The health potential of the Objective 1 Programme for West Wales and the Valleys:

A preliminary health impact assessment

Cynulliad Cenedlaethol Cymru
The National Assembly for Wales

Ceri Breeze
Health Promotion Division
The National Assembly for Wales

Dr John Kemm
Welsh Combined Centres for Public Health

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Foreword

Action to improve the health of people in Wales is developing apace. Our strategy includes a proactive approach to promoting health and well being, action to further improve our health services, and wider action to address the social and economic determinants of health. This report is another important step forward.

Better Wales, the Assembly's strategic plan, features health and well being as one of its priorities. Our goal is an integrated approach where policies and programmes add value to each other. We believe that health impact assessment can help us to do this by ensuring that health is taken into account in policy and decision making processes and by helping to identify new opportunities to promote and protect people's health.

At the end of last year, I announced the Assembly's plans for health impact assessment with the publication of a new document *Developing health impact assessment in Wales*. The document was endorsed by all Members of the Assembly's Cabinet reflecting our commitment across policy areas. Action is in hand to introduce it to organisations in the public, private and voluntary sectors for use in connection with their policies and programmes.

The Objective 1 Programme for West Wales and the Valleys is a major development which will lead to economic regeneration and growth. We know that this will in itself help to improve people's health but the converse is also true. People's health and well being is fundamental to sustainable economic growth as it is people who underpin the process of wealth creation. Investment in improving people's health is therefore a contribution to economic development. The Programme reflects this by supporting many actions which could lead to healthier lifestyles and which help individuals to overcome barriers to labour market participation and the take up of new job and training opportunities.

I consider this report to be important for a number of reasons. First, it demonstrates our commitment to applying health impact assessment to policies and programmes. Applying the health impact assessment approach to a programme as broad as Objective 1 proved a major challenge but also a valuable learning experience and one that we are keen to share with others in Wales and elsewhere. Second, and perhaps more importantly, this report highlights the relevance of the Objective 1 Programme to health and identifies the likely health impacts.

As the report shows, the Objective 1 Programme has considerable potential to improve people's health and, by way of its focus on disadvantaged areas, to reduce the inequalities in health that are evident in the area. I wish to ensure that every advantage is taken of opportunities to integrate health appropriately within the wide range of action to be supported by the Objective 1 Programme. To this end, I urge all Programme Partners and those preparing project proposals to work with local public health and health promotion staff to achieve this. Using this report as a base, further guidance is being prepared to assist organisations to consider how health can be integrated into projects.

Jane Hutt
Assembly Secretary for Health and Social Services

1. Introduction

1.1 Wales will receive substantial support from the Structural Funds of the European Community between 2000-2006. Over the period, around £1.2 billion of European aid will be available towards a total programme of £2.4 billion[1]. The support includes Objective 1 funding for West Wales and the Valleys - an area covering 64% of the total population of Wales and 15 of its 22 local authorities.

1.2 The goal of Objective 1 is economic development. The Programme will target assistance at deprived communities in the area's rural, urban and valley environments[2]. Rural communities will also receive support to tackle particular problems of peripherality.

1.3 Broadly speaking, economic growth - more job opportunities for example – is good for people's health. The significance and scale of the Objective 1 Programme means that it has considerable potential to contribute to improvements in people's health and well being, and to reduce inequalities in health.

1.4 This report is a preliminary health impact assessment of the Objective 1 Programme. It does not attempt to provide a detailed assessment of the impact on health of the entire Programme and its component parts nor does it attempt to forecast its impact on health in quantifiable terms. Such action would require time and resources well in excess of those available for this exercise. The report responds directly to a number of identified needs, namely:

- To highlight the Programme's relevance to health and well being and to identify, in broad terms, its potential impact on people's health and well being;
- To provide a base to consider, where appropriate, the need for further action to investigate the impact on health of specific elements of the Programme and to identify how health impact assessment can be used to aid planning and decision making in order to realise the Programme's health improvement potential;
- To consider action to monitor the longer-term health impact of the Programme and / or its component parts;
- To gain experience of applying health impact assessment to a major, and complex, programme;
- To respond to the interest of the Assembly's South East Wales Regional Committee in the Programme's impact on health and inequalities in health.

1.5 The draft Objective 1 Programme Complement Document[3] was used as the basis for this assessment.

Health impact assessment in Wales

1.6 Factors such as employment, income, housing and social cohesion are acknowledged as having a much greater effect than health services on the health of people and communities[4]. The National Assembly for Wales is committed to tackling the underlying factors that lead to poor health as part of action to improve the health of people in Wales. Consequently, better health and well being is one of the priorities of *Better Wales*[5], the Assembly's strategic plan.

1.7 The Assembly is committed to developing the use of health impact assessment[6]. The aim is to ensure that policies and programmes not only protect people's health but produce as far as possible, a positive benefit for people's health.

1.8 The benefits of health impact assessment for the Assembly are seen as:

i) a means of reinforcing the move towards integrated policies and programmes by ensuring that health is taken into account in planning and decision making;

ii) raising awareness of health across policy areas thus helping to ensure that decisions are informed by consideration of the potential impact(s) on health;

iii) adding value to policy and decision making processes thus resulting in better decisions in terms of their potential contribution to improving health and identifying new opportunities to promote health across the range of policy and programme areas.

1.9 The Assembly set out its plans to develop the use of health impact assessment in a document published at the end of 1999[7]. The purpose of the document, which was endorsed by all Members of the Assembly's Cabinet, was twofold. First, it sought to raise awareness of the health impact assessment concept. Second, it provided a base for a development programme to explore the use of health impact assessment. This report is part of the development programme.

1.10 Health is not the only crosscutting issue for the Assembly. The other major themes - sustainable development, tackling social disadvantage, and equal opportunities – are pre-requisites for health and well being. The aim is to move towards an integrated impact assessment approach where the Assembly's policies and programmes are considered against all major themes including health and well being. Developing methods and tools to do this is a challenge but the experience gained from the use of health impact assessment will contribute to the process.

Relevance to European Community policies and programmes

1.11 Health impact assessment is of increasing relevance to the European Community. The European Community's competence in health is not confined to specific actions in the field of public health. Article 152 of the Amsterdam Treaty[8] strengthens considerably the health dimension of European Union policy and gives greater prominence to health protection requirements. It introduces a reinforced obligation to ensure a high level of health protection in the *definition* and *implementation* of all Community policies and activities. At the same time, the scope of the public health article has been broadened to encompass action directed at improving health and obviating sources of danger to human health.

1.12 It is in the interests of the Commission itself, the other Community Institutions and Member States to demonstrate clearly how health requirements are integrated into Community policy or activities and for information on the impact of a given policy on health and its health consequences to be sought[9].

1.13 The Health Council, the European Commission and the European Parliament have all highlighted the importance of health impact assessment[10,10a,10b]. In its Communication on the European Community's health strategy, the Commission explains that various instruments are being introduced to ensure that health is given due weight in the development and implementation of Community policies and actions. The Health Council urges Member States to contribute to Community-wide work by assessing, at national level, the health impact of Community policies and activities and by informing the Commission about the development of intersectoral policy at national level. This is particularly relevant to the Assembly given its integrated approach to policies and programmes.

1.14 The European Community's health strategy also cites the importance of developing criteria and methodologies in order to be able to assess the potential impact on health of policy proposals. Pilot projects are planned. This report should therefore be of interest outside Wales.

Preliminary health impact assessment

1.15 Health impact assessment has been described as a combination of procedures, methods and tools by which a policy, program or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population[11]. The literature on the development and application

of health impact assessment, and on the links between health and other forms of impact assessment e.g. environmental impact assessment, is growing.

1.16 It is not possible at this stage to consider the health impact of specific actions to be implemented by the Programme - as these will be determined by actual project proposals. The use of health impact assessment for this purpose will be discussed as part of action following this report. However, the Programme Complement Document provides an appropriate and useful foundation on which the relevance to health of the Programme and its component parts, and the potential impacts, can be assessed.

1.17 The scale of the Objective 1 Programme and the breadth and depth of its measures meant that it was not possible for this report to examine the full extent of its impact on people's health. The report provides a platform on which further action can be considered. This may include further in-depth investigation of specific elements of the Programme and action to try and measure the actual impact over the duration of the Programme. The overall aim should not only be to mitigate any negative effects on health of programme developments but also to maximise opportunities to improve health.

1.18 Health impact assessment emphasises the participation of stakeholders in the process. The short timescale available for this exercise meant that stakeholder involvement was delayed until the draft of this report was available as a platform for discussion of the Programme's potential health impacts.

1.19 For these reasons, it seemed appropriate to describe this report as only a preliminary health impact assessment. This implies, correctly, the need for further work involving stakeholders and this is included in the recommendations.

2. The Objective 1 Programme

2.1 This chapter describes the Objective 1 Programme and its component parts, the Programme's stakeholders and its target groups. It provides the foundation for this initial assessment of the potential impacts of the Programme on people's health and well being.

2.2 The aim of the Objective 1 Programme is economic development and the Programme is based around a series of actions geared towards achieving this. The Programme was shaped by the preparation of a Single Programming Document, the production of which started in May 1999. The document set out Wales' proposals for its Objective 1 Programme and provided the basis for negotiations with the European Commission.

2.3 The Single Programming Document was based on a detailed socio-economic analysis of the West Wales and the Valleys area. The resulting strategy included:

- Priorities - which identify the main development themes;
- Measures - which describe in broad terms the type of action necessary to make progress against the priorities
- Crosscutting themes

Programme Complement Document

2.4 As part of the Structural Funds Programme, the approval of the Single Programming Document is followed by the preparation of a Programme Complement Document. In its final form, the document is expected to contain:

- Full details of measures including target and indicators, and likely impact;
- Draft selection criteria for projects;
- Fields of intervention – types of action to be supported;
- Lists of final beneficiaries – recipients of Programme funds;
- Programme financial tables and publicity measures;
- Arrangements for the electronic exchange of monitoring and evaluation data between the Assembly and the European Commission.

Stakeholders

2.5 Health impact assessment encourages the involvement of all stakeholders. Stakeholders in the Objective 1 Programme include the following (not in any specific order of priority):

- The National Assembly for Wales (officials and elected Members) including:
  - Policy Divisions e.g. European Affairs Division; Health Promotion Division; Public Health Division; NHS Directorate;
  - Subject Committees e.g. Economic Development Committee; Health & Social Services Committee;
- Wales European Funding Office – established to implement, manage and monitor the Objective 1 Programme;
- Monitoring Committees - including the Objective 1 Monitoring Committee and local monitoring committees established by partners in the Objective 1 Programme;
- Statutory national and local public sector organisations including:
  - local authorities;
  - health authorities and health services providers;
  - the range of Assembly Sponsored Public Bodies.

- Voluntary and community sector organisations; individuals within the population;
- Private sector companies including businesses as service providers and as employers of local people;
- Potential project bidders including all programme partners and target beneficiaries for Programme measures – local authorities; public sector organisations; community and voluntary organisations; educational institutions; training providers; private sector companies;
- Members of Parliament (MPs) and Members of the European Parliament (MEPs) for Welsh constituencies;
- The UK Government;
- The European Commission.

2.6 Levels of awareness of health and well being and the relevance and potential impact on health of the Objective 1 Programme and its component parts vary between the groups listed above.

2.7 The involvement and participation of stakeholders is emphasised in most guides on the process of impact assessment. It is hoped that this preliminary assessment will provide the base for this to happen so that, where possible, opportunities can be identified to enhance the Programme's health improvement potential.

Target groups

2.8 The target groups for some measures will be individual businesses and service providers. Other measures will target individuals with specific needs including people whose circumstances may prevent or inhibit their ability to take advantage of employment, learning or training opportunities. There will be special emphasis on the following groups (no specific order of priority):

- Disabled people
- People with mental health problems
- People with substance misuse problems

- People from ethnic minority groups
- Older people

- Young people making the transition from education to working life
- Young people or adults at risk of becoming unemployed or long-term unemployed
- Young people without skills, or with low levels of skills, including those who have never worked
- Disaffected young people and those at risk of disaffection
- Young people leaving care
- Teenagers with children

- People with basic skills needs
- People who require help to overcome problems of confidence or self-esteem
- People who lack appropriate skills to return to work or have no, or outdated, qualifications

- Long term unemployed – young people and adults
- People who are economically inactive
- Partners of unemployed people; people in households where no-one is in paid employment
- Returners and potential returners to the labour market including women

- Refugees and asylum seekers
- Homeless people and rough sleepers
- People coming to the end of a custodial sentence
- People disadvantaged by living in isolated communities

Objective 1 Programme – priorities and measures

2.9 The following table uses the wording from the Programme Complement Document:

Table 1: Objective 1 Programme: priorities and associated measures

Priority 1: Expanding and developing Small and Medium Enterprise Base	
Measure 1	Financial support for SMEs
Measure 2	Promoting entrepreneurship and increasing the birth rate of SMEs
Measure 3	Developing competitive SMEs
Measure 4	Promoting adaptability and entrepreneurship
Measure 5	Providing sites and premises for SMEs

Priority 2: Developing innovation and a knowledge based economy	
Measure 1	Information and communications technology (ICT) infrastructure
Measure 2	To stimulate and support demand for ICT
Measure 3	Support for the development of innovation and research and development
Measure 4	Skills for innovation and technology
Measure 5	Clean energy sector developments

Priority 3: Community economic regeneration	
Measure 1	Community action for social inclusion
Measure 2	Partnership and community capacity building
Measure 3	Regeneration of deprived areas through community led action
Measure 4	Support for the creation and development of businesses in the social economy

Priority 4: Developing people	
Measure 1	Preventative and active employment measures
Measure 2	Social inclusion
Measure 3	Lifetime learning for all
Measure 4	Improving the learning system
Measure 5	Improving the participation of women in the labour market
Measure 6	Anticipation and analysis of skill needs

Priority 5: Rural development and sustainable use of natural resources	
Measure 1	Processing and marketing of agricultural products
Measure 2	Training services to help farming adapt and diversify
Measure 3	Forestry
Measure 4	Promoting the adaptation and development of rural areas
Measure 5	Investment in agricultural holdings
Measure 6	Promoting local economic development
Measure 7	A sustainable countryside enhancement and protection of the natural environment and country side management
Measure 8	Support for recreational opportunities and management of the natural environment
Measure 9	Support for fisheries and aquaculture

Priority 6: Strategic infrastructure development	
Measure 1	Accessibility and transport
Measure 2	Energy infrastructure
Measure 3	Strategic employment sites
Measure 4	Environmental infrastructure

Priority 7: Technical assistance	
Measure 1	Promoting effective programme management
Measure 2	Raising awareness of the programme
Measure 3	Research

2.10 The last priority above – Technical Assistance – is an enabling mechanism for programme implementation and management. It includes provision for research to operationalise elements of the Programme and support for events – seminars and workshops – for programme development. While relevant in that it may provide a means of facilitating action that follows this report, it has been excluded from the assessment of the Programme's impact on health.

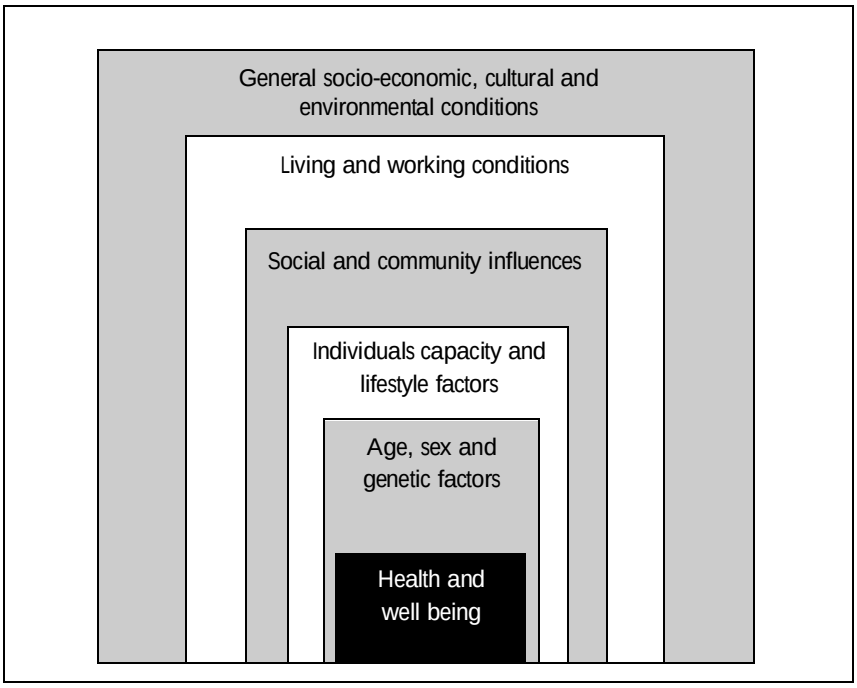
3. Determinants of health

3.1 Health impact assessment is informed by the view of health in the World Health Organization's constitution[12] as being "a state of complete physical, mental, and social wellbeing and not merely the absence of disease and infirmity". Health impact assessment is thus concerned with far more than death or incidence of disease.

3.2 This preliminary assessment is based on the Objective 1 Programme Complement Document. Screening of the priorities and measures enabled a number of factors which impact on health to be identified.

3.3 A set of overarching determinants of health proposed by Dahlgren and Whitehead[13] has been used as a framework to explore the different paths through which the Objective 1 Programme could be expected to impact on people's health. The framework, illustrated in Diagram 1, emphasises that an individual's health depends not only on biological factors and lifestyles but also on factors that operate at several different levels, for example: the circumstances in which people live, employment status, their immediate environment, their family, community links, and wider local, regional and national socio-economic factors.

Diagram 1: Overarching determinants of health as a frame for assessing the impact on health of the Objective 1 Programme



Ref: Modified from: Whitehead M (1995) Tackling inequalities: a review of policy initiatives. Chapter 3 in Benzeval M, Judge K, Whitehead M.(Eds) Tackling inequalities in health: an agenda for action. London: Kings Fund.

3.4 Some of the actions supported under the Objective 1 Programme do not fit comfortably into a single level. For example waste disposal and transport systems affect both the general environmental level and the living conditions level. However, for the sake of simplicity each action has been allocated to a single level for discussion in this report.

3.5 The main impacts on health of the Objective 1 Programme will be indirect; for example measures that lead to a reduction in unemployment or increased social cohesion. Unemployment and social cohesion are therefore referred to as intermediate factors because the health impact is mediated through them. In other contexts intermediate factors are often referred to as determinants of health.

3.6 Table 2 shows the various intermediate factors (or determinants of health) that operate at the different levels.

Table 2: Factors affecting health by broad determinants.

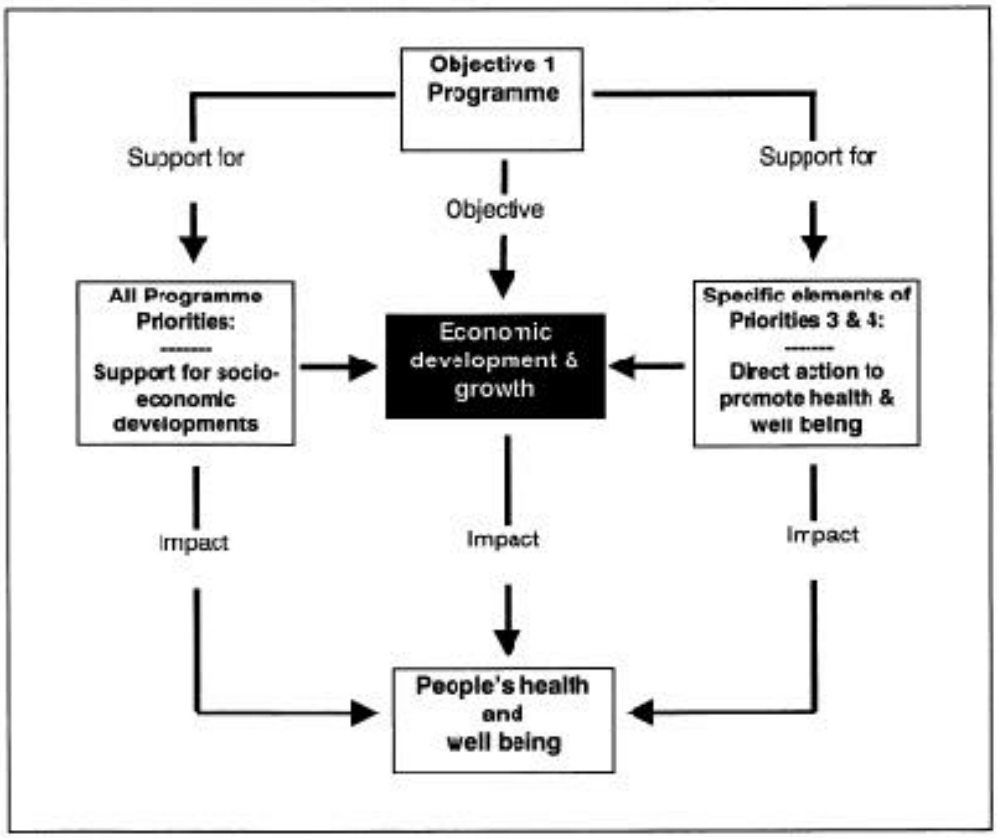
Level	Intermediate Factors (Determinants of Health)
General socio-economic, cultural and environmental	Macro-economic GDP, state of economic development. General policy climate.
	Environmental Biological diversity, sustainability. Transport systems; global climate.
Living and working conditions	Work Employment, workplace conditions, occupation, income.
	Living conditions Built environment, civic design and planning, housing. Noise, smell, air and water quality, physical view and outlook. Public safety, waste disposal, road hazards, play spaces.
	Services Medical services, caring services, careers advice and counselling, shops and commercial services, public amenities / facilities, and services.
	Access to information and communication technology.
Social and community influences	Community Peer pressure Social support mechanisms, social networks, neighbourliness. Degree of isolation. Cultural and spiritual ethos.
	Family Structure and function. Parenting.
Individuals' capacity and lifestyles	Capacity Skills and knowledge including vocational and non-vocational training.
	Lifestyles - health behaviours Smoking, nutrition and healthy eating, physical activity, alcohol, drug misuse, sexual health. Propensity to use health and caring services.
Individuals' constitution	Age, sex & genetics

4. Health and Objective 1

4.1 Health and well being features in several chapters of the Objective 1 Single Programming Document. In the socio-economic analysis undertaken as part of the programme development process, health – more specifically sickness and ill-health – was considered to be a contributory factor to Wales' lower levels of economic activity and as an identified barrier to economic development.

4.2 The Objective 1 strategy identified the need to tackle poverty, social exclusion and the health problems they cause. It highlighted the need to integrate programmes to promote better health into community development initiatives and into measures to increase economic activity. Consequently, two of the Programme's priorities – Priority 3 Community Economic Development and Priority 4 Developing People – will support direct action to improve individuals' health and well being, and action to promote healthier lifestyles as a means of improving people's prospects of living long, healthy and economically productive lives.

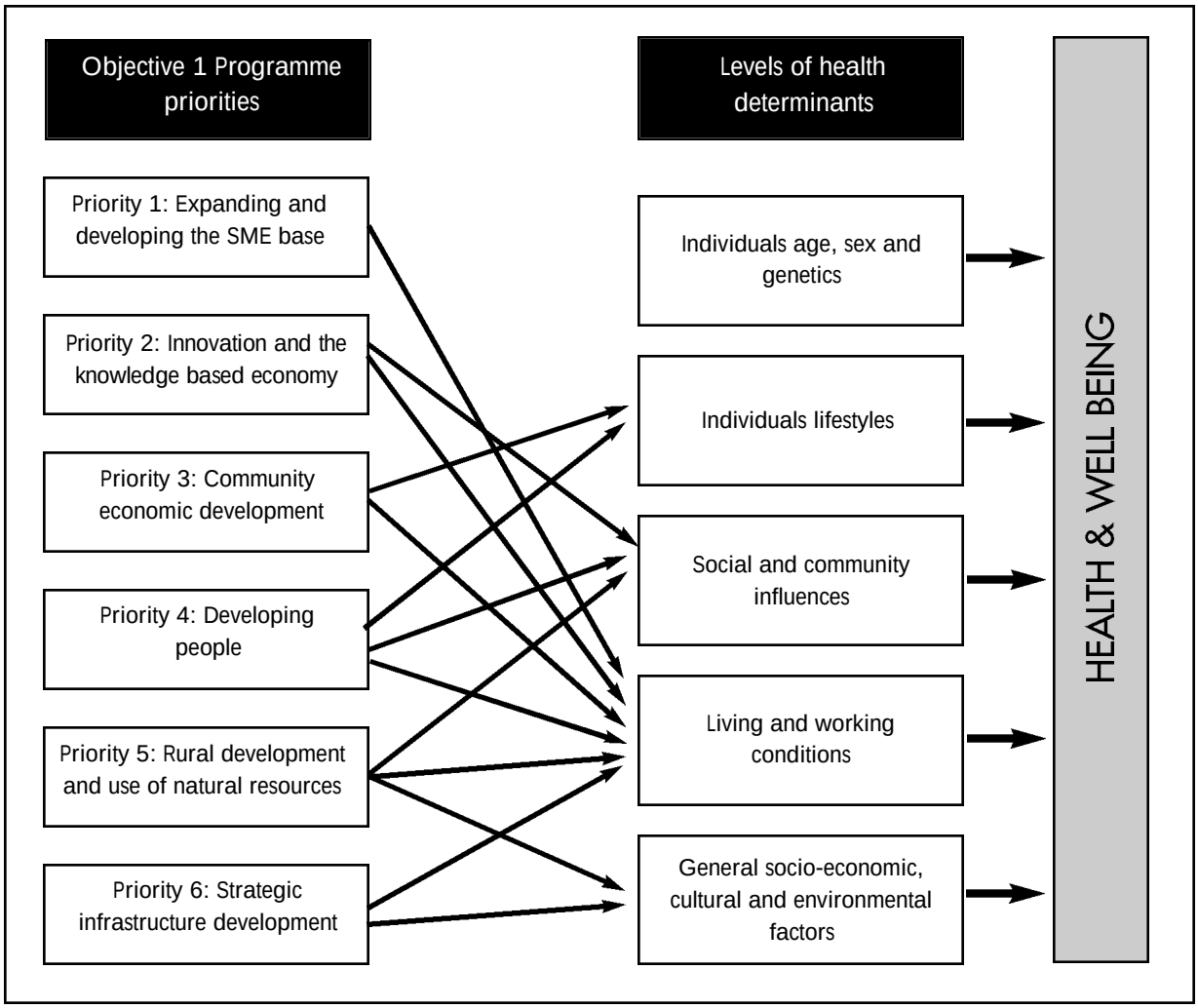
Diagram 2: Broad relationship between the Objective 1 Programme and health



4.3 The relationship between health and the Objective 1 Programme can be considered in three main ways. First, economic growth generated by the Programme is likely to have a positive impact on people's health and well being. Second, other developments supported by the Programme – improvements to the social and economic infrastructure for example – are also likely to impact on people's health. Third, the Programme provides support for direct action to improve people's health and well being, and lifestyles. This third strand recognises that, in order for some individuals to be able to participate in labour market and economic activity and to benefit from job, training and other opportunities that are generated, they will need help to address health-related problems.

4.4 The breadth of the Objective 1 programme means that its priorities and measures affect health through many paths. Diagram 3 maps the priorities of the Objective 1 programme onto the different levels of health determinants.

Diagram 3: Relationship between priorities of the Objective 1 Programme and the broad determinants of health



4.5 The Programme's priorities and measures impact upon every level of health determinants except individual's constitution i.e. age, sex and genetics.

4.6 The analysis of likely impacts can be taken down to the more detailed measures (listed in Table 1) under each priority. The matrix in Table 2 plots the measures against the determinants of health. The wording in the Programme Complement Document, together with consideration of the context in which it was set, was used to identify the broad links between the Programme's component parts and health. Some links may have major impacts while for others, the impacts may be smaller. However, it is outside the scope of this report to distinguish between them in terms of the degree of impact.

Table 2: Relationship of Objective 1 measures to intermediate factors affecting health

		Factors influencing or determining health						
		General economic, environment	Living & Working Conditions			Social & Community Influences	Individual	
			Work	Living conditions	Services & ICT		Capacity	Lifestyles
Priority 1	Measure 1		X					
	Measure 2		X					
	Measure 3	X	X					
	Measure 4		X		X		X	
	Measure 5	X	X					
Priority 2	Measure 1		X		X	X		
	Measure 2				X			
	Measure 3	X	X	X				
	Measure 4	X	X	X			X	
	Measure 5	X	X	X				
Priority 3	Measure 1		X		X	X	X	X
	Measure 2		X			X	X	X
	Measure 3	X		X	X	X	X	X
	Measure 4		X		X	X	X	
Priority 4	Measure 1		X		X	X	X	
	Measure 2		X		X	X	X	X
	Measure 3				X	X	X	
	Measure 4				X		X	
	Measure 5		X			X	X	
	Measure 6							
Priority 5	Measure 1		X					
	Measure 2	X	X				X	
	Measure 3	X	X					
	Measure 4	X	X	X	X		X	
	Measure 5		X					
	Measure 6	X		X	X		X	
	Measure 7	X		X				X
	Measure 8	X		X				X
	Measure 9		X					
Priority 6	Measure 1	X	X					X
	Measure 2	X		X				
	Measure 3	X	X					
	Measure 4	X	X					

Note: Priority 4, measure 6 is a research action primarily geared towards organisations.

5. General socio-economic, cultural and environmental conditions

5.1 It was outside the scope of this preliminary assessment to identify the precise effects or impacts of the Programme on health or to attempt to quantify the impact(s). This chapter and the following chapters provide an overview of the Programme's potential impact on the determinants on health. It does not constitute a full literature review of the evidence, which would have required considerably more time and resource than that available for this report.

5.2 The aim of the Objective 1 Programme is economic development. Chapter 4 identified that the Programme is likely to impact on most determinants of health and thus offers considerable potential to contribute to improving people's health directly and indirectly. Realising the Programme's potential to improve health and to contribute to reducing inequalities in health will depend on maximising the positive consequences and minimising any potential negative impacts.

Natural Environment

5.3 The quality of the natural environment is important to people's health and well-being. Two elements of the Programme - waste management, and sustainability and biological diversity - contribute to care of the environment. Waste management is specifically mentioned or implied in the following measures:

	Priority	Measure
Use of recyclate products	2	3
Research into waste to energy schemes	2	5
Reduce and manage sustainable waste generated in the countryside	5	7
Development of waste reclamation facilities, energy from waste plants, large scale composting facilities and recycling industrial parks	6	4

5.4 Measures that encourage sustainability and biological diversity are:

	Priority	Measure
Encourage firms to use best environmental practice	1	3
Sites which incorporate the most modern environmentally friendly technologies	1	5
Promote wider application of clean technologies	2	3
High level skills to support increased use of clean technologies	2	4
Training for farms on environmental management	5	2
High quality environmentally sensitive woodland management	5	3
Improve physical environment of villages and rural heritage	5	4
Environmental improvements	5	6
Improve the management of countryside access to protect the environment and promote the enjoyment, awareness and interest of the public	5	7
Enhance beaches, coastal water quality; manage coastal / marine wildlife habitats; improve riverine habitat	5	8
Strategic employment sites without loss of environmental quality	6	3
Remediate contaminated land and polluting discharges of water from abandoned mines	6	4

The natural environment and people's health and well being

5.5 The natural environment is relevant to health because of environmental amenity; early warning of threats to human health and maintenance of the ecosystem.

5.6 People value a high quality natural environment with a rich diversity of flora and fauna for recreational purposes and for the intangible benefits offered by natural environments. They are worried by threats to the natural environment and feel good to know that biological diversity exists. For this reason, high quality natural environments impact positively on mental health.

5.7 Environments damaged by pollutants in air, water and soil put at risk the physical health of humans although many plant and animal species may show damage before humans due to greater susceptibility or exposure to higher levels of pollutants. These other species may be considered to act as indicators of increasing hazards for humans. Decline in health of these species could be a warning that human health may also be in danger.

5.8 Human life depends on ecosystems. There are already signs that ecosystems are being stressed by depletion of non renewable resources, saturation of pollution sinks, degradation of cultivable soils, depletion of aquifers and water systems, and reduced biological diversity. These are primarily due to economic activity.

Potential health impact(s): Measures that focus on environmental management, improvement and sustainability should impact positively on people's physical health and mental health and well being.

Sustainable energy production

5.9 Energy production is specifically referred to or implied in the following sections of the programme complement document.

	Priority	Measure
Research waste to energy schemes; strengthen the clean energy R&D base	2	5
Training related to biomass and energy crops	5	2
Energy production from forestry products	5	3
High efficiency and clean electricity production plants.	6	2

Global warming

5.10 The concern that global temperatures are rising due to the emission of "green house gases" (carbon dioxide, methane, chloroflurocarbons and other gases) is well documented. Carbon dioxide is considered to be, quantitatively, the most important[14 15 16]. Human activity, particularly the burning of fossil fuels and felling of forests has significantly increased carbon dioxide emissions. Fossil fuel use per head is much greater in developed countries than in developing countries though in the latter it is rising fast and likely to continue rising.

5.11 The time scales of atmospheric systems are very long and the consequences of emissions today will have maximal effect on the atmosphere and temperature in about 70 years time. As part of the agreement reached by world Governments at Kyoto, the UK Government has undertaken to reduce emissions of green house gases by 12.5% and carbon dioxide by 20% by 2010 compared to 1990 levels[17]. 28% of UK

CO^2 emissions come from domestic energy use[18]. Increased economic development has in the past been associated with increased emissions of greenhouse gases. To reduce emissions at the same time as increasing economic activity requires new ways to be found of using energy more efficiently and producing it using less fossil fuel and less carbon emission.

Cleaner energy technologies

5.12 Conventional electricity generation plants tend to be located away from immediate residential areas. Renewable energy technologies are more likely to be small scale and are frequently located in rural settings. Wind generators cause noise and are considered by some to be visually intrusive. Biomass systems require the transportation of large volumes of biomass and may increase traffic movements by heavy good vehicles along rural roads.

5.13 Waste incineration may also have negative impacts on health unless controlled to ensure that hazardous substances such as dioxins are not emitted.

Potential health impact(s): The development of cleaner energy sources and the reduction of CO^2 emissions will contribute to health by combating the threat posed by global warming, and by helping to improve urban and rural air quality. Negative impacts may include reduced amenity of sensitive areas as a result of visual intrusion, increased noise, and/or increased traffic movements.

Transport

5.14 Transport is relevant to health in terms of living and working conditions in addition to the wider socio-economic context. It features in the following measures:

	Priority	Measure
Work premises accessible by safe public transport	1	5
Promotion of community based transport schemes	3	3
Support for community transport in rural areas.	5	6
More convenient public transport; cycle ways	6	1

5.15 Transport has both negative and positive impacts on health. On the one hand, transport enables people to have access to services and increased choice of work and social activities. In isolated rural areas, access to transport is particularly important. On the other hand, transport can impact negatively on others[19]. Air pollutants from cars and lorries (carbon monoxide, oxides of nitrogen (NOx) volatile organic compounds (VOC) and particulates (PM_{10}) reduce air quality locally and more widely. Under certain circumstances, NOx and VOC catalyse photochemical reactions leading to the formation of ozone.

5.16 In higher levels, pollutants cause asthma and other respiratory conditions and are associated with increased mortality. Noise from traffic is a nuisance and may contribute to poor mental health and cardiovascular disease. Busy traffic routes can sever communities and prevent the occupation and enjoyment of common space. Furthermore, traffic is a cause of injury. Most impacts of traffic are born by pedestrians and cyclists including disproportionate numbers of women, children and the elderly. Although child road injuries have fallen, this is more due to children ceasing to use the road (taken to school and other places by car) rather than a reduced risk from traffic. There are also negative health impacts on car users. They are exposed to higher levels of pollutants than those outside the car and may also encounter the negative health effects of reduced physical activity.

5.17 Improving public transport can encourage people to take a little more physical activity by walking from their start point to the boarding point and from the alighting point to their final destination. Increased walking or cycling for short journeys can also reduce traffic density, which in turn reduces air pollution. Improvements in public transport, particularly in rural areas, would have a positive health impact.

Potential health impact(s): Public transport improvements resulting from the Programme can be expected to have a positive impact on people's health – particularly those living in disadvantaged areas - by improving accessibility to employment and training opportunities, goods and services, and by reducing isolation. Reduced traffic volumes would bring with it prospects of reduced pollution and noise. Transport developments may have a negative impact on the health and well being of those living near new road developments unless action is taken to minimise the effect(s). The quality of life of communities affected by heavy traffic would be improved by provision of alternative routes.

6. Living and working conditions

Employment and unemployment

6.1 The following measures are geared specifically towards creating more employment opportunities, better quality (higher skilled / higher paid) jobs and assistance to help disadvantaged people into work :

	Priority	Measure
Improved business survival; establish new ventures	1	1
Establishment of new businesses	1	2
Improved turnover and profitability for businesses	1	3
New jobs in IT related business	2	1
Growth of companies in the new technology sector	2	3
New jobs in clean energy sector	2	5
New jobs in social economy business	3	4
Jobs for long term unemployed people; prevention of long term unemployment; jobs for young people	4	1
Remove barriers to employment for people with disabilities, mental health problems and other socially excluded groups	4	2
Employment for women	4	5
Safeguarding agricultural employment	5	1
Economic development and jobs in forestry	5	3
More jobs in rural areas; basic services; tourist and craft	5	4
Pump priming of new business activities	5	5
Jobs in infrastructure construction	6	1
Jobs at new strategic employment sites	6	3
Long term job opportunities at preferred locations based on sustainable development principles.	6	4

6.2 Unemployment is a significant determinant of health. The association between ill health and unemployment is well recognised[20 21] . Unemployed persons experience a higher mortality from all causes[22] including suicide[23] , higher rates of physical and mental ill health, and higher rates of symptoms[24]. The children and spouses of unemployed people also experience higher illness rates than those of employed people.

6.3 The degree of harm caused by unemployment appears to depend on the circumstances. There is some evidence that being unemployed is less damaging to an individual's health in communities where unemployment rates are high than in communities where rates are low[25]. However, other studies do not show the unemployed to suffer any less harm in times of recession[26]. Economic modelling has demonstrated that unemployment, along with long and short-term economic growth, predicted most of the observed changes in mortality[27].

6.4 There are many plausible reasons why unemployment damages mental and physical health. These include lower income, loss of social contact, increased anxiety, reduced self esteem and loss of structure for the day. Unemployment may in part exert its influence on health through health related lifestyle such as smoking and drinking. Several studies show an association of smoking[28] and binge drinking with unemployment in men[29]. However, longitudinal studies suggest that on becoming unemployed men are more liky to reduce consumption of cigarettes and alcohol[30].

Quantifying the effect of employment and unemployment

6.5 Simple extrapolation from the OPCS longitudinal study of mortality estimated that each increase of 2000 in men seeking work was associated with an extra 2 deaths per year of the unemployed men and an extra 1 death per year of their spouses[31]. However, ther estimates have produced different figures. Most studies have explored the health damaging effects of increasing unemployment. The health benefit effects of reducing unemployment have been less studied and cannot be assumed to be simply the reverse of increasing unemployment. Assessing the impact of unemployment on health is complicated by the reciprocal relationship between health and unemployment. Not only does unemployment increase the probability of ill health but ill health also increases the probability of unemployment.

Health problems caused by work

6.6 While employment is generally better for health than unemployment, there are health hazards associated with certain aspects of employment. The old industries of Wales, steel making and mining, had well recognised health hazards. Agriculture and forestry have one of the highest rates of death from occupational injuries[32].

6.7 Studies show that work accidents and occupational diseases cost national economies between 1.5 and 4% of Gross Domestic Product. The unpredictable nature of absenteeism from work has a negative effect on employers' productivity and competitiveness[33]. Consequently, safe workplaces and healthy employees are seen as essential ingredients of the European social model and a contribution to improving European competitiveness and productivity[34]. However, the European Commission have emphasised that the social nd economic benefits of safe and healthy workplaces need to be brought home to employers and employees alike.

6.8 Musculoskeletal disorders – a variety of sprain, strain and overuse problems affecting the body's muscles and joints – account for more cases of work-related ill health in Great Britain than any other health hazard[35]. Another cause of work-related illness is stress. The problem may be exacerbated by increased job insecurity and short term contracts. Poor management practices and particularly bullying in the workplace may have a negative effect on health and well being. Job insecurity has adverse consequences for health and has been shown to increase anxiety and depression, self-reported ill-health, heart disease and risk factors for heart disease[36 37 38]. Little control over one's work and lack of opportunities to use skills are particularly associated with low-back pain, sickness absence and the incidence of cardiovascular disease. Job quality and job security are important positive factors for health.

6.9 A particular problem is balancing responsibilities at work and home. Many employees also care for children or other dependents. Healthy working arrangements require that proper alternative care facilities be available while the employees are at work. The Programme recognises the importance of this to economic development and several measures are geared towards addressing it thus having a positive effect on health.

Potential health impact(s): Increased employment will generally impact positively on health. Job security in new employment opportunities is important to good health and well being as is job quality. Occupational health and safety, and positive action to promote better health, will benefit companies by improving productivity as well as benefiting individuals' health and well being. Good management practice is important to health at work and the Programme's measures to develop management skills should make a positive contribution in this respect. However, the business benefits – to companies and individuals – of improving health as an integral part of business management and development need to be brought home to employers and employees alike.

Income

6.10 Over and above the measures designed to generate more employment opportunities, the following measures refer specifically to action that could lead to increases in the income of individuals:

	Priority	Measure
Increased skills and earning power	1	4
Attract newer sectors which are likely to bring higher income	1	5
Increased skills and earning power	2	4
Income opportunities for socially excluded	3	1
Income opportunities in social enterprises	3	4
Income opportunities for women; reduce income differentials between men and women	4	5
Increased profitability of agricultural business	5	1
New income streams for farms	5	2
Diversification to improve agricultural incomes	5	5

6.11 The effects of increased income on health are complex. In general it would be expected to improve health by allowing more choice of housing, nutrition and leisure opportunities. It could harm health by leading to increased expenditure on smoking and alcohol. One of the most powerful effects is probably through increased self-esteem and feeling of control. Lower income is associated with higher mortality[39 40] poorer physical health[41] and poorer mental health. The work of Wilkinson[42] and others suggest that relative wealth is more important that absolute wealth and therefore that one of the most powerful health effects of income operates through self-esteem and position in the social hierarchy. To the extent that extra income reduces income inequalities, it would be expected to benefit health. However, an American study suggests that there is probably a long (15 years) lag period between any change in income inequality and effect on health[43].

6.12 Several health impact assessments have noted the difficulty of estimating the health impact of an increase in income of a specified amount. The same difficulty has been noted in an academic review[44]. However, low income in the context of parental poverty is important to the health of children and their health in adult life. Parental poverty is said to start a chain of social risk[45]. It starts in childhood with reduced readiness for, and acceptance, of school. It goes on to poor behaviour and attainment in school and leads to increased risks of unemployment, perceived social marginality and low status, low-control jobs in adult life.

Potential health impact(s): Increased income is likely to have a positive impact on the health of individuals and families by reducing hardship and, as a result, by contributing to improved psychological health. Wider benefits are likely to arise from a reduction in income inequalities as reduced income differentials could lead to a reduction in crime and intentional and unintentional injuries[46]. Furthermore, narrower income differentials are considered by some to be beneficial to productivity and associated with rapid diffusion of new technology, change, adaptation throughout society and with sustained economic growth.

Neighbourhood environment

6.13 The neighbourhood environment includes the built elements such as housing, streets and public spaces, environmental lighting, and social elements, some of which are detrimental e.g. litter, noise, and fear of crime. Air quality and similar environmental issues were covered in the previous chapter. The association between poor housing and poor health is well recognised[47 48] but other aspects of the built environment are also important. Access to safe play space is important for the health of children and their parents. Street

design, street lighting and defensible space influence the risk of crime and more importantly the fear of crime. Good urban design encourages social contact and contributes to mental health.

6.14 The Programme's measures include the following:

	Priority	Measure
Support for physical and environmental improvements including new buildings, services or facilities	3	3
Youth crime diversion activities	3	1
Community safety and preventative actions that address fear of crime	3	3
Renovation and development of villages (rural areas)	5	4
Environmental improvements in rural areas	5	6
Reduce risk of flooding for vulnerable communities	5	8

Potential health impact(s): Action stemming from the above measures to improve physical and other aspects of community environments, and to reduce risks and people's fear of specific risks, are likely to have a positive impact on people's health and well being.

Services

6.15 Access to health, welfare and other services has an important effect on quality of life. For those suffering from acute illness or injury speed of access to adequate health care makes a big difference to the prospects of recovery. For example it is well recognised with major injury that the treatment received in the first hour is critical[49]. For those with chronic illness, care and treatment received can influence the degree of disability suffered.

6.16 On a broader level, access to the wider services of caring, support and information / advice affects the quality of life of both recipients and informal carers. In rural areas, a lack of access to services may appreciably add to the distress caused by ill health. Information services can also contribute to developing the capacity of individuals and to helping them to make informed choices on health. These themes are covered in chapter 8.

6.17 The Programme includes a range of measures designed to develop new services, enhance existing services and / or improve access to services. Such developments can be expected to have a positive effect on people's health and well being.

	Priority	Measure
Support for the development of community-friendly advice and information services	3	1
Widen access to mainstream services in marginalised communities	3	3
Develop new businesses within the social economy providing services of social significance	3	4
Development of integrated advice, counselling, guidance and information services	4	1
Improving access to services	4	2
Cost effective enhancement of basic services for the rural population	5	4
Increase participation of social enterprises / services within the mainstream economy	5	6

6.18 The development of the social economy in deprived areas will also improve health by creating employment opportunities. It should also help to improve access to local socially significant services. For some communities, it may also improve access to affordable and fresh healthy foodstuffs. This would complement other actions to promote healthier lifestyles and help to overcome barriers that exist to individuals' ability to make healthier choices.

Potential health impact(s): Developing new and improved information, support and welfare services, and widening people's access to services and goods in disadvantaged and isolated communities, should impact positively on health and well being.

Information technology

6.19 The Programme aims to increase access to information and communications technology (ICT) and its use for learning and wider purposes via the following actions:

	Priority	Measure
Upgrade ICT skills	1	4
Increase public access points to ICT network; Increase coverage of ICT network	2	1
Support for utilisation of ICT; use technologies to benefit local communities as well as firms	2	2
Improve access to ICT	3	3
Expand use of ICT for delivery of learning	4	3
Provide ICT based and ICT enhanced learning facilities	4	4

6.20 Information technology provides opportunities to improve health and quality of life in a number of ways. It can help to overcome problems of isolation and physical separation. Innovative ways of working make possible new ways of combining home life and work.

6.21 Providing advantage is taken of the opportunities, the Programme's measures can help to improve the delivery of health information as part of developing learning facilities[50]. In this way it is empowering individuals by allowing them to obtain information and to develop their personal skills and knowledge for both vocational purposes and personal life skills including self-esteem and confidence building. Thus it affects another group of health determinants relating to individuals' capacity and lifestyles. These are covered in Chapter 8. It can support the development of healthy lifestyles by providing information and advice and support through the behaviour change process. Such systems have already been piloted in different settings.

6.22 The Programme's ICT developments may also help to improve individual's access to on-line services. ICT infrastructure improvements can clearly help to deliver better health services and while they will not be funded specifically for this purpose, the NHS and others should benefit from the improvement to the area's ICT infrastructure and from enhanced general services. Scope exists for the expertise necessary for modern medicine and health service to be delivered to remote and isolated communities by tele-consultation and for the health of vulnerable individuals to be monitored by remote means. The benefits of strategic developments to the ICT infrastructure within the West Wales and the Valleys area may therefore benefit the quality of ICT links used for health and medical purposes.

Potential health impact(s): Improved ICT infrastructure and associated developments in communities can benefit people's health and well being by improving communications and the delivery of health information, and by improving people's access to information and services. Whether stand alone developments or as an integrated part of wider information service developments, they represent positive potential impacts on health.

7. Social and community influences

Involvement in community and participation

7.1 The Programme includes a number of measures designed to strengthen and empower communities, increase social support mechanisms and counter the isolation suffered by some communities.

	Priority	Measure
Counteract isolation in certain communities	2	1
Increase participation in community / self help activities		
Support participatory cultural and recreational projects	3	1
Encouraging people to get involved in their communities	3	2
Encourage participation in a wide range of community activities leading to regeneration of deprived areas	3	3
Increase community support mechanisms e.g. personal finance / credit unions	3	4
Encourage participation in community lifelong learning	4	3
Tackling barriers to employment by providing community support mechanisms	4	1
Tailored / individualised support and assistance aimed at reduced isolation and exclusion	4	2
Support for carers	4	5

7.2 A theoretical basis for the health benefits of involvement has been provided by the notion of social capital[51]. Social capital may be defined as "features of social organisation such as networks, norms, and social trust that facilitate co-ordination and collaboration for mutual benefit."[52] Social capital is built by those conditions that facilitate the interaction and working together of community members. It is a resource on which members of a community can draw to improve their health or to cope with circumstances that threaten it. While there has been some criticism of social capital on the grounds that it confuses different characteristics of communities[53], the general desirability of people feeling a sense of belonging and trust with their community's not challenged.

7.3 Being involved with their community can give people a sense of being valued and makes them feel good about themselves. This common sense view is supported by hard evidence that time spent in purposeful activity[54 55] and increasing number of social contacts improves health and is associated with lower mortality[56 57 58].

7.4 Social cohesion – the existence of mutual trust and support in communities and in society – helps to protect people's health. Friendship, good social relations and a strong support network improve health at home, at work and in the community.

Potential health impact(s): The Programme focuses on strengthening community support mechanisms, increasing participation, and providing better information on, and access to, services. This should contribute to improving people's health and well being by improving their access to social and practical support locally and by helping them to overcome their specific problems or circumstances which constitute barriers to employment and training opportunities.

8. Individual's capacity and lifestyles

Personal skills and knowledge

8.1 The following measures focus on vocational training and the development of generic skills and knowledge and are likely to contribute to better health.

	Priority	Measure
Upgrading knowledge, skills, competence and vocational qualifications of employees and employers	1	4
Develop higher skills in science technology and innovation management	2	4
Skills training for community representatives support for training plans and confidence building measures for excluded groups; personal development and informal learning	3	1
Support actions which build self esteem and promote healthier lifestyles	3	2
Support for action to tackle disaffection and social exclusion	3	3
Action to raise the skills base	3	4
Pre-vocational and vocational skills acquisition programmes: development of self-confidence and motivational skills.	4	1
Activities to increase self esteem; prevocational and vocational skills training	4	2
Lifelong learning initiatives to develop vocational and generic skills	4	3
Improved learning opportunities	4	4
Training and education opportunities for women	4	5
Training and skill diversification for those in farming	5	2
Training and skill diversification for rural population	5	4
Help women and people with disabilities to achieve greater participation in decision making	5	6

8.2 Health has been defined as the ability to work towards attaining one's realistic chosen and biologic potentials[59] or, more succinctly, as a state in which people and communities can take control of their lives and are able to live their lives to the full[60]. Education, training, and other opportunities for personal development have a positive impact on health. Over and above increasing the prospects of employment, career progression and earning capacity, greater personal knowledge and skills can lead to healthier lifestyles and better use of health services.

8.3 Models of health stress the importance of "self efficacy"[61], confidence in one's own abilities to be healthy and to be able to influence the world in which one lives. Empowerment, of both the community and individuals, occurs when individuals have opportunities to develop themselves helped by mutual support groups[62].

Potential health impact(s): Measures that seek to increase individuals' skills and personal knowledge and their capacity to learn will benefit individuals' health and well being, and possibly that of their families as well. By far the most important health impact of training comes from increasing the individuals (and the community's) capacity to adapt to, respond to and control life's challenges and changes[63].

Lifestyles and health behaviours

8.4 Promoting healthier lifestyles is important but only as part of action to tackle the wider socio-economic determinants of health[64]. The Programme has the potential to influence lifestyles in two main ways. First, the change that occurs as a result of improving individuals' social and economic circumstances e.g. taking up employment or vocational training programme. Second, direct action resulting from the Programme's support for action to promote healthier lifestyles.

8.5 The impact on healthier lifestyles may be a spin-off from specific parts of the Programme e.g. the development of cycle ways from a transport perspective. However, the direct impact(s) will stem from the specific support (Priorities 3 and 4) to promote healthier lifestyles and to address lifestyle-related health problems. This will be particularly important where lifestyle problems or health risk behaviours constitute a barrier to economic development and an individual's ability to take up employment or training opportunities. Specific lifestyle issues vary but for example, well-designed sex education programmes can help given that teenage pregnancy creates economic inactivity among a key element of the labour force.

8.6 Walking and cycling are specifically referred to or implied in the following sections of the programme complement document.

	Priority	Measure
Support for action to promote healthier lifestyles	3	2
Support for action to tackle the barriers to employment that arise from health inequalities	3	3
Assistance to help people overcome drug and alcohol problems and lifestyle related problems that constitute barriers to employment	4	2
Improve access to, and promote, enjoyment of the countryside	5	7
Enhance opportunities for walking and riding	5	8
Development of cycle paths; bike friendly transport	6	1

8.7 Walking and cycling are important ways of increasing physical activity. The beneficial effects of physical activity on mortality[65 66 67], physical health and mental health are well established. Regular exercise helps to protect against heart disease by limiting obesity, delays the onset of diabetes and other conditions. While most benefit is obtained at higher activity levels, worthwhile health gain is associated with quite moderate levels of activity, which can be spaced out over the day and does not have to take place in single blocks of time[68].

8.8 Some attention has been given to the health hazards to which cyclists are exposed especially where they have to share roads with motorised traffic. Even so these negative health impacts are outweighed by the positive impacts. The balance becomes even more positive if cyclists can use dedicated cycle ways.

8.9 While the Programme specifically mentions drug and alcohol misuse, smoking is also an issue in that it is a major drain on people's income as well as being the major cause of ill health and premature death. Social deprivation, by any indicator, is associated with relatively high levels of smoking and low rates of quitting.

8.10 The Programme's wider actions can also contribute to other aspects of healthy lifestyles - nutrition and healthy eating for example – although at first sight this may not be recognised. For example, developing new businesses within the social economy could help to improve people's access to healthy food choices. Developing personal knowledge as part of community participation and lifelong learning initiatives will enhance an individual's ability to make informed choices on lifestyle issues such as healthy eating while improved skills will help them to put their knowledge into practice.

Potential health impact(s): Promoting healthier lifestyles is important but only as part of action to tackle the wider socio-economic determinants of health and the Programme combines measures to address both these dimensions. Increasing individuals' personal skills and knowledge can benefit health and well being by helping them to make informed choices on lifestyle issues for themselves and for their families. Specific support to address lifestyle-related problems such as substance misuse will help individuals to overcome barriers to employment and vocational training and the health benefits that can accrue from them.

9. Summary of impacts

9.1 As highlighted in previous chapters, the breadth and depth of the Objective 1 Programme means that it will impact on people's health and well being in a number of ways. By addressing the key determinants of health, it has the potential to make a major contribution to improving levels of health in Wales.

9.2 The following table summarises, in broad terms, the health impacts of the Programme. This is as far as this preliminary assessment can go. However, it provides a solid base for further research, where considered necessary, into the relationship between elements of the Objective 1 Programme and health and well being, and for action to try and monitor the actual impact on people's health over the duration of the programme.

Intermediate factor	Potential health impact
General socio-economic, cultural and environmental factors	
Sustainability and bio-diversity	Measures that focus on environmental management, improvement and sustainability should have a positive impact on people's physical health and mental health and well being.
Clean energy	The development of cleaner energy sources and the reduction of CO2 emissions will contribute to health by combating the threat posed by global warming, and by helping to improve urban and rural air quality. Negative impacts may include reduced amenity of sensitive areas as a result of visual intrusion, increased noise, and/or increased traffic movements.
Transport	Public transport improvements resulting from the Programme can be expected to have a positive impact on people's health – particularly those living in disadvantaged areas - by improving accessibility to employment and training opportunities, goods and services, and by reducing isolation. Reduced traffic volumes would bring with it prospects of reduced pollution and noise. Transport developments may have a negative impact on the health and well being of those living near new road developments unless action is taken to minimise the effect(s). The quality of life of communities affected by heavy traffic would be improved by provision of alternative routes.
Living and working conditions	
Employment	Increased employment will generally impact positively on health. Job security in new employment opportunities is important to good health and well being as is job quality. Occupational health and safety, and positive action to promote better health, will benefit companies by improving productivity as well as benefiting individuals' health and well being. Good management practice is important to health at work and the Programme's measures to develop management skills should make a positive contribution in this respect. However, the business benefits – to companies and individuals – of improving health as an integral part of business management and development need to be brought home to employers and employees alike.

Income	Increased income is likely to have a positive impact on the health of individuals and families by reducing hardship and as a result, by contributing to improved psychological health. Wider benefits are likely to arise from a reduction in income inequalities as reduced income differentials could lead to a reduction in crime and intentional and unintentional injuries[69]. Furthermore, narrower income differentials are considered to be beneficial to productivity and are associated with rapid diffusion of new technology, change, adaptation throughout society and with sustained economic growth.
Neighbourhood environment	Action stemming from the above measures to improve physical and other aspects of community environments to reduce risks and people's fear of specific risks, are likely to have a positive impact on people's health and well being.
Services	Developing new and improved information, support and welfare services, and widening people's access to services and goods in disadvantaged and isolated communities, should impact positively on health and well being.
Information and communications technology (ICT)	Improved ICT infrastructure and associated developments in communities can benefit people's health and well-being by improving communications and the delivery of health information, and by improving people's access to information and services. Whether stand alone developments or as an integrated part of wider information service developments, they represent positive potential impacts on health.
Social and community influences	
Participation	The Programme focuses on strengthening community support mechanisms, increasing participation and providing better information on, and access to, services. This should contribute to improving people's health and well being by improving their access to social and practical support locally and by helping them to overcome their specific problems or circumstances which constitute barriers to employment and training opportunities.
Individual's capacity and lifestyles	
Individual capacity	Measures that seek to increase individuals' skills and personal knowledge and their capacity to learn will benefit individuals' health and well being, and possibly that of their families. By far the most important health impact of training comes by increasing the individuals (and the community's) capacity to adapt to, respond to and control life's challenges and changes.
Lifestyles	Promoting healthier lifestyles is important but only as part of action to tackle the wider socio-economic determinants of health and the Programme combines measures to address both these dimensions. Increasing individuals' personal skills and knowledge can benefit health and well being by helping them to make informed choices on lifestyle issues for themselves and for their families. Specific support to address lifestyle-related problems such as substance misuse will help individuals to overcome barriers to employment and vocational training.

Health inequalities

9.3 People's social and economic circumstances affect their health throughout life. The risk of serious illness and premature death increases progressively as one moves down the social gradient. In some Valleys within the Objective 1 area, average life expectancy is around 5 years less than in some other parts of Wales, which in turn is approximately 3-4 years less than in the best countries in Europe.

9.4 The aim of European Structural Funds programmes is to reduce inequalities across the European Community by promoting economic development in underdeveloped regions. In the same way, the targeting of action on disadvantaged areas within Wales means that the Programme can be expected to contribute to reducing inequalities between different communities. As the Programme will address key determinants of health, it can be expected to reduce inequalities in health.

9.5 The programme itself is focused on an area characterised by the disadvantage that exists within many of its communities. The Programme's emphasis on social inclusion (3.1) and the regeneration of deprived areas (3.2) indicates that health inequalities will be addressed by targeting least favoured communities and sections of the community. Within Wales there is concern that rural populations face particular health problems and the programme directs special attention to them (Priority 5). Increasing the participation of women in the labour market, and several other groups of people within the population, will be targeted for specific assistance and support. Given these features, the Programme should contribute to reducing health inequalities.

9.6 There are risks that, where there is emphasis on high technology developments, the maximum benefit will go to the most favoured sections who have the skills needed for this type of business. Labour market expansion facilitated by companies' increased innovation, competitiveness and productivity and active labour market measures designed to help individuals to take advantage of new employment and training opportunities should help to address this.

9.7 The emphasis on modern communications technology may disadvantage the least favoured who are less likely to have home telephones and computers that are needed to give maximum access. The Programme includes action to provide community access and this should help to mitigate the problem although individuals sharing equipment may still be disadvantaged compared to those who have their own equipment.

9.8 Infrastructure construction e.g. roads, has equity implications. Although the purpose of such developments is a net gain in utility there are nearly always winners, whose quality of life is improved, and losers, whose quality of life deteriorates. Considerations such as land use planning and desire to use brown field sites mean that construction can sometimes affect less privileged communities. Where development makes it unavoidable that there shall be losers, equity suggests that the loss should not fall on the least privileged sectors of the community.

10. Implementation issues

10.1 The Programme will support action that will contribute to improving health indirectly by addressing some of the key determinants of health, and directly by supporting specific action to promote healthy lifestyles and to address health related problems which inhibit economic activity and labour market participation. However, it should not be assumed that action to address issues of health and well being will result simply from its inclusion in the Programme framework. The successful development and implementation of action depends on several factors which, unless considered and acted upon, may effectively reduce the Programme's health and well being dimension.

10.2 The current impression is that links between organisations with a role in protecting and improving health (in health services and in local government) and organisations and groups developing project proposals for the Objective 1 Programme (locally and regionally) are patchy. Links have clearly developed in some areas and discussions have taken place. However, it is unclear at present how the links have translated, or will translate, into specific action to improve health and well being within project proposals.

10.3 Several factors are likely to influence the extent to which action to improve health and well being features in local and regional project proposals. These include:

- Awareness and recognition of the health aspects of the Objective 1 Programme;
- Understanding and acceptance of the links between health and social / economic regeneration;
- Commitment to integrating health and well being into project proposals (linked to the above two points) and access to the appropriate advice and assistance in order to be able to do so;
- The existence of local drivers / facilitators for health and well being - e.g. public health, health promotion and environmental services staff - and the extent to which they are, or can be, connected into the project proposal process at local and regional levels.

10.4 The final version of the Complement Document will include full details of measures including targets and impact indicators that will be used to measure the Programme's success. However, these will focus on measuring success against the economic development objective. Additional work will be required to try and measure the Programme's impact on health. Such action would enable the Assembly to respond positively to the request for Member States to monitor the impact of Community programmes (Paragraph 1.12 refers).

11. Conclusion and recommendations

11.1 This report has identified the links between the Programme and people's health by examining the Programme's impact on the determinants of health. By doing so, it has highlighted the relevance of the Objective 1 Programme to the Assembly's strategic priority of improving people's health and well being, particularly those living in the most disadvantaged communities.

11.2 The Programme should make a significant contribution to efforts to achieve better levels of health in Wales, not only as a result of the impact on socio-economic determinants of health but also as a result of the Programme's support for specific action to promote healthier lifestyles.

11.3 However, the fact that action to promote healthier lifestyles can be supported by the Programme should not be taken as a guarantee that projects that do this will be put forward either as stand-alone actions or, preferably, as an integrated part of wider community regeneration projects. Nor does it guarantee that new opportunities to protect and promote health across the Programme's wider priorities and measures will be identified without a conscious effort to do so as part of the Programme development and management processes. Further action is needed on both these points.

11.4 This preliminary health impact assessment report is put forward as the basis for discussion and consideration of action to realise the Programme's full potential to improve health in the area and, importantly, to monitor its actual impact over the next 6 years.

Programme implementation

11.5 The following recommendations have been drawn out of issues identified in this report and consideration of future action. The recommendations also draw on discussion of a paper on Health and Objective 1 presented to a meeting of the Local Government Partnership Council's Task & Finish Group on Health and Well Being on 15th June, 2000[70].

i) dissemination of this report as a means of increasing awareness at all levels of the links between health and Objective 1;

ii) the production of guidance to stakeholders and potential bidders on the relevance of the Programme to health and to help them to assess the potential health impact of their proposal(s);

iii) development events to raise awareness of the Programme's relevance to health and well being;

iv) work by health authorities and local authorities to strengthen and expand the links on the ground between those who can assist and/or facilitate the development of proposals aimed at developing the health and well being dimension of the programme, and project bidders;

v) practical assistance made available to potential bidders and others on the health dimension and opportunities within the overall Programme and action to determine the extent to which health features as part of proposals being worked up or already prepared – particularly those under Priorities 3 and 4 of the Programme;

vi) the development of the health impact assessment dimension within the Programme's processes including, where considered necessary, further research to examine in more detail the nature of potential health impacts outlined in this report.

11.6 The Partnership Council's Task & Finish Group on Health and Well Being is well placed to stimulate and develop further the health and well being dimension of the Objective 1 projects.

11.7 This report has identified that actions can have potential positive and negative impacts on health. In considering proposals, the aim must be to minimise any negative impacts and maximise the positive impacts. Similarly, there is the risk of some actions increasing inequalities. Inequalities - of health and on other factors - are relevant to the consideration of project proposals and the distribution of actions.

Programme monitoring

11.8 Given the aims and objectives of the National Assembly for Wales and the obligations of The Amsterdam Treaty (Article 152) for the European Commission and on Member States of the European Community, it is recommended that:

i) arrangements are made to consider a monitoring programme so that the Programme's impact on health over its duration can be measured. Discussion is required so that arrangements can be made to generate the necessary information by the end of the programme in 2006.

11.9 This report provides a base for future discussion and action involving the range of the Programme's stakeholders.

Reflections on this preliminary health impact assessment

11.10 The assessment was undertaken for a number of reasons:

i) as a direct response to the need to raise awareness of the relevance of the Objective 1 Programme to health;

ii) to respond to the interest of the Assembly's South East Wales Regional Committee in the potential impact of the Objective 1 Programme on health and on inequalities in health;

iii) to demonstrate the Assembly's commitment to use health impact assessment and to apply it as part of planning and decision making processes;

iv) to gain experience of applying health impact assessment to a major and complex programme development, and to provide a base for future action to take place so that its health potential can be realised.

11.11 This assessment therefore served two main purposes. First, as a project within the Assembly's pilot development programme for health impact assessment. Second, as an example of the practical application of health impact assessment as part of policy and programme development processes and in direct response to identified needs and opportunities. This report will be shared with others in Wales, in the rest of the UK, with the European Commission's policy unit responsible for developing health impact assessment, and with counterparts in Government and national public health institutions in Member States of the European Union.

11.12 The development of the Objective 1 Programme commenced well before the Assembly put in place its plans to develop the use of health impact assessment. Although one could argue that a prospective health impact assessment undertaken in the very early stages of discussion on the proposed programme would have been particularly valuable, the lack of an assessment did not prevent health from becoming part of the Objective 1 Programme. There are two main reasons for this. First and foremost, the Assembly's overall commitment to an integrated approach in policies and programmes and the political will to reinforce this. Second, and largely resulting from the first, work across policy areas by Assembly officials and recognition of the Programme's relevance to the determinants of health by some external organisations.

11.13 While the ultimate aim is to be able to assess – and ideally quantify – the effect(s) on health of policies and programmes, experience has highlighted the need to increase awareness and understanding of the links between health and other policy areas as an important early goal. This is a fundamental step towards making clear the contribution that all policy areas can make to a sustained and concerted effort to improve health and the Assembly's ability to harness and focus the range of resources at its disposal. Gaps exist however in evidence currently available on the health impacts of many socio-economic activities and this makes it very difficult to quantify the impacts.

11.14 Several factors have affected this health impact assessment exercise. Time was a major constraint, hence the preliminary nature of the report. The Programme itself had numerous component parts that affected different health determinants and required detailed study and review of the Programme Complement Document. Two people undertook the assessment and it was undertaken over a period of around 4 weeks. The total time taken for this assessment exercise including analysis and the preparation of this report was approximately 100 person-hours (equivalent to 12.5 person-days @ 8 hours / day). Prior knowledge of the structure and content of the Objective 1 Programme as a result of involvement in the development process was a positive factor to the analysis and reduced the time needed. However, one disadvantage of using in-house resources was that the exercise needed to be fitted around other priorities.

11.15 To some extent, the Objective 1 Programme represented a moving target, as the shape of the Programme was part of a process involving partner organisations throughout Wales and negotiations with the European Commission. However, no significant changes were expected to the content of the Programme Complement Document and thus it was considered to be a solid base for a health impact assessment.

11.16 Stakeholders have, through informal discussion, contributed to the assessment and the identification of implementation issues but were not involved in the systematic analysis of the Programme Complement Document for this assessment. The preferred option would have been to involve stakeholders in the process of analysis and in compiling this report. Instead, stakeholders were involved at the draft report stage. Naturally, the use of this report as a base for further work means that considerable opportunities exist for future stakeholder involvement.

11.17 The scale and complexity of the Programme proved a challenge in terms of planning and undertaking the assessment but at the same time, provided valuable experience of applying health impact assessment. The development of this preliminary health impact assessment approach was an appropriate response to the specific circumstances e.g. available time and resources, scale and complexity of the programme in question. This highlights the need for flexibility in developing and applying the health impact assessment approach if it is to influence policies and programme developments and associated action.

11.18 Experience of this assessment and others in the Assembly's development programme also highlights the importance of developing a better – more comprehensive and more easily accessible – base of core information and evidence on the impact of socio-economic developments on health as this will be called upon for future health impact assessments. In addition, the importance of active monitoring of the actual impact of policies and programmes on people's health and on inequalities in health over future years cannot be overstated. While this will no doubt pose numerous methodological challenges, it will contribute to expanding the existing evidence base.

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