifesto should be advocated and implemented.
- ◆ To ensure that indicators are designed which are sensitive to the level at which they are to be applied and which test for a reduction in social and health inequalities as well as progress in environmental improvement
- ◆ Indicators should also be developed and applied to measure the progress of the Health & Sustainable Development Expert Action Group in:
 - Advocacy
 - Growth in, and effectiveness of, the evolving Networks.



Immediate Actions

To achieve a major commitment from a UK country

To build upon the recent visit to the Scottish Parliament which was led by UKPHA Scotland during the 15th Annual Public Health Forum in Edinburgh, and the recent MSP elections, by calling upon the Scottish Government to work with the H&SD Action Group to acknowledge the health impacts of climate change and environmental degradation and to accelerate its implementation of the Sustainable Scotland plan.

Voltaire noted that "we look to Scotland for all our ideas of civilization" and now we call upon Scotland to take a lead in this vitally important issue of our time.

To achieve a major commitment from an English Region

To work with the Regional Directors of Public Health in England in identifying key areas of progress within the Regions, which can be drawn together to exemplify the joined-up working and localised action which form the foundations of sustainable development. The UKPHA will work with the RDPHs with a view to having a major meeting on the subject.

To achieve major commitment within England as a whole

That a meeting be arranged as soon as possible between leading players in Natural England, the Department of Health, the Department for Environment, Food and Rural Affairs, and the UK Public Health Association to:

- ◆ Integrate upstream interventions on health and sustainable development across Government.
- ◆ Generate systems thinking and strong partnership working between Government departments, delivery agencies and the rest of civil society.
- ◆ Put a health value on green space to encourage Sustainable Development and create a healthier population.

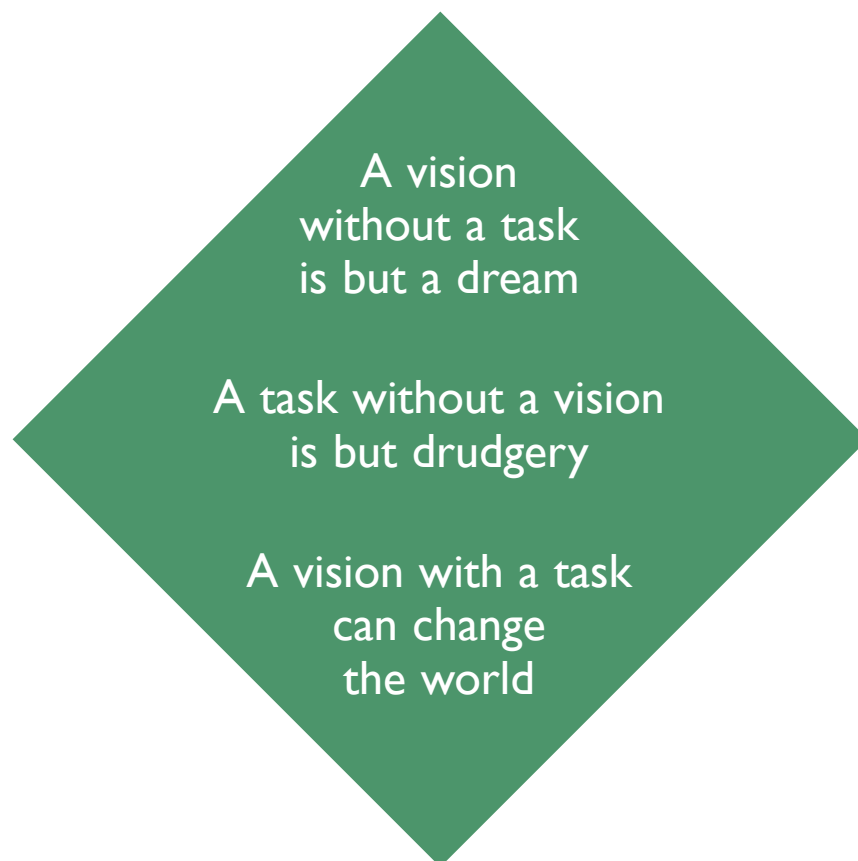
4. From Vision to Action

So we now have a clarion call for action based on the collective experience and thinking of very committed and expert protagonists.

It is clear that if those at the highest level (ourselves) after considerable thought and deliberation are not able to progress this work then there is very little hope that anyone will. If no-one does then clearly there is very little hope for the future health of humanity. Therefore it could be said to be our responsibility to ensure that we take up this challenge and work together as far and as best we are able.

We have many critical factors converging to stimulate and hasten action. We have an environment movement and a public health movement both eager to identify and work towards a holistic vision for health. We have a new political awareness arising from the growth of campaign groups and through the devolution of powers to Scotland and Wales. We have a public who are almost pleading for leadership from those whom they trust. We have an opening up of the bureaucracies and traditions handed down from the past - a recognition that partnership and collaboration are the building blocks of the future.

Organisations and ways of working can change and must change if we are to make another 'Chadwickian' leap forward in advancing the health of the people and the health of the planet.



Appendices

Appendix A:
The Think Tank Call for Action

**A Background
Report to the National
Symposium on Health and
Sustainable Development:
Linking the Public Health and
Sustainability Agendas**

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Executive Summary

This report is a Call for Action (not an action plan in itself). It calls for joined up action across all sectors and across all government departments. It calls upon professionals working in the social, economic, health, and environmental sectors to challenge current orthodoxies and to take a lead in developing and implementing policies and strategies to tackle the threat to human health posed by climate change and unsustainable development.

It recognises the visible and urgent need to strengthen the links between public health and sustainability, responding not simply to the priorities of climate change but also recognising the challenge of sustainable communities seen in their widest sense. There is an interdependence between health and sustainability which is neither fully recognised nor taken into account in policies and practice - a lack of shared meanings, understandings, and an absence of common vision, strategies, and programmes.

Effective integration of public health and sustainability must be underpinned by clear and simple principles. The approach must be holistic, evidence-based and analytic, inclusive and equitable, clear and understandable, efficient and effective.

Recognising the importance of a systems based approach, and building on existing work (notably that in Scotland), the report offers a framework which can be shared by all stakeholders, within which action can be planned, and which provides the structure for the remaining sections of this report. Within the framework there is the need for focus - on specific fields such as mental health or land use planning, or - as illustrated in the report - climate change and food.

Evidence-based analysis and intervention should derive from a reliable and robust evidence base drawn from a range of disciplinary traditions and perspectives. The need is for a combination of quantitative and qualitative data, and for a more causal, explanatory analysis and upstream thinking. More action is needed on research and on impact analysis, engaging with research commissioners and with those who translate research into policy. There is an important role for NICE.

Inclusion and Engagement of communities of interest and place, voluntary organisations, businesses, agencies and government should be based on genuine commitment to build trust and share power. There is a need for greater cross-sector fertilisation across professional groupings. Business engagement and civic engagement need to be encouraged. Network building is needed to exchange information and spread the message about the health implications of sustainability, and to establish alliances to take concerted action. A group of champions willing to commit to the leadership role is necessary to lobby, persuade, negotiate and carry forward collaborative action.

Communication around the issues of Health and Sustainability should be governed by Clarity and Communication - the use of simple language and transparent processes. There is a need to break down a lack of shared, commonly understood language both about the nature of the gap between health and sustainability and about the most appropriate way forward. There is a need for more commonly available toolkits - simple guides to the issues involved and what can be done for wider use in persuasion and lobbying. The need for greater understanding of and commitment to strengthening the links between health and sustainability means a more pro-active role for UKPHA in its communications and media role.

The use of Capacity and Resources to ensure sustainable progress must respect considerations of efficiency and effectiveness and value for money whilst avoiding the dominance of short term financial considerations. Attention must be given to the development of skills and competencies, with the health aspects of sustainability made more visible within the national curriculum in schools, in professional educational and training programmes, and in CPD. Leadership - structural, organisational and individual - is crucial. Sharing resources through realignment or pooling of budgets is a priority, with Local Area Agreements offering the potential for innovation in both main programmes and special initiatives.

The actions identified from the Birmingham think tank meeting were:

THEME	ACTION
Holistic	Develop shared framework to inform, configure and co-ordinate systems
Evidence Communication	<p>Develop robust set of sustainability and public health indicators</p> <p>An overall framework based on scientific research to assist the mapping of evidence in relation to environment and health</p> <p>Use 7th Framework (natural environment and health) as focus for developing comparative studies;</p> <p>Use NICE skills/experience/techniques to evaluate the effectiveness of interventions</p> <p>Strengthen network of academic colleagues in UKPHA</p> <p>Establish an umbrella health and sustainability network for Europe</p> <p>UKPHA working group to lobby OST, departments, Research Councils, NICE</p> <p>Involve UKSDRN members</p> <p>Create strategic alliances (such as the one with CABE; e.g. COIN - Climate Outreach and Information Network)</p> <p>Build evidence base on NHS resource use and the potential for the realignment of resources to provide a more sustainable wellness service</p>

The task of the Edinburgh symposium is to identify the champions and partners to take forward these actions

THEME	ACTION
Inclusion and Engagement	<p>Engage PCTs, Acute Trusts and GPs in health and sustainability agenda</p> <p>Engage public sector regulators</p> <p>Engage NHS Confederation</p> <p>Use the annual cycle of conferences (e.g. NHS Confederation) to reach NHS CEOs and Boards</p> <p>Presidents/Chairs of public health organisations to seek to influence NHS Chief Executive</p> <p>Lobby MPs through networks and contacts</p>
Clarity and Communication	<p>Develop simple toolkits for use in persuasion and lobbying</p> <p>Adopt an Inform, Affirm, Advocate strategy for communicating the urgency of issues</p> <p>Develop pro-active communications/media strategy/marketing strategy to deliver targeted messages to specific segmented audiences through both the general and professional media</p> <p>Identify key individuals as spokespersons, champions</p> <p>Prepare policy responses/media briefings and lobby MPs and councillors through networks and contacts</p>
Capacity and Resources	<p>Develop communities of interest in neighbourhoods and in the workplace, empowering people to change their behaviour</p> <p>Develop a common currency to determine and develop a training analysis and competencies requirement for job descriptions</p> <p>Embed sustainability more firmly within the general curriculum to provide the appropriately enabled health professionals of the future</p> <p>Encourage the public health community to extend its learning on health and sustainability including a review of training programmes and CPD development</p> <p>Invest in school curriculum development and provision to link health to sustainability</p> <p>Incorporate health and SD thinking/targets/outputs/outcomes into the work of Local Strategic Partnerships and Local Area Agreements</p> <p>Publicise and make wider use of the Local Government Act 2000 Well-Being power</p> <p>Include standard SD principles in all NHS contracts</p> <p>Establish a Healthy Places competition for localities and neighbourhoods</p> <p>Look at Scottish policy on EH and other models and adapt to a SD framework</p>

A Call for Action

This document is a Call for Action. It is not in itself an Action Plan, which would require more detail on operational objectives, delivery mechanisms, and resource allocation. It is rather an advocacy document identifying where action is needed and what are the priorities.

The main strategic and overarching aim of this report is to ensure that professionals from across all sectors recognise the role that they and their organisations have to play in bringing about the joined up working essential to tackling climate change and pursuing sustainable development. In recognising this role it is then implicit that action must follow to bring about the change that is urgently needed.

For too long a silo based approach to the major challenges of our time has allowed governments to slip the hook of responsibility by relying upon a 'divide and rule' culture which allows them to avoid confronting the often uncomfortable decisions and actions that such challenges demand. The health profession is no exception to this silo based approach. So often there is a focus upon concentrating on the countless targets which rain down upon the workforce rather than upon a determination to take the lead in denouncing policies and strategies which fail to address the major threats to human health of the 21st Century. Alongside this, the medicalisation of public health has left a long and enduring legacy whereby public health is seen as the domain of the NHS and where the contribution made by other sectors, particularly local government, is marginalised and consequently devalued.

Throughout the 1990s the development of the WHO Health for All movement and Local Agenda 21 trod very different paths despite the fact that they are very close in their aims, objectives and processes. Now more than ever we need to ensure that there is a convergence between the two and that the host of professionals and communities involved in their implementation begin to talk the same language, share a common vision and goals and work together in achieving these.

Some of the actions identified in the document fall within the field of government policy, others lie within the remit of individual organisations. Others are clearly within the responsibilities of the Department of Health and or other Government Departments. For others again we need to look to the NHS. A number of the actions are already being pursued through existing initiatives. There has been, however, no single unifying framework or model to which people with disparate professional, disciplinary, or sectoral perspectives can sign up, or which draws together the diversity of professional and community interests in the way attempted in this Call for action.

Drawing on the expertise of an interdisciplinary and interprofessional think tank event the overall aim, therefore, is to generate a framework for action, and to advocate a range of actions to pursue the health and sustainability agenda. The aim of the Edinburgh symposium, for which this report is background, is to generate commitment to the framework and actions from the UKPHA and other related networks, organisations, and agencies.

Background

Visible and Urgent

Both Health and the Sustainability are high on everyone's agendas. In Health the 2002 Wanless Securing our Future Health concluded that a much larger share of national resources needed to be devoted to health care in the future and moreover that health inequalities persist and in some ways are deepening. Choosing health (2004) set out key principles which might help people to make more informed and healthier choices about their lifestyles and behaviours. On Sustainability, One Future - Different Paths, Securing the Future, and Choosing Our Future all pointed to the urgent tasks confronting society - responding to climate change as a priority but also recognising the challenge of sustainable communities seen in their widest sense.

Interdependence

These two agendas are of course interdependent. Health choices impact on sustainable communities; sustainability issues - and again climate change in particular - will continue to have significant impacts on health and well being. There are numerous examples of these agendas coming together - in government guidance on sustainable communities, in the Healthy Cities projects, in a number of the Health Partnerships operating under the Local Strategic partnership umbrella, in local authority practice, and of course in the work of the UKPHA. Nevertheless there also remain too many examples where this interdependence between health and sustainability is neither recognised nor taken into account in policies and practice. There is talk of fragmentation, of silos, of an absence of connectedness, and of targets and indicators that prevent integration. There is a lack of shared meanings, understandings, and an absence of common visions, strategies, and programmes.

This Call for Action complements other initiatives and advocates change across social, economic, and environmental fronts seeking to widen the range of stakeholders engaged. Despite the proliferation of reports, guidance, and case studies, there has been no single unifying framework or model to which people with disparate professional, disciplinary, or sectoral perspectives can sign up.

The Birmingham event

In February 2007 UKPHA sponsored a high level think tank event in Birmingham drawing together experts from a variety of sectors and organisations to work on the challenge of integrating the Health and Sustainability domains more closely. The expert think tank identified the need both for a holistic understanding of, and approach to, this challenge and also for specific actions to make integration more concrete. The Birmingham event as designed to bring together experts from UKPHA and others to exchange, shape ideas, develop shared views about priorities and potential actions.

Asked what needed to happen to bring the two agendas together, participants identified five main themes.

- ◆ Capacity - Skills, Competencies, and Leadership
- ◆ Resources - Targets, Outcomes, Rewards and Incentives
- ◆ Evidence - an Evidence base, Impact assessment, Costed options
- ◆ Engagement - at individual, community, institutional and governmental levels
- ◆ Collaboration - greater integration between policies, programmes and organisations

Building on the Birmingham event, this Call for Action identifies the key issues that need to be tackled and proposes a set of actions to promote integration at all levels. It is intended to represent a UKPHA contribution to the health and sustainability debate and to lay the foundations from which action can flow. It aims to be ambitious, challenging, and if necessary critical of existing practice.

Principles Behind the Call for Action

Effective integration of public health and sustainability must be underpinned by clear and simple principles to which all committed stakeholders can sign up. We seek to take forward the classic Brundtland definition of sustainability but add to it a global perspective - Meeting the needs of the present generation without compromising the ability of future generations to meet their needs and without widening the gaps between developed and developing nations or between rich and poor.

The principles underlying the approach advocated in this report are:

Holistic

That the pursuit of a sustainable future for people and for the planet be grounded in a holistic framework combining social, economic, physical and environmental elements. (Whilst climate change represents the primary and urgent challenge, a holistic approach to public health and sustainability needs a wider agenda).

Inclusive and Equitable

That the inclusion of stakeholders - communities of interest and place, voluntary organisations, businesses, agencies and government - must be based on a genuine commitment to build trust and share power, and must respect the need for equitable treatment between developed and less developed countries, between generations, between communities, and between social groups.

Clear and Understandable

That communication around the issues of Health and Sustainability should be governed by the use of simple language and transparent processes.

Evidence-based and Analytic

That analysis and intervention should derive from a reliable and robust evidence base drawn from a range of disciplinary traditions and perspectives.

Efficient and Effective

That the use of resources to ensure sustainable progress respects considerations of efficiency, effectiveness and value for money whilst avoiding the dominance of short term financial considerations.

An Holistic Approach

Principle: 'That the pursuit of a sustainable future be grounded in a holistic framework combining social, economic, physical and environmental elements'.

Systems Thinking

Both Sustainability and Public Health are each in themselves complex cross-cutting issues - issues which involve different levels of government, which involve a range of professions, and where apparently effective measures bring unanticipated spillover effects which run counter to hoped for solutions. In thinking about the relationship between public health and sustainability the complexity is compounded and an appropriate response demands systems thinking - recognition of a linked chain of actions, of causal interactions, and of feedback loops. Whole systems thinking requires the acceptance of the existence of vicious cycles - through which activities are dragged down to their lowest common denominator), and conversely of virtuous cycles - where the interactions lead to added value in a positive sum game. Whole systems thinking has been used in analysis of the wicked cross-cutting issues - by the Social Exclusion Unit, for example, in its analysis of neighbourhood renewal.

The Expert Think Tank emphasised the importance of a systems based approach but also called for a common vision, framework or model which would provide the basis for a shared approach to public health and sustainability. There have been many attempts to develop a framework for making the links between public health and the socio-economic environment. Killoran and Russell used Dahlgren and Whitehead in their review of public health and regeneration, pointing to the inter-relationship between age, sex and hereditary factors, individual lifestyles, social and community influences, living and working conditions, and general socio-economic cultural and environmental conditions. More recently the WHO DPSEEA model (Drivers, Pressures, Exposure, Effect, Action) has been developed to be more applicable to the public health context. (see Diagram 1).



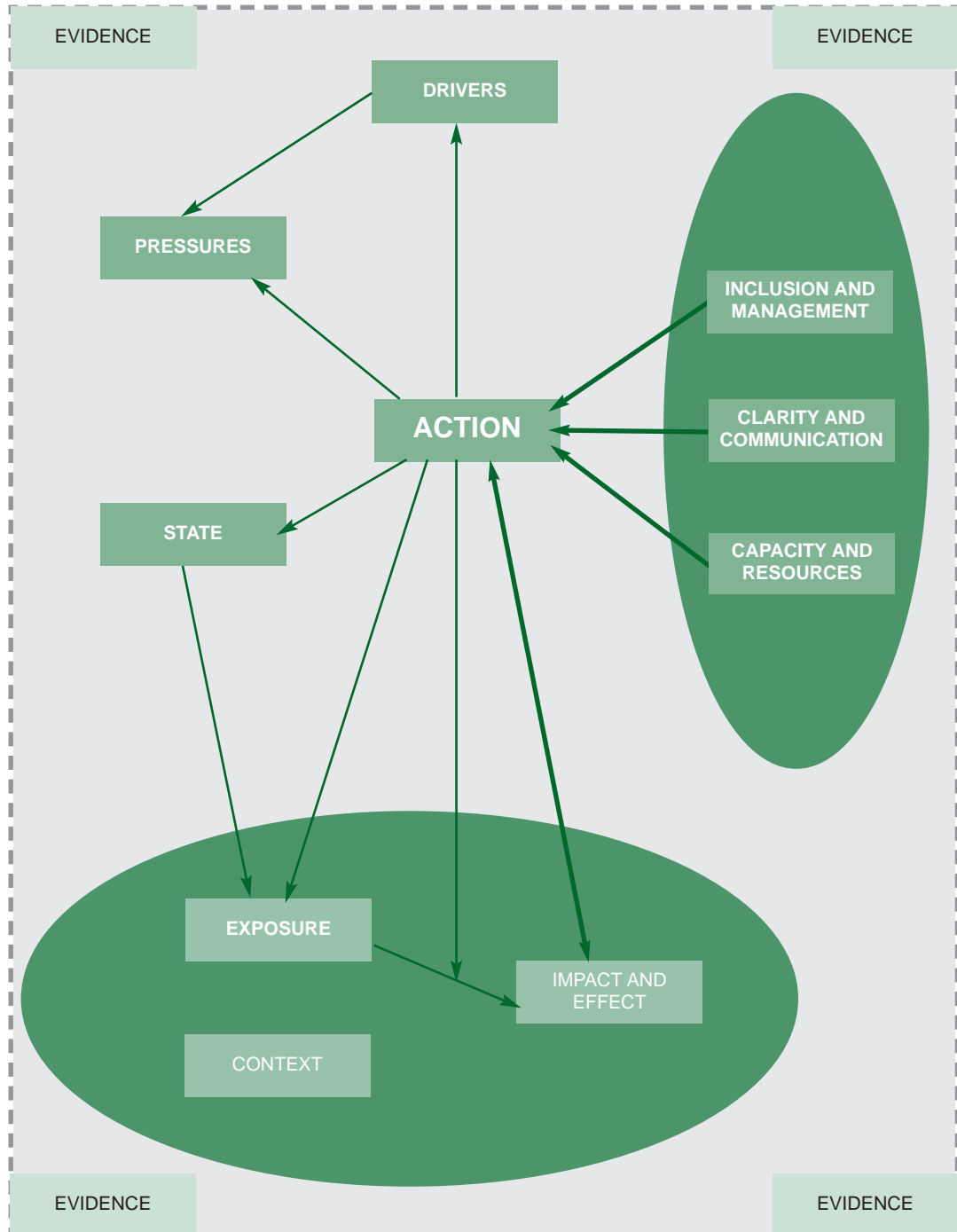
¹ Social Exclusion Unit (2000) *Joining It Up Locally* Report of Policy Action Team 17 National Strategy for Neighbourhood Renewal London DETR.

² Killoran A. and Russell H. (2000) *Public Health and Regeneration: making the links* London: Health Education Authority.

³ Dahlgren G. and Whitehead M. (1991) *Policies and strategies to promote social equity in health*. Stockholm: Institute of Futures Studies.

⁴ WHO (2004) *Environmental health indicators for Europe: a pilot indicators based report* www.euro.who.int/document/eehc/ebakdoc04.pdf

⁵ Morris G.P., Beck S.A., Hanlon P., and Robertson R. (2006) 'Getting strategic about environment and health' *Public Health* 120, 889-907.

Diagram 1: A Model for Linking Health and Sustainability

'Drivers' refer to the external factors that motivate and push the social, economic or environmental processes forward. Such drivers generate 'pressures' on the social, economic and environmental structures that exist and lead to changes in the state of the economy, of society and of the environment. Such changes induce both risks and opportunities - to individuals and to communities - and there is thus an exposure of people to such risks/opportunities.

Such exposure in turn has effects on economic prosperity, on social relations, on environmental quality, and health and well-being. Actions taken by individuals, by communities or by government can mediate the drivers and pressures and hence lead to improved states and less exposure to risk. Morris et al add to the DPSEEA model recognition of the importance of context in influencing how exposure and effect can vary from situation to situation and from locality to locality.

Diagram I makes use of these developments but also incorporates some of the themes which emerged in the Birmingham debates. The six DPSEEA elements remain but the 'effect' box is extended to include elements of impact and impact analysis. Importantly the 'action' box is supplemented by three sub-elements - 'inclusion/engagement', 'language/communication', 'capacity/'resources', all elements to which the Birmingham Think tank gave some time, and which together widen the contextual setting within which action can occur. Action is a function of the extent to which stakeholders are engaged and committed to change, of the capacity that they have to implement that change, and of the resources that they have at their disposal (individually or collectively) with which to make change effective. The whole model is contained within a box of evidence which supports the application of the model and provides backing to the causal analysis which underpins it.

This report does not endorse this model. There needs to be more discussion, development and application of any such model before it could win wide acceptance. But in drawing on much of the existing work which has been undertaken within the public health and environment field, and adding to it the outcomes of the Birmingham discussion, it may help to provide an agenda to move the debate forward.



Sustainability

In applying the model to Sustainability it is useful to think of a set of sustainable states:

- ◆ A Sustainable economy - balancing growth with the resources available; also equitable economic activity, that is geographically distributed (urban/rural), that generates jobs for local people; that invests for lasting prosperity.
- ◆ A Sustainable health - lower morbidity/mortality rates, sense of well-being, rather than focussed on ill health, reduction of health inequalities
- ◆ A Sustainable community - generating social capital, encouraging work life balance, fostering communities of interest and of place
- ◆ A Sustainable environment - effective use of natural and built environments within the planet's resources.

These states are interdependent and interactive. A holistic approach looks to a balanced approach to recognise the complementarities between states, the tensions between them, and the need to reconcile often conflicting priorities in order to assure progress without irreparable damage to economic and social relations, and without the depletion of natural or human resources.

Action

- ◆ Develop a shared framework to inform, configure and co-ordinate systems

Focus

Recognition of the importance of a holistic approach means nothing without its application to specific contexts. For particular groups, therefore, the need is for focus - the concentration of effort and resources onto particular situations. The importance of focus was illustrated at Birmingham by reference to a number of specific contexts of policy and practice.

By way of example, there was discussion of a number of aspects of the land use and planning context. Our attitude to and use of the land was felt to be central to our behaviour towards the planet's earth. Alternative land uses carry huge implications for housing, employment, leisure, environment and movement, and hence for both sustainability and health. It is important, therefore, to introduce the sustainability/health agenda more clearly in to the preparation of regional spatial strategies, into local development plans, and into neighbourhood planning as well, as into management of the natural environment. The Sustainable Cities movement has done much of this for urban development and change in relation to design, energy, transport and other aspects of urban living, but a truly holistic approach to land use planning remains to be developed. It was suggested that a Healthy Places competition be established to give on the ground local meaning to the sustainability/health agenda (see also section on Capacity and Resources).

By way of contrast, the mental health issues arising from the anxieties and stresses of contemporary life were recognised in Birmingham discussions, but - for reasons of time - were little discussed. Here again it is clear that the search for a sustainable well-being relies on an integrated approach which seeks to recognise the traumas, stresses and anxieties of everyday living. Striving to improve the quality of life, to manage the work life balance, and to strengthen community cohesion demands a holistic approach.

Two issues are given further attention in this report in the boxed inserts which follow:

- ◆ Climate Change, Sustainability and Public Health where the key message is that it is necessary to create a virtuous cycle which at one and the same time respects the need for distributive justice - globally and locally - whilst adopting the principles of Contraction and Convergence to meet the urgent challenge of climate change.
- ◆ Food where the key message is that systems which support the sustainable production and consumption of food are fundamental to the achievement of human and planetary health. It is therefore essential that all food-related public health crises are set within this context and that urgent action is taken to address the underlying cultural, societal and economic factors which drive obesity and malnutrition across the globe.

Climate Change, Sustainability and Public Health

Several themes underpinned discussion at the Birmingham Experts event.

- ◆ The health implications of climate change, with its adverse consequences, inevitably bearing most heavily on the poor
- ◆ The health and health care implications of the gap between resources available to rich and poor, both within 'developed' countries such as the UK, and between 'developed' and 'developing' countries
- ◆ The urgency for collective action to reduce excess consumption and CO2 emissions

The community of health professionals has yet to embrace climate change as a priority. There is a need to change perceptions, and act more vigorously and decisively. Climate change is increasingly well understood, but a sufficiently effective strategy to limit the damage from climate change needs a global framework involving the active participation of all peoples. There is an obligation to the most disadvantaged populations of the world to assure them of similar development benefits to those the advantaged have and will secure. A framework is needed to cap and reduce global carbon emissions whilst at the same time ensuring that the most disadvantaged receive the resources enabling them to eradicate poverty and to improve their quality of life.

A comprehensive understanding of this fundamental principle, and a commitment to action in the light of it, are pre-requisites of constructive support. To provide the necessary ethical and practical base for progress, therefore, health professionals have a duty to inform, warn and lead;

Inform. We must articulate the gravity and extent of the problem, emphasising that without urgent action the consequences will be much worse for the 2 billion globally disadvantaged, most of whom live in the yet-to-industrialise countries. And we must offer hope, pointing out that moving to low carbon societies will be health improving for all. Gathering and disseminating information on the health benefits is a crucial part of the role of health professionals.

Affirm. We must measure and reduce our individual carbon footprint, and persuade the institutions we work in to do likewise. This process of information and affirmation must bring together our major health professional institutions, as well as other professional groups, to make our case more persuasive and effective.

Advocate. We must promote a framework the implementation of which combines CO2 emissions reduction with a transfer of resources, and so creates a global virtuous cycle of activity with environmental improvement creating social and economic benefits, particularly for the poor. By far the most feasible framework one is that of Contraction and Convergence.

The contraction component entails setting a global carbon budget, reducing this annually so that atmospheric levels of carbon dioxide do not exceed 450 ppm, and, over a negotiated time-frame, the planet's climate once again gets into equilibrium. Convergence entails giving an equal entitlement of the capped carbon to each of the 4 billion plus adult inhabitants of the globe. The disadvantaged - low carbon emitters - will have entitlements which they can sell to the high carbon emitters of the rich north. The market in carbon entitlements will be constrained by the reducing global carbon cap, but within these constraints the disadvantaged, by redeeming their entitlements, will get substantial flows of money. The market signals for all concerned will be toward both low carbon lifestyles and investment.

This global virtuous cycle will further the cause of social justice and facilitate the development of numerous similar cycles at all levels of society, such as the local cooperative production of renewable energy and local production and consumption of food. The process has the potential to transform every health activity and facility and many health transactions.

Food

The complexity of the modern food and health policy challenge

The extent of the global food and water related public health crisis is becoming clear. But before we address the food challenge of the Ecological Public Health era, it is important to acknowledge the huge effort to raise food output over the last half century. Although there are regions with catastrophic problems, overall global supply has boomed and the neo-Malthusian doom - the failure of supply to match population growth - long prophesied has been held (mostly) at bay. This is the legacy of the public health pioneers of the 1930s-40s. They seized their chance in post World War 2 reconstruction to spawn a web of change. They argued for, helped create and staffed new institutions, new agricultural and health projects, new scientific investment on and off the land, and an infusion of food consciousness into public policy, which is often taken for granted. And yet...the evidence that the post WW2 paradigm is failing to tackle food and health problems is mounting. Even on its own terms, the old production-focussed approach is at bay.

The fight to contain global malnutrition is stalling, worsened by military and politico-economic uncertainties. The rise in availability of grain per capita is slowly reducing, and a significant (probably excessive) proportion of the output is being channelled for meat production - a form of waste and mal-use. The burden of disease from non-communicable diseases has highlighted the contribution of diet and changed lifestyles. While the developed world recognises the financial costs of ill-health associated with over- and mal-consumption, the developing world is now experiencing the Nutrition Transition associated with increased consumption of fatty, sugary foods and soft drinks. If developed countries cannot bear the fiscal and personal financial burdens of this transition, it is clear the developing world cannot even consider it. The global obesity epidemic symbolises this new era for public health. Obesity is to public health what climate change is to sustainable development. Addressing this issue requires a simultaneous reorientation of human ecology and natural ecology.

Why current policy responses are unlikely to be enough

The dietary contribution to non-communicable disease (NCD) was first properly analysed in the very same period when the post World War 2 revolution was being unfolded (1950s-70s). The response to NCDs has been largely health education - telling us what to eat - with only patchy emphasis on reforming supply chains. As the limitations of asking individuals to change the shape of food supply became clear, another evidence base was emerging. This centred on the unsustainability of 'modern' food practices. The astonishing and welcome increases in output relied heavily on non-renewable energy - not just to produce fertilisers and power tractors, but to transport goods, and latterly to drive consumers (in individual cars) ever further to shops which sourced ever more foods with high calories for lower cost from

ever further afar. The evidence of the unsustainability and high 'externalised' costs of advanced food systems that began to be recognised in UN and scientific circles in the 1970s and 1980s, is now beyond dispute. Modern science has shown how the current food system is built on a capacity to mine 'natural' capital such as water, energy, soil, biodiversity, air, forests, etc. yet consumer culture - all or most of us - is hooked on rising aspirations to consume more of the earth.

Why progress in food for public health requires sustainable development and vice versa

The challenge is therefore now how to combine the insights from public health and from environmental science into the creation of a food system that is both good for human health and planetary health. The food crisis is set to be both a test case and a rallying point for the new Ecological Public Health - which unites both. It is no longer possible in an age of climate change and obesity, of malnutrition and a bundance, to argue for a narrow physiological approach to health, anymore than it is possible to argue that well-being is a psycho-social matter. Everything is 'connected' even as institutions, professional responsibilities and cultural assumptions keep them locked into separate policy boxes. The challenge for the Ecological Public Health is to connect, the build bridges, to think and act structurally. There are two facets to the use of the word 'ecological' here. Firstly, interdisciplinary thinking and practice becomes essential; all is connected. Secondly, human existence and quality of life depends on an environmental infrastructure which western models of progress have downplayed. The Ecological Public Health paradigm harnesses an understanding of the patterns of social, economic and other societal changes in terms of their material, physiological, social and cognitive elements. No one of these on its own is sufficient to explain, let alone tackle, the complex interplay of factors shaping food's impact on health or environment.



The UKPHA and others should strive to:

Improve

public understanding of the ecological infrastructure of health

Champion

diet and lifestyle which simultaneously are good for physiology, the environment, culture and society, on which human existence depends.

Advocate

an ecological approach to health.

Promote

food and farming policies which deliver long-term ecological public health.

Evidence

Principle: That analysis and intervention should derive from a reliable and robust evidence base drawn from a range of disciplinary traditions and perspectives.

There is much, though often contradictory evidence in relation to public health and sustainability, often presented from opposing professional/disciplinary perspectives. The need is for a combination of quantitative and qualitative data, and for a more causal, explanatory analysis and upstream thinking. As important as the volume and quality of data are questions of usage. Who will use evidence? How is the evidence presented - and is it user friendly? How is it that different interpretations can be interpreted differently.

The Birmingham Think Tank reinforced the importance of an evidence base and argued for more action on research and on impact analysis. In relation to research it is important to engage with the research commissioners and with those who translate research into policy. Thus links with OST, with the Research Councils, with the research programmes of DH and CCLG, with the European 7th Framework are all needed.

In addition there may be a role for NICE to be more involved in the assessment of the effectiveness of health interventions in terms of their sustainability impacts, as well as to reinforce the possibility of stronger links between Health Impact Analysis and Sustainability.

Action

- ◆ Develop robust set of sustainability and public health indicators
- ◆ Build an overall framework based on scientific research to assist the mapping of evidence in relation to environment and health
- ◆ Use 7th Framework (natural environment and health) as focus for developing comparative studies
- ◆ Use NICE skills/experience/techniques to evaluate the effectiveness of interventions
- ◆ Strengthen network of academic colleagues in UKPHA
- ◆ Establish an umbrella health and sustainability network for Europe
- ◆ UKPHA working group to lobby OST, departments, Research Councils, NICE
- ◆ Involve UKSDRN members
- ◆ Create strategic alliances (such as the one with CABE; e.g. COIN - Climate Outreach and Information Network)
- ◆ Build evidence base on NHS resource use and the potential for the realignment of resources to provide a more sustainable wellness service.

Inclusion: Who needs to be engaged?

Pinciple: That the inclusion of stakeholders - communities of interest and place, voluntary organisations, businesses, agencies and government - must be based on a genuine commitment to build trust and share power, and must respect the need for equitable treatment between generations, between communities, between social groups.

The various constituencies

There are already high levels of engagement from interested professionals in health, in environment, in land use planning, in community development for example. Professional engagement, however, is often driven by the demands of a particular profession or organisation and is conducted according to the terms of that profession. There is a need for greater cross-sector fertilisation across professional groupings.

Business engagement by contrast is felt to be weaker, with strategy and action having a shorter term time horizon and a focus on the bottom lines of financial outlays, cost efficiency and profit. Many firms have yet to be persuaded of the good business case for action on either health or sustainability whether this be at the workplace or in the market.

Civic engagement also lags behind. Whilst the 'Sustainable Communities' policy has received wide publicity and support from government and many community environmental organisations, the threat posed by climate change both in general and to health and well being in particular is ill understood or accepted by the public at large, let alone the wider agenda.

Not all groups have equal power, however. Professionals often claim the power of knowledge and expertise whilst governments claim the power of authority. Communities often lack power and, drawn into exhausting multi-sector collaboration, experience partnership fatigue rather than empowering engagement.

Networks and alliances

In order to raise the level of engagement of the different constituencies and to build trust, UKPHA must concentrate both on network building to exchange information and spread the message about the health implications of sustainability, and on establishing alliances to lobby and take concerted action. The existing linkages and joint action with CABE are an example of collaboration which must be spread further. There are important lessons to be learned. First 'talking's not a waste of time' (despite what private sector partners often say). Strong networks and alliances can only be built on foundations of shared language, mutual understanding and cross-sectoral respect.

Alliances can grow power and become influences for change, but alliances can also concentrate power in a few hands, sometimes leading to disengagement rather than engagement. Equally whilst informal networks can lead to shared experience, common understandings and the free flow of information, networks can also be exclusive and whilst alliances can grow and spread power they can also concentrate power into fewer hands.

Champions

Within these networks and alliances UKPHA needs to generate a group of champions willing to commit to the leadership role necessary to lobby, persuade, negotiate and carry forward collaborative action. Such champions may operate within their own organisations but more likely should take the lead in establishing and maintaining the partnerships and alliances needed to bring about a more holistic and joined-up approach.

Action

- ◆ Engage PCTs, Acute Trusts and GPs in health and sustainability agenda
- ◆ Engage public sector regulators
- ◆ Engage NHS Confederation
- ◆ Use the annual cycle of conferences (e.g. NHS Confederation) to reach NHS CEOs and Boards
- ◆ Presidents/Chairs of public health organisations to seek to influence NHS Chief Executive
- ◆ Lobby MPs through networks and contacts

Clarity and Communication: Getting the Message Across

Principle: That communication around the issues of Health and Sustainability should be governed by the use of simple language and transparent processes.

Language

It was clear, even at the Birmingham event where a range of knowledgeable experts met together, that there was a lack of shared, commonly understood language both about the nature of the gap between health and sustainability and about the most appropriate way forward. This lack of common language and understanding is compounded when a wider range of stakeholders come together, and reinforced when the wider interests of voluntary and community sectors and the general public are involved. This is in part a question of the use of specialised language from particular sectors - each profession has its own language. It is also in part because the same terms may be used in different ways by different groups. For example, even the term 'well being' means different things to different people with those involved with health thinking of the absence of illness, those in local government thinking of the 'well-being' power contained in legislation, and the wider public thinking of perhaps of a more general quality of life interpretation. Again, for example, if Contraction and Convergence is to become a shared approach to climate change, then the meaning of these two words must be made clearer to everyone concerned.

It would be helpful perhaps to have more commonly available toolkits - simple guides to the issues involved and what can be done for wider use in persuasion and lobbying. Questions (and answers) about the importance of the links between health and sustainability could be designed, questions for people to ask of others, questions for activists to ask professionals, questions for members of public health organisations to ask of their employers, questions for voluntary organisations to ask of local government, questions for the general public to ask community organisations. What is needed combines technical exactness and accuracy with simplicity to draw in all stakeholders. Whilst Climate Change may represent the primary and urgent challenge a holistic approach to public health and sustainability needs wider understanding as well as the adoption of an Inform, Affirm, Advocate approach.

Strategy

The need for greater understanding of and commitment to strengthening the links between health and sustainability suggests a more pro-active role for UKPHA in its communications and media role. This would involve not only the preparation of more relevant material, for example responses to current policy issues or comments on key items in the news, but also the active provision of items of interest to relevant weekly or monthly journals (e.g. Health Service Journal). Media briefings could be offered; key individuals could be used as spokespersons or champions to take the

message to a wider audience; The political agenda could be influenced by more active lobbying of both MPs and local councillors.

Actions

- ◆ Develop simple toolkits for use in persuasion and lobbying
- ◆ Adopt an Inform, Affirm, Advocate strategy for communicating the urgency of issues
- ◆ Develop pro-active communications/media strategy/marketing strategy to deliver targeted messages to specific segmented audiences through both the general and professional media
- ◆ Identify key individuals as spokespersons, champions
- ◆ Prepare policy responses/media briefings and lobby MPs and councillors through networks and contacts

Capacity and Resources

Principle: That the use of resources to ensure sustainable progress respects considerations of efficiency and effectiveness and value for money whilst avoiding the dominance of short term financial considerations.

Capacity

Skills and Knowledge: There is a need to develop appropriate curriculum and syllabus material into the programmes relevant to particular sectors - planning, transport, housing, economic development, community safety and so on. Attention must be given both to the skills and competencies developed in FE and HE but also to the upskilling needs evident in CPD. It would be important, for example, that issues of public health and sustainability be incorporated into the NHS PCT Competency Framework (especially the public health and community engagement domains).

The health aspects of sustainability should be made more visible within the national curriculum, and professional educational and training programmes must be more explicit about the health/sustainability interface. Just as attention is given to increasing the knowledge base on which the health/sustainability interface is based, so must an emphasis be placed on raising the skill base from which successful cross-sectoral working stems. This may mean, for example, more cross-professional project working in higher and further education, and more interdepartmental, cross-cutting work in government. At the same time as resources are put into professional training, attention also needs to be given to supporting a wider debate involving the public.

Leadership is crucial. At one level leadership is structural. Government must give a stronger lead to the health and sustainability agenda and set framework within which a holistic approach can be adopted. This is a leadership which establishes a line for government departments - all departments not just health - and provides a framework for the NHS, for all non-departmental public bodies, for local government for voluntary and community organisations, and for individual citizens. A health and sustainability Czar might be appropriate. Leadership is not simply structural but also organisational and individual, and it is important that key organisations - in health but elsewhere in local government and indeed throughout the wider arena of local governance provide a leadership for attitudes and behaviour which reinforce the messages about health and sustainability. Individual leadership (in business, in public agencies, in civil society) is equally crucial - the importance of champions and role models cannot be underestimated. Leadership requires clarity, commitment and drive. But it also requires 'followership', suggesting that leaders must give attention to those whom they are leading and ensure that those who follow neither lag behind nor drop out.

Resources

Sharing resources represents one of the most concrete actions that can be taken by public organisations and there are currently more opportunities for sharing resources through pooling or aligning budgets than ever before. Whilst some experts at Birmingham were unsure of the benefits of Local Area Agreements, other saw LAAs as a key vehicle for developing a more integrated holistic approach to budgets, targets, and outcomes. More could be done (through the guidance on LAAs and through Local Strategic Partnerships) to ensure that in all four blocks of the LAA, and not simply the older people and health block, that attention is given to cross-cutting issues. LAAs involve the integrated use of smaller funding streams - 'funny money' - but in good practice localities have begun to influence shared priorities and realigned mainstream budgets. Nevertheless, whilst there have been a host of special initiatives in both health and sustainability, mainstreaming such initiatives is less common. There is a vital need to ensure that initiatives, pilots, and action zone experiments are taken into the mainstream programmes of agencies. Evidence from the stream of area based initiatives throughout the last 20 years demonstrates the many barriers to mainstreaming, and it is clear that unless spending programmes, from the Comprehensive Spending Review down, more clearly reflect the importance of both sustainability and public health priorities, then integrated action will not be underpinned by the necessary resources.

More effective resource use, however, may only stem from a system of incentives and rewards for more sustainable practice, and there are thus strong arguments for ensuring that sustainability considerations are built into all public sector contracts and into health service commissioning. Local Area Agreements (and Local Public Service Agreements) carry reward payments for the achievement of stretch targets, and encouragement should be given to using these funding streams to encourage and reward sustainability and health targets. A different kind of incentive was suggested at Birmingham the establishment of a Healthy Places competition which would invite developers, housing agencies, local authorities and communities to work together to create a new and healthier local living environment.

Actions

- ◆ Develop communities of interest in neighbourhoods and in the workplace, empowering people to change their behaviour
- ◆ Develop a common currency to determine and develop a training analysis and competencies requirement for job descriptions
Embed sustainability more firmly within the general curriculum to provide the appropriately enabled health professionals of the future
- ◆ Encourage the public health community to extend its learning on health and sustainability including a review of training programmes and CPD development
- ◆ Invest in school curriculum development and provision to link health to sustainability
- ◆ Incorporate health and SD thinking/targets/outputs/outcomes into the work of Local Strategic Partnerships and Local Area Agreements
- ◆ Publicise and make wider use of the Local Government Act 2000 Well-Being power
- ◆ Include standard SD principles in all NHS contracts
- ◆ Establish a Healthy Places competition for localities and neighbourhoods
- ◆ Look at Scottish policy on health and other models and adapt to a sustainable development framework.

Table of Actions

THEME	ACTION	CHAMPIONS AND PARTNERS
Holistic	<ul style="list-style-type: none"> ◆ Develop shared framework to inform, configure and co-ordinate systems 	To be identified and from whom commitment is to be drawn.
Evidence	<ul style="list-style-type: none"> ◆ Develop robust set of sustainability and public health indicators ◆ An overall framework based on scientific research to assist the mapping of evidence in relation to environment and health ◆ Use 7th Framework (natural environment and health) as focus for developing comparative studies;; ◆ Use NICE skills/experience/techniques to evaluate the effectiveness of interventions ◆ Strengthen network of academic colleagues in UKPHA ◆ Establish an umbrella health and sustainability network for Europe ◆ UKPHA working group to lobby OST, departments, Research Councils, NICE ◆ Involve UKSDRN members ◆ Create strategic alliances (such as the one with CABE; e.g. COIN - Climate Outreach and Information Network). ◆ Build evidence base on NHS resource use and the potential for the realignment of resources to provide a more sustainable wellness service. 	
Inclusion and Engagement	<ul style="list-style-type: none"> ◆ Engage PCTs, Acute Trusts and GPs in health and sustainability agenda ◆ Engage public sector regulators ◆ Engage NHS Confederation ◆ Use the annual cycle of conferences (e.g. NHS Confederation) to reach NHS CEOs and Boards ◆ Presidents/Chairs of public health organisations to seek to influence NHS Chief Executive ◆ Lobby MPs through networks and contacts 	
Clarity and Communication	<ul style="list-style-type: none"> ◆ Develop simple toolkits for use in persuasion and lobbying ◆ Adopt an Inform, Affirm, Advocate strategy for communicating the urgency of issues. 	

THEME	ACTION	CHAMPIONS AND PARTNERS
	<ul style="list-style-type: none"> ◆ Develop pro-active communications/media strategy/marketing strategy to deliver targeted messages to specific segmented audiences through both the general and professional media ◆ Identify key individuals as spokespersons, champions ◆ Prepare policy responses/media briefings and lobby MPs and councillors through networks and contacts ◆ Develop pro-active communications/media strategy/marketing strategy to deliver targeted messages to specific segmented audiences through both the general and professional media ◆ Identify key individuals as spokespersons, champions ◆ Prepare policy responses/media briefings and lobby MPs and councillors through networks and contacts 	<p>To be identified and from whom commitment is to be drawn.</p>
Capacity and Resources	<ul style="list-style-type: none"> ◆ Develop communities of interest in neighbourhoods and in the workplace, empowering people to change their behaviour. ◆ Develop a common currency to determine and develop a training analysis and competencies requirement for job descriptions. ◆ Embed sustainability more firmly within the general curriculum to provide the appropriately enabled health professionals of the future. ◆ Encourage the public health community to extend its learning on health and sustainability including a review of training programmes and CPD development. ◆ Invest in school curriculum development and provision to link health to sustainability ◆ Incorporate health and SD thinking/targets/outputs/outcomes into the work of Local Strategic Partnerships and Local Area Agreements ◆ Publicise and make wider use of the Local Government Act 2000 Well-Being power ◆ Include standard SD principles in all NHS contracts ◆ Establish a Healthy Places competition for localities and neighbourhoods ◆ Look at Scottish policy on EH and other models and adapt to a SD framework 	

Appendix B: Speakers and Participants at the Think Tank and/or Symposium

Speakers:

Jill Rutter

Defra

'Sustainable Development and
Public Health: one agenda or two?'

Tim Lang & Geof Rayner

City University

'Ecological Public Health:
New Paradigms for Old?'

William Bird

Natural England

'Sustainable Development:
a Call for action'

Participants:

Name	Position/ organisation
Kate Ardern	Associate Director of Public Health, NHS North West
Danila Armstrong	Department of Health
Frances Bain	Active Travel Programme Co-ordinator, Sustrans Scotland
Stephen Battersby	Chartered Environmental Health Practitioner &
	Environmental Health & Housing Consultant
Martin Baxter	Technical Director, The Institute of Environmental
	Management and Assessment
John Beal	UKPHA Trustee Yorkshire & Humber Region
Sheila Beck	Public Health Adviser, NHS Scotland
William Bird	Strategic Health Adviser, Natural England
Angela Blair	Food Access Manager, Joint Policy Unit, Sandwell PCT
Karen Bollan	Manager, National NGO Forum & Royal Society for Health
John Boswell	Convenor of Scottish Forum for Public Health &
	NHS Lanarkshire
Lindsay Bramwell	Institute of Health and Society, University of
	Newcastle-upon-Tyne
Kate Burton	Public Health Manager, NHS South West
Heather Chapple	Enabling Adviser, Architecture & Design Scotland
Tim Chatterton	Senior research Fellow, Air Quality Management Resource
	Centre, University of the West of England
Rowena Clayton	Specialist on Public Health Organisation, Department of
	Health west Midlands
Jane Cook	Hope Project
Colin Cox	Ast Director, Joint Health Unit, Manchester City Council
Ceri Daugherty	Senior Countryside Officer, Countryside Council for Wales
Mark Dooris	Director, Healthy Settings Development Unit, Lancashire
	School of Health & Postgraduate Medicine
Nick Doyle	Clinical and Public Health Analyst, National Institute for
	Health & Clinical Excellence
Yvonne Doyle	Regional Director of Public Health, SE Public Health Group
Chris Drinkwater	President, NHS Alliance & UKPHA Trustee North East region
Margaret Eames	Bedfordshire & Hertfordshire PHI Unit
Sue Francis	Special Advisor on Health, Commission for Architecture
	and the Built Environment
Paul Fryers	Doncaster East PCT
Andrew Furber	Honorary Senior Clinical Lecturer & Consultant in Public
	Health Medicine, Sheffield PCT
Martin Gibbs	Local Government & Communities Manager for HID
	(Health Inequalities), Department of Health
Gillian Gibson	Environmental Scientist, Liverpool John Moores University &
	Independent Consultant
Linda Gibson	Senior Lecturer in Public Health, Nottingham Trent University
Marcus Grant	Research Fellow, WHO Collaborating Centre for Healthy
	Cities and Urban Policy
Sylvia Gray	Sustainable Scotland Network
Jenny Griffiths	Independent Consultant & UKPHA Trustee SE Region
Rod Griffiths	President, Faculty of Public Health
Hilary Guite	Consultant in Public Health, Greenwich TPCT
Jonathan Harris	Assistant Regional Director of Public Health
Dominic Harrison	Deputy Regional Director of Public Health North West
Cathy Higginson	NHS Health Scotland
Mayer Hillman	Senior Fellow Emeritus, Policy Studies Institute
Nathalie Holmerin Bartfay	Development Officer, UKPHA Scotland

Liam Hughes	National Adviser for Healthy Communities, Improvement and Development Agency
David Hunter	Chair, UKPHA Professor of Public Health, Univ of Durham
Dyfed Huws	Cardiff Centre for Health Sciences Research
Philip Insall	Director, Active Travel, Sustrans
Peter Jeffs	Corporate Dir. -Communities, East Devon District Council
Damian Killeen OBE	Co-Ordinator, Sus It Out, Future Scotland Partnership
Marie-Claire Lobo	Specialist Registrar, Public Health Medicine, Portsmouth City TPCT
Larissa Lockwood	Policy Analyst, Health & Sustainable Development, Sustainable Development Commission
Hermione Lovel	East of England Public Health Group, Department
Jeni MacKay	Sus it Out, Future Scotland Partnership
David Maslin	North Somerset PCT
Angela Mawle	Chief Executive, UKPHA
Ann McCarthy	Senior Lecturer, Division of Criminology, Public Health & Policy Studies, Nottingham Trent University
Gerry McCartney	Specialist Registrar in Public Health, NHS Greater Glasgow and Clyde
Joan Miller	Barnsley PCT
Graham Moore	Public Health Strategy Manager, Bradford & Airedale TPCT
George Morris	Scientific Policy Adviser, Scottish Executive, Health Department
Aldo Mussi	Senior Lecturer in Health Development, Faculty of Health, University of Central England
Jayne Norwood	Community Health Manager, Gateshead Council
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Appendix C: Sources and Further Reading

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